

# *Study on Chinese Enterprises Creating Value Chain of Commercial Real Estate in Vientiane of Laos*

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**Abstract**—Lao PDR has a weak industrial foundation for infrastructure construction, and its high-end commercial real estate mainly depends on foreign investment, especially investment from China. Therefore, commercial real estate in Laos has high construction costs and severe competitions. The thesis puts forward to build Lao commercial real estate projects with Chinese investment by applying the value chain approaches, and builds the Lao commercial real estate value chain from value chain structures, added value, activities, etc. based on field research, and so it has provided experience for reference of Chinese enterprises' sustainable development on Lao commercial real estate markets.

**Keywords**—commercial real estate; value chain; Vientiane; Chinese enterprises

## I. INTRODUCTION

China becomes the largest foreign investor in Lao PDR, and a great amount of Chinese fund is invested in the real estate projects in Vientiane, Laos to promote the rapid development of the real estate industry there. However, problems arise in industrial development process, such as disorder in competition, inadequate collaboration and insufficient information communication among enterprises. The value chain management will effectively combine internal and external resources of enterprises and promote overseas investment's benign development of enterprises [2].

The value chain theory has provided new ways of thinking and analysis approaches for modern enterprise management. The complete value chain optimization of building projects realizes the maximum value of proprietors [9]. Building global building value chain is able to advance the status and value of building enterprises [6]. The value of commercial real estate is embodied through different operation modes, including complete sale, complete rent, half rent and half sale, each of which may realize maximum value of commercial real estate projects only under specified conditions.

Use Michael Porter's value chain model to build the real estate value chain structure and improve competitiveness of real estate enterprises. Use the value chain method to build the cost management mode of real estate enterprises, combine value added steps with relevant stakeholders, and form the value source and export channels of enterprises [8]. Likewise the value chain method is also helpful for enterprises to

implement objective cost control, mainly construction and installation costs, construction periods, project construction capital, etc., so as to reduce risks and costs during real estate development and advance project profits and enterprises' value.

Overseas investment has changed the structure and value distribution of the value chain, so enterprises need to build the global value chain again when launching overseas investment. Laos has established strategic cooperative partnership with China politically, Chinese enterprises suffer little political risks to launch investment in the Lao real estate industry, so they are able to get paid back steadily and earn long-term profits [3]. Lao real estate industry is still in its infancy, and its development needs a great amount of foreign investment [5]. The liveable environment and sustainable development strategies of Vientiane has created good ecological environment for commercial real estate development [4].

As this industry has a weak foundation, Laos needs foreign investment to develop commercial real estate, so it is necessary to develop study on Chinese real estate projects. Relevant study has laid a foundation to further study on establishing a commercial real estate value chain in Laos.

## II. STRUCTURE AND VALUE DISTRIBUTION OF THE COMMERCIAL REAL ESTATE VALUE CHAIN

### A. Structure of the Commercial Real Estate Value Chain

Commercial real estate is an important branch of the real estate industry, and its commercial purpose makes it different from residential real estate for living and industrial real estate for industrial production. Because of its commercial attribute, commercial real estate has investment and commercial value, and it is one of the important driving forces for economic development in developing countries.

Commercial real estate needs input like surveys, design, personnel, materials, and the output is property, commodities, services, etc. Commercial real estate has regional, monopoly, risky, facilitating and professional characteristics.

The value chain of commercial real estate is comprised of main activities and supporting activities. Main activities include five items, namely input activities, production activities, output activities, marketing, management and

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services. Supporting activities include four items, namely enterprises' organization, human resources management, commercial real estate technical development and purchase. (See Fig. 1)

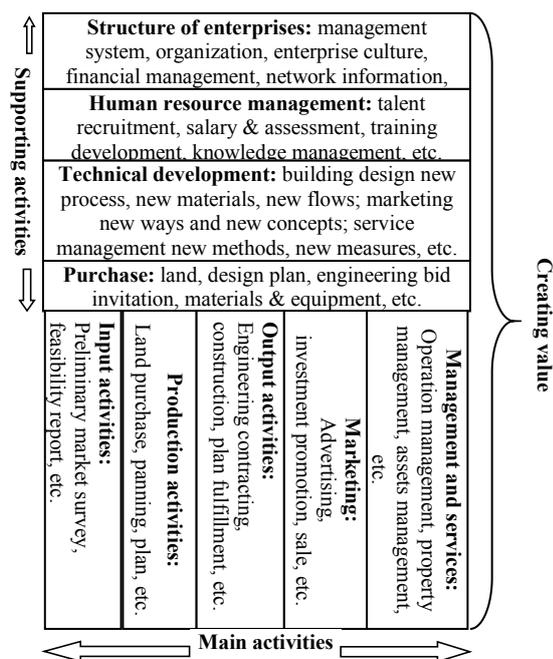


Fig. 1. Structure of Commercial Real Estate Value Chain

Main activities could create value directly, and supporting activities may support main activities, but they don't create value directly. Every supporting activity runs through all main activities, the former main activity is the condition of the later, and the later is the development of the former. The ultimate goal of the entire value chain is to meet needs of consumers, and enable manufacturers to reap benefits [7]. The final value of the value chain is realized when consumers conduct purchasing behaviors.

**B. Value Distribution of Commercial Real Estate Value Chain**

As the technical levels, requirements for personnel and hardware indexes in every step of commercial real estate value chain are different, every step of the value chain creates distinctively different value. The space of profit of parties involved in the commercial real estate value chain is different, and the two ends of the value chain have the largest profit space, namely upstream investment and downstream operation. The construction step in the middle has the smallest profit space. Planning, development and investment promotion steps have medium profits, so U-shaped curve is seen between the commercial real estate value chain and added value (See Fig. 2).

The profit space distribution plays an important role in establishing commercial real estate value chain. Enterprises may join hands with construction companies of the host country at low costs, or employ operation teams from the globe at high costs. However, the profit space is restricted by economic development levels of the host country, so Chinese

enterprises are expected to reasonably evaluate the profit space of every business process when establishing the commercial real estate value chain, so as to reasonably distribute profits in the business departments and give the overall role of the value chain into play. Attach importance to investment and operation to maximize the added value of the whole commercial real estate.

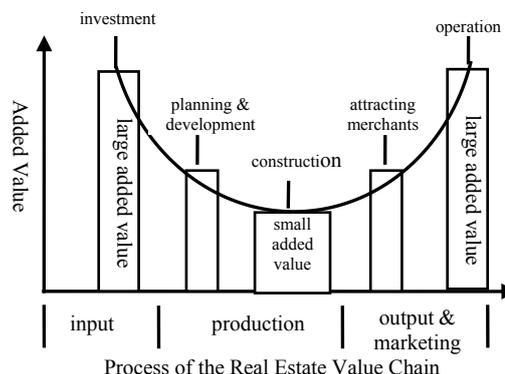


Fig. 2. U-shaped Curve of Commercial Real Estate Value Chain

**III. ANALYSIS OF COMMERCIAL REAL ESTATE DEVELOPMENT IN VIENTIANE AND ADDED VALUE OF THE VALUE CHAIN**

**A. Prediction of Development of Commercial Real Estate in Vientiane**

The growth rate of permanent residents in Vientiane keeps over 2% annually from 2011 to 2014, and this provides enormous potential consumer groups for commercial real estate in Vientiane. These consumer groups are important driving forces for commercial real estate value chain in Vientiane.

Per capita commercial real estate area of Vientiane in 2015 was 0.3 square meters, and the figure will be 0.9 by 2020, the average level of developing countries. By then the demand for commercial real estate's architectural area in Vientiane will be 760,000 square meters, while the architectural area of commercial real estate under construction and in use in Vientiane is less than 500,000 square meters, and the gap is nearly 300,000 square meters. In upcoming five years, the commercial real estate project will have explosive growth in Vientiane [1]; new commercial real estate will flood into Vientiane; every step of commercial real estate will emerge and increase; the commercial real estate in Vientiane will make use of diversified resources when establishing the value chain; Chinese enterprises will play a key role in establishing Vientiane commercial real estate value chain.

**B. Analysis of Added Value of Commercial Real Estate Value Chain**

The value added steps of Vientiane commercial real estate value chain is comprised of six parts and accordingly six stakeholders involved in value creation and distribution (Fig. 3).

Every party involved should earnestly study every step in added value of the value chain, such as financing mode,

development mode, operation mode, property mode, and marketing mode, and they should establish a long-term and mutual benefit cooperative partnership. Lao government, investors and developers are in the upstream in the project value chain, operators in the midstream are the link, and lessee operators and end consumers are in the downstream.



Fig. 3. Sketch for added value in commercial real estate value chain

### 1) Lao Government

Lao government provides land exam & approval, urban planning and policy support services, gets land transferring fees and rent, and meanwhile pays attention to the income brought by commercial real estate projects, such as fiscal income and indirect tourism income. Large commercial real estate projects could build up urban image of Vientiane of Laos, provide employments, attract more domestic and overseas tourists, etc. In commercial real estate projects invested by Lao government, governmental sectors provide cooperation positively, and offer land resources and exam & approval convenience for projects, and certain policy support during project implementation, so projects' risks are cut down.

### 2) Investors

The project investors are mainly responsible for project financing and pay attention to the project return on investment. Lao local financial market is underdeveloped with poor capability of financing. Investors of Chinese real estate projects may develop "raising equity funds-acquiring, developing and operating-stock equity dividend" commercial real estate equity financing mode based on Chinese capital market, and reduce dependence on bank loans. Or join hands with insurance companies, government investment organizations, retirement foundations, charity foundations, financial institutions and capital providing institutions for strategic investment. Or adopt crowd funding, policy bank, commercial bank loan and other financing channels.

### 3) Developers

Commercial real estate developers reap benefits from the value chain, and Chinese enterprises may establish joint venture real estate development companies in Laos. Joint ventures play a leading role in value adding process, and they are the leaders and coordinators of the whole value chain.

The development process of commercial real estate is the process of establishing the global value chain. As the commercial real estate in Vientiane is still in the infancy, the supply and service systems cannot meet needs of large commercial real estate development. According to global value chain driving theory, the value chain of developing commercial real estate in Vientiane of Laos is the producer driven value chain. That's to say, the commercial real estate in Vientiane is driven by investors and developers. Chinese enterprises establish the vertical labor division system of the value chain. Suppliers of steel & iron, cement, equipment, energy, telecommunication, etc. get involved in the vertical labor division system. These suppliers are mostly from China, and they own technical and capital advantages to get involved in the commercial real estate value chain and create value in the value establishing process.

### 4) Operators

Commercial real estate operators are responsible for project operation and management to get management fees and rent in the value chain. Chinese real estate project operators are generally developers. When the project development is over, the development team becomes the operator after organizational adjustment and functional shift. Or developers may employ professional operators to manage commercial real estate to realize professional labor division and professional department operation.

### 5) Property operators

Commercial real estate property operators are groups directly facing consumers, and they get the profits of products and services. These property operators are in the downstream of value adding of commercial real estate, and the choice of property operators displays the operation concepts of operators. The business scope of commercial real estate is extensive, including enterprises in hotel, catering, entertainment, traveling, etc., which may be local enterprises of Laos or probably Chinese enterprises or other international enterprises. High-end commercial real estate projects need an international profile with internationally A-list facilities, services and products, English will be the common language, the price lists in the shopping mall have clear English labels, and waiters are local college graduates who know English. The property operators may embody regional features of China according to geographical characteristics of Chinese developers.

### 6) Consumers

Consumers of commercial real estate in Vientiane mainly are Lao local residents, governments, foreign tourists, businessmen, etc. Laos has underdeveloped economy, only a small proportion of middle-class groups, and a large gap of wealth, so local rich men, government sectors and foreign businessmen will be the major investors and consumers of commercial real estate.

## IV. ANALYSIS OF ACTIVITIES IN THE VALUE CHAIN OF COMMERCIAL REAL ESTATE PROJECT IN VIENTIANE, LAOS

### A. Analysis of Main Activities in the Value Chain of Commercial Real Estate

#### 1) Input activities

Input activities include preliminary market survey, feasibility study, etc. The feasibility study is necessary in this stage for decision making. Input activities in the real estate project value chain mainly include input of capital, technology, management, labor services and other factors in project implementation stage. These activities are in the front end of the U-shaped curve with high added value, and meanwhile prove the core capability of the value chain. In input activity stage, study on Lao economic development trends, commercial competition trends of Vientiane, consumer groups and behavior modes and other environmental factors should be carried out. Plus, specific commercial real estate project orientation, planning design, marketing strategies, etc. should be studied, too. Generally developers will employ Chinese architectural design and research institute to complete the study above.

In input activities, the site selection of commercial real estate is decisive for value creating capacity in future. In traditional Mekong River Business District, homogeneous competitions are severe, and land prices are high, making it difficult to form high-end commercial real estate. No large business districts are in north Vientiane, and this is the place for future key urban development encouraged by Vientiane Municipal Government, so Chinese enterprises should be focused on development of north Vientiane.

### 2) Production activities

Production activities include acquiring land, planning, plans, etc. Acquiring land is the first step in production activities, followed by planning for commercial real estate development according to the position, etc. of the land. Planning means providing the plan for output activities based on internal and external space planning of commercial real estate projects.

As per Lao land laws, land ownership is publicly-owned, and the ownership cannot be traded. Lao citizens enjoy the land use and rental rights. Foreigner may only have the land leasehold, and the longest tenancy term is 50 years and renewable. Therefore, lease is the most usual way for Chinese enterprises to get land in Laos. Then Lao people can be the agent to buy land on behalf, and Chinese side gets the land indirectly with the land revenue use rights. Land may be acquired with the special approval of relevant Lao department under special circumstances.

Now commercial real estate of Vientiane includes traditional wholesale and logistics real estate, retail commerce & trade real estate, and commercial real estate of other functions need to be developed. Laos has a small population, low economic development level and limited short-term investment and consumption, so the market demand is to be nourished. Chinese enterprises are active in commercial real estate development in Vientiane, and the supply is rocketing, so the competition pressure exists. Chinese developers are expected to focus on project functional orientation, market orientation and operation orientation based on market capacity and competitive situations.

See table I for land prices in Vientiane, Laos. The land costs of commercial real estate projects in Vientiane is about 20%-30% of total costs.

TABLE I. PRICES OF LAND IN DIFFERENT PLACES OF VIENTIANE, LAOS

Location	Price
Downtown	USD 1,500/m <sup>2</sup>
Outskirt	USD 300/m <sup>2</sup>
Outer suburb	USD 100/m <sup>2</sup>

Data source: field survey in Vientiane, Laos.

### 3) Output activities.

Output activities mean engineering contracting, construction, plan fulfillment, etc. of commercial real estate. They need the involvement of construction contractors for project construction and plan fulfillment in the construction. Output activities are the material basis to build the commercial real estate value chain.

The output activities of commercial real estate include material production and purchase, construction design, equipment production, purchase, engineering supervision, labor supply, machinery allocation, professional construction supply, project maintenance and construction, waste disposal, etc., and these steps influence each other and jointly decide the value chain.

Laos has industrial materials shortage, inadequate professional technicians, poor transportation conditions, special climate conditions, etc., so the commercial real estate development is facing many difficulties, and the cost and risks are hard to control. Developers should have close cooperation with contractors and use rich international engineering construction experience to guarantee smooth output activities.

In terms of material production and purchase steps, Laos only has one iron & steel plant and one cement plant, and steel, iron and most cement for construction need to be imported from China, thus increasing the project costs (Table II).

TABLE II. PRICES OF MAIN CONSTRUCTION MATERIALS IN LAOS IN 2014

Product name	Price
Cement	USD 95/t
Steels	USD 920/t
River sand	USD 7/m <sup>3</sup>
Mixed stone	USD 24/m <sup>3</sup>

Data source: field survey in Vientiane, Laos.

According to the survey in 2014, the average costs of commercial real estate in Laos is USD 350-450/m<sup>2</sup>, and costs of residential buildings and warehouse are USD 290-340/m<sup>2</sup> and USD 210-230 respectively. The architectural cost of commercial real estate is about 40% of gross investment.

As for equipment production and purchase, there are no large equipment manufacturers for construction in Laos, and equipment needs to be imported from China by land completely. It's 1,340 km from Vientiane, Laos to Kunming, China. There is much mountainous land in Laos, and roads are under poor conditions, so the long-distance transportation of equipment and construction materials have relatively large safety risks. The gasoline price of Laos is about USD 1.35/L,

and the diesel oil is about USD 1.21/L, so the transportation costs of equipment and construction materials are pretty high.

Prices of water, electricity, gas, etc. (Table III) should be taken into account in output activities in Vientiane, Laos, and the industrial electricity is pretty cheap.

TABLE III. PRICES OF WATER, ELECTRICITY AND GAS PRICE IN 2014 IN LAOS

Usage	Water (USD/m <sup>3</sup> )	Electricity (USD/kWh)	Gas (15KG)
Residents and individuals	0.066 below 10 m <sup>3</sup> ; 0.13 for 11-30 m <sup>3</sup> ; 0.25 for 31-100 m <sup>3</sup>	0.03 below 25 kWh; 0.04 for 26-150 kWh; 0.10 for more than 150 kWh;	USD 25
Industrial	0.36 for more than 100 m <sup>3</sup>	0.07	

Data source: field survey in Vientiane, Laos.

In terms of labor costs, there are few skilled construction workers in Laos. Construction workers from neighboring countries like Vietnam, Thailand, etc. are commonly seen in Lao local construction market, and skilled technical workers must be from China at high pay. The labor costs of construction enterprise in Laos is: RMB 3,000/month for per construction worker from Southeast Asia, and about RMB 10,000/month for per construction worker from China.

#### 4) Marketing

Marketing includes advertisement, investment promotion, sale, etc. The commercial real estate is sold in this step to realize its value. The investment promotion objects of Chinese commercial real estate enterprises in Laos are mainly Chinese enterprises and Lao local enterprises, and high-end real estate project will target developed countries and other Southeast Asian countries for investment promotion.

In terms of advertising and publicity, the publicity media of Laos is quite singular with very few traditional newspaper, radio, TV, outdoor billboards, etc., and internet is not popular with little publicity functions. Therefore, most commercial advertisements need to be produced in China and then exported to Laos. However, as commercial real estate development is hot in Vientiane of Laos, the needs for commercial advertisements have driven the advertising industry and media to develop gradually.

#### 5) Management and services

Management and services include operation management, property management, assets management, etc. This is the downstream of commercial real estate value chain, where professional management companies provide services and scientific and efficient management, so the commercial real estate project will maintain and even increase its value, and realize sustainable development. In this step, it is advisable to study and formulate service concepts and management systems in line with Lao culture, habits and legal requirements according to Lao national situations. Chinese enterprises may employ and foster Lao talents to get involved in commercial real estate management, and deliver quality and localized services for customers.

### B. Analysis of Supporting Activities of the Commercial Real Estate Value Chain in Laos

#### 1) Architecture of enterprises

The basic architecture of the commercial real estate development enterprises mainly includes management system, organizational structure, corporate culture, financial management, network information, etc. Management system, corporate culture and financial management are the key three respects in the supporting system of the value chain.

When getting involved in transnational operation in Laos, Chinese enterprises need to fully understand and respect local traditional culture and customs, work out management systems according to local conditions, and attach much importance to their social responsibilities.

As Lao people believe in Hinayana, enterprises must respect local religious beliefs, invite prestigious Buddhists to put forward opinions during project construction, and respect Lao employees' rights in wearing clothes of their nationality. Vientiane has subtropical monsoon climate with relatively high temperature at day time, so construction enterprises may choose to work at night; Local Lao people hold wedding ceremonies at night, so the catering department of the hotel may extend business hours to midnight. Lao public service facilities are incomplete, Chinese real estate developers may take the initiative to build some public infrastructures and establish public service institutions (Roads, schools, hospitals, etc.) to improve Lao people's livelihood. These public good programs will enable Lao people to better accept commercial real estate, raise the reputation of enterprises, and increase the intangible value of the commercial real estate.

As Laos is in shortage of industrial products, a great amount of materials should be imported directly abroad to develop commercial real estate, thus directly increasing the material purchase cost in the value chain. The project fund is generally from China, and the capital cost is more than local financing. As a result, the cost control in financial management in the value chain is very important.

In the project implementation process, developers should make full use of Chinese domestic resources, and establish close partnership with capital suppliers, raw material suppliers, design institutions, construction enterprises, building installation enterprises, cross-border logistics enterprises, commercial real estate operation and management companies to share costs and risks in overseas real estate investment. Developers should extend the enterprise value chain to industrial value chain by depending on specific real estate projects.

#### 2) Human resources management

Human resources management includes talent recruitment, salary assessment, training development, knowledge management, etc.. Chinese enterprises should not only attach importance to introducing and fostering international talents of China, but also to cultivating Lao local talents; gradually increase the proportion of Lao employees, build the human resources transnational training system, so Lao employees will better adapt to Chinese enterprises and the environment. When establishing the incentive mechanism, enterprises need to

highlight on income distribution, enable hard-working Lao employees to get the pay they deserve so as to improve their surviving and living conditions.

### 3) *Technical development*

Technical development of commercial real estate mainly refers to new process, materials and flows adopted by building design, new ways and concepts adopted by marketing and new approaches and measures, etc. promoted by service management. Laos is rich in solar energy, so real estate projects may adopt new technologies related to solar energy in the construction process, and make full use of the clean energy. Laos has abundant rainfall during rainy seasons, so construction enterprises need to overcome large rainfall difficulty in designing new plans for construction in rainy seasons. Lao commercial real estate marketing needs to develop new ways and channels to develop marketing.

### 4) *Purchase*

Purchase includes activities to buy land, design plans, engineering bid invitation, materials, equipment, etc. These activities, as the source of supply in commercial real estate value chain, play a leading role in the whole value chain. Materials to be used for commercial real estate development in Laos are mainly from areas of China, the purchase time is long and the cost is high. In specific purchase process, communication between China and Laos should be strengthened, the parent company is responsible to contact and coordinate with Chinese domestic suppliers, and the project company is responsible for local purchase in Laos. The collaboration of the two ensures the high efficiency in purchase, and lays a foundation for the project construction.

## V. CONCLUSIONS

Chinese enterprises are key players in Lao commercial real estate development, and a number of large commercial real estate projects in Vientiane are led and participated in by Chinese enterprises, for example, Sanjiang International Shopping Center, Vientiane Center, Latsavong Square, etc. As commercial real estate is on the rise and their scales are expanded, Chinese enterprises also face increasingly severe competitions and the project risks go up. Under the new competitive situations and policy environment, Chinese enterprises need to bring in the management mode of the value chain to share market and risks and join hands to develop abroad.

The value chain of overseas commercial real estate development projects is complete, and main activities and supporting activities have clear work divisions. The U feature

of value distribution is distinctive, and the investment and real estate operation at both ends have much room for value creation and profit, and the construction stage in the middle has low added value and a little profit.

Many stakeholders are involved in the commercial real estate value creation process, such as local government, consumers and operators of Laos, and investors, developers, operators, property operators and consumers of China.

When the commercial real estate value chain is built, it is required to make full use of Chinese enterprises' capacity in project R & D, construction and operation management, integrate domestic enterprises of different types into the main activities of the value chain, give their respective roles into full play, and guarantee the smooth project value chain. Supporting activities should support every step of main activities in respects of enterprise architecture, resources supply, etc., and form resources supportive capacity in fields of human resources, technology, materials and the like.

Based on Lao investment environment and industrial capability, Chinese enterprises are supposed to underscore the value chain structure when developing commercial real estate in Laos, form comprehensive competitiveness, and realize sustainable development in Laos.

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