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The Mechanism of Street Markets Fostering Supportive Communities in Old Urban Districts: A Case Study of Sham Shui Po, Hong Kong

Yueyi Tan [1,2], Jusheng Song [1], Lei Yu [1,*], Yunxi Bai [1], Jianfeng Zhang [3], Man-Ha (Sylvia) Chan [2] and Jeroen van Ameijde [2]

[1] School of Architecture, Harbin Institute of Technology (Shenzhen), Shenzhen 518055, China; 23b956004@stu.hit.edu.cn (Y.T.); songjs@hit.edu.cn (J.S.); baiyunxi@hit.edu.cn (Y.B.)
[2] School of Architecture, The Chinese University of Hong Kong, Hong Kong SAR 999077, China; manhachan@cuhk.edu.hk (M.-H.C.); jeroen.vanameijde@cuhk.edu.hk (J.v.A.)
[3] Anhui Jiangbei Meitu Information Technology Co., Ltd., Fuyang 236000, China; 15155865397@163.com
* Correspondence: leilayu@hit.edu.cn

Abstract: In old urban districts with tenement buildings, street markets address the working class's social and economic needs. They are pivotal in fostering supportive communities, in particular for low-income residents in sub-standard housing. However, their outdated overall environment impedes the delivery of adequate support to residents. Prior research on street markets has focused on those in the Americas and Europe, and has revealed the societal support values of these markets. However, studies on street markets in high-density cities like Hong Kong are lacking. This study introduces an evaluation framework to assess the impact of street markets on the development of supportive communities for Hong Kong's sub-divided apartment residents. Employing the Pei Ho Street market in Sham Shui Po as a case study, an importance-performance analysis highlights critical but underperforming factors including public facilities, activity venues, commerce, and employment. Based on these findings, the study proposes four improvement strategies for the renewal of street markets in high-density communities, which could apply to other cities with similar high-density urban environments. It concludes that street markets in Hong Kong display unique spatial characteristics shaped by low-income lifestyles in a high-density urban environment, enriching daily social life and promoting sustainable community development.

Keywords: street markets; supportive community forming; urban environments; Hong Kong

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1. Introduction

Hong Kong's old urban districts, like Sham Shui Po and Yau Tsim Mong, are cornerstones of the city's sustainable growth, offering an eclectic mix of shopping, dining, entertainment, and cultural experiences. These districts draw tourists and support the living and economic needs of the working class [1]. Tenement buildings and street markets define these areas, providing the last refuge for the underclass and acting as vital community centers [2]. However, as urban development progresses, these districts face various challenges, such as inadequate public hygiene, lack of community facilities, poor living environments, and overcrowding [3,4]. Addressing these challenges is crucial, as is the need to bolster street markets that play a significant role in fostering community.

Over the past two decades, the Hong Kong government has actively renewed old districts to address key issues, focusing on fostering supportive communities [4,5]. Supportive communities are designed to cater to the diverse needs of vulnerable groups and enhance their quality of life [6–13]. In the context of old urban districts, residents in sub-divided units represent a significant and particularly vulnerable group [14,15], making them the primary target for supportive community initiatives. Low-income groups dominate the

population of sub-divided units [16]. Most of the sub-divided units are inside the tenement buildings and are characterized by tiny living spaces and poor living conditions [17]. Therefore, when discussing supportive communities in Hong Kong's old urban districts, the housing market becomes a crucial topic that cannot be overlooked. Hong Kong offers three primary housing categories: public housing, home ownership schemes, and private housing. However, the inadequate supply of public housing has resulted in an average waiting time of 5.6 years [18]. Thus, the underprivileged population has no choice but to rent private housing [19]. Despite the poor living conditions, many low-income individuals opt to reside in sub-divided units due to affordability, convenient transportation and educational resources [2,15]. The street market located on the ground floor of tenement buildings is considered a key factor in improving the overall environment of old urban districts [20–22] and is integral to the study of mechanisms for fostering supportive communities. The Pei Ho Street market, a classic street market typical of old urban districts, offers an opportunity to explore the role of street markets in fostering supportive communities.

The present study aims to contribute to the understanding of the value of street markets in high-density communities, specifically in Hong Kong's old urban districts. The street market plays an important role in creating supportive community as it contributes to the quality of life and sociability [20,23]. But in the old urban districts of Hong Kong, this understanding of the street market's value is not emphasized. Previous research has explored the significance of street markets in cities and communities, and most of these studies have focused on street markets in the Americas and Europe [23–27]. Research on street markets conducted in these areas, with case studies such as the Moore Street market and the Maxwell Street market, has demonstrated the potential of street markets in livelihood-building, intercultural contact, providing goods and services, influencing city planning and policy making, incorporating new immigrants, supporting minority populations, increasing socio-economic dynamism, and improving access to healthy food, employment, and entrepreneurship [23,25,27–29]. In Asia, limited studies, including research on Macao's public markets, highlight their role beyond commerce, emphasizing their significance in community life and culture [27]. However, research on the value of street markets in high-density cities, such as Hong Kong, is lacking. The study on Hong Kong's pedestrianization scheme indicates the potential of street markets to foster sustainable urban living and enhance community vitality, providing a research foundation for a deeper analysis of the value of street markets [30]. By studying the mechanism of street markets in creating supportive communities, this study aims to fill the existing research gap and provide insights into the value and potential of street markets in Hong Kong's high-density communities. This research direction shows innovation and importance as it supplements existing research, and provides renewal advice on street markets in high-density communities, which could apply to other similar high-density cities. Meanwhile, community development and the quality of life of the residents are also enhanced.

This study proposes and investigates three research questions: (1) What is the mechanism by which the street market can foster supportive communities? (2) What are the key factors of the street market's influence in fostering supportive communities? (3) How can supportive community building be promoted by improving the street market?

The rest of the paper is structured as follows: Section 2 outlines the research design, and Section 3 describes the methodology, including a framework of 29 street market evaluation factors and social surveys. Section 4 analyzes data to identify the social properties of residents in sub-divided units and street market influential factors for fostering supportive communities. Then, we conduct an importance-performance analysis of these factors to find those needing urgent upgrades. Section 5 further analyzes influencing factors from different views and proposes improvement strategies for the street market. The final part consists of discussion and conclusions.

2. Research Design

To examine the mechanism of street markets in fostering supportive communities in old urban districts of Hong Kong, this study was designed to follow a process outlined in Figure 1, with references to previous works [31].

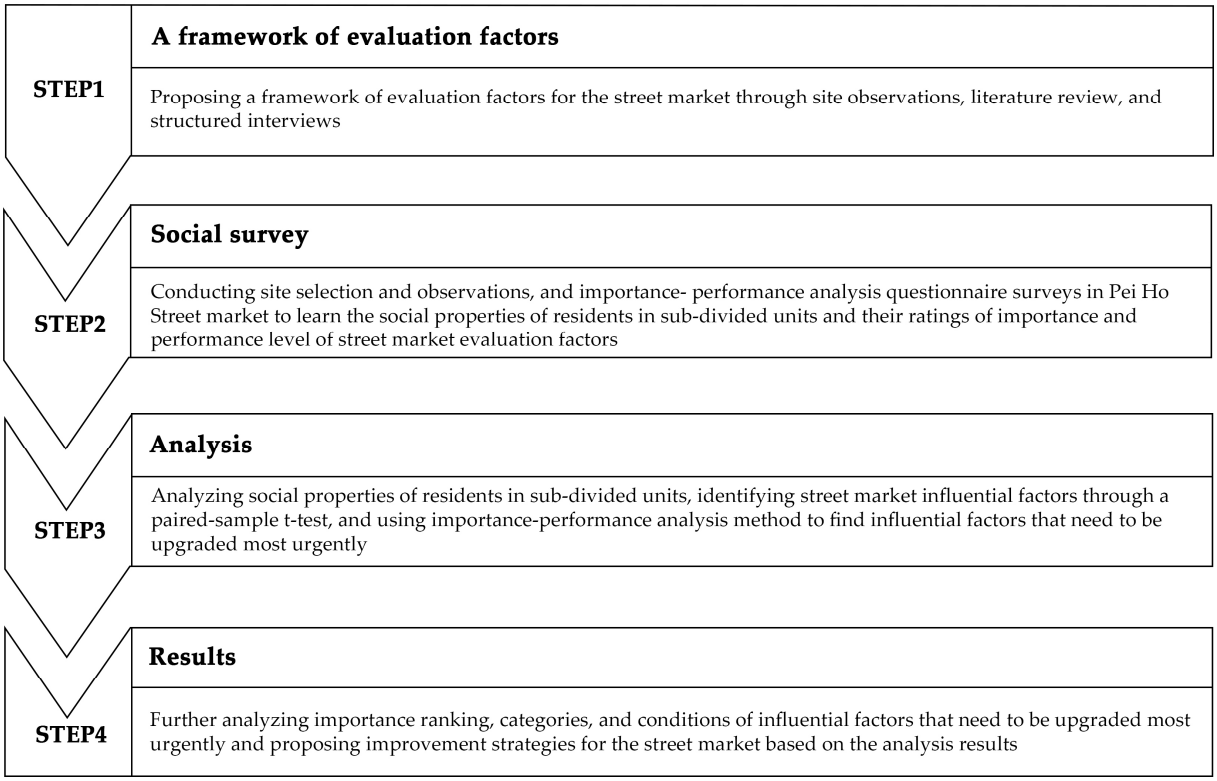


Figure 1. Research design.

Generally speaking, the study was conducted in four steps: (1) proposing a framework of street market evaluation factors for assessing its impact on the creation of supportive communities through site observation, a literature review, and structured interviews; (2) conducting a social survey including site selection and observation, and importance-performance analysis questionnaire surveys to obtain social properties of residents in sub-divided units and their ratings of importance and performance level of the street market evaluation factors; (3) analyzing social properties of residents in sub-divided units, identifying street market influential factors through a paired-sample *t*-test, and conducting an importance-performance analysis of influential factors to find those that need to be upgraded most urgently, namely those with high importance scores but low performance scores; (4) based on the importance-performance analysis results, performing further analysis of influential factors that need to be upgraded most urgently in terms of importance ranking, category, and condition. Finally, we propose some improvement strategies for the street market and describe the mechanism by which street markets assist in creating a supportive community, thereby enhancing their contribution to supportive community development.

3. Materials and Methods

3.1. A Framework of Evaluation Factors

3.1.1. Sham Shui Po

To propose a framework of street market evaluation factors for assessing its impact on fostering supportive communities in the old urban districts, Sham Shui Po was first chosen as a field study case to deepen the understanding of the street market's value and

supportive communities in the context of an old district. Sham Shui Po is a typical old district and one of the poorest and densest districts in Hong Kong, known for its numerous tenement buildings and street markets, and its role in urban renewal efforts [1].

Nowadays, as presented in Figure 2, Sham Shui Po refers to an inner-city district on Kowloon Peninsula's western shore and has many street markets such as Pei Ho Street market, Kweilin Street market, etc. The field study revealed that Sham Shui Po lacked a supportive community due to the poor living environment, lack of sufficient public facilities, and poor hygiene and management. A supportive community is a concept aiming to meet diverse needs and enhance the quality of life of vulnerable groups by providing public facilities, activity venues, commerce, and employment. According to the Census and Statistics Department [32], by April 2021, there were already 22,400 sub-divided units in Sham Shui Po, which ranked second among the 18 districts in Hong Kong. Residents in sub-divided units represent a significant and particularly vulnerable group, making them the primary target for supportive community initiatives in Sham Shui Po.

Figure 2. The location of Sham Shui Po and Pei Ho Street market.

Sub-divided units, as the name indicates and shown in Figure 3a, are special housing units in which domestic units are sub-divided into two or more smaller units for rental purposes [32]. In general, most sub-divided units are inside tenement buildings, which are widely distributed in Kowloon [2]. The latest reports from the Hong Kong Government indicate that the residents of sub-divided units are predominantly low-income families, new immigrants, unemployed citizens, and single elderly people [33]. In terms of living environment, Figure 3b shows that sub-divided units are far from satisfactory. Within these residences, thin partitions provide a mere semblance of separation, failing to offer even the most basic visual privacy or noise reduction [34]. The sub-divided living spaces, a mere 40 to 50 square feet, barely accommodate the essentials [35]—a wardrobe and a bed—as depicted in Figure 3c. Overcrowded, cluttered home spaces, inadequate services and supporting facilities, and shortage of money are the main parts of the living experience of residents in sub-divided units. Therefore, according to these living experiences, creating supportive communities for residents in sub-divided units including public facilities, activity venues, employment, and commerce, plays a significant role in meeting their needs and improving their quality of life today.

(**a**) (**b**) (**c**)

Figure 3. The sub-divided units in Hong Kong. (**a**) Floor plan of a typical sub-divided unit; (**b**) The unsatisfactory living environment of sub-divided units; (**c**) The extremely tiny inner space of sub-divided units.

In Sham Shui Po, the street markets can be seen as the vital point of fostering a supportive community as they are important carriers of public facilities and commerce, major activity venues, and the provision of entrepreneurship and job opportunities. In Hong Kong, as shown in Figure 4a, the street market can be defined as a combination of a street and a market, where the public can buy and sell goods, socialize, rest, and gather. It is worth noting that there is a subtle distinction between street markets of Hong Kong and public markets—the latter are situated within buildings and often referred to as municipal markets. Street markets emerge from a blend of formal spaces formed by commercial shops at the base of tenement buildings and informal spaces created by street vendors, enriching their diversity and allure. The focus of this study, a street market, is a pedestrianized precinct, elucidating why it partially unfolds onto streets rather than being confined solely to the ground floors of buildings. The historical evolution of street markets in high-density areas of Hong Kong has led to a blending of public and private spaces where street-level commerce extends organically onto the adjacent pedestrian areas. This seamless integration enhances the vibrancy and accessibility of the market, making it a central hub of community activity. Regarding the potential competition between the street market and ground-floor commerce, it is essential to understand that they are not rivals but rather complementary elements of the same ecosystem. The ground-floor shops typically offer more permanent, stable retail options, while the street vendors provide a dynamic and varied selection of goods that fluctuate with the rhythm of daily life. Together, they form a comprehensive marketplace that meets the full range of consumer needs within the community. In Sham Shui Po, the vibrant street market economy serves as the district's lifeblood and subsistence [34]. Sham Shui Po, known for its dense markets and small shops, offers a shopping experience vastly different from Hong Kong's mainstream shopping centers [36]. Unlike modern malls like IFC Mall, Times Square, and Harbour City, which attract locals and tourists with high-end brands, exquisite decor, and all-in-one convenience [37], Sham Shui Po presents a more grounded commercial atmosphere. It is characterized by its affordability, diversity, and strong community ties, maintaining a localized and authentic shopping environment with hardly any large malls except for Dragon Centre. Rather than gravitating towards malls, the community converges in the vibrant street markets nestled at the base of tenement buildings [38]. Here, as presented in Figure 4b, residents from sub-divided units find not only the most affordable goods but also a place for social interaction, relaxation, and communal gatherings, alongside opportunities to work and access to essential public facilities [34]. Meanwhile, Figure 4c shows that the street markets also attract lots of citizens and visitors who come to buy quality items at fair prices, which in turn brings vitality to the community.

(**a**) (**b**) (**c**)

Figure 4. The Ki Lung Street market in Hong Kong. (**a**) The relationship between the street and the stalls; (**b**) Visitors shopping in the street market; (**c**) Crowded conditions on a typical weekday morning.

3.1.2. Potential Evaluation Factors

Based on a review of the literature on supportive communities and a field study in Sham Shui Po, supportive communities are described as meeting the diverse needs and enhancing the life quality of residents in sub-divided units through the provision of public facilities, activity venues, commerce, and employment [1,6,39]. Our analysis of the recent scholarly literature indicates that at the community level, street markets emerge as pivotal in fostering supportive communities, accommodating the four principal evaluative factors: public facilities, activity venues, commerce, and employment [20,21,23,34].

To develop a comprehensive framework for assessing the influence of street markets on fostering a supportive community, this research delved into the four mentioned evaluation categories in greater detail by examining specific conditions. A substantial volume of academic literature indicates that these evaluation factors should be assessed based on nine distinct conditions: quantity, density, and capacity; connectivity and proximity; availability; quality and condition; comfort; diversity and choice; security; cost and affordability; aesthetics and appeal [6].

In line with these nine conditions, the study has identified and compiled a list of thirty-three potential evaluation factors that could be used to measure the impact of street markets on fostering supportive communities. These factors have been collated from scholarly research and are presented in Table 1 for a comprehensive overview.

3.1.3. Evaluation Factors

The structured interviews at Pei Ho Street market and the Kwai Lam Street Office of the Society for Community Organization (SoCO) were a critical step towards validating the potential evaluation factors identified through the literature review. By choosing these locations, the study team aimed to engage directly with residents in sub-divided units, who are frequent visitors to both the Pei Ho Street market and SoCO for their various daily needs and activities. This ensured access to a relevant sample population for the interviews. SoCO, as a non-governmental organization, provides services and assistance to vulnerable groups, including residents in sub-divided units, to enhance their living standards. Its role in the community makes it a hub for potential interviewees who are beneficiaries of such supportive community structures. Similarly, Pei Ho Street market is a central spot for shopping and social interaction for residents in sub-divided units, making it another ideal location for conducting interviews.

Table 1. The potential evaluation factors of the street market for assessing its impact on fostering a supportive community summarized from academic studies.

Factor Categories	Factor Conditions								
	Quantity, Density, and Capacity	**Connectivity and Proximity**	**Availability**	**Quality and Condition**	**Comfort**	**Diversity and Choice**	**Security**	**Cost and Affordability**	**Aesthetics and Appeal**
	Demonstrations of Quantifying and Measuring the Conditions								
	Number and distribution of factors Size, scale and capacity of factors	Distance and commuting time of factors Accessibility of factors	The likelihood the factors can be used How much the factors can be used or reached	Cleanness level and maintenance of factors Duration of the factor's existence	Factors of physical ease Factors that protect from extreme climate	Types of each factor Design for disabled and special needs	Degree of transparency in design Safety of public space	Cost of utilizing factors in relation to income	Building material Human scale design Unique building
Public facilities	Number of bus and minibus stops [40–43]	Distance to bus and minibus stops [40,44]	Availability of public facilities [40,44,45]		Facilities that protect from extreme climate [45]	Facilities for disabled and special uses [45]		Cost of using public facilities [1,44,46]	Symbolic buildings for public uses [47]
	Number of bus and minibus routes [41,42]	Distance to MTR entrances and exits [40,44,48]			Configuration of lights [47]				
	Number of MTR entrances and exits [40–42]				Configuration of resting seats [47]				
	Number of MTR routes [41,42]								
Activity venues	Size of activity venues [44,49]	Distance to activity venues [44,47,50]	Availability of activity venues [51]	Cleanness and maintenance level of activity venues [52]		Types of green space [47]	Safety of activity venues [52–54]		Content of activity venues [47]
	Distribution of activity venues [6]								
Commerce	Scale of commerce [55,56]	Distance from commerce space to home [44,56]		Length of time a store has been open [55]		Types and choices of goods [55]	Facades with windows to the streets [45]	Price of goods [44,46]	Design of shop frontages [45]
		Accessibility of commerce [51,57]							The human scale of commercial space [45]
Employment	Number of local entrepreneurship and work opportunities [44]	Commuting time and distance to workplace [40]				Types of local entrepreneurship and work opportunities [44]			

The structured interviews were designed to test the relevance and importance of the potential evaluation factors in the context of creating supportive communities. The study employed criterion sampling to select willing residents in sub-divided units at SoCO and Pei Ho Street market as interviewees. With twenty participants, the interviews utilized a

five-point Likert scale from the extremely unimportant (1) to the extremely important (5) to gauge the perceived importance of each factor. An average score of 3 indicated that it was generally important. Therefore, an average score exceeding 3 denoted that a factor was deemed important. The approach enabled the researchers to identify which factors were regarded as significant by the interviewees. Additionally, the interviewees were prompted to suggest any important factors not previously mentioned, ensuring a comprehensive approach to identifying relevant evaluation factors.

The analysis of interview data led to the identification of twenty-nine street market evaluation factors with an average importance score above 3. These factors form a comprehensive framework and were included in the importance-performance analysis questionnaire of subsequent social surveys to assess the impact of street markets on fostering supportive communities in the context of Hong Kong's old urban districts. Table 2 details and numbers these evaluation factors by category and presents their mean importance scores, thus providing a structured approach to understanding the multifaceted role of street markets in supporting the community.

Table 2. A framework of evaluation factors.

Factor Categories	Total		Factor Conditions	Mean Importance Scores
A. Public facilities	11	Quantity, density, and capacity	A1 Number of bus and minibus stops	4.0
			A2 Number of bus and minibus routes	4.2
			A3 Number of MTR entrances and exits	3.8
			A4 Number of MTR routes	4.1
		Connectivity and proximity	A5 Distance to bus and minibus stops	4.2
			A6 Distance to MTR entrances and exits	4.1
		Availability	A7 Availability of public facilities	4.0
		Comfort	A8 Facilities that protect from extreme climate	4.2
			A9 Configuration of lights	3.9
			A10 Configuration of resting seats	4.3
		Diversity and choice	A11 Facilities for disabled and special uses	4.2
B. Activity venues	8	Quantity, density, and capacity	B1 Size of activity venues	4.3
			B2 Distribution of activity venues	4.1
		Connectivity and proximity	B3 Distance to activity venues	4.3
		Availability	B4 Availability of activity venues	4.2
		Quality and condition	B5 Cleanness and maintenance level of activity venues	4.3
		Diversity and choice	B6 Types of green space	4.3
		Security	B7 Safety of activity venues	4.3
		Aesthetics and appeal	B8 Material of activity venues	3.8
C. Commerce	7	Quantity, density, and capacity	C1 Scale of commerce	4.2
		Connectivity and proximity	C2 Distance from commerce space to home	4.2
			C3 Accessibility of commerce	4.1
		Quality and condition	C4 Length of time a store has been open	4.1
		Diversity and choice	C5 Types and choices of goods	4.2
		Cost and affordability	C6 Price of goods	4.3
		Aesthetics and appeal	C7 Design of shop frontages	4.1
D. Employment	3	Quantity, density, and capacity	D1 Number of local entrepreneurship and work Opportunities	4.1
		Connectivity and proximity	D2 Commuting time and distance to workplace	4.2
		Diversity and choice	D3 Types of local entrepreneurship and work Opportunities	4.2

3.2. Social Surveys

Upon establishing a comprehensive framework of evaluation factors, this research proceeded to select the Pei Ho Street market as the focal point for an extensive social survey to assess the impact of street markets on fostering supportive communities. As shown in Figure 5a–c, the Pei Ho Street market serves as a pivotal communal hub where the residents in sub-divided units engage in shopping, relaxation, socialization, communal gatherings, employment, and utilization of public facilities. This social survey included observations and analysis of the evaluation factors of the Pei Ho Street market, along with the importance-performance analysis questionnaire surveys targeting residents in sub-divided units.

(**a**) (**b**) (**c**)

Figure 5. The Pei Ho Street market. (**a**) Some of the major stalls in the street market; (**b**) The crowded Pei Ho Street market center; (**c**) Visitors engaged in various activities at the activity venue.

3.2.1. Pei Ho Street Market

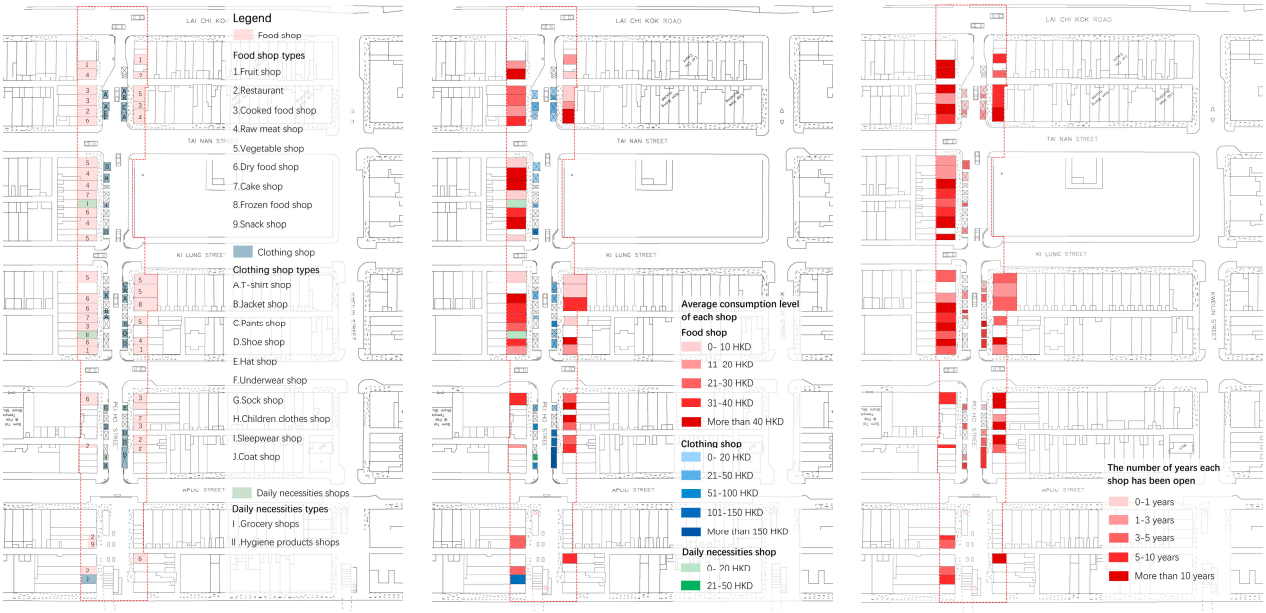
Several compelling reasons underpin the choice of Pei Ho Street market as the site for this study: (1) geographically, Pei Ho Street market is situated in the Sham Shui Po district, a locale distinguished by the highest concentration of sub-divided units and street markets in Hong Kong; (2) the Pei Ho Street market is deeply intertwined with the fabric of the local community, offering an array of everyday necessities and acting as a pivotal hub for the daily routines of residents in sub-divided units; (3) strategically placed at the heart of the Sham Shui Po district, Pei Ho Street market boasts exceptional accessibility, enhanced by over 20 bus and minibus routes in the vicinity, as well as proximity to the Sham Shui Po MTR station, thereby facilitating easy access for residents to come to this street market and engage in various activities; (4) Pei Ho Street market is enveloped by a predominantly residential area, making it a natural gathering point for the local populace.

Field research revealed that the Pei Ho Street market extends over a length of roughly 305 m and a width of about 25 m, with a roadway approximately 6 m wide. During field observations, regarding the public facilities, the study observed that the Pei Ho Street market notably lacks crucial public facilities such as resting seating, rain shelters, and barrier-free facilities. There were only seven resting seats in the small plaza at the end of the street market. In addition, only a few streetlights stood on either side of the street market. The transportation infrastructure also had its constraints. While Sham Shui Po MTR station's Exit A1 offers convenient access to the Pei Ho Street market, it is limited to serving only the Tsuen Wan Line. Also, there are no bus stops or minibus stops within the Pei Ho Street market. Visitors have to go to the bus and minibus stops with more than twenty routes on Cheung Sha Wan Road and Lai Chi Kok Road, which are very close to the Pei Ho Street market, to take the bus or minibus.

In terms of activity venues, it was also found that the Pei Ho Street market lacks designated formal spaces for activities. Instead, visitors typically engaged in their daily activities in spontaneous settings such as street corners, storefronts, and small plazas at the end of the street market, with each of these impromptu spaces often not exceeding an area of 5 m^2. The street market's cleanness was less than ideal, with litter, discarded foam

containers, and untreated sewage frequently in sight—remnants discarded by both visitors and stallholders. The maintenance status of the marketplace was evidently in decline; the pavement tiles showed signs of wear, and in places, they were broken, which impacted the market's overall atmosphere and ease of movement. Additionally, the storefronts and their signs gave a sense of history. The informal gathering spots featured minimal greenery, except for a few trees located in a small plaza at the end of the street market. Ethnic minorities can sometimes be seen gathering in the activity venues. There were no regular police patrols around the area, which some residents said somewhat affects their sense of security. The choice of red brick or concrete for the floors, and metal, glass, or reinforced plastics for the facades of activity venues, reflects both practicality and aesthetic considerations, enhancing durability while catering to modern design preferences.

Commercially, as presented in Figure 6a, the street market features 75 varied food, clothing, and daily necessities shops and stalls that best meet the daily needs of residents in sub-divided units, all located on the ground floor of tenement buildings with good accessibility. These outlets, with their slender fronts and aisles, radiate historic charm through unique signage. Mobile tin carts line the street, offering goods typically more affordable than nearby supermarkets, attracting throngs of shoppers. Figure 6b shows that prices mainly fall below 40 HKD for food items, undercutting supermarket rates. A significant number of clothing stores feature items with an average price point below 50 HKD, offering exceptionally affordable options. As for the daily necessities store, a large number of items are priced at less than 20 HKD. Figure 6c shows that many of these businesses, especially food stores, have served the community for over five years, some even for a decade, highlighting their deep-rooted connection and contribution to neighborhood stability and unity.



(**a**) (**b**) (**c**)

Figure 6. The commercial activities of the Pei Ho Street market. (**a**) Types of shops in the Pei Ho Street market; (**b**) average consumption level of shops in the Pei Ho Street market; (**c**) the number of years each shop in the Pei Ho Street market has been open.

Furthermore, regarding employment, these surveys revealed that the market is an important source of employment opportunities for residents in sub-divided units. These residents have the opportunity to be store owners by applying for a license or seeking employment as waiting staff, or sales associates, with a focus on retailing apparel, food items, and everyday essentials. This situation fosters a sense of entrepreneurship and job

availability within the neighborhood, strengthening the economic and social ties that bind the community together.

3.2.2. Importance-Performance Analysis Questionnaire Surveys

In the sampling procedure for the importance-performance analysis questionnaire surveys, we meticulously designed the questions to accommodate the diverse linguistic needs of the local population at Pei Ho Street market. Recognizing that the residents in sub-divided units consist predominantly of low-income families, new immigrants, unemployed individuals, and single elderly persons—as reported by the Hong Kong Government [33]—the survey was made available in three languages: English, Traditional Chinese, and Simplified Chinese. This multilingual approach was taken to ensure inclusivity, considering that local Hong Kong residents generally communicate in Traditional Chinese, while new immigrants from Mainland China are accustomed to Simplified Chinese, and English serves as a common language for immigrants from other countries.

The study employed a cross-sectional design, relying on the voluntary participation of residents in sub-divided units. Utilizing criterion sampling, the survey specifically targeted residents in sub-divided units who were willing to participate, and these individuals were approached at Pei Ho Street market. Before participating, individuals were provided with a form that explained the study's objectives and reassured them of the confidentiality and anonymity of the data collection, storage, and reporting processes.

Regarding the fieldwork details, the fieldwork for this study was conducted over a three-week period which ran from the first week of October to the third week of October 2022. Three researchers, all experienced in conducting field surveys and fluent in English, Mandarin, and Cantonese, led the data collection process. The team was specifically trained a week prior to the fieldwork to approach potential participants in a respectful and non-intrusive manner, explain the study's purpose, and administer the questionnaire in the participant's preferred language. This training also covered ethical considerations, such as ensuring participants' informed consent and maintaining data confidentiality.

During the fieldwork, researchers stationed themselves at strategic locations within the Pei Ho Street market, particularly near entrances and popular stalls, to maximize visibility and accessibility to potential participants. The team conducted the surveys from 11:00 AM to 6:00 PM, which was identified as the peak period for foot traffic in the market, based on preliminary observations. This timing was chosen to ensure a diverse sample of market visitors, encompassing the full spectrum of the target demographic.

According to the statistics of our team, the Pei Ho Street market could accommodate up to 3000 people at the same time. While this study was aimed at residents in sub-divided units, it is important to note that not all visitors to the Pei Ho Street market live in sub-divided units. To achieve a representative sample size, the study drew a 3% sample from the estimated peak hourly pedestrian flow of 3000 people at the street market [58]. Consequently, 90 questionnaires were distributed. Of these, two were not returned, and an additional three were excluded from the analysis due to incorrect responses to control questions designed to filter out inattentive or non-serious participants. This led to a final sample size of 85 respondents for the survey analysis.

Such an approach ensured that the data collected was representative of the target demographic and that the survey results could provide meaningful insights into the experiences and needs of residents in sub-divided units using the Pei Ho Street market.

As for the data collection instruments, the questionnaire was meticulously crafted to gauge respondents' impressions of the importance and performance level of the twenty-nine evaluation factors of the Pei Ho Street market. Additionally, it included a segment dedicated to gathering demographic data of the participants.

Structured in two distinct parts, the survey commenced with a demographic section encompassing six inquiries aimed at elucidating the social characteristics of the respondents, such as gender, age, and occupation. Proceeding to the second segment, participants were presented with a comprehensive list of twenty-nine factors for evaluating the street market.

They were invited to evaluate the importance and performance of each factor, employing a five-point Likert scale ("1" = lowest importance or worst performance, while "5" = highest importance or best performance). On average, participants could expect to invest about 15–20 min to thoughtfully complete the survey.

In data analysis, the collected questionnaire data were systematically processed using SPSS version 26. The analysis encompassed a frequency analysis of the demographic information, complemented by an importance-performance analysis of the street market evaluation factors.

The frequency analysis of demographic data concentrated on the number and proportion of each category, providing a quantitative snapshot of the respondent pool's social demographics. This foundational analysis ensured a comprehensive understanding of the respondents' social characteristics. The importance-performance analysis works by comparing the importance and performance of different items or dimensions by drawing scatter plots, to visually identify the advantageous and disadvantageous items [59].

In this study, the importance-performance analysis was pivotal in pinpointing street market factors that were deemed critical yet underperforming. These insights are instrumental in dissecting how street markets might bolster community support within Hong Kong's old urban districts. The analysis steps are the following: (1) Conduct statistical analysis on the importance and performance of each evaluation factor, and exclude the factors with low significance by paired *t*-test. (2) Construct the importance-performance analysis box plot by taking importance as the horizontal axis (I-axis) and performance as the vertical axis (P-axis), and using the mean value of importance and performance as the dividing line. As shown in Figure 7, the resultant importance-performance analysis box plot is divided into four quadrants: I Maintain Performance, II Possible Overkill, III Low Priority, and IV Concentrate Here.

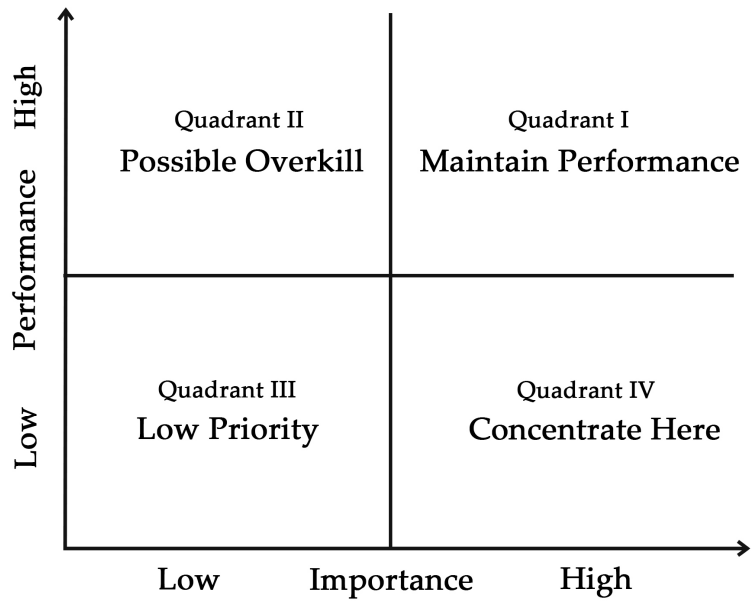


Figure 7. The importance-performance analysis box plot. Source: [59].

Each evaluation factor is placed within an appropriate quadrant based on its importance and performance scores. This visual representation starkly illustrates the gap between the street market's performance and the residents' expectations, thereby highlighting the key factors that influence how street markets contribute to the development of the supportive community, particularly from the perspective of residents in sub-divided units.

4. Analysis

4.1. Social Characteristics of the Sample

The demographic profile of the questionnaire sample (n = 85) shows a predominance of females over males. According to Figure 8a, women comprised 54.1% of the sample, exceeding men by 8.2%. Participants were primarily from middle and older age groups with lower educational levels. Figure 8b shows that merely 17.6% of respondents had attained a university-level education or higher. This figure is significantly lower than the corresponding 34.5% for Hong Kong's overall population [60]. Over half of the respondents had an educational level of junior high school or below, as shown in Figure 8c. In terms of occupation, Figure 8d shows that respondents were predominantly service and sales staff, housewives, students, and self-employed businessmen. These four occupational categories encompassed over 70% of all respondents. Furthermore, as presented in Figure 8e, respondents generally were mainly low-income groups, with 65.8% earning less than HKD 15,000 monthly, well below the median monthly income of HKD 19,500 for Hong Kong's working population [61]. Regarding duration of residence in sub-divided units, Figure 8f shows that 68.3% had lived in Sham Shui Po for over three years, a comparatively lengthy period.

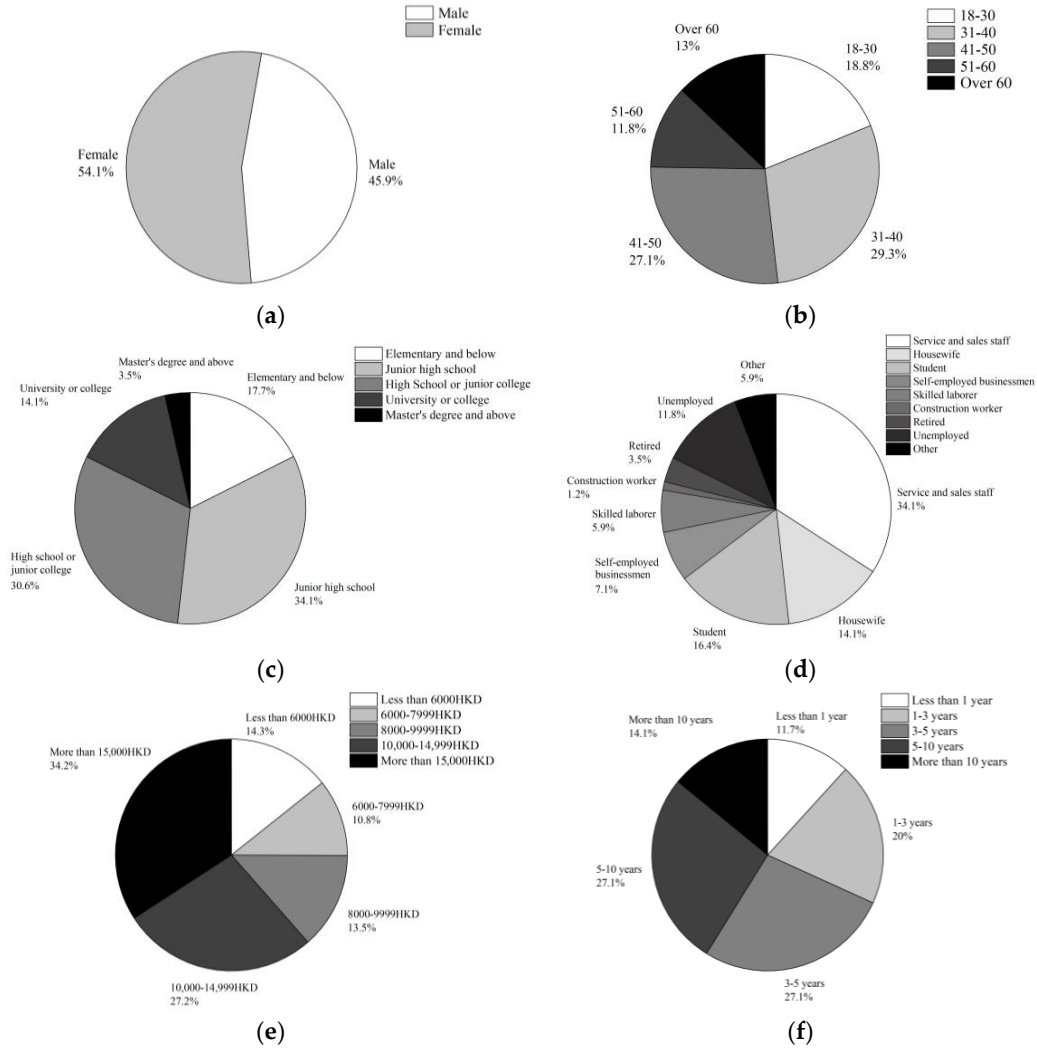


Figure 8. Pie charts of demographic information of the sample. (**a**) Gender of the sample; (**b**) age of the sample; (**c**) education level of the sample; (**d**) occupation of the sample; (**e**) income level of the sample; (**f**) duration of residence in sub-divided units in Sham Shui Po of the sample.

4.2. Influential Factors

Before performing the importance-performance analysis, it is essential to test the reliability of the sample data. Sample data reliability was assessed using Cronbach's alpha (α). The Cronbach's alpha coefficients for performance and importance on the importance-performance analysis scale were 0.920 and 0.873, respectively. Consequently, the data demonstrates good reliability and consistency.

A paired-sample *t*-test was conducted in this study to ascertain whether significant differences existed between the importance and performance values of the twenty-nine evaluation factors. The test results are presented in Table 3. Except for the "Distance to MTR entrances and exits (A6)" factor, which had a *p*-value greater than 0.1, all other factors had *p*-values less than 0.05, suggesting significant differences in their importance and performance. Consequently, twenty-eight evaluation factors were identified as influencing factors.

Table 3. Evaluation factors importance-performance paired sample *t*-tests.

Evaluation Factors	Mean	t	Sig. (2-Tailed)
A. Public Facilities			
A1 Number of bus and minibus stops	0.64	5.272	0.000 ***
A2 Number of bus and minibus routes	1.12	8.074	0.000 ***
A3 Number of MTR entrances and exits	−0.29	−2.465	0.016 **
A4 Number of MTR routes	0.25	2.155	0.034 **
A5 Distance to bus and minibus stops	0.76	6.071	0.000 ***
A6 Distance to MTR entrances and exits	0.06	0.591	0.556
A7 Availability of public facilities	0.31	3.133	0.002 ***
A8 Facilities that protect from extreme climate	0.84	6.919	0.000 ***
A9 Configuration of lights	0.51	4.525	0.000 ***
A10 Configuration of resting seats	1.18	10.302	0.000 ***
A11 Facilities for disabled and special uses	1.01	8.043	0.000 ***
B. Activity Venues			
B1 Size of activity venues	1.39	13.806	0.000 ***
B2 Distribution of activity venues	0.81	6.511	0.000 ***
B3 Distance to activity venues	0.33	3.356	0.001 ***
B4 Availability of activity venues	0.26	2.540	0.013 **
B5 Cleanness and maintenance level of activity venues	1.42	14.722	0.000 ***
B6 Types of green space	1.35	12.090	0.000 ***
B7 Safety of activity venues	0.52	4.075	0.000 ***
C. Commerce			
C1 Scale of commerce	0.27	2.609	0.011 **
C2 Distance from commerce space to home	0.22	2.128	0.036 **
C3 Accessibility of commerce	0.31	3.133	0.002 ***
C4 Length of time a store has been open	0.24	2.128	0.036 **
C5 Types and choices of goods	0.85	7.343	0.000 ***
C6 Price of goods	0.28	2.498	0.014 **
C7 Design of shop frontages	1.26	11.319	0.000 ***
D. Employment			
D1 Number of local entrepreneurship and work opportunities	1.01	8.963	0.000 ***
D2 Commuting time and distance to workplace	0.27	2.374	0.020 **
D3 Types of local entrepreneurship and work opportunities	0.65	5.484	0.000 ***

Note: *** Indicates a significance level at 1%. ** Indicates a significance level at 5%. A negative mean difference indicates that residents in sub-divided units perceive the importance of the evaluation factor to be lower than the performance.

4.3. Importance-Performance Analysis Result

The importance-performance analysis commenced with the construction of an importance-performance box plot centered on the mean values of the importance and performance of the twenty-eight influencing factors. The importance-performance analysis

box plot is segmented into four quadrants, each characterized as follows: Quadrant I, Maintain Performance, includes factors with high mean importance and performance, indicating that residents in sub-divided units value, and are satisfied with the performance of these factors. Quadrant II, Possible Overkill, comprises factors with low mean importance yet high performance, suggesting residents in sub-divided units do not prioritize these factors, though they are satisfied with the performance of them. Quadrant III, Low Priority, contains factors with low mean importance and performance, indicating that residents in sub-divided units neither value these factors nor are satisfied with their performance. Quadrant IV, Concentrate Here, features factors with high mean importance and low performance, showing that residents in sub-divided units consider these factors important but are dissatisfied with their current performance. Overall, the factors in Quadrants I and II highlight the strengths of the study sites that should be preserved, whereas the factors in Quadrants III and IV reveal weaknesses that require improvement. Factors in Quadrant III may be considered for deferred attention, while those in Quadrant IV necessitate immediate action. Given that analyzing disadvantages is more critical for residents in sub-divided units than advantages, the analysis will focus exclusively on the factors within Quadrant IV.

The key evaluation factors of the street market's influence on supportive communities for residents in sub-divided units are summarized based on the importance-performance analysis data and the factors in Quadrant IV of the importance-performance analysis box plot. As presented in Figure 9, Quadrant IV contains eleven evaluation factors, including the number of MTR routes (A4), facilities that protect from extreme climate (A8), configuration of resting seats (A10), facilities for disabled and special use (A11), size of activity venues (B1), cleanness and maintenance level of activity venues (B5), types of green space (B6), safety of activity venues (B7), types and choices of goods (C5), design of shop frontages (C7), and number of local entrepreneurship and work opportunities (D1).

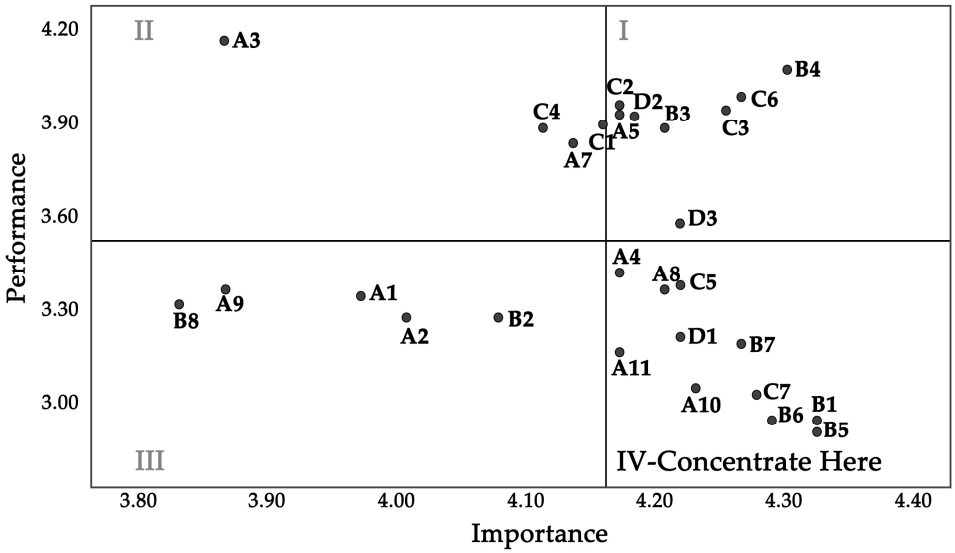


Figure 9. The importance-performance analysis box plot of 28 street market influential factors.

To corroborate the validity of the importance-performance analysis findings, this study undertook extensive field research. The empirical findings from the field aligned seamlessly with the importance-performance analysis results. The eleven pivotal factors encapsulated within Quadrant IV were found to be underperforming in their potential impact on the Pei Ho Street market. The Pei Ho Street market exemplifies prevalent issues in street markets of Hong Kong, such as insufficient public facilities, limited activity venues, and restricted goods variety. Similar issues are observable in other areas like Mong Kok and Yau Ma Tei. A comprehensive overview of these findings, including importance ranking, and the categories and condition of these influential factors, will be presented in the forthcoming

section dedicated to results. The detailed exposition will provide a granular understanding of the current scenario and its implications for the future.

5. Results

Based on the results of the importance-performance analysis, we have identified that the 11 factors in Quadrant IV of the importance-performance analysis box plot indicate areas of weakness that demand immediate attention for enhancement. To effectively improve the street market and foster the development of supportive communities, a detailed analysis of these 11 factors is crucial. This entails examining the factors from three perspectives: the importance ranking of influential factors, the categories of influential factors, and the conditions of influential factors. The importance ranking is particularly critical as it highlights which factors require the most urgent updates. Moreover, the framework of evaluation factors for the street market was constructed based on these factor categories and conditions. Consequently, a deeper analysis of the categories and conditions will enhance our understanding of how to improve the street market effectively.

5.1. Importance Ranking of Influential Factors in Quadrant IV

The importance ranking of the influencing factors in Quadrant IV is based on the difference between the importance and performance of the factors. A larger difference represents a higher importance and a smaller difference represents a lower importance. Upon dissecting the disparity between the importance and performance of the eleven factors in Quadrant IV, as depicted in Figure 10, it is evident that the three factors exhibiting the most significant gaps belong to the category of activity venues. Specifically, the cleanness and maintenance of activity venues (B5), size of activity venues (B1), and types of green space (B6) exhibit importance-performance discrepancies of 1.42, 1.39, and 1.35, respectively. This pronounced contrast underscores the pressing need for enhancements within activity venues, as their current performance falls short of the expectations held by respondents.

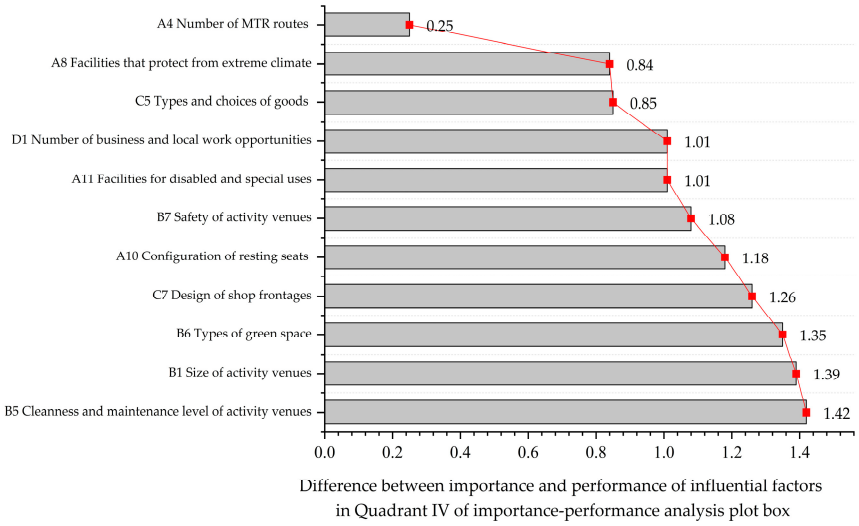


Figure 10. Bar chart of importance ranking of 11 influential factors in Quadrant IV.

Field research conducted in the Pei Ho Street market corroborates these findings. It revealed a suboptimal level of cleanliness. It was not uncommon to encounter litter, discarded foam containers, and unsanitary sewage—litter left behind by patrons and vendors alike. Regarding the state of maintenance, the marketplace was visibly deteriorating; ground tiles were aged and, in some instances, fractured, detracting from the overall ambiance and navigability of the street market. Concurrently, the street facade and shop signage exhibited an air of obsolescence. The provision of activity venues within the Pei Ho Street market was predominantly confined to street corners and the areas immediately in front of shops or stalls. These areas were relatively compact, constraining the variety of possible

activities to simple interactions such as conversation, temporary stops, and rest. Moreover, the street market featured a single green space, consisting merely of a few trees located within the small plaza at the end of the market. This lack of variety and scale in both the activity venues and green spaces highlighted the critical areas for potential development to improve the market experience.

5.2. Differences in Categories of Influential Factors in Quadrant IV

Regarding the influential factor categories, as presented in Figure 11, public facilities and activity venues each encompass four factors, collectively comprising 72.7% of the total factors identified in Quadrant IV. Influential factors in the category of public facilities include the configuration of resting seats (A10), facilities for disabled and special uses (A11), facilities that protect from extreme climate (A8), and the number of MTR routes (A4). Influential factors in the category of activity venues include cleanness and maintenance level of activity venues (B5), size of activity venues (B1), types of green space (B6), and safety of activity venues (B7). This situation indicates that the residents of sub-divided units place a high emphasis on the quality of activity venues and public facilities within the street market. However, the actual performance of these elements fell short of expectations. Moreover, within the commerce category, the design of shop frontages (C7) as well as the types and choices of goods (C5), were also valued by residents in sub-divided units but were underperforming. Additionally, in the employment category, numbers of local entrepreneurship and work opportunities (D1) were regarded as significant by the residents, yet these too did not meet the residents' standards. This discrepancy between importance and performance highlighted critical areas for improvement to better cater to the needs and preferences of the residents of sub-divided units using the Pei Ho Street market.

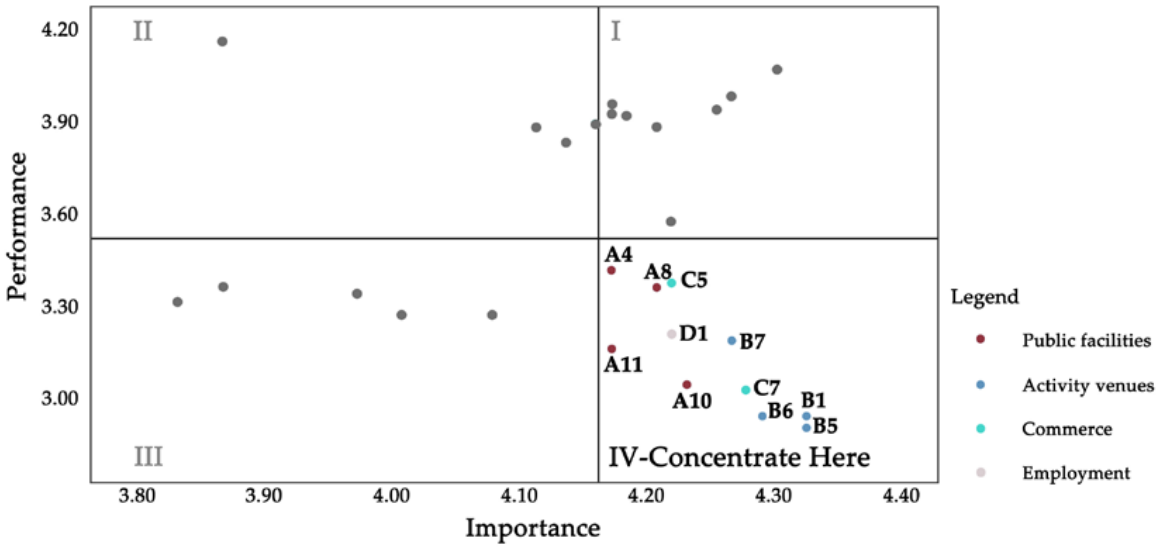


Figure 11. The categories of 11 influential factors in Quadrant IV.

During our field research, we uncovered that some influential factors, particularly in the realms of public facilities and activity venues, fell markedly short of expectations. While the state of activity venues at the Pei Ho Street market has been exhaustively analyzed previously, this section will concentrate on public facilities, commerce, and employment.

Regarding public facilities, the street market was noticeably deficient in key public facilities, including resting seats, rain shelters, and barrier-free facilities. Beyond a modestly equipped activity plaza at one end of the street market, which boasted a mere seven resting seats, the rest of the market sorely lacked these fundamental provisions, which are vital for enhancing user experience. In a climate like Hong Kong's—characterized by heat, humidity, and frequent rains, and with a population that included the elderly and disabled—the absence of such facilities posed a significant hindrance to active participation.

Transportation facilities, too, presented limitations. Although the Sham Shui Po MTR station's Exit A1 is conveniently located at the Pei Ho Street market, it served solely the Tsuen Wan Line, a fact that many interviewees cited as a constraint due to the limited transit options.

Commercially, the Pei Ho Street market primarily catered to basic needs, offering food, clothing, and daily necessities. Yet, the diversity of daily necessity shops was notably lacking, prompting residents to turn to supermarkets for a wider selection. The market's food and clothing outlets tended to stock low-end items with limited variety. Consequently, residents were often compelled to seek higher quality products beyond the market's perimeter. The market's physical appearance also left room for improvement, as many shopfronts were cramped and showed signs of aging. This not only affected the shopping experience but may also have deterred potential entrepreneurs from setting up shop in the area.

Regarding employment, the market did provide some local entrepreneurial and work opportunities for residents in sub-divided units. A handful of residents took the initiative to start their own enterprises by securing business licenses, while others found employment in various roles. These jobs were crucial for supporting their livelihoods. However, these opportunities were scarce when viewed against the backdrop of the total population living in sub-divided units within the Sham Shui Po district. This imbalance highlighted a significant gap between the availability of jobs and the number of residents in need of employment.

5.3. A Comparison of Conditions of Influential Factors in Quadrant IV

Figure 12 shows that two conditions had three influential factors each: quantity, density and capacity; and diversity and choice. These accounted for 54.5% of the total number of factors in Quadrant IV, reflecting the fact that these two conditions of influential factors were the most important for residents in sub-divided units but did not perform well. Two influential factors in Quadrant IV belonged to the condition of comfort. Apart from these, there was one influential factor each in quality and condition, security, aesthetics and appeal.

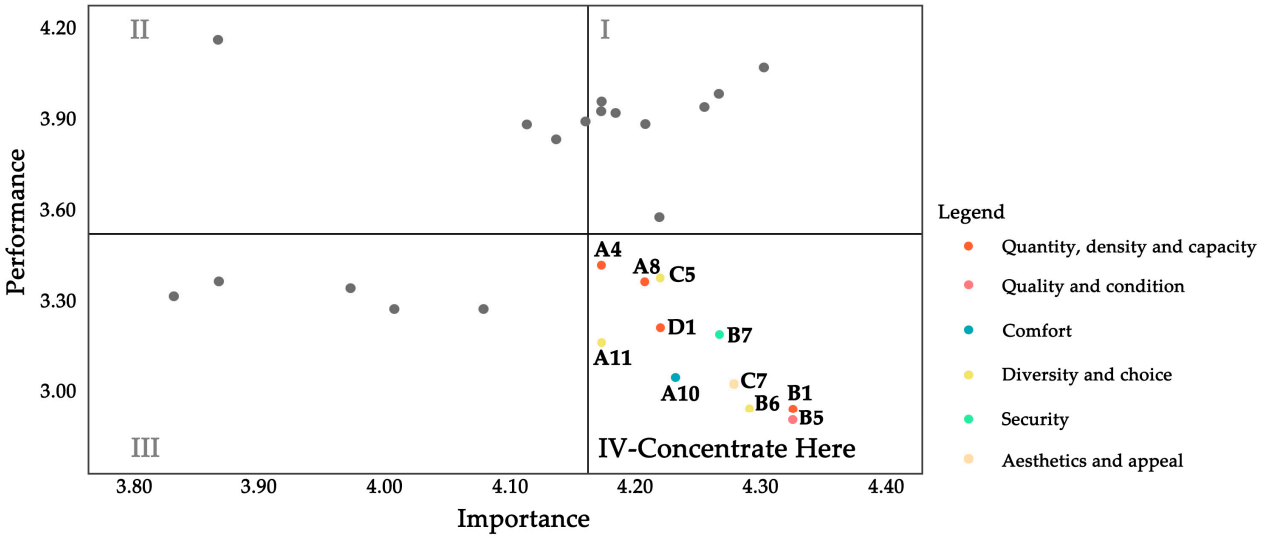


Figure 12. The conditions of 11 influential factors in Quadrant IV.

Specifically, the influential factors in the condition of number, density and capacity included number of MTR routes (A4), size of activity venues (B1), and number of local entrepreneurship and work opportunities (D1). The factor condition of diversity and choice also had three influential factors, including facilities for disabled and special use (A11), types of green space (B6), and types and choices of goods (C5). The factor condition of

comfort had two influential factors, including facilities that protect from extreme climate (A8) and configuration of resting seats (A10). The influential factor in quality and condition was the cleanness and maintenance level of activity venues (B5). In the factor condition of security, the safety of activity venues was highlighted (B7). The influential factor in aesthetics and appeal was the design of shop frontages (C7).

5.4. Improvement Strategies for the Street Market

Drawing from the insights of the importance-performance analysis and on-site observations, the study delved into the strengths and weaknesses of street markets in fostering supportive communities. Four strategies have been suggested to improve the market experience.

5.4.1. Diversify and Augment Public Facilities

Diversifying and augmenting public facilities is instrumental in fostering a supportive community, given the current low satisfaction levels of residents regarding the variety and number of some public facilities within the street market. It is necessary to adopt a series of measures to improve the current state of public facilities. Funding for the enhancement and renewal of public facilities within street markets can be obtained through government grants, contributions from Hong Kong chambers of commerce, or private investments. As for the responsibility for oversight and maintenance, it may fall to specific managing bodies, including the Food and Environmental Hygiene Department and local governments. As for specific measures, firstly, additional sun shading and rain shelter facilities should be installed to mitigate the impact of Hong Kong's hot and wet climate, thereby improving visitor comfort under harsh weather conditions. Moreover, an increase in the quantity of seating areas would allow patrons to rest when needed, significantly boosting their contentment and overall market experience. It is important to note that due to the absence of universally established street committees in Hong Kong, the responsibility for setting up facilities such as rain shelters and seating in street markets falls on the shoulders of market administrators, such as district councils, or the stall owners themselves. Finally, in line with Hong Kong's commitment to accessibility [62], the street market should incorporate universal design features to accommodate individuals with disabilities, epitomizing the city's inclusive values. These strategies aim to enhance the street market's public facilities to better serve the community, making it not only a place of commerce but also a hub of social support and inclusion. Upon the completion of renovation and enhancement projects for public facilities in street markets, the ongoing management and maintenance of these markets may be undertaken by a variety of departments and organizations, including the Food and Environmental Hygiene Department and local district councils [63].

5.4.2. Enhance and Diversify Activity Venues

Enhancing and diversifying activity venues is essential in supportive community building, as the size, safety, cleanness and maintenance level of the activity venues, and the type of green space, currently do not meet the expectations of residents. There is a need for holistic optimization of these venues. To begin with, by consolidating the fragmented activity venues within the street market, it would be possible to create larger multifunctional areas that can host a wider array of activities, thereby enriching diversity and enhancing the experience of users. Moreover, a strong regulatory framework and safety measures are vital for their security and for fostering community engagement. Introducing a dedicated team to manage and maintain the street market could greatly enhance its condition. Routine inspections and upkeep are essential for maintaining hygiene and preserving the market's appeal, contributing to its sustainability. This task is typically the responsibility of government departments, such as the Food and Environmental Hygiene Department [64] or local district councils, to ensure public health and safety. Finally, the introduction of various types of green spaces, such as pocket parks and street-level

greeneries, could offer more interactive spots for urban dwellers, ultimately benefiting their mental and physical well-being.

5.4.3. Upgrade Goods Options and Store Designs

Upgrading goods options and store designs are vital steps toward fostering a supportive community. The survey revealed that while Pei Ho Street market provided a selection of food, clothing, and daily necessities stores, these offered predominantly low-end products, and there was a notable shortfall in the variety of daily necessities stores. Additionally, the storefronts in the Pei Ho Street market were cramped and featured outdated designs. To address these issues, an increase in both the range and quantity of mid-tier food and clothing stores, as well as a broader spectrum of daily necessities stores, is imperative. Such enhancements would expand the shopping options for residents, improving their overall satisfaction. Furthermore, optimizing the internal layout of the stores and implementing thoughtful refurbishments can better accommodate the needs of the consumers. By upgrading the product offerings and revitalizing the store aesthetics, the street market can not only cater to a wider range of preferences but also contribute to a more vibrant and engaging community space.

5.4.4. Increase Entrepreneurship and Employment Opportunities

Increasing entrepreneurship and employment opportunities is fundamental for supportive community development. The bustling street market not only serves as a crucial economic hub but also offers livelihoods for many residents. Nonetheless, the availability of entrepreneurship and job opportunities in the street market did not suffice when considering the overall population of residents in sub-divided units. To bridge this gap, policy reforms should aim to simplify the process of acquiring business licenses for market stores, thereby encouraging entrepreneurial initiatives and potentially leading to more job creation. Currently, to obtain a license for street market stalls, operators must apply to the Food and Environmental Hygiene Department [65], providing necessary documentation and evidence. The department evaluates the application against health and safety standards, which may include physical inspections. Once all criteria are met, the license is granted, allowing legal operation. A proposed simplification of the application process involves shifting to an online system where operators can submit their documents and undergo virtual assessments, reducing the need for initial physical inspections and expediting the approval process. Licenses could be temporarily granted based on these virtual checks, with random on-site inspections following approval to ensure continuous compliance. Moreover, fostering a diverse range of job opportunities is key to providing stable incomes for residents living in sub-divided units. By expanding the employment landscape, individuals can find work that suits their skills and experiences, which in turn can provide them with a more secure financial footing. Ultimately, these measures can contribute significantly to the social and economic well-being of the community, laying the foundation for a supportive and resilient environment where residents can thrive.

6. Discussion

In this study, we established a framework comprising 29 evaluation factors for street markets and applied it to a case study of the Pei Ho Street market in Sham Shui Po. By employing the importance-performance analysis approach, we were able to pinpoint the critical influential factors requiring immediate enhancement and, based on this, proposed a series of improvement strategies for the market to foster supportive communities. Our findings shed light on the mechanisms through which street markets foster supportive communities.

In general, this study has bridged the research gap of the value of the street market in high-density communities. Previous research on street markets mainly focused on those in the Americas and Europe, emphasizing their role in providing jobs and entrepreneurial opportunities for immigrants and the low-income sector, as well as access to affordable

goods and services. Research conducted in various regions, including Dublin, Barcelona, North America, and Latin America, with case studies like the Moore Street and Maxwell Street markets, underscores the significant role street markets play in enhancing livelihoods, fostering intercultural interactions, and providing essential goods and services [23,25,27–29]. Similar research in Asia, with studies on public markets in the Macao Special Administrative Region, further reveals that these markets are more than just commercial hubs. They are vital to the fabric of community life and culture, underlining the multifaceted importance of street markets in urban ecosystems [27]. In conclusion, such studies have highlighted the socio-economic value of street markets in urban and community settings. This study echoed these aspects, with a proposed framework that encompasses employment and commerce factors. Our findings revealed that in Hong Kong's high-density communities, street markets also create livelihood options for the low-income and immigrant populations, aiding in job creation, entrepreneurship, and the provision of cost-effective goods and services, thereby playing a crucial role in fostering supportive communities. However, it is essential to mention that the study also broadens existing research by adding public facilities and activity venues to the street market evaluation framework. The study reveals that, within the context of the high-density communities of Hong Kong, the street market not only serves as a significant carrier of the lifestyle for residents in sub-divided units, but also vividly manifests the way of living of this particular group. Located on the ground floor of tenement buildings, street markets are inextricably intertwined with the daily lives of residents in sub-divided units, both physically and socially. Under the constraints of high-density urban living in Hong Kong, these markets cater to the immediate needs of such low-income groups living in sub-divided units and in extremely poor living conditions. As such, they naturally become vital lifelines for residents living in sub-divided units. Besides, street markets reflect the spatial characteristics dominated by the lifestyles of low-income groups in East Asia's high-density urban areas, as represented by Hong Kong, and also present a socialized appearance of city life. In the high-density setting of Hong Kong, street markets do more than perform typical market functions. They are tied to home life, providing work, affordable shopping, daily activity spaces, and public facility access. Hence, street markets in Hong Kong serve broader functions, becoming key to community life and gaining greater social and cultural importance.

Specifically, taking Sham Shui Po as a case study, this research delved into the role of street markets in fostering supportive communities within Hong Kong's old urban districts—a topic that has previously received little scholarly attention. As such, this study represents an important and innovative contribution to the field. Specifically, it introduces a framework comprised of twenty-nine evaluation factors tailored to the street market context, setting a solid groundwork for subsequent inquiries into the impact of street markets on fostering supportive communities in other Hong Kong districts and potentially in cities worldwide. Through an in-depth examination that was conducted in the Pei Ho Street market, this research has brought to light the often-overlooked yet critical needs of residents, showcasing the potential of this work to inform future efforts in fostering supportive communities. Lastly, the study put forth a comprehensive set of recommendations for the revitalization and enhancement of the street market, offering a valuable reference for similar endeavors.

While acknowledging the merits of this study, it is important to note that several limitations warrant further research. Firstly, regarding the scope of research, this study selected the Pei Ho Street market as a typical case, which, despite its representativeness, has inherent limitations. Future research could expand the scope, including a broader selection of old district street markets to deepen the understanding of their role in fostering supportive communities. Secondly, concerning data collection methods, the questionnaire survey employed in this research offers numerous advantages, such as enabling large-scale surveys, straightforward quantification of results, and simplified statistical processing and analysis. However, among residents in sub-divided units, a significant proportion with lower educational backgrounds encounter challenges in reading and completing

the questionnaire, posing obstacles to data collection. Thirdly, concerning the research population, this study did not distinguish between the specific needs of various groups of residents in sub-divided units. Future research should adopt a more comprehensive scope and categorize interviewees by factors such as gender and age to more accurately ascertain the unique needs of residents in sub-divided units regarding street markets.

7. Conclusions

In this study, we aimed to unveil the influence of a street market in fostering a supportive community in the old urban districts. In these districts with tenement buildings, street markets address the working class's social and economic needs. They are pivotal in fostering supportive communities, in particular for low-income residents in sub-divided units. However, the value of the street market in high-density cities like Hong Kong has not been sufficiently emphasized in academic studies. Consequently, this study begins with a comprehensive literature review and social survey to establish an evaluation framework for street markets. Following this, we employed the evaluation framework and adopted importance-performance analysis approach using the Pei Ho Street market in Sham Shui Po as a case study, to identify key factors requiring immediate enhancement. Based on these key factors, we have devised a series of improvement strategies aimed at fostering the development of a supportive community. The principal conclusions of this study are delineated below:

(1) The mechanism by which the street market fosters supportive communities: Through our comprehensive analysis, we identified that street markets play a critical role in meeting the social and economic needs of the working class, particularly for low-income residents living in subdivided units. The mechanism operates through providing essential public facilities, activity venues, diverse commerce options, and employment opportunities, which are crucial for nurturing a sense of community and support among residents. Consequently, our evaluation framework for street markets includes 29 factors, organized into four key categories: public facilities, activity venues, commerce, and employment. Each of these categories is further dissected into nine critical conditions that serve to pinpoint an array of detailed factors meticulously. These encompass quantity, density and capacity; connectivity and proximity; availability; quality and condition; diversity and choice; security; cost and affordability; aesthetics and appeals.

(2) The key factors of the street market influencing the fostering of supportive communities: The findings from the importance-performance analysis of the Pei Ho Street market of Sham Shui Po revealed that there were eleven influential factors that were instrumental in fostering supportive communities and required prompt improvement. These encompassed the number of MTR routes (A4), facilities that protect from extreme climate (A8), configuration of resting seats (A10), facilities for disabled and special use (A11), size of activity venues (B1), cleanness and maintenance level of activity venues (B5), types of green space (B6), safety of activity venues (B7), types and choices of goods (C5), design of shop frontages (C7), and numbers of local entrepreneurship and work opportunities (D1). The further analysis of eleven influential factors that necessitated prompt improvement was structured around three dimensions: the importance ranking of factors, the categories of factors, and the conditions of factors. The importance ranking highlighted that the cleanness and maintenance level of activity venues (B5), size of activity venues (B1), and types of green space (B6) were flagged as the top three factors with the most significant disparities between importance and performance. This indicated that activity venues are the most critical and urgent aspects to improve. When considering factor categories, it was clear that public facilities, activity venues, commerce, and employment were valued yet underperforming, with public facilities and activity venues having the most urgent need for enhancement. Regarding factor conditions, dominant conditions needing attention were quantity, density and capacity, as well as diversity and choice, representing over

half of the key factors for prompt improvement, showing their vital role in community support development.

(3) Strategies for promoting supportive community building by improving the street market: Based on the analysis result, this study proposed four improvement strategies for street markets, including diversifying and augmenting public facilities, enhancing and diversifying activity venues, upgrading goods options and store designs, and increasing entrepreneurship and employment opportunities.

This research paper provides a novel theoretical perspective and practical guidelines for the renewal of street markets within high-density communities of Hong Kong. By offering practical improvement strategies, this study has the potential to assist policymakers and in developing targeted policies to enhance markets. These strategies and insights could act as a model for the refurbishment of 81 street markets in other old districts of Hong Kong, and potentially be applicable to similar urban settings around the globe. Furthermore, the strategies outlined in the paper have the potential to promote community engagement, reflect the inclusiveness of the city, bolster the welfare of the less privileged sectors of society, encourage business model innovation, and support sustainable urban development programs. In essence, the paper not only aids in immediate community market improvements but also sets forth a strategic framework that could guide the long-term sustainable evolution of high-density communities in Hong Kong and even in the world.

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