A study on the environmental upgrade path of the commercial district in Liangping District, Chongqing

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Abstract
Liangping district, which is located in both the Three Gorges Reservoir area of Northeast Chongqing and Chengdu-Chongqing economic circle, is acting as a bridge and pivot between the “Belt and Road” and the “Yangtze River Economic Zone.” High-quality business districts play a vital role in gathering popularity, developing the economy and improving residents’ living standards. Therefore, Liangping district should make a comprehensive consideration of the development situation of business, overall planning of the whole region, construction requirements from Chengdu-Chongqing economic zone and the Three Gorges Reservoir area. From the commercial area positioning, dislocation development, intelligent promotion, mode innovation, cultural construction and other aspects, the implementation of “environmental engineering,” strengthen the overall layout, improve the supporting facilities, enrich the commercial format, strengthen comprehensive services, improve the commercial area operating soft and hard environment, realize the commercial area upgrade.

Keywords Business · Commercial area · Upgrade · Path

Introduction

In 1893, W. Christaller, a German geographer, has proposed the “central place theory” in his book, The Central Places in Southern Germany, arguing that “a central place” plays the role of distributing goods and serving the neighboring residents \cite{1}. The “central place” here is exactly the embryonic form of a commercial area. As our country entered into the “era of service economy,” commercial areas, especially the upmarket commercial areas, have been occupied by various resources and service types, e.g., office buildings, department stores, supermarkets, large stream of people, finance, tax agencies and etc. Since they have promoted the development of industries like headquarter economy, high-end businesses, financial services, business services, building services, cultural creativity, catering, accommodation and tourism services, a commercial area is an important support of business economy.

According to the plan, China will become an initial power of economy and trade by 2035 and a stronger power of economy and trade by 2050; China is now driving the development of Chengdu-Chongqing economic circle, to form an important growth pole of high-quality development in western China; Chongqing has brought forward a new layout of coordinated development of “one district and two groups”; artificial intelligence and other new technologies have been constantly broken through and widely used, accelerating the innovation of modern service contents, patterns and business modes, which will greatly enhance the quality of business economy. In such context, for Liangping, which is located in both the Three Gorges Reservoir area of Northeast Chongqing (one of the Chongqing’s “one district and two groups”) and Chengdu-Chongqing economic circle, it is a key for the construction and development of commercial areas on how to make its role of bridge between the Belt and Road and the Yangtze River Economic Zone into full play, promote the high-quality economic development in Liangping and enhance residents’ living standard. Therefore, we have processed this study of “the upgrading path of the commercial areas in Liangping district,” with the guidance from Liangping Business Committee.
Current development of commercial areas

General situation

Core areas has begun to take shape

Currently, there are three commercial areas in urban Liangping: People’s Square commercial area, Duliang Square commercial area and Yilian smart commercial area, which are located in Liangshan Street, Shuanggui Street and Smart Town respectively, with a population of 200,000 and an area of 700,000 m² for the business facilities. See Table 1 and Fig. 1 for details.

Simplex business mode

The businesses in the areas adopt the mode of direct supply, using rarely new business modes of O2O, B2B, B2C or B2B2C. Failed to have integrated the market resources, technologies, logistics, profit pattern or consumers’ interests, they achieved lower profit rate and less development to the external markets.

Insufficient business infrastructure

Business facilities of Liangping concentrate mainly in the People’s Square and Duliang Square. Statistics suggest that, the business facilities of the three commercial areas in Liangping take an area of under 700,000 m² in total. See Table 1 for details.

Assuming the average growth rate is 8% on the basis of 2020 rate in Liangping, the total retail sales of consumer goods will be around CNY 34 billion by 2025; as per the standard of “1 m² shop for every 20,000 yuan of retail sales” [2], the total business facilities should be 1.7 million m² in Liangping by 2025, while current commercial areas still needs another1,000,000 m² business facilities at least.

| Business district name         | Situation         | Status                        | Function                                                                 |
|--------------------------------|-------------------|-------------------------------|--------------------------------------------------------------------------|
| People’s Square Commercial Area| Mature            | Core area of downtown Liangshan | With various business formats, it can meet residents’ basic living demands |
| Duliang Square Commercial Area | Basically formed  | Core area of downtown Shuanggui | Being a one-stop shopping mall, it can meet residents’ high-end living demands |
| Yilian Smart Commercial Area  | Under construction| Core area of Yilian Smart Town | It will be created into an experiencing smart area integrating multiple functions, e.g., specialized market, star hotel, catering, leisure and entertainment |

Fig. 1 Layout of the shopping area
Situation of each area

People’s square commercial area

The commercial area of the People’s Square occupies an area of over 300 mu (a traditional Chinese area unit, 1 mu≈666.67 m²), with the total investment of above CNY 350 million and about a population of 100,000. The whole area is dominated by Haiyun Chongqing Department Mall and Minghao Square Shopping Mall, complemented by a few leisure streets and food streets in the neighborhood. It is a traditional business center of Liangping, integrating leisure, shopping, catering, entertainment, home appliances, communication, hotels and home furnishing, with the following characteristics:

(1) **Wide coverage scope**
   Established early, with large supermarkets (New Century and Yonghui), large malls (Chongqing Department Store) and featured blocks (Airport Road Market for building materials and home furnishing), this area can meet the shopping demands of local residents for living and home furnishing. Moreover, it also covers the whole town of Liangping and is the first place for residents from far or near to shop.

(2) **Large scale**
   With the building area of almost 400,000 m², this area has the main buildings composed of over 40 large or small buildings, including Mingshi Haoyuan residential area, Minghao International Hotel (a four-star hotel), Minghao CBD, Liangshan Kindergarten, People’s Square and Minghao Farm Product Market. With department stores (Chongqing Department Store and Xindu Department Store), retailers (Suning and Gome) and over 2,000 various shops (more than 80 businesses above the quotas), the turnover of this area tops the commercial areas in Liangping.

(3) **Complete business types**
   The area has all that is necessary, from shopping to leisure and entertainment, e.g., catering, accommodation, supermarket, banking, building materials, advertisement, medicine, beauty and hair salon, body-building and leisure. The catering businesses provide various types of food, Chinese dinner, bread and pastry, hot pot, barbecue, Japanese and Korean cuisine, desserts and etc.; the clothing businesses have a great number of clothes brands, but which are at low-end and of the same types; as for the leisure businesses, in addition to beauty salon, hair salon and nail salon, there are also cinemas, fitness club and other new types of leisure and entertainment.

(4) **Good supporting facilities**
   Since it was established early and stationed with government agencies, it has become the core business area in Liangping and has very good conditions in terms of municipal facilities, living facilities and cultural facilities. As the urban areas being upgraded, traffic planning, road network and parking resources have also been improved and optimized, which has enhanced the traffic organization of this area.

(5) **Concentrated consumers**
   The whole layout of the area is in disorder due to historical planning, concentrated residence and residents’ living habits. The businesses concentrate mainly around the People’s Square, which makes the consumers concentrate in the CBD and creates stress on the traffic and environmental sanitation.

(6) **Weak brand effect**
   A commercial area plays the role of meeting residents’ consumption and shopping demands. The businesses show prominent feature of homogenized and low-level competition, present the shortcoming in terms of high-end businesses, lack of well-known brands and products, don’t have their own commercial culture and thus can’t meet residents’ demands on high-quality living.

(7) **Management to be improved**
   The core area and its neighborhood can witness roadside stall business, disorderly parking and placing and also line aging. For some pedestrian roads, the traffic lights are missing; some commercial streets have mixed traffic of cars and pedestrians; the roads from the People’s Square to Liangping Trade Mall, Anning Street, Jinzuo Lane, Yinzuo Lane and Liangping Minghao Farm Product Market are disorderly and dirty; the roof billboards on some buildings and some stores are old

| Business district name            | Main facility     | Surrounding facility | Total   |
|-----------------------------------|-------------------|----------------------|---------|
| People’s square commercial area   | Minghao square    | 400,000              | 100,000 | 500,000 |
| Duliang square commercial area    | Dihao times town  | 90,000               | 60,000  | 150,000 |
| Yilian smart commercial area      | Specialized market| 30,000               | 0       | 30,000  |
| Total                             |                   |                      |         | 680,000 |
and shabby, which sully the image of the commercial area and need to be improved.

**Duliang square commercial area**

This commercial area is composed of mainly Dihao Times Town, the commercial area of the high-speed rail station, Xingmao Times Square, Xingmaoxi Street and Yujing Wangfu Building. There are currently over 600 stores open for business, mainly on Xingmaoxi Street, Xingmao Times Square and Dangui Avenue.

The key projects in the area goes well: phase I of Dihao Times Town has been completed.

1. **Preliminary construction of commercial facilities completed**
   The area has completed large commercial buildings like Dihao Times Town, leased nearly 60,000 m² for businesses, represented by Red Star Macalline Shopping Mall of 35,000 m² and also IMAX Yuejie Cinema, which have been in place.

2. **Location advantage increasingly prominent**
   The commercial area is located in the new downtown of Liangping, back to Liangping High-speed Rail South Station and Shanghai-Chengdu Expressway, neighboring the industrial park and Shuanggui Lake Wetland Park, adjacent to the district government, Liangping Middle School and Pingwei Industrial Company. Thus, targeting the consumers and tourists in the new town, it has distinct advantage in terms of location.

3. **Consumer groups steadily increased**
   Since Dihao Times Town is oriented as “high-end, modern, fashion and high-quality” and highlights its functions of commerce and finance: to guide the consumption trend of the area by introducing well-known brands; to create itself as a financial center by inviting large banks like Industrial and Commercial Bank of China and Agricultural Bank of China; to provide living consumption services by bringing in catering, noshery, café and bar well-known in Chongqing even in China; to develop a complex integrating catering, accommodation, shopping and entertainment; and to provide modern services including education, conference and commercial activities, so as to have created a better image, enhanced its popularity and attracted more and more consumers.

4. **Good interaction among business, tourism and culture**
   The area has some cultural and natural scenic spots, Liangping Museum and stadium, is adjacent to Shuangguitang and Shuanggui Lake and also has some industrial tourist resources, e.g., Zhangyazi, Shangkoujia and Hongmeida inside the industrial park. It has a lot of visitors every year to visit, learn, communicate and shop here, except for this year due to the COVID-19. The interaction among business, tourism and culture has not only attracted more stream of people and promoted consumption and also made it a window to present Liangping’s image.

5. **Less development and innovation**
   Duliang Square commercial area, the nearest to the entrances and exits of the high-speed rail station and the expressway, neighboring closely the district stadium and Shuanggui Lake Wetland Park, should be the political and cultural center of Liangping and also the window to the outside. However, with unclear orientation, the architectural style, cultural construction, business philosophy and business mode learnt from the People’s Square commercial area, the lack of innovation, without landmark buildings and business highlights, missing new business patterns like cultural education, fashion and shopping (new retail), sports and bodybuilding, leisure and tourism and information services, this area failed to play the role of guiding, driving and influencing.

6. **Business environment unsatisfying**
   Investigations suggest that, with the permanent population less than 40,000. New Shuanggui Town is short of a landmark building, business highlight or web-famous spot, which can attract a great stream of people, like Hongya Cave in downtown Chongqing or Fengjie Yangtze River Bridge. What’s more, inadequate public traffic plan and insufficient parking space bring less people and weaken the business atmosphere.

7. **General layout unoptimized**
   This area centers Dihao Times Town, with scattered businesses in the core area, simplex and repeated business types. Without a general planning, construction, cultivation and promotion, it failed to have formed a real commercial center. The business layout of Jingui Road, Yingui Road, Honggui Road, Bigui Road and Dangui Avenue needs to be further standardized and optimized.

**Yilian smart commercial area**

This area is a smart area backed by Yilian Smart Town, depending on the advanced technologies of internet of things, cloud computing and big data. At present, the smart business complex has not been started, but the specialized markets for building materials, home furnishing, agricultural machinery, automobiles and motorcycles, petty commodities and leather and fur have been established in its influence area. It takes an area of about 6,600 mu in the planning, east from Shuangbei Road, west to Fude Avenue, south to Yingbin Avenue and north to Zhuxian Road.
(1) Specialized market achieved initial success
In this area, these malls have been established, Yilian Petty Commodity Town, Yilian Hardware and Building Materials Town and Yilian International Trade Town. The business operators in place are more than 700 in total, with the opening rate of about 90% and daily average turnover above CNY 3.5 million.

(2) Compact industrial integration
Liangping Smart Town, with the total investment of CNY 11 billion and an area of 6,000 mu for the commercial area, is dominated by smart home and smart internet of things, relies on the internet technology, led by “e-commerce + industry,” supported by real estate construction and financial services and carries out the mode of “base + e-commerce,” to have basically achieved integrated development between surrounding industries and the smart commercial area. For instance, the e-commerce logistics base has provided services including transportation, transfer, loading and unloading, warehousing, packaging, circulation processing, distribution, combined transportation of highway, rail and waterway, finance and trade and third-party logistics for the industrial development of the Yilian malls and its neighborhood.

(3) Construction of business facilities left behind
Yilian smart commercial area was started for construction in 2013, with novel concept and clear orientation, based on the characteristics of the times. However, the area focuses on the industrial and e-commerce development, lacks of large commercial complex, business blocks or supporting facilities in its core area and failed to form business atmosphere.

(4) Incomplete service types
The area is oriented as a smart commercial area, interfaced with Liangping smart home and green food industries. Traditional businesses dominate in the area, e.g., home furnishing and building materials, agricultural machinery, automobile and motorcycle, petty commodities, leather and fur, but the hospitality businesses are lagging behind, e.g., catering, accommodation, leisure, entertainment and intermediary services and the high value-added business types are in urgent need for deployment, e.g., scientific and technological information, financial services, supermarkets and department stores, warehousing and logistics.

(5) Intelligence level not high
Since the internet infrastructure (mobile internet), application facilities (cloud computing platform, edge computing and artificial intelligence) and new information facilities (internet of things and internet of vehicles) failed to keep up with the times, some business types can only be conducted in the traditional service mode and the feature of smart and information services have not been presented, which have impacted the visitor volume and business expectations.

Upgrading path
Some suggestions have been given below on the upgrading path for Liangping commercial areas, according to the development status of Liangping commercial areas and the overall planning of Liangping district, to Chengdu-Chongqing economic circle construction, as well as to the construction requirements of the Three Gorges Reservoir area of Northeast Chongqing.

Reorientate the commercial areas
Based on current development and future planning of Liangping, the commercial development focus of Liangping will shift to Duliang Square and Yilian Smart Town from the People’s Square. Therefore, we need to reorientate the functions of each commercial area.

Guarantee commercial area
To orientate the People’s Square commercial area as the “guarantee commercial area,” is to guarantee the demands of daily shopping, catering, education, training, entertainment, recreation and sports of the residents in Liangshan Street and the surrounding neighborhood.

Metropolis commercial area
To orientate Duliang Square commercial area as the “metropolis commercial area,” is to create it as Liangping CBD and a high-end core area, so as to meet the demands for high-quality consumption of the white collars.

Smart commercial area
To orientate Yilian smart commercial area as the “smart commercial area,” is to create a one-stop smart commercial innovation center [4] based on the internet of things, internet, mobile internet, big data and cloud computing, so as to provide more convenient, happier and more affordable consumption for consumers.
Extend the scope of the areas

Turn the “bar type” into “square type”

Based on the urban planning scope and the development requirements defined in the overall urban and rural planning of Liangping district, we need to extend the urban commercial areas based on the existing areas, to achieve their functions of coverage and interaction: link Jindai Town, Renxian Town, Ansheng Town, Xingqiao Town and Hexing Town with Shuanggui Street and Liangshan Street by Duliang Avenue as the south-north central axis and Yingbin Avenue and Airport Road as the east–west central lines, to form the great Liangping commercial area and turn the long and narrow “bar-type” into a “square type.” See Fig. 2 for details.

Optimize the spatial distribution

The factors such as urban space, traffic construction, land utility, natural and cultural environment shall be taken into full account, to establish the layout of “one core, one belt and five zones.” “One core” means Duliang Square commercial area and Yilian smart commercial area (under construction) and their influence area; “one belt” means: People’s Square commercial area between Shanghai-Chengdu Expressway and Airport Road and its influence area; “five zones” mean: five commercial development areas with different functions, Jindai Town, Renxian Town, Hexing Town, Xingqiao Town and Ansheng Town.

Implement dislocation development

To highlight the features of each commercial area, meet the demands of different consumers and avoid repeated construction, the following measures can be carried out based on the commercial area orientation and extension:

Residential area for permanent residents

For the People’s Square commercial area, based on its orientation of the “commercial area for communities,” stress shall be laid on daily shopping, catering, accommodation, beauty and hair salon, pre-school training, entertainment, recreation and sports, to build the commercial facilities such as a supermarket, farm product market, shopping mall, 24-h convenient store, self-service bank, post office, communication, hospital, clinic, pharmacy, hotel, restaurant, kindergarten, children’s playground, bookstore, laundry, gym, sport venue, swimming pool, entertainment center, elderly activity center, beauty salon, teahouse, flower shop, repair shop.
recycling shop, pet shop and etc., to make the functions of a “guarantee commercial area” into play, e.g., shopping, social activities, services, culture, leisure and entertainment, and to meet daily living needs of the residents in Liangshan Street and its neighborhood.

High-quality residential area for white collars

For Duliang Square commercial area, based on its orientation of the “metropolis commercial area,” not only the basic business types, functions and infrastructure of a commercial bank shall be provided, but the functions and business facilities for white collars’ quality life shall also be highlighted. What’s more, culture and tourism shall also be taken into account, to achieve integrated development of business, tourism and culture. Stress shall be laid on building the business facilities, e.g., a large department store, urban shopping mall, business center, specialized store, franchise, exhibition hall, museum, piano shop, gym, international hotel and high-end entertainment center, to attract visitors outside this commercial area, outside the district or even overseas.

Area for industrial integration development

For Yilian smart commercial area, based on its orientation of the “smart commercial area,” as well as on the situation of the Smart Town and the industrial park, this area shall be established into a comprehensive smart system, with the feature of integrated development of “industry, commerce and service,” based on the technologies of internet, mobile internet, internet of things, big data, cloud computing and artificial intelligence, providing the functions of information acquisition, wireless network, smart traffic, smart security, smart urban management, smart marketing and smart life. Furthermore, it will combine business, commerce, image, exhibition, service and social activities; connect ground, underground and air; integrate business, tourism and culture; mix together the subjects of architecture, region, industry and nationality; link both online and offline; so as to build it into a “business and trade town” in Liangping.

Area for featured commerce development

For extending areas, the five towns will be established into five different featured business areas as per their own locations and special industries: Jindai Town Shuanggui Cultural Tourism Zone, Renxian Town Longxi Special Fish Food Zone, Hexing Town Chinese Pomelo Zone, Xingqiao Town Live Poultry Slaughtering Zone and Ansheng Town International Farm Product Market, to avoid repeated construction and disorderly competition.

Improve the intelligence level

We need to execute completely what has been addressed in the report of the 19th National Congress of the CPC, “to implement new development concept, stress importance of economic development on real economy and drive full integration of internet, big data, artificial intelligence and real economy”; to advance 5G network construction; to create the new generation of information technology by using the internet of things, cloud computing, big data and geographic information, so as to improve the intelligence level of Liangping commercial area in terms of planning, construction, management and service.

Innovate the business mode

The different business types in each area shall innovate their business pattern as per their own characters and industrial development trend. The details are shown in Table 3.

Upgrade the three commercial areas

People’s square commercial area

The People’s Square commercial area needs to be upgraded into a guarantee area for meeting residents’ daily demands and improving their happiness, by rebuilding and extending.

(1) Improve business environment

We need to strengthen market guidance and supervision; advance infrastructure rebuilding and improving, e.g., energy facilities, traffic facilities, communication facilities, business facilities, advertisement facilities, financial agencies and other public facilities, from the respect of environmental sanitation, public restroom, identification system, parking space, public security

| No | Industry | New mode |
|----|----------|----------|
| 1  | Retail   | New retail, O2O |
| 2  | Catering and accommodation | “Internet+,” club, chain store |
| 3  | E-commerce | C2B and C2C |
| 4  | Modern logistics | Extended services, consulting services and customized services |
| 5  | Exhibition | “Integration of exhibition + industrial and urban development” |
| 6  | Foreign trade | “Integration of service + goods” |
Based on the orientation of the “commercial area for communities,” as well as on current business types and business facilities, we need to redesign the overall layout and improve the bloated and disordered business image of the commercial area; to make the commercial area cleaner, more convenient, more efficient and smoother by environment improving and layout redesign.

(3) Enhance cultural construction
We can also improve cultural construction and publication from the angle of national education, religious belief and customs, in the form of murals, advertisement and animation by using walls, billboards and LED screens, so as to combine traditional Chinese culture, Liangping folk culture and business culture with social construction, economic construction and business development, to promote cultural consciousness, cultural confidence and cultural revitalization and also to advance effectively the construction of socialist spiritual civilization.

(4) Extend the covering scope
The People’s Square commercial area is the earliest established commercial area and also the most prosperous commercial area so far. However, it has business and residence mixed, dense population and crowded facilities which can be rebuilt nowhere. Therefore, in addition to rebuilding, we also need to extend the services to its surrounding areas and make its influence into play, to elevate development quality.

Duliang square commercial area

Duliang Square commercial area needs to be created into a modern area integrating trade, commerce, finance, culture and tourism, concentrated with modern and beautiful landmark architectures, by expanding and upgrading.

(1) Improve the integrated services
Current Duliang Square commercial area, is operated like child’s play, without a large business complex, services or brands. To enhance the popularity and improve its quality, Duliang Square commercial area needs to have an integrated business complex, combining eating, wearing, living, traveling, touring, playing and educating, like U Street in the Chongqing College Town or Times Street in Daping, Yuzhong District; or have a smaller complex, like Wanda Plaza near Gaojiu Road, Shapingba. Being unable to newly build, we can rebuild and combine the existing business facilities and strengthen our services.

(2) Strengthen the overall layout
Based on the orientation of the “commercial area for communities,” as well as on current business types and business facilities, we need to redesign the overall layout and improve the bloated and disordered business image of the commercial area; to make the commercial area cleaner, more convenient, more efficient and smoother by environment improving and layout redesign.

(3) Enrich the business patterns
Firstly, we can develop night market economy and properly extend business hours to activate night business and market; secondly, we can introduce duty-free shops into the core commercial area, to enrich business types and attract overseas consumption back into town; thirdly, we can hold more business activities like holiday promotion and weekend fair, to create business atmosphere and expand consuming space; fourthly, we can tap special Chinese culture, e.g., special food and architecture, establish an exhibition hall for Liangping intangible cultural heritage products in Dihao Times Town, or O2O special shops, so as to drive the integrated development of business, tourism and culture and promote the tourism and consumption of overseas tourists.

(4) Introduce high-end brands
Adhering to the orientation of “high-end, modern, fashion and high-quality,” we can carry out modern management mode and modern market elements, to introduce well-known brands of clothing, catering and entertainment into the area. As for catering, we can highlight diversity and introduce special food and drink, café and bar all over the country or the world. What’s more, we can also guide the business owners to decorate their shops based on local Liangping culture and combine it with modern style of culture, music and leisure, to elevate traditional culture. As for entertainment, we can advance the construction of high-end children’s playground in Dihao Times Town to add some facilities for parent child education.

(4) Upgrade business modes
We can learn from Hangzhou, to explore retail transformation, replace “shops all the same” by the experience-focus mode and combine both online “consumption” and offline “experience” [3]; execute “retail +” strategy, reshape the retail service ecological chain by using big data and smart technologies and achieve constant innovation, integration and development; cooperate with Alibaba Group to use Alipay platform, integrate multiple business types of department store, supermarket, catering, leisure, entertainment, sports and photography, provide positioning guidance and achieve “becoming a member at the time of paying” to make customers the members of both the commercial area and the specific brand when he pays; process data analysis based on member profiles, to achieve classification, consumption habit analysis and targeted marketing, so as not only to solve difficult operation of members, but also to provide a path for brands contact the consumers directly.
We need to, based on current planning, accelerate larger and stronger. trade town" of Liangping through making the special market smart commercial area for online and offline businesses, as well as the complete digitalization of the whole commercial area.

Yilian smart commercial area

Business can be combined with the primary and secondary industries by smart construction and management, to create Yilian smart commercial area into the “commerce and trade town” of Liangping through making the special market larger and stronger.

(1) Improve business facilities

We need to, based on current planning, accelerate the construction of 130,000 m² business complex and bonded warehouses for Yilian smart commercial area, introduce business offices, financial services, personnel training, business hotels and supermarkets, cultivate business types of shopping, finance, catering, service, education, intermediary, leisure and entertainment, to provide business services for the special markets and

e-commerce logistics zone, e.g., Smart Town, automobile market and building material market.

(2) Enhance smart management

We can learn from Fuzhou Municipal Bureau of Commerce, to create a “visual management platform for smart commercial areas” [5] together with Ant Financial and Gaode Map and also to introduce the “black techs” like smart restaurant, unmanned supermarket, face recognition, face payment and robot service; achieve “visitor flow sharing” among the business entities within the commercial area by the technical means of big data sharing, multi-platform interaction and smart devices; achieve digitalization of customers; achieve digitalization upgrade of commodities, trade, data, service and management, the full integration of online and offline businesses, as well as the complete digitalization of the whole commercial area.

(3) Improve e-commerce facilities

At present, the e-commerce logistics park has been established. However, the analysis to the investigation results and actual operation suggests that, there is lack of services and talents supporting the e-commerce, for instance, producing and processing of express boxes, financial services for the supply chain, website design and maintenance, operation management, technological data and copywriting, which have restricted the development of e-commerce. Therefore, some related industries need to be planned to complete the industries, services and talents supporting the e-commerce.

(4) Implement integrated development

We can, by making the special markets for home furnishing, automobile and building materials larger and stronger, boost the integration of real products and modern services, drive the specialized services to combine well with each link of the manufacturing value chain, develop and improve service outsourcing, achieve the integrated development of modern services and manufacturing and improve the value added to the manufacturing products; make the functions of the e-commerce logistics park and bonded warehouses into full play, support the circulation mode and business innovation, promote the interface between e-commerce platform and new agricultural businesses, encourage and guide large e-commerce enterprises to carry on e-business for farm products, innovate the circulation mode of farm products and promote full combination of modern services with agriculture.

(5) Promote internet construction

Our General Secretary Xi Jinping has stressed to “advance the investment into the new types of infrastructure like 5G, internet of things, artificial intelligence and industrial internet.” Therefore, we need to accelerate the construction of 5G infrastructure for the
commercial areas, to provide strong support for smart commercial area construction, industrial transformation and integrated development.

Conclusion

In the period of accelerated development of artificial intelligence, Liangping district will need to stress emphasis onto the construction of the smart town commercial area while upgrading the three commercial areas, to make this area’s driving role into full play in the urban economic development and promote high-quality development of business economy.

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