

THE ROLE OF FACILITIES MANAGEMENT IN HERITAGE BUILDING REVITALISATION PROJECT – A CASE STUDY FROM HONG KONG

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ABSTRACT

In recent decades, heritage building revitalisation (HBR) has started to gain popularity. A number of heritage buildings have been revitalised into museum, restaurant, gallery hub, hotel, hostel, etc. As multiple stakeholders are involved in the revitalisation process, revitalised heritage buildings are often criticised as failing to reflect end users' needs for the most proper use of the revitalised heritage buildings, versatile facilities design, and operation efficiency. This paper discusses driver, purpose, and challenge of heritage building revitalisation (HBR) projects. It takes an urban renewal perspective to explore the HBR project characteristics. Using in-depth interview with key HBR project stakeholders, a recently completed HBR project in Hong Kong is chosen to examine the conversion process, project impact and stakeholders' involvement. The interviews reveal a facilities management heritage revitalisation strategy brings strong, positive outcome for stakeholders. The findings reveal that strong facilities management involvement in a revitalisation project allows: (1) efficient decision-making on project decision, (2) functional and creative facilities design for end users, (3) higher level public engagement. This paper attempts to put heritage facilities management in an urban renewal context to illustrate its critical role in heritage conservation and management.

KEY WORDS: Heritage Building Revitalisation, Urban Renewal, Project Management, Strategic Facilities Management.

1. Introduction

The significance of strategic facilities management (FM) in the real estate sector, particularly in the field of corporate real estate, is well understood. The wide range of FM services supports organisation's operational functions, which in a long run enhance the efficiency of an organisation's business operation. Heritage building revitalisation has become common practice in the past decade (Bullen and Love, 2011). However, FM's role in heritage building conservation management is infrequently studied and its contribution to sustain operation of heritage buildings is neglected (Lai and Ho, 2003). In recent years, Hong Kong Government aims to change the use of heritage buildings to promote sustainability within the urban areas. Many heritage buildings were revitalised into museum, restaurant, gallery hub, hotel, hostels etc. (Conserve and Revitalise Hong Kong Heritage, 2018). As many stakeholder groups are involved in these projects, their perceptions towards the revitalisation reflect their different requirements and expectations on revitalisation projects (Ho and Hou, 2018). How to enable sustainable heritage building revitalisation in order to meet the multitude of stakeholder preferences is the core value to be addressed. This paper examines the strategic role that FM

plays in enabling sustainable heritage building revitalisation in a recently completed project in Hong Kong.

Facilities management is commonly regarded as a professional management discipline that focus upon delivery of supporting services of real estate. It is believed that FM represents a comprehensive thinking approach to satisfy stakeholders through efficient facilities planning, designing and management (Alexander, 2013). FM practitioners are actively engaged in a project from an early stage and striving to address stakeholders' requirements throughout the building's life cycle. Though FM implementation is project-based, its related setting is essentially knowledge-based evaluation and decision that are collectively enabled by building and business professionals. The strategic role of FM is particularly salient in heritage building revitalisation projects as FM regards heritage buildings as valuable built assets and focuses on optimising their economic and social values through strategic integration of people, spatial and technological resources.

This paper approaches heritage building revitalisation with an urban renewal perspective because the economic and social value of heritage revitalisation is better captured in an urban context. Driver, purpose, pressure and challenges of heritage building revitalisation are identified based on a comprehensive review of urban renewal theory, project management literature, and projects (sections 2, 3 and 4). An FM value-added heritage revitalisation model is proposed. A recently completed heritage building revitalisation project in Hong Kong is evaluated to demonstrate relevance of the theoretical framework (section 5). Findings reveal that the strategic engagement of FM adds value to heritage building revitalisation as it enables: (1) efficient project decision-making, (2) functionality and creativity of facilities design, and (3) a higher degree of public engagement. This paper contributes to linking and illuminating FM's role in heritage conservation and management in the context of urban renewal projects.

2. Urban Renewal and Heritage Building Revitalisation

According to Couch (1990), urban renewal is a process of changing the physical structure, use of land and buildings in a city. Urban renewal leads to a series of spatial and sectorial changes, including land use and building use. The changes are initiated to meet the socio-economic needs in the urban area. Urban renewal is highly affected by market activities. Market-led renewal tends to be less efficient due to the market imperfections and thus governments are obliged to intervene in the process of urban renewal to facilitate efficient and effective public facilities provision. A series of public of public policies are designed and launched to initiate, regulate and manage urban renewal projects. Government intervention aims to balance the interests of various stakeholders for a sustainable solution and enhance positive externalities to the neighbourhood communities.

Heritage conservation is one of the important compositions of urban renewal process (Couch, Sykes & Boerstinghaus, 2011). The general public may not fully recognise and agree with the rationale behind government-led heritage conservation and revitalisation projects. A common view towards heritage buildings is that they are of significant historic value and should be maintained and passed on to the next generation as it represents a sense of identity of a place (Henderson, 2008). Heritage buildings are commonly considered as physical structure that inherits the past and influences the future. Heritage buildings help to form citizens' identity cognition. Many regard heritage buildings to be tourism resource and they generate economic

benefit to support their operation. In the context of urban renewal, heritage buildings in the urban areas are more than tourism resources or carriers of history. From an urban renewal perspective, heritage buildings in the inner-city areas are physical assets yielding economic benefits by providing space for social activities as well as bringing opportunities and vitality to neighbourhood communities. The value created through space provision can be measured by market value of exchange or user cost of capital, while its social value e.g. sense of identity and cultural capital is costlier to measure. For example, for a privately owned heritage building, its value in the real estate market can be benchmarked by a building of the similar location with similar facilities functions to determine its renting price or selling price; the economic value of the heritage building would be recognised by investors and it would be reused to generate economic profits. The “destiny” of physical assets in urban renewal projects is determined by their economic value, not by its social implication. The economic (and political) value of the heritage building determines whether it should be abandoned, reuse, redeveloped or revitalised (Couch, 1990).

Economic efficiency is the main driver of urban renewal projects. Urban renewal is initiated by the need of economic production and thus is regarded to be a process of providing space for people to undertake economic activities. In light of this, unleashing the economic value of heritage building is the driving force of heritage building revitalisation projects. The purpose of revitalisation projects involves both renewal of the physical aspect of the buildings and stimulating their economic value (Romero, 2004). The main task of revitalisation project is to alter the physical structure of the heritage buildings to bring about positive “changes” to the nearby communities. The possible changes led by the revitalisation project are the biggest community concern. There are two levels of changes: the changes of the physical structure of the building and the changes induced by the building changes. Thus, the changes of the heritage building usually are the prime concern for both the government and the general public. Whether the changes enable urban sustainability become the pressure of the revitalisation projects. The need for a balance between economic-value and social-value-driven urban revitalisation approaches commonly exists among urban renewal projects and has become main challenge of revitalisation projects (Murtagh, 2006; Wang & Zeng, 2010). A revitalised heritage building can well “blend in” the community indicates that the positive externalities of heritage building revitalisation outweigh the negative externalities (Mesthrige et al., 2018). Yet, the revitalisation debate lasts without clear conclusion on whether the revitalisation project is sustainable because there lacks a valid measurement of the externalities.

3. Characteristics of Heritage Building Revitalisation Project

Revitalisation is a process of converting heritage buildings for economically viable new use (Woodcock et al., 1988). This process, at more micro-level, is also known as adaptive reuse. Adaptive reuse, as the main approach of heritage building revitalisation is well acknowledged by heritage experts and professionals who concern environmental sustainability. In academic discourse of adaptive reuse projects, the contribution of adaptive reuse in providing economic, social and environment benefits are well agreed (Tweed & Sutherland, 2007; Bullen, 2007). Yet, whether adaptive reuse of heritage buildings would lead to gentrification and reduced social inclusion is still arguable (Yung et al., 2014). Debates on the “new use” of the heritage buildings and its implication on the communities are frequent and intense in the past decade (Ho and Hou, 2018). Government-led HBR project are developed at the interface of coupled technical and social systems and have been facing difficulties in the form of social dynamics, such as public opposition (Valentin, et al., 2017). According to Ho and Hou (2018), the inter-

relation between the technical and social systems of HBR projects are determined by the nature of HBR projects and project characteristics. Government owned heritage buildings are public good. The nature of HBR projects is the process of changing the functions of heritage buildings and transforming the contents carried by them.

HBR project possess very unique characteristics in terms of project investment, project components, project impacts and stakeholder involvement. First, HBR involves significant project investment. It is estimated that the cost of restoration of a historic building can reach millions of US dollars excluding the annual maintenance cost (Hong Kong Government, 2002). Private sector participation plays a major role in providing financing and project management expertise in HBR projects. Government adopts Public-Private-Partnership (PPP) model to implement HBR project, inviting donation from private sector and involving private sector in developing and managing the heritage buildings. The investment does not only support the project work, but also cover the cost for administrative tasks such as project appraisal, project procurement, public consultation, expert consultation. Second, HBR projects require a high level of project expertise. Professionals with knowledge and experience in the domains of architecture design, heritage conservation and management, environmental and ecological evaluation, project management, working in a collaborative manner to deliver a HBR project with the prime concern on the physical condition of heritage buildings. The principle of heritage conservation provides the basic guideline for all project tasks. The scope of HBR projects activities varies according to the attributes of the heritage buildings and their conditions before the revitalisation. The duration of HBR projects is usually long.

Third, the impacts of a HBR project are intangible and difficult to be assessed. There are two levels of project impacts: micro level and macro level. The micro level impacts are associated with the condition of the heritage buildings while the macro level impacts relate to the perception of public and the benefits to the community. The evaluation mechanism for the micro level impact are well developed whilst there lacks a comprehensive and well acknowledged mechanism to assess the social and economic impacts of the project (Ho and Hou, 2018). A number of scholars investigate the impact of urban renewal projects by evaluating the economic value enjoyed by the neighbourhood. Externality, a concept originated from transaction cost theory, is often used to measure the impact of urban renewal projects. Rossi-Hansberg et al., (2010) used the neighbourhood land value to evaluate the impact of a large scale revitalisation project. Chau et al. (2004), and Chau and Wong (2014) use transaction price to evaluate externality of redevelopment projects imposed on the nearby neighbourhood in Hong Kong. The impact of HBR projects in the urban area are subject to social discussion. However, the impact or externalities mostly discussed is the economic value that HBR brings to the neighbourhood while the social value is vaguely mentioned in previous studies. Tiesdell (1996) argues that the social value heritage buildings possess is positive externality effect. Evaluation of the social value generate by HBR projects is more challenging. Due to absence of valid impact and externalities measurements of HBR projects, professional advice and public consultation are common means to evaluate building and urban renewal projects.

Fourth, HBR projects involve various stakeholders. The stakeholders involved in a HBR project can be divided into four main groups: government, private sector, project team and general public. Private sector is liable to finance the project and on-going management of the heritage site. The project team is appointed by the private sector to implement the project and ensure the project to meet the objectives agreed by both the private sector and the government.

Government coordinates the private sectors' involvement and liabilities, monitor the project works and outcome, and promote the project impact in the community. The general public's role regarding HBR project has been changing over the years. The public's awareness on heritage buildings in Hong Kong has significantly increased and their opinions has obtained increasing attention from the government. Public perception towards HBR project focuses on the new use of the heritage building and their allowed participation in the revitalisation process. They are very vocal about their agenda, which is to balance economic and social values (Zheng et al., 2014).

Fifth, the operation phase of HBR projects is a process of delivering a package of hospitality services to the public. Aside from the new use of heritage buildings, the public also concerns management issues of the heritage sites, which include both the management of the physical condition of the heritage buildings and the services they provide. Currently, the operation of heritage buildings includes provision of a variety of hospitality services, including guided tour, dining and drinking services, retail services, etc. Service quality is usually reflected by users' satisfaction and perception at the heritage sites which is one of the important factors to evaluate the effectiveness of the HBR project outcome and the efficiency of the management.

4. Users, Heritage Buildings and Community-based Facilities Management

Heritage buildings are statutorily protected and subject to professional management governed by national and internationally agreed Principles, Charters and Philosophies (Francis et al., 2010). Conservation principles focus on preserving the historic and architectural value of heritage while conservation guidelines are developed for the planning and management practice of the built structure of heritage. Technological advancement has enabled efficient conservation processes and positive conservation outcome. Prosperity of the tourism industry sometimes turn heritage sites into popular tourist attraction. This has brought about new challenges for heritage building management, e.g.: how to integrate tourism elements in heritage sites without harming them, how to balance the tourism demand and heritage resource provision?

Current HBR projects are dedicated to create unique experience for visitors when they visit the revitalised heritage sites. Revitalisation have evolved from traditional pure conservation-driven model to a theme-based model with emphasis on visitor experience. Revitalised heritage sites shall be planned and managed to meet the needs of involved stakeholders, especially the users of the historic sites, such as visitors, tenants and the operation staffs. Users' requirement should be prioritised in planning for the heritage conservation in HBR projects to ensure sustainable operation. "Place" and "people" are both important elements in HBR projects.

Facilities management is service-oriented and user-centred management practice. It represents a leading trend of management philosophy in built environment management. It emphasises creating harmonious relationships between "place" and "people" through a value-added "process". The significance of facilities management in the domain of heritage conservation is rarely discussed by academics. Lai and Ho (2003) made an attempt to discuss FM in heritage planning and management. They select a heritage site without effective management enforced by any parties and discuss facilities management factors in planning for the conservation and use of the site that attract visitors. In their article, they identify the characteristics of the heritage site and indicate that open access is the challenge for effective management. They further point

out that the status of the accessibility should be changed in order to meet the need of visitors and ensure the condition of the site. This article is the first article that relates facilities management to heritage conservation.

Though FM's significance in heritage conservation hasn't been fully explored, FM's contribution in community facilities is well acknowledged. FM's role in managing community facilities was originally framed as urban FM. Tobi and Amaratunga (2010) see urban FM as a mechanism for developing sustainable scheme for managing and operating public facilities. Robert (2004) regards urban FM to as an approach to rebalance the dominance of business imperative and stakeholder value through realignment of FM to the public interest and stakeholder value. Steel et al., (2003) argues that urban FM's philosophy lies in the use of social enterprise to create a model for managing public facilities. Alexander and Brown (2006) further interpret the role of FM in managing community facilities based on urban FM and FM as social enterprise, and propose a new term for FM – community-based FM. According to Alexander & Brown (2006), FM has the ability to add value by delivering social and environmental benefits as well as increasing economic viability. They believe that FM is a “social enterprise” in organisations to develop corporate social responsibilities and it “can assume a central role in local partnerships for regeneration”. Alexander and Brown (2006) shift FM from the organisation background to a wide scope of context – community, and discuss FM's ability in integrating resource – both from hardware and software, to benefit a community's long-term development. This provides a suitable angle to discuss FM's role in heritage building revitalisation. In the context of HBR project, heritage buildings are community facilities. HBR project involves both public and private sectors and the project interest lies in a sustainable development of the heritage buildings. A study on FM' role in HBR project helps to consolidate the discussion of community-based FM and provides more evidence to support the concept of community-based FM. Also, the manifestation of FM in HBR project would provide reference to investigation of community-based FM.

5. Methodology

This study adopts a qualitative approach with an aim to explore the details of the project, including the project process, project environment, project tasks, involved parties, role and responsibilities of each party, etc. This study was conducted in two stages: a desk-top study and in-depth interviews. At the desk-top study stage, documents related to Tai Kwun revitalisation project were reviewed to identify project timeline and project activities. After mapping out the project process at the desk-top study stage, a series of in-depth interviews with key project stakeholders were conducted to investigate the dynamics of the project and the relationships among different involved parties. The study targeted at key stakeholders who work either in the development stage or the management stage. Three interviewees are from the project team and two are from the Facilities Management team. One interviewee worked for the advisory committee for the revitalisation project.

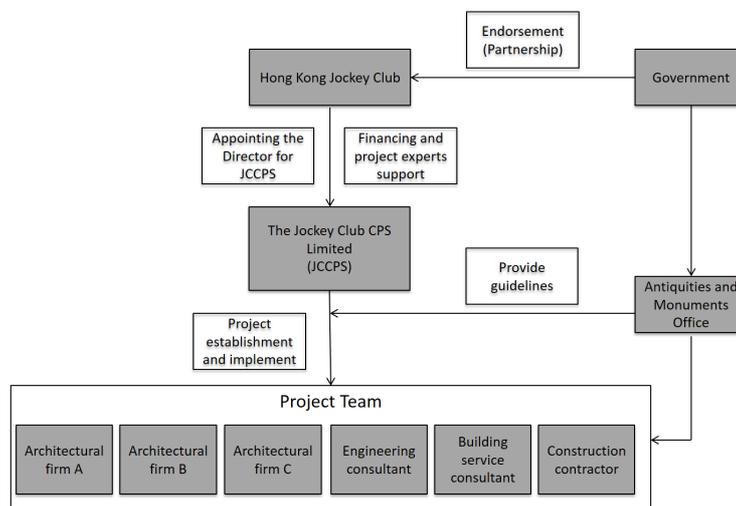
6. “Tai Kwun” – Revitalisation from Former Police Station in Central

6.1 Revitalisation of “Tai Kwun”

In 2008, the Hong Kong government launched the *Revitalising Historic Buildings Through Partnership Scheme* to facilitate conservation and sustainability of historic buildings. This scheme initiated a series of heritage building revitalisation projects, through which a number of heritage buildings were transformed into heritage facilities that serve a wide range of recreational, cultural, educational and scientific purposes for the public (Barton, 2000).

The Hong Kong Jockey Club (HKJC) is a charity organisation in Hong Kong, which is very active in heritage conservation and revitalisation. It has engaged in funding, project delivery and managing a number of heritage buildings in Hong Kong. After the Hong Kong Government released the intension to revitalise the Central Police Station (CPS) compound and invited revitalisation proposals from the social entities, HKJC submitted a conceptual proposal to the government. The Hong Kong Government accepted the proposal by HKJC for revitalising the CPS compound and announced the decision in the 2008-09 Policy Address on 10 October 2007. A six-month public engagement was organised by HKJC to involve stakeholders through various channels. The Hong Kong Government has formed partnership with HKJC in 2008, endorsing the HKJC to conserve and revitalise the CPS compound for adaptive reuse (Conserve and Revitalise Hong Kong Heritage, 2018). In 2007, the HKSAR government and the HKJC announced a not-for-profit company named the Jockey Club CPS Limited (JCCPS) to lead the revitalisation project development, fund and manage the revitalisation work for “10 + 10 years”. The total sponsorship by HKJC is 3.8 billion Hong Kong Dollar (485 million US Dollar). Figure 1 is created based on the information from government documents to illustrate actor relationships and process flow.

Figure 1. Development Process Flow and Major Project Component Organisation



In the proposal prepared by HKJC (Legislative Council Paper, 2007), the proposed concept for the former Central Police Station Compound is a leisure hub with an arts and cultural flair that can attract both local and international visitors. From October 16th 2007 to April 10th, the HKJC conducted consultation with multiple stakeholders in 2008, including university scholars, CEOs from hospitality industry, representatives from government sectors, experts from architecture, heritage conservation, tourism and property, university students with major in art, design, architecture, etc. (The Hong Kong Jockey Club, 2008). A consultation and exhibition

of the revitalisation concept were organised to involve public participation and to obtain public opinions. The opinions were collected and synthesised to further consolidate the revitalisation concept and to develop the detailed design. A feasibility study was conducted to evaluate site condition and the impacts of the revitalisation projects. The project team of the revitalisation consists of three architectural firms, an engineering consultant and a building service consultant: A, B, C, D and E. Each is assigned for different duties for the revitalisation of the heritage sites, with A took responsibilities for design of the two new buildings and the site master planning, B was responsible for the conservation aspects of the project and C acted as the executive architect advising on local building regulations. D was appointed as the projects' engineering consultant with D having responsibility for its building services. Figure 1 illustrates the component organisations in the project team.

From 2008 to 2010, the HKSAR government has adjusted the Outline Zoning Plan and Master Layout Plan. During the same period, the architecture firm was appointed and the conceptual design of the project was confirmed. The construction works started in July 2011 and completed in first half of 2018, including repair works of existing heritage buildings, replacement of building material and construction of the two new buildings. Figure 2 is an overview of the project, completed.



Figure 2. An Overview of the Heritage Site (Tai Kwun)
Source: Herzog & De Meuron

6.2 Culture-led Concept and Business-led Operation Model

The original concept for the revitalisation project proposed by HKJC is: “revitalise the CPS Compound into a heritage site, offering arts, cultural, retail and food and beverage facilities through the preservation of existing historic buildings and the addition of a new structure to provide for the much needed arts and cultural venues” (Legislative Council Paper, 2007). During the consultation period, the concept was supported by multi-stakeholders, including the Antiquities Advisory Board (AAB), Heritage Conservation Subcommittee of the Legislative Council Home Affairs Panel, residents and concerned groups of the Central & Western District

(the district where the compound is located), professional institutes e.g. the Hong Kong Institute of Architects, the Hong Kong Institute of Surveyors, and students in the architecture and design at the University of Hong Kong, the Chinese University of Hong Kong and the Hong Kong Polytechnic University, the arts & cultural community, the tourism sector, business groups, heritage conservation groups, retired police and prison officers, members of the public, etc. (The Hong Kong Jockey Club, 2008). According to the Survey conducted by HKJC, majority of the respondents representing the public supported transforming the heritage sites into new urban use to help maintain the heritage value to suit community development.

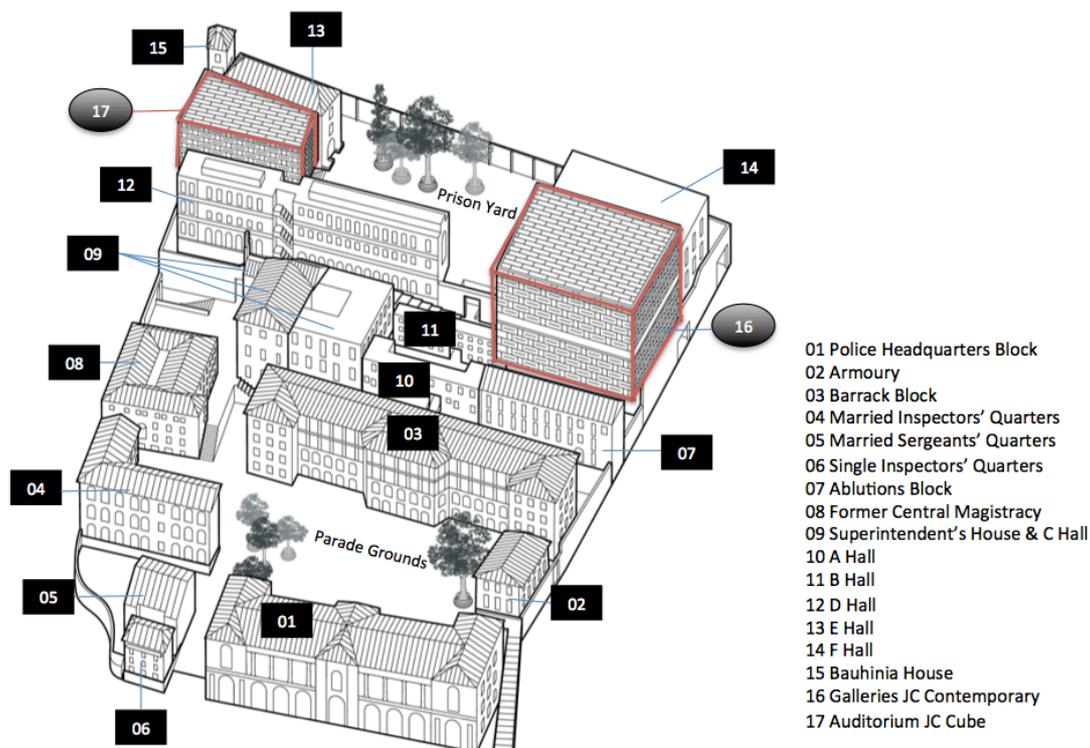


Figure 3. Heritage Buildings and New Structures at Tai Kwun

The revitalised heritage site, Tai Kwun, forms a cultural and leisure hub for visitors. Aside from historic buildings, Tai Kwun houses a series of art and business facilities. The JC Contemporary (a contemporary art centre) and the JC Cube (an auditorium) are two new buildings for art exhibitions and art performance (see figure 3: building 16 & building 17). It is planned that the JC Contemporary will host six to eight exhibitions per year alongside with extensive public programmes (Tai Kwun, 2018). The JC Cube is used as performance spaces for theatre, music, dance and films. Restaurants, bars and retail shops are also included in Tai Kwun (located in building 01 and building 03, shown in figure 3) to give convenience for different types of visitors e.g. family, youngsters, overseas tourists, etc. In 2007, the HKJC appointed an experienced arts professional as the Director of the JCCPS to lead Tai Kwun to enter its operation phase. The Director not only has arts management experience, but also an in-depth understanding of arts operations at heritage sites due to his former position as Director of Performing Arts at the Sydney Opera House. The appointment decision reveals that, instead of putting “conservation” or “memorising the past” as the theme of the heritage site, the HKJC set the focus of Tai Kwun on creating art experience for the visitors and creating artistic atmosphere in the heritage surroundings.

The tenants of Tai Kwun are selected subject to a number of criteria by the JCCPS marketing and facilities management teams. Selection of tenants is based on proposal submitted by the applicants. Each applicant is required to submit a proposal to Tai Kwun to articulate its business nature and operation strategy, to propose an amount of leasing fee, and address its relationship with Tai Kwun, etc. The JCCPS marketing team reviews the proposal and decide whether to include the business in Tai Kwun and negotiate the leasing terms with the applicant. The JCCPS facilities management team has developed a series of strict rules to regulate the business operation on site, including the open hours, price, logistics, entertainment activities, etc.

6.3 Innovatively-designed Facilities for Site Operation

Since the compound is used as an art and cultural hub with hospitality service provision, space efficiency enhancement is of paramount importance for the site design. The 15 heritage buildings are located on a layered topography and the original building layout provides sufficient open-air space. In order to integrate the 15 heritage buildings in a more cohesive manner, two new structures were built to connect heritage buildings 13, 14 and 15 to the main cohort of buildings on the site (see figure 3). The design of the two new structures were under comprehensive discussion and is subject to town planning control, such as building height restriction. As revealed by one interviewee from one of the architecture firms, the philosophy of the architectural design for the compound is “bridging the heritage and contemporary in the heritage site”. Instead of keeping the heritage elements unchanged, the JCCPS decided to integrated innovative design elements in the heritage site. Architectural firm A, a firm with sound reputation in designing beautiful public buildings with innovative approach, was employed to overlook the design and construction for the project. Two new aluminium-clad cubes (as shown in figure 3) were designed with the aim to create additional space for in-situ arts and cultural facilities (Legislative Council Paper, 2007). The two new iconic structures stand at the upper platform area with a metallic façade made from 120 x 40cm cast-aluminium modular unites referencing the masonry of the bordering revetment wall.

The site combines three former government agencies (the former Police Headquarters, the Central Magistracy and the Victoria Prison) and the combination has created unique space arrangement: in-door and out, narrow and expansive. Aside from the two new structures, a series of facilities are built to enhance the accessibility and to create more efficient space for the heritage site. Bridges and labyrinthine pathways were built to connect old and new sites within the compound. Seats are provided at the two public areas: Prison Yard and the Parade Grounds. The Prison Yard features public works by locally based and international artists. About 30 shops and restaurants are integrated onto the premises, with revenue supporting ongoing maintenance of the heritage buildings.

One interviewee from one of the architectural firm involved in the project shared his opinions regarding the design of the facilities. He suggests that new design will create new life for a heritage site and the design of new facilities possesses two dimensions of value: functional value and aesthetic value. Functional value is created to enhance the usefulness of the site and to support the daily operation of the users of the site. On one hand, the new facilities shall be able to meet the needs of the public visitors and it requires the site to demonstrate a high level of accessibility, visibility. The function of new facilities shall be delivered with a very straightforward message - help to guide visitors’ tour. On the other hand, the new facilities shall support the operation of on-site staff from both the heritage management organisation and

the tenants who run the business at the site. Beneath building 16 (JC contemporary), an exit with a loading area is created to fulfil the need of logistic. The aesthetic value of the facilities drives the heritage site to meet the need of the tourism market. “New in old” and “innovation” are the themes that underpin the brand of Tai Kwun. They are reflected from the design of the facilities, which helps to deliver a message to public visitors: news experience can be explored in Tai Kwun, a heritage site.

6.4 Role of Facilities Management in the Tai Kwun Project

According to two interviewees from the facilities management department of Tai Kwun, the role of the FM team in the Tai Kwun project is to coordinate different parties and support site operation in the operation phase. It was involved in the project since the planning stage and was responsible for aligning the construction activities in the development phase and the management activities in the operation phase. It is required to be familiar with details of the heritage buildings in their life cycle and to provide support to external stakeholders i.e. public visitors and internal stakeholders i.e. on-site management staff and tenants.

6.4.1 An Business Strategy Led Revitalisation Project Framework

The interviewees described both the process of Tai Kwun’s revitalisation and explained the FM team’s role in the development and operation phases of the revitalisation. They suggest that the function of the FM team is not limited in the operation phase as it also plays strategic role in the project development phase. Based on the interview results and a comprehensive review of relevant government document, an analytic framework (figure 4) has been developed to illustrate the requirements and specific activities of a revitalisation project, and FM’s role in the project. The framework integrates four levels of project requirements and they also represent four stages in a HBR project, namely knowledge, key performance indicators (KPIs), construction process and management system. The project parameters are established with reference to the business objectives of the revitalisation project. In figure 4, knowledge, KPIs, construction process and management system reflect the project process as well as the project environment.

The Tai Kwun revitalisation project was initiated by a decision with specific business objectives. A business plan was developed to evaluate the potential impacts of revitalisation on the heritage buildings and nearby environment (both natural environment and social environment). In the planning stage, an understanding of the requirements regarding the heritage building(s), urban policies, legal system, surrounding environment, general public, tourism market is of significant importance. As indicated in figure 4, the planning stage of the project makes reference to a number of requirements in the form of a feasibility study. The results of the feasibility study consist a comprehensive knowledge system, which provides reference upon which important revitalisation decisions are made, including the business model, heritage conservation strategies, architectural and facilities design, service provision and delivery process, and public engagement.

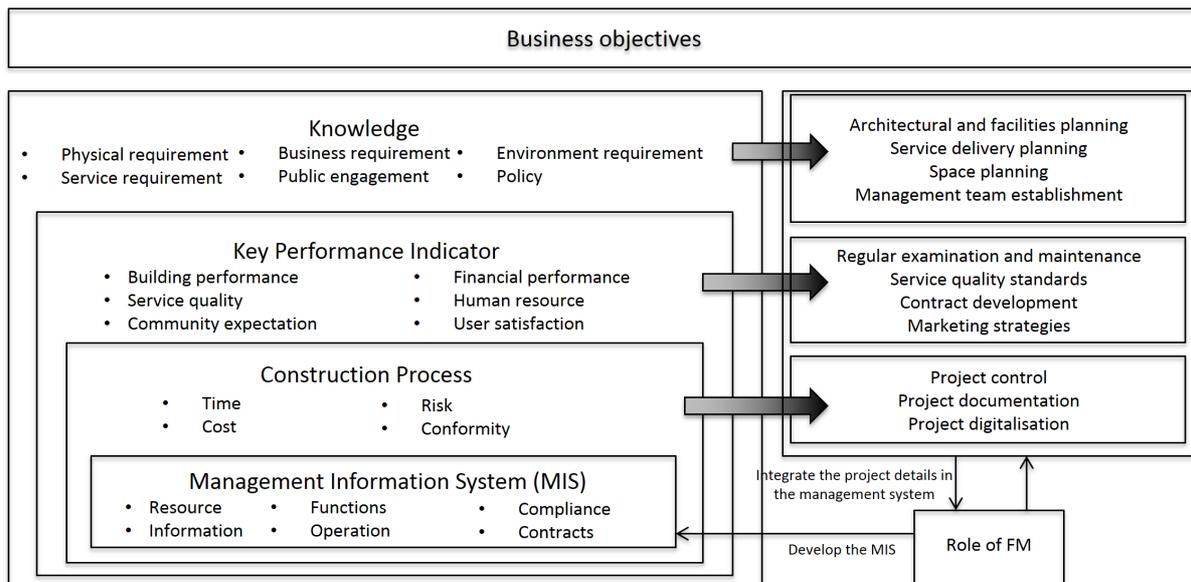


Figure 4. An Analytic Framework of the Revitalisation Project of Tai Kwun

After confirming the revitalisation plan and major milestones for the project, JCCPS and the project team formed conversations and discussed the standards against which the project aims to meet during the revitalisation process. Standards of all revitalisation activities need to be set and agreed by the JCCPS in order to monitor the parties involved in the revitalisation. In the Tai Kwun revitalisation project, a series of KPIs are developed to monitor different aspects of project performance. Managing the physical conditions of the heritage building is given the highest priority among all revitalisation activities. The business operated at the heritage site shall allow the greatest flexibility and provide financial support to heritage building maintenance and management. The KPI system facilitates the development of a number of management activities, including a regular examination and maintenance of the heritage buildings, service quality standards, contract development, marketing strategies, etc.

After the KPIs were established, the revitalisation activities were outlined in a linear project schedule to be delivered and managed by the project team. The project team was composed by five organisations, including three architectural firms, one building service consultant, one building engineering consultant and one construction contractor. The five parties worked as a team to coordinate project works against the schedule and budget and ensure the project works to comply with designated regulations. When all construction works were completed, the project officially entered the operation phase. The FM team thus took over the operation management and developed a management system for the on-going project operation.

6.4.2 FM’s Role as Strategic Coordinator

The interview results suggest that FM team has been involved in the project from the planning stage and plays a strategic role in the Tai Kwun revitalisation project. First, the project requirements have motivated the FM team a strategic role at the project start. As the main requirement of HBR project is more than pure conservation works, it emphasises creating unique experiences for visitors by integrating hospitality elements into the heritage site. Quite

different from traditional heritage site, hospitality elements, such as art, culture and entertainment, are the drivers of the site in the operation stage. Therefore, the design of the heritage site shall be both functional and creative. The design team shall have an accurate estimation on the users' behaviour, expectation and satisfaction towards the services at the heritage site. FM's involvement at the planning stage of the project provide operation-oriented advice to the project team on design and construction works with reference to the users' need of facilities.

Aside from contributing in the design team by offering professional operation advice and management experience at the planning stage, FM team enables a smooth transfer from the project development stage to the management stage. FM team's involvement through the project enables it to obtain project details and integrate the information into the site operation stage. As the heritage buildings require professional management during the operation stage, its conversion details shall be documented and archived for future management decision-making. One of the major tasks for FM team is maintaining the heritage buildings fabrics to meet the requirement by Antiquities Monument Office (AMO) and have the newly installed building service system met the regulations by Fire Service Department (FSD) and Electrical and Mechanical Service Department (EMSD). Any defects occur shall make reference with the conversion records to ensure scientific and sustainable management. Any decisions made for the onsite operation are referred to the FM management information system. The management information system is a tool of decision-making. On one hand, project data (e.g. HR system, as-built data, security, building service, etc.) is stored in the system; on the other hand, management activities data is input and updated regularly in order to develop management plans (financial plan, operation management plan, function management plan, regularly compliance plan, etc.).

According to the interviewees, the operation management model for Tai Kwun is framed as "One FM", which manages asset quality and operation life cycle as well as enabling community and occupiers experience. Occupiers experience is managed through developing stakeholders agreement while community expectation, is "process management", according to one of the interviewees. The interviewee mentioned that "current heritage revitalisation project aims at 'inspiring and building' a community with its invisible power, which is creating art and culture activities". Further, the interviewee defined community expectation to be "engaging in the project on a daily basis and feeling as part of it". The response to the community expectation from the FM team reflects from its operation arrangement. For example, the lighting and music in the night time shall be arranged not to disturb the neighbourhood communities; the tenant selection criteria shall meet the need of the community development instead of seeking pure economic value.

7. Conclusion

Revitalising centrally located heritage buildings in major cities is becoming significant task for positive social value creation. This paper approaches heritage building revitalisation with an urban renewal flavour because the economic and social value of heritage revitalisation is better captured in an urban community context. Driver, purpose, pressure and challenges of heritage building revitalisation are identified based on a comprehensive review of urban renewal theory, project management literature, and projects. A recently completed central city heritage building

revitalisation project in Hong Kong is evaluated to demonstrate the relevance of the value-added role of FM. An FM-led heritage revitalisation model is proposed.

The case study reveals a new FM revitalisation strategy to bring strong, positive outcome for stakeholders in heritage building revitalisation. First, it provides facilities that enable effective service delivery in response to stakeholders' needs. Second, it conducts analysis on the urbanism context and apply principles of engagement with public space in order to enhance public engagement. During project planning, FM engages in facilities planning and design, and participate in decision-making from the early stage to assist quality prediction of future needs instead of passively reacting to issues due to poor management. Our findings echo the concept community-based FM in mature real estate markets and prove that FM plays a strategic role in community development and urban renewal. Project level analysis of heritage revitalisation in specific market and social contexts will provide valued implications for urban and community development. Further research is expected to extend into these directions towards a theoretical model of urban renewal led heritage building revitalisation.

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