

Store Module Case Study of Traditional Market

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전통시장 점포모듈 사례분석 연구

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Abstract : The study analyzed previous studies on traditional markets and market modernization projects to analyze research trends and content related to traditional markets. Next, the study selected 4 traditional markets throughout the nation where there was promotion of market modernization projects to conduct field research and interviews about store modules, line of flow, facility configuration, and types of businesses. Empirical comparative analysis was conducted on construction hardware status through measurement and observation and data was collected on business environment and requirement characteristics by business type through interviews with merchant associations of the corresponding markets. Consistent standard was applied as much it was possible to comparatively analyze the 4 market modernization cases and on the unique characteristics of individual markets, the cause was determined in conjunction to the history of the business promotion process and regional characteristics. After the study, basic data to suggest guidelines in store modules by business type in traditional markets could be acquired and the study identified the facilities equipment standards that must be considered in future market modernization projects. Through this it will be possible to derive policy implications to minimize trial and error and guarantee business efficiency in future market modernization projects.

• Key Words : Traditional market, Store module, Market activation, Case analysis

요약 본 연구에서는 전통시장과 시장현대화사업과 관련한 선행연구를 분석하여 연구의 경향과 전통시장과 관련한 연구내용을 분석하였다. 이후 전국 각지의 시장현대화사업이 추진된 전통시장 4곳을 선별하여 점포모듈과 동선, 시설 구성과 영업형태에 대하여 현장조사 및 관계자 인터뷰를 진행하였다. 건축 하드웨어적인 현황에 대하여는 실측 및 관찰을 통하여 실증적인 비교분석을 실시하였으며, 영업환경 및 업종별 요구특성에 대하여는 해당 시장 상인회와의 인터뷰를 통해 데이터를 수집하였다. 가능한 일관된 기준을 적용하여 4개의 시장현대화사례를 비교 분석 하였으며, 개별 시장만이 가지고 있는 고유한 특성에 대해서는 그 원인을 사업추진과정의 히스토리와 지역적 특성과 관련하여 파악하도록 하였다. 본 연구를 통하여 전통시장의 업종별 점포모듈의 가이드라인을 제시를 위한 기초데이터를 확보할 수 있었으며, 향후 시장현대화사업에서 필수적으로 고려해야할 시설설비 기준을 확인할 수 있었다. 이를 통해 향후 시장현대화사업의 시행착오를 최소화하고 사업의 효율성을 담보할 수 있는 정책적 시사점을 도출할 수 있을 것이다.

• 주제어 : 전통시장, 점포모듈, 시장활성화, 사례분석

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1. Introduction

Since the opening of domestic distribution market in mid-1990s, one of the biggest changes in the retailing was the emergence of foreign discount stores and rapid growth of the department stores. Discount stores and department stores caused the structural changes of distribution industry which had been established focusing on the traditional markets and supermarkets [1]. Following the development in the retail industry, retail channels have become diversified. Recently, social commerce has been emerged as a new online distribution channel upon getting popularity with social network services[2]. Advancements of smart technology will accelerate the expansion of online shopping mall[3]. Due to the rapid supplies and uses of smartphones, the demand of users has been increased on the mobile payment system[4]. Despite this rapid environmental change of the distribution industry, the traditional markets still maintain their places as the type of conventional distributors. According to related laws, the finish in about various types of businesses have been done according to size and characteristics and among them, traditional markets, from the legal definition by 「Special act for the development of traditional markets and shopping centers」 (2009.12.30 Law 9887) has been defined as ‘a place created naturally by social and economic demand where transactions of product and services are generally done in a traditional manner based on mutual trust’ and the premise is that it is a place that needs promotion of modernization by improving current status. Through this, modernization projects of traditional markets have been promoted continuously nationwide in part by super policies of the government and old downtown redevelopment policy of regional governments. However, until now, standardized relevant model has not been established and it has remained a passive development form for minimum image improvement such as increase in convenience facilities such as simple arcades and parking lot installations and sign renovations, and in case of reconstruction of the entire

area, due to construction plans imitating hypermarkets unable to reflect the unique characteristics of traditional markets such as lack of logistics line of flow or ventilation and the trial and error of losing the competitiveness of traditional markets is being repeated. To overcome this, there needs to be development of success factors by conducting comparative analysis based on uniform standards on completed traditional markets based on previous market modernization project results and there is need to find causes of failure cases to establish solutions so that it does not repeat in future projects. However, studies until now have been focused on introducing domestic and international success cases relating to traditional markets, suggestion of traditional market design guideline, or verification of the effects of modernization projects on market merchants or customers. For this, the study selected traditional markets that have continued operation for a number of years after promotion of market modernization projects to conduct case analysis and suggest empirical data based on common standards and provided basic data for success in the expanding traditional market modernization projects and activation support projects such as culture and tourism markets and alley markets.

2. Literature review

Traditional market related studies are being conducted in various fields. Most studies were conducted in the purpose of seeking activation plans based on the awareness of the reality of stagnating traditional markets and especially there is a trend of increase in traditional market modernization projects or activation projects related studies. To explore the design trends through spatial configuration and production methods focusing on traditional markets that deliver diverse lifestyle and culture, Ha(2015) attempted to derive design status, problems, and improvements by exploring in the perspective of design focusing on spatial planning, ceiling design, store and

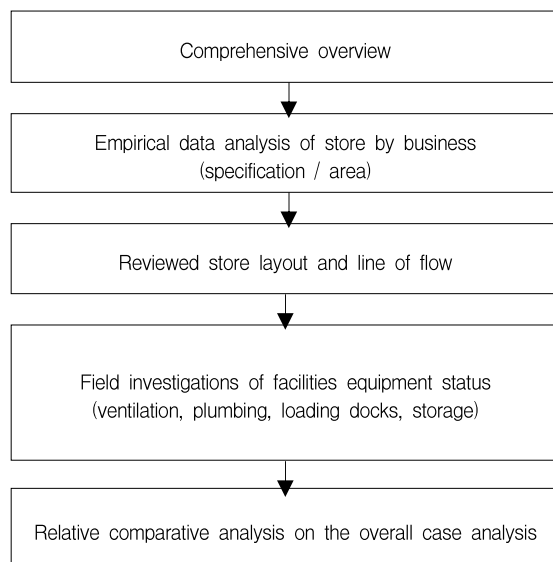
market entrance signs, sales counters, product range of methods, and lighting in domestic and international traditional markets[5]. Moon and Lee(2011) explored the concept of traditional markets and status of current traditional markets through literature review and field investigation and conducted group interviews to determine the problems of traditional markets from actual users and developed a design guideline to improve the derived problems[6]. Chun(2015) investigated status of individual stores and design improvement plans through literature and website search and field investigation, and suggested a 45 item checklist to evaluate environments of individual stores through differentiation marketing strategy for specializing traditional markets[7]. Focusing on design development performance within 'Bongpyeong traditional market activation project' centering on preference in merchants and consumers, Lee and Shim(2015) verified their differences in perception to analyze theoretical data necessary for design development and implications on design development priorities and management direction[8]. Park et al.(2013) empirically analyzed which factors of activation policies had larger influence in the perspective of consumers, the users of traditional markets, including physical renovation elements such as facilities improvement as well as nonphysical activity elements such as cultural activities support[9]. Kwon(2011) suggested the problem of how to strategically approach gate type public symbolic sculptures that give a familiar but also strong and unique feeling in traditional markets in the perspective of public design and focusing on approach cases, explored methods for traditional market image improvement and marketing activation[10]. Lee and Lim(2015) conducted empirical analysis through systematic data collection in the perspective of merchants in 'Bongpyeong traditional market activation project' to analyze the effect of activation projects in agricultural area traditional markets[11]. Shim and Chang (2016) investigated entrance space status in 19

traditional markets located in the old urban areas of Seoul to reveal that, in perception, rather than symbolic structures, the priority was on general recognition of traditional markets that are familiar and easy to see and in image evaluation of entrance spaces found that it was highly evaluated in appropriateness, familiarity, clarity, and legibility but evaluated lowly in formativeness, symbolism, and especially tradition, showing that there was much room for improvement[12]. Son et al.(2015) converged the concept of shopping malls on traditional markets to analyze the influence of selection factors of shopping places on attractiveness (image, evaluation, situational) of traditional markets to empirically analyze the influence of attractiveness (image, evaluation, situational) on re-visit intention[13]. Lim and Lim(2015) explored versatility of space to increase competitiveness of traditional markets and explored the problems and to suggest application plans and necessary justification of universal design, application content of universal design was suggested through field investigation and evaluation of Seoul Namdaemun market and claimed that there was limitations in the standard arcade and parking lot installation for activation of traditional markets and that there was need for establishing the most convenient environment for customers and changing the perception about traditional markets[14]. Park (2017) reported that AHP results heavily relied on the results of cost benefit analysis so that AHP, originally introduced to supplement the limitation of economic evaluation, did not play a significant role in this, upon the analysis of preliminary investigation data for reliability on AHP, according to the existing reliability test for the public projects[15]. This is the analysis to be considered when the modernization project of the market is prepared.

3. Proposed Work

The study conducted comparative case analysis on 4 markets that were reconstructed through the market

modernization project promoted nationwide. The markets selected as analysis subjects were markets with reputation that could represent the area which was completed through the market modernization project in various regions of Korea after 2000. Analysis method consisted of exploring the comprehensive overview of the market and analyzing the specification and area of each stores composing the market through empirical data by business. The study also reviewed store layout and line of flow to check if there were problems in customer use and logistics function. Capture statistics of each markets for determined through field investigations on the most important functions in operation and management of traditional markets such as ventilation, plumbing, loading docks, storage, and facilities equipment status and through relative comparative analysis on the overall case analysis subject market, derived problems and implications in market modernization projects



[Fig. 1] Flow of Research

3.1 Hayang Ggumbau Market

Hayang Ggumbau Market is the first public market with modern facilities in Korea and it is composed separated by A complex (Ggumdong) and B complex(Baudong). It is a culture and tourism type market that promotes tourism contents of Kyungsan

through various cultural events which made use of the characteristics of traditional markets. It was created spontaneously in 1931 and it is eight market with a tradition of over 80 years and due to aging of buildings, market modernization project was promoted in 2011.

<Table 1> Hayang Ggumbau Market Status

Location	Gyeongsangbuk-do Gyeongsan Hayang-eup Daehak-ro 1543 (Geumrakri 35-5)		
Area	Land area 6,992 m ² / Construction area 3,997 m ² / Gross floor area 9,107 m ²		
Number of stores	109		
Parking capacity	109		
Hours of operation	Summer season 08:00~22:00/Winter season 08:00~21:00		
Store composition	A Complex (Ggum-dong)	1F	Fisheries, Vegetables, Meat, Fruit and vegetables, Dried fish, Side dishes, Snacks such as Gimbap, etc.
		2F	Men and women's clothing, Shoes, Hanbok, Kitchen utensils, Keys, Bedding, Interior accessories, etc.
	B Complex (Bau-dong)	1F	Specialized restaurants, Seed, Rice, Tofu, Sesame oil, Health shops, Glass, Hardware, and other products
		2~4F	Parking lot

In case of Ggumdong, differential distribution of area is done according to business type for module and line of flow and has a difference in designated area between 6.6m² ~ 13.2m². Livestock, fisheries, and dried fish businesses prefer box type stores where it is possible to install fridge/freezer storage, acquire workspace, and install showcases within interior and placement according to business type is applied for increase of customer convenience and efficient management operation plans. In Baudong, specified 13 m² module is used for the interior and dining area of 120 seats is jointly used. Exterior uses the largest 26m² ~ 43m² area due to processing/cooking equipment and personal storage and the store in flow direction is divided through spatial separation of interior and exterior stores.

<Table 2> Hayang Ggumbau Market store module

Division	Business type	Size	Area
Ggum-dong 1F	Fisheries	3.9m x 5.7m	22.2 m ²
	Livestock	3.7m x 5.7m	21 m ²
	Side dishes, foods	3.8m x 4.2m	16m ²
	F&B	2.7m x 4.0m	10.8m ²
Ggum-dong 2F	Bedding, Hanbok	4.6m x 5.0m	23m ²
	Clothing	4.0m x 4.2m	16.8m ²
	Household goods	3.6m x 5.0m	18m ²
	Kitchen, pottery	4.5m x 4.9m	22m ²
Bau-dong 1F	Restaurants	3.7m x 3.4m	12.6m ²
	Foods	4.7m x 5.9m	27.7m ²
	Health	4.7m x 5.9m	27.7m ²
	Other	6.1m x 7.2m	43.9m ²

In facilities equipment, there are differences in location and capacity of plumbing (electricity, gas, drainage) according to business type by store and it has a logistics line of flow of 30 to 40 m that lead to inflow / processing / movement / sales.



Store piping(Water, gas, electricity)



Cargo elevator



Unloading and workshops



Storehouse

[Fig. 2] Hayang Ggumbau Market Facilities Status

3.2 Sangnam Market

Sangnam market which is a modern traditional market with the store area size of 23,140 m² located in the heart of Changwon, Sangnam, has introduced a night market that specializes in foods with proximal large distribution facilities and differentiated strategy. Sangnam market which has 60 years of tradition was

developed as a modern facility in the 2000s but due to large retail facilities nearby such as department stores, hypermarkets, and SSM, there was outflow of demand from users in the age range of 20~40s. After, as it was detonated as a cultural tourism market in 2014, linking with existing stores, it introduced specialized food market within the night market utilizing public footpaths to promote commercial area activation.

<Table 3> Sangnam Market Status

Location	Gyeongsangnam-do Changwon Seongsan-guMadimi-ro 28	
Area	Land area 19,392m ² / Store area 24,033m ²	
Number of stores	589(+20 kiosk stores)	
Parking capacity	509 (30 min 1,000 KRW/ 1day parking 15,000 KRW)	
Hours of operation	06:00~20:00(Closed first and third week Sundays)/Night market 15:00~24:00(Open all year round)	
Store configuration	1F	Foods market, Fisheries, Meat, Fruits and vegetables
	2F	Foods market, Snacks, Desserts, clothing, Shoes
	3F	Specialized restaurants, Bars Karaoke, Cultural center

On the first floor of Sangnam market, for store module and line of flow, it acquired increase in stores through decrease of corridor width and unit store size for maximization of lot sales, but this caused a line of flow under 2m width which made transportation of hand cars and carts difficult, causing inconvenience in logistics movement. It has store areas of wall surface stores 21.8 m²~20 m² and island stores 10.6 m²~14 m² and some island stores rent nearby stores for storage and workspaces. Second floor is where the most of the stores in Sangnam market is located and it is composed of 4 types of store modules such as kiosk, Public footpath, exterior, and island stores. Excluding the foods market and bank, most stores have areas between 16.5 m²~23.1 m². Centering on 20 kiosk stores lining the public footpath (East-West) there is a 3.8 m bidirectional walking line of flow and it has logistic line of flow system utilizing the south and north gates

where the external parking lots are located. The third floor is a floor where many specialized Korean foods restaurants are located and excluding Wall surface/Island stores ($26.4\text{m}^2\sim39.7\text{m}^2$), most are composed of stores with the areas between $13.2\text{m}^2\sim16.5\text{m}^2$ but for cooking space and dining space, 2~5 stores are combined to have an average size of $26.4\text{m}^2\sim66.1\text{m}^2$

<Table 4> Sangnam Market store module

1F	Division	Wall surface A	Wall surface B
	Specification	4.1m x 7.2m	3.6m x 6m
	Area	29m ²	21.8m ²
	Division	Island A	Island B
	Specification	4.2m x 3.4m	3.1m x 3.4m
	Area	14.3m ²	10.5m ²
2F	Division	Kiosk	Public footpath
	Specification	2.8m x 6m	3.9m x 5.8m
	Area	16.8m ²	22.5m ²
	Division	Island C	Exterior
	Specification	3.9m x 4.9m	4m x 4.7m
	Area	19m ²	18.8m ²
3F	Division	Parking front	Island D
	Specification	3.8m x 4m	6.9m x 5.7
	Area	14.9m ²	39.6m ²
	Division	Island E	Wall surface C
	Specification	3.9m x 3.5m	3.6m x 7.8m
	Area	13.5m ²	28.2m ²

Due to sale in lots structure business method, location and size of plumbing facilities (electricity, gas) were uniformly applied by floors. In front of stores in the first and second floor that use water, a commonly utilized trench was installed but due to aging of facilities and lack of management, there are frequent blockages. In units of 12 stores, there are par distribution boards and gas meters in the public spaces. On the first floor where stores causing order such as fisheries, livestock, and side dishes stores are located, there is a floor height of 4 to 5 m and straightened line of flow as well as various entrances and it has relatively smooth ventilation. On the ceiling, an automatic retractable ceiling window was installed and optimal internal temperature and humidity is controlled through periodic ventilation.



Indoor parking Personal Refrigerator / Freezer



Western loading dock



1F Trench



Automatic retractable ceiling window

[Fig. 3] Sangnam Market Facilities Status

3.3 Gunsan Public Market

Gunsan market which is located in Gunsan, Jeollabuk-do is a case of reconstructing a 90 year tradition market into a modern mart type market. In 2012, it was developed as the first mart type traditional market in Korea with horizontal width of 170m within a rectangular lot, but due to competitiveness decrease from such things as product quality and service compared to nearby hypermarkets, there is insufficient activation.

<Table 5> Gunsan Public Market

Location	Jeonbuk Gunsan Shingeum-gil 18
Area	Land area:10,942m ² / Gross floor area20,763m ²
Size	1F~4F (3~4F Parking)
Completion	March 2012
Parking Capacity	488
Number of stores	282
Hours of operation	5:30~21:00

For store modules on the first floor, store area is distributed from standard designated area 14.4m^2 to 20.2m^2 and livestock, fisheries business types prefer areas over 16.5m^2 for freezer, workspace, and installation of showcases. On the second floor, clothing stores have the most number of stores and types of businesses with defined purpose such as Hanbok and

Bedding are located mostly on the sides. The main line of flow on first and second floor have ample line of flow system of around 3 m to 5 m considering customers using carts and there is a problem of odor coming up from the first floor due to the moving walk and void space in the middle. The most of the inflow of customers are from the North gate facing the street and South gate that lead to ground-floor parking lot and Yeokjeon general market.

<Table 6> Gunsan Public Market store module

1F	Division	Livestock	foods
	Specification	4.1 × 3.5m	4.1 × 3.5m
	Area	14.4m ²	14.4m ²
	Division	Household goods	Herbal health stores
	Specification	3.9m × 4.4m	2.8m × 7.2m
	Area	17.2m ²	20.2m ²
2F	Division	Bedding	Household goods
	Specification	4.3m × 4.2m	3.5m × 5.0m
	Area	18.1m ²	17.5m ²
	Division	Clothing	Fashion
	Specification	4.1m × 3.5m	3.6m × 2.8m
	Area	14.4m ²	10.8m ²

Reflecting business type placement plan, for facilities equipment, plumbing facilities and trenches were installed in fisheries, livestock, and F&B stores. Product inflow and movement convenience was increased by placing cargo elevator and loading dock on the west side with relatively low floating population but this caused the decrease in efficiency due to the far distance from fisheries/livestock stores with frequent inflow and outflow with the loading dock. Also, trenches were not installed in the public spaces and pollutants occur during inflow of fisheries and livestock products. There was lacking ventilation plans at the time of development and there are frequent complaints from merchants and customers due to odors at the medicine market. This implies the necessity of establishment of plans adequately considering their conditioning facility such as ventilation in closed mart type traditional markets.



Plumbing facility and trench



2.5t Cargo elevator



1F Loading dock



Exterior storage

[Fig. 4] Gunsan Public Market Facilities Status

3.4 Naju Moksagoeul Market

Naju Moksagoeul Market located in Naju, Jeollanam-do is a market that modernized Geumkye public market and Seongbuk five-day market, which is Korea's first five-day market. The modernization project was completed in 2012 with 40 permanent stores in a single floor form. It developed character products, introduced construction environment motivated by traditional Korean housing, and installed an outdoor event square.

<Table 7> Naju Moksagoeul Market Status

Location	Jeonnam Naju Cheongdong-gil 14
Area	Land area:27,338m ² Construction area 4,923m ²
Size	Above ground 1F~2F
Completion	January 2012
Parking capacity	268
Number of stores	Permanent stores:40/ 5-day Market:112/Food and beverages:9
Hours of operation	6:00~21:00

For stores modules, on the first floor, F&B markets have size of 16.5 m² and other business types have uniform 24.8 m² store configuration. A unique mood of a traditional market was implemented through installing traditional Korean lanterns by module, traditional tiles, and composition of interiors motivated

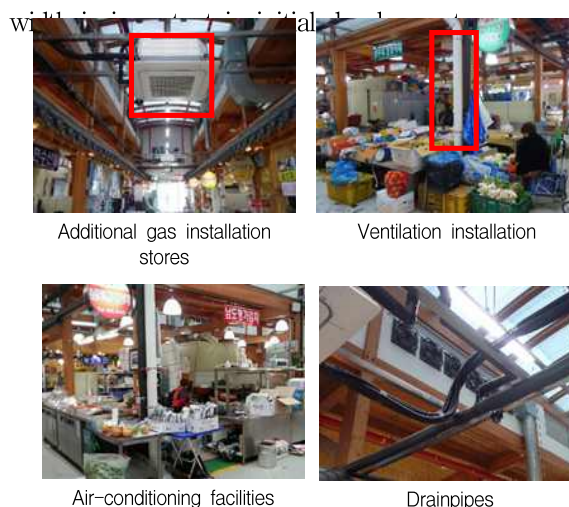
by traditional Korean housing. While individual store size is larger than other traditional markets, due to the lack of separate storage spaces to load products, it causes inconveniences. In the center area there is a mart selling manufactured goods which has the problem of hindering visibility of stores in the rear. On the exterior of the public market, there are 7 Korean food focused restaurants, 1 café, and 1 Naju local food restaurant. There is an outdoor square and food and beverage space of 60 m²~109 m² in the middle of the five-day market linking shopping and dining.

For line of flow, it is 3 m for main line of flow and 2.5m for subline of flow which are widths possible for carts and hand cars to move logistics. The parking space is connected to the south and the main entrance is open in the south and north direction which makes it easy for customers inflow and it has a line of flow system with easy product inflow through the parking lot.

<Table 8> Naju Moksagoel Market store module

Division	Fisheries	Livestock
Specification	4.5 × 5.5m	4.5 × 5.5m
Area	24.8m ²	24.8m ²
Number	6	4
Division	Side dishes/foods	F&B
Specification	4.5 × 5.5m	4.5 × 3.7m
Area	24.8m ²	16.7m ²
Number	10	3

Due to the lack of MD zoning division in the initial stages of development, appropriate facilities equipment was not planned. Necessary facilities equipment type businesses (gas/trench/plumbing) were additionally installed later. Ventilators were additionally installed due to the fermented foods smell from the Kimchi/side dishes corner in the center area. Due to the full class installation at initial development, there was a problem of heating, cooling, and ventilation and air conditioning was additionally installed by the city of Naju. Due to narrow piping, frequent leaking occurred during the rainy season and additional repairs were done. It could be confirmed that acquisition of appropriate piping



[Fig. 4] Naju Moksagoel Market Facilities

3.5 Results

As a result of analysis, it was found that in each market modernization cases there were many cases of differential application of store modules by business type and cases of uniform store modules were limited, and although there were deviations according to the status of previous business types in each market.

<Table 9> Store ModuleStatus by Market Overview

Module	
Hayang Ggumbau Market	Changwon Sangnam Market
Area distribution according to business type Livestock: 3.7×5.7m Fisheries: 3.9×5.7m Sidedishes: 3.8×4.2m F&B: 2.7×4m Bedding: 4.6×5.0m Clothing: 4×4.2m	No area standard by business type Wall surface: 4.1×7.2m, 3.6×6m Island: 4.2 ×3.4m 3.1 ×3.4m Kiosk: 2.8m×6m
Gunsan Public Market	Naju Moksagoel Market
Area distribution by dedicated area Livestock: 4.1×3.5m Sidedishes: 4.1×3.5m Medicinal: 2.8×7.2m Clothing: 4.1×3.5m Household goods: 3.5 × 5m	Area division by F&B and other businesses for uniform segmentation Livestock: 4.5× 5.5m Fisheries: 4.5× 5.5m Sidedishes: 4.5×5.5m F&B: 4.5 × 3.7m

Overall, it was found that main line of flow had a wide line of flow of around 3 m considering logistics line of flow but in case of sub line of flow, there was fairly narrow line of flow due to the influence of such

things as store area expansion demands and it was causing inconvenience for customer movement and inflow and outflow of products. Many of the problems of market modernization projects were confirmed in the facilities and equipment sector and especially problems about ventilation and plumbing were found commonly in most cases.

<Table 10> Line of flow and Facilities Status by Market Overview

Line of flow	
Hayang Ggumbau Market	Changwon Sangnam Market
Main : 2.7~3.6m Sub : 1.8~2.3m -Low indoor garage access convenience	Main : 3.8~9m Sub : 1.7~2.3m - Public area minimization for maximum number of stores
Gunsan Public Market	Naju Moksagoel Market
Main : 3~5.5m Sub : 2.2~3m - Easy vertical movement between floors through central M/W vertical line of flow	Main : 3m Sub : 2.2~2.5m - Line of flow system with easy logistics inflow through parking lot
Facilities equipment	
Hayang Ggumbau Market	Changwon Sangnam Market
- Differentiated location and size of plumbing system by business type - Visual confirmation possible through installation of meters in each store - Smell and order blockage through installation of void block and automatic doors - Minimum space location between unloading, workspace, store	- Automatic ceiling window installation - Installation of power distribution board and gas meter within public space - Smooth ventilation through installation of multiple entrances - Installation of trenches commonly used by each storefront
Gunsan Public Market	Naju Moksagoel Market
- Plumbing and trench installation completed in advance within stores - No planning of ventilation at initial element - High maintenance costs due to installation of moving walks and elevators - Separate exterior storage due to lack of storage	- Lack of storage space - No plans of facilities equipment due to no MD zoning at initial development - No planning of ventilation and plumbing at initial development

Although traditional markets have inherently different identities from other retail categories, there are often cases of applying building plans imitating general hypermarkets and in the study, Gunsan Public Market corresponds to this case. In the future,

continuously analyzing problems of market modernization projects such as construction, MD, and facilities equipment, and making databases and manuals of the solutions will be a necessity in successful market modernization project model establishment

3. Conclusion

The study has significance in that, in a field related to traditional markets that were studied in various subjects that lacked post comparative case analysis, it derived problems and implications through post comparative case analysis of markets that went through market modernization projects. Also it has differentiation in that by reviewing standard area through comparative analysis by business type in individual store modules, it established a starting point to suggest a store area guideline reflecting the interests of merchants in the future. Market modernization projects promoted all over the nation are largely in the public interest considering regional activation and small merchant support through environmental improvement. However, compared to private commercial facility development that prioritizes profit, it has limitations of various aspects. First, because rather than business type allocation considering sales efficiency and marketing, it maintains the existing number of merchants and usage area, it has limitations in implementing store area and line of flow by business type which is optimized for attracting new customers and increasing sales. Second, due to the lack of establishment of plans based on regional cultural characteristics and unique competitiveness of traditional markets, there is the limitation as a simple facilities improvement project imitating modern retail facilities which causes cases that require additional facilities investment after completion of the project. Third, the problems and solutions in market modernization projects by region are not recorded or managed by the central government and similar

problems recur frequently in attempts by other regions. While this study analyzed 4 cases of market modernization projects nationwide, there needs to be continuous and comprehensive research in the future to systemize and database the procedures and systems of market modernization projects to contribute to activation of economy of the ordinary people through strengthening of competitiveness in traditional markets and merchants. The study has significance in the fact that it established a starting point of comparative analysis research about status of facilities modernization projects after completion which was insufficient in previous researches about traditional markets. After the study, basic data to suggest guidelines in store modules by business type in traditional markets could be acquired and the study identified the facilities equipment standards that must be considered in future market modernization projects. Through this it will be possible to derive policy implications to minimize trial and error and guarantee business efficiency in future market modernization projects

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