

**INFLUENCE OF QUALITY MANAGEMENT
PRACTICES ON SERVICE QUALITY OF
FACILITIES MANAGEMENT MEDIATED BY
OUTSOURCING SERVICE PROVIDER
CAPABILITY**

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by

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LIST OF ABBREVIATIONS

AS	Assurance
CF	Customer focus
EM	Empathy
FM	Facilities management
OC	Outsourcing service provider capability
OSP	Outsourcing service provider
PC	Professionalism and Competence
PLS	Partial least square
PM	Process management
QMP	Quality management practices
RBV	Resource-based View
RL	Reliability
RP	Responsiveness
SEM	Structural equation modeling
SM	Supplier management
SP	Strategic planning
SQ	Service quality
TA	Tangibles

**PENGARUH AMALAN PENGURUSAN KUALITI PERKHIDMATAN
TERHADAP PENGURUSAN FASITILI KUALITI DENGAN PENGANTARA
KEMAMPUAN PENYEDIA PERKHIDMATAN PENYUMBERAN LUAR**

ABSTRAK

Kajian ini bertujuan untuk mengkaji pengaruh amalan pengurusan kualiti terhadap kualiti perkhidmatan pengurusan fasiliti dengan pengantara kemampuan penyedia perkhidmatan penyumberan luar. Hong Kong ialah sebuah bandar berkepadatan tinggi dengan ruang terhad di dunia. Oleh sebab itu, kebanyakan penduduk Hong Kong tinggal di bangunan berkepadatan tinggi dengan kemudahan yang canggih. Sejak rangsangan ekonomi yang pesat, hartanah Hong Kong menjadi aset bernilai tinggi. Faktor-faktor ini adalah punca permintaan dalam kualiti perkhidmatan tinggi terhadap syarikat pengurusan kemudahan di Hong Kong. Syarikat pengurusan kemudahan secara meluas menerima pakai amalan pengurusan kualiti (perancangan strategik, tumpuan pelanggan, pengurusan proses dan pengurusan pembekal) untuk menyelia kemampuan penyedia perkhidmatan penyumberan luar yang melayani pelanggan untuk mencapai kualiti perkhidmatan. Kedua-dua literatur dan kajian empirikal mendedahkan bahawa amalan, keupayaan dan kualiti perkhidmatan ini harus wujud bersama dan berkaitan. Walaupun kajian tentang kualiti perkhidmatan adalah banyak, masih terdapat sedikit literatur dan bukti empirikal yang berkaitan dengan cara syarikat pengurusan kemudahan meningkatkan kualiti perkhidmatan mereka dan hampir tiada penyelidikan sedemikian untuk Hong Kong. Hubungan antara amalan, kemampuan dan kualiti perkhidmatan syarikat pengurusan fasiliti ini juga masih belum diteliti secara menyeluruh. Untuk mengkaji hubungan di atas, kajian ini menjalankan tinjauan literatur yang meluas untuk membangunkan sembilan hipotesis selaras dengan persoalan kajian, dan menggunakan perisian

statistik SPSS dan SmartPLS untuk menguji hipotesis. Kajian ini menggunakan tinjauan soal selidik dalam talian. Ia diluluskan oleh Jawatankuasa Etika Penyelidikan Manusia Universiti Sains Malaysia (JEPeM). Tinjauan itu melibatkan saiz sampel yang ketara sebanyak 426 pejabat pengurusan kemudahan di Hong Kong. Seterusnya, kajian ini berjaya mengumpul sejumlah 105 rekod dengan kadar tindak balas yang agak baik, sebanyak 24.6% di bawah kesukaran komunikasi semasa pandemik COVID-19. Kajian ini berjaya mengkaji pengetahuan akademik baharu. Pertama, dengan menyepadukan teori Pandangan Asas Sumber (*RBV*), untuk menerangkan secara teori hubungan antara amalan pengurusan kualiti, kemampuan penyedia perkhidmatan penyumberan luar dan kualiti perkhidmatan. Kedua, dengan menyiasat secara empirikal peranan pengantara kemampuan penyedia perkhidmatan penyumberan luar, untuk mengisi jurang literatur antara amalan pengurusan kualiti dan kualiti perkhidmatan. Ketiga, membangunkan model kualiti perkhidmatan untuk syarikat pengurusan kemudahan untuk mengkaji sumber unggul amalan pengurusan kualiti dan kemampuan pembekal perkhidmatan penyumberan luar untuk mencapai kualiti perkhidmatan yang tinggi.

**INFLUENCE OF QUALITY MANAGEMENT PRACTICES ON SERVICE
QUALITY OF FACILITIES MANAGEMENT MEDIATED BY
OUTSOURCING SERVICE PROVIDER CAPABILITY**

ABSTRACT

This study aims to examine the influence of quality management practices on service quality of facilities management mediated by outsourcing service provider capability. Hong Kong is one of the high-density cities in the world. Due to high-density population with limited space, most of the Hong Kong people lived in crowd buildings with sophisticated facilities. Since the rapid economic boost, Hong Kong properties become the high valuable assets. These factors are the root causes of the demand in high service quality of Hong Kong facilities management companies. Facilities management companies widely adopted quality management practices (strategic planning, customer focus, process management, and supplier management) to supervise the outsourcing service provider capability who served the customers to achieve service quality. Both the literature and empirical studies revealed that these practices, capability and service quality should co-exist and are related. Although studies on service quality are in abundance, there is still little literature and empirical evidence relating to how facilities management companies enhance their service quality and virtually no such research for Hong Kong. Relationships between these practices, capability and service quality of facilities management companies are also yet to be comprehensively examined. To examine the above relationships, this study conducted an extensive literature review to develop total nine hypotheses in line with the research questions, and applied the statistical software of SPSS and SmartPLS to test the hypotheses. This study adopted an online questionnaire survey. It is approved by the Human Research Ethics Committee of Universiti Sain Malaysia (JEPeM). The

survey involved a significant sample size of 426 facilities management offices in Hong Kong, and successfully collected total 105 records with a considerably good response rate of 24.6% under the communication hardship during the COVID-19 pandemic. This study successfully examined the new academic knowledge. Firstly, by integrating the underlying theory of Resource-based View (RBV), to theoretically explain the relationships between quality management practices, outsourcing service provider capability and service quality. Secondly, by empirically investigating the mediating role of outsourcing service provider capability, to fill the literature gap between quality management practices and service quality. Thirdly, developed a service quality model for facilities management companies to examine their superior resources on quality management practices and outsourcing service provider capability in order to achieve high service quality.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter discusses the background of the study, problem statement, research objectives, research questions, the significance of the study, definition of key terms, and lastly, the organisation of the study.

1.2 Background of the Study

In 1990, the Hong Kong Association of Property Management Companies Limited (HKAPMC) was founded. It is an organisation responsible for facilities management companies in Hong Kong. According to the Hong Kong Association of Property Management Companies Limited (2022), Hong Kong's facilities management is a young industry compared to other commercial such as retail and banking, as the majority of the companies are established in less than 30 years.

Facilities management became a worldwide industry that is a multi-discipline profession related to managing the facilities. Many developed countries, including the United States, the United Kingdom and Australia, have established facilities management associations (Janoskova, 2016). Web of Science Core Collection (2022) recorded 204 and 2,478 articles that include facilities management in the title on 31 December 2015 and 16 January 2022, respectively. The increasing rate is about 11 times from 2015 to 2022.

With the great demand for housing, some cities like Hong Kong have become part of the investment assets. Owners of the properties expect the asset values can be sustained, such as through good property management. Due to limited land supply,

most of the buildings in Hong Kong are high rise buildings with complicated designs in the facilities systems. Good property management is, therefore, a must to maintain the complicated facilities systems. As a result, given the high demand in property management, facilities management companies need to face high customer expectations and high skills in professional services to sustain property value and upkeep building performance. However, it is difficult for facilities management companies to equip all aspects of professions to cover the extensive scopes of services, including legal knowledge, technical services and security services. Alexander (2003), and Lok, Opoku, and Baldry (2018) supported this viewpoint that facilities management has rapidly developed to involve various disciplines, vocation and business performance. For the provisions of the sophisticated scopes of services, facilities management companies should deploy necessary expertise in respective ranges of services involved in managing the properties. In order to meet the challenges, facilities management companies will work together with outsourcing service providers to provide services for achieving high service quality.

The facilities management industry in Hong Kong involves three stakeholders, including facilities management companies, outsourcing service providers and customers. The first stakeholder is facilities management companies which employ the second stakeholder, namely service providers through outsourcing for performing the services such as building maintenance, to the third stakeholder, namely the customers. This study proposes the possibilities for enhancing the service quality of the facilities management industry in Hong Kong through the influence of quality management practices and outsourcing service provider capability. The following subsections will overview the facilities management industry in Hong Kong and

examine why its service quality can be influenced by means of quality management practices and the outsourcing service provider capability.

1.2.1 Overview of Facilities Management Industry in Hong Kong

According to the Lands Department of the HKSAR (2021), Hong Kong has 1,110.18 square kilometres. One hundred years ago, Hong Kong was a fishing port with a population of below one million people. Before the 1950s, Hong Kong had no high rise buildings, and the living environment was substandard. The population of Hong Kong grew suddenly when many people from mainland China came to Hong Kong after the Second World War. According to the Census and Statistics Department (Census and Statistics Department, 2020), the population of Hong Kong was 3.72 million and 6.93 million in 1967 and 2007, respectively. The population of Hong Kong has grown to 7.47 million in 2021 (Census and Statistics Department of the HKSAR, 2021b).

Since the rapid growth of the population, the housing demand is very great. Lack of space in densely urbanised parts of Hong Kong has sparked not only the growth of high-rise buildings in the city, but the increase of property value has also been the driver for Hong Kong's economy.

Historically, Hong Kong has no mass residential estate, and the government has not provided any public housing prior to the 1950s. Hong Kong government started to build mass public housing to meet the population housing needs only in 1954. The first private estate in Hong Kong, Mei Foo Sun Chuen, was built from 1968 to 1978 and managed to provide 13,149 residential units in the areas. Nowadays, most Hong Kong people live in multi-storey properties instead of single isolated houses due

to scarcity of land resources. Therefore, the operation and maintenance of properties under the professional category of facilities management have drawn more attention to the owners/residents of the properties. In accordance with the International Facility Management Association (2022), facilities management involves multiple disciplines to make sure the built environment is in function through integrating place, technology, people and process. The Hong Kong Institute of Facility Management (2022) further elaborates that facilities management can be a process of integrating the work process, physical assets and people of an organisation to meet the strategic objectives. Being a discipline, facilities management is the merge of art and science to manage the integrative process from operational to strategic levels for the promotion of competitiveness of an organisation.

1.2.2 The Importance of Hong Kong's Facilities Management Industry

Though housing is one of the people's basic needs due to the economic boost in Hong Kong, the property price increased 123% in the past ten years. The private domestic premises of 40 m² to 69.9 m² on Hong Kong Island was sold at HK\$81,402 per square metre in March 2010 (Census and Statistics Department of the HKSAR, 2010), but it was raised to HK\$181,458 per square metre in March 2020 (Census and Statistics Department of the HKSAR, 2020a). The fast increment in the property market proved that people in Hong Kong still have great demand for properties. The GDP of Hong Kong increased from HK\$1,744 billion in 2010 (Census and Statistics Department of the HKSAR, 2011) to HK\$2,711 billion in 2020 (Census and Statistics Department of the HKSAR, 2021a). The data shows an economic increment of 64% in the past ten years. Since the wealth of Hong Kong people have increased, they look for investment tools to safeguard their assets. Investment in the property market is one

of the major means commonly used in Hong Kong. Therefore, property becomes valuable assets in Hong Kong, and the property owned represents a portion of the remarkable wealth of the owners.

The value of the property depends on the economic condition and the maintenance of the development, and the services provided. To better utilise the land, The Hong Kong government applied a high land price policy after 1990. However, it resulted that most of the new development was high-rise buildings with high density. Therefore, the building demand leads to more attention to the maintenance of structures and facilities. With the construction of more significant properties in Hong Kong, the demand for larger scopes of professions involving the management of facilities grew. According to the Census and Statistics Department of the HKSAR (2020b), Hong Kong has 1,416 establishments (companies) under the industry sub-class of “real estate maintenance management”, which includes building management (namely facilities and property management companies). There are a total of 44,922 people engaged in this industry sub-class. With the boost of the property market, the facilities management companies had reached 220,000 staff involving all trades for the industry, which represented 6% of the total labour force as stated by the Secretary of Labour and Welfare in his Blog on 13 November 2016 (Secretary of Labour and Welfare, 2016). The Secretary of Labour and Welfare also mentioned that more extensive professional scopes of services were involved.

Since the flourish of economic growth in the past few decades, the value of properties has developed to base on the provision of extensive services such as event planning, catering services at the clubhouse and concierge services to meet the needs of residents in order to distinguish for “luxury” properties. This is a common practice when marketing for newly established properties by Hong Kong’s developers. On the

other side of the phenomenon, the facilities management companies should encounter challenges when providing extensive services to their customers. According to Atkin and Brooks (2014), facilities management involves the experts to provide support to the organisation's core business in the form of services. Facilities management focuses on delivering service (including but not limited to repair and maintenance services, security services and gardening) that provide satisfaction to the end-user and the best value in an environment. As the majority of Hong Kong people reside in high-rise buildings, the service quality of the properties they own poses a critical issue to them as it affects their daily lives.

For facilities management, the aim to enhance service quality in the industry is achievable by maintaining competitiveness and market share. According to Baharum, Nawawi, and Saat (2009), among the benefits of service quality includes achieving and sustaining competitive advantage, which serves as a determinant of a business's success and failure as well as an indicator of corporate performance. Service quality concurs with customer satisfaction when the promotion of intention to return of interests and motivation of recommendations (Ferreira, Spahr, Sunderman, Banaitis, and Ferreira (2017); Chiang and Perng (2018)). This is why the delivery of service quality is a critical strategy for a company's survival and success in a highly competitive business environment (Parasuraman, Zeithaml, & Berry, 1985). Thus, high service quality is an important indicator and predictor for the business' success. In the service industry, like facilities management, quality and perception of quality are essential. Thus, delivering quality service is vital in sustaining property owners as the ability to provide quality services is the main criteria that differentiate one facilities management company from another. However, clients, customers, and users' high expectations have put pressure on facilities management companies to enhance their

service quality. This means that facilities management companies have to improve their service quality to enhance their performance and to maintain their competitiveness in the industry. It is essential for facilities management companies to continuously meet the customers' requirements and expectations from the quality control.

Based on what was mentioned above, the facilities management companies are able to enhance service quality. The critical step should be to understand where the facilities management unit is – from the current practice to the achievement of best practice. A facilities manager needs to understand the context of relevant facilities management information to perform well, such as through a service quality model. This study attempts to develop a model for enhancing service quality. To enhance service quality, it is also crucial to investigate the practices of facilities management companies (Al-Hawary & Abu-Laimon, 2013). Various quality management practices are being widely adopted in the market. Ten types of quality management practices are identified after concluding the opinion of different scholars such as Gutierrez-Gutierrez, Barrales-Molina, and Kaynak (2018), Soares, Soltani, and Liao (2017), Pattanayak, Koilakuntla, and Punyatoya (2017), Parvadavardini, Vivek, and Devadasan (2016), and Camisón and Puig-Denia (2016). Based on a meta-analysis on the worldwide definitions, a number of quality management practices are being adopted by facilities management companies. The four quality practice management practices include; 1) strategic planning practice, 2) customer focus practice, 3) process management practice, and 4) supplier management practice, which will be examined in this study.

1.2.3 The Importance of Service Quality of Facilities Management

Service quality is important in measuring business and service delivery in public and private organisations. Measurement or evaluation of service quality has contributed significantly to different service sectors, including property. Since the environment rapidly changes in facilities management companies, the function becomes more challenging. The functions include people and process, which resulted in the demands of facilities management companies to provide a high quality of services (Brackertz & Kenley, 2002). Moreover, efficient and effective strategic management must be developed as the main focus of facilities management companies to meet the quality standard as expected by the property owners and survive in the market.

Scholars have studied various aspects of facilities management topics in the past decade. Hui and Zheng (2010), for instance, had identified and analysed crucial customer satisfaction variables towards residential housing in facilities management by increasing service quality. In this study, Hui and Zheng (2010) found insight into the relationship between customer satisfaction and service quality, where management quality is the mediator. In another study, Hui, Zhang, and Zheng (2013) identified service quality as an essential dimension of service. Outsourcing is a common phenomenon in facilities management. The services are performed by the outsourcing service providers instead of the facilities management companies. Therefore, the outsourcing service provider capability is important. This study is different from the previous studies of scholars as this study will adopt outsourcing service provider capability as a mediator to investigate the relationships between service quality and quality management practices. As mentioned, the delivery of service quality is considered the essential strategy to success and a vital element of survival in a

competitive world (Yarimoglu, 2014). Baharum et al. (2009) for instance, indicated that benefits of service quality include achieving and sustaining the competitive advantage which emphasised by Resourced-based View Theory and that it is believed to be a determinant to the success or failure of a business.

To increase the competition in the markets, the organisations adopt quality as a strategic tool. Thus, service quality nowadays is a top priority. To obtain a sustainable competitive advantage and customer loyalty and satisfaction, service providers should continuously improve their service quality. In Hong Kong, facilities management companies provide value-added services by implementing a quality management plan to ensure compliance with service-level control. These include implementing the ISO 10002 Complaints Handling Management System, ISO 9001 Quality Management System, ISO 45001 Occupational Health and Safety Management System, and ISO 14001 Environmental Management System. Apart from international standards recognition, competitions are conducted by leading facilities management organisations such as Hong Kong Housing Authority (HKHA) and Hong Kong Association of Property Management Companies (HKAPMC) to present awards to facilities management companies and commend them with outstanding performance and well-managed services. The awards include HKHA Estate Management Services Contractors Awards and HKAPMC Quality Property Facility Management Award. All these international recognition and industry awards to facilities management companies strongly affirm the business strategy, development trend, and the high service quality of facilities management as ever-competitive elements for sustainable growth and survival.

1.2.4 The Current Trend of Outsourcing Service Providers in Facilities Management

As mentioned above, the economic boost in Hong Kong has made the demand for properties valuable investment assets for the people of Hong Kong. Facilities management companies are required to provide good facilities management services such as security, maintenance, cleaning and landscaping, to upkeep the building performance and sustain the value of customers' property assets. However, it is difficult for facilities management companies to equip with all aspects of professions, including the non-core professions such as security and maintenance services, to cover the extensive scopes of services, including legal knowledge, technical services, security services, and horticulture services. According to Holcomb and Hitt (2007), in order to face the difficulties to equip all the professions in one company, it is a common practice for companies in the facilities management industry to outsource part of the services that could not be managed by their companies that specialised in respective fields to assist or support the organisation's existing capabilities serving the customers. This is the main reason why the relationship between quality management practices and service quality of facilities management companies is mediated by outsourcing service provider capability.

As explained by Kurdi et al. (2011), in facilities management, outsourcing covers the turnover of the entire management and decision-making control on operations as an outside organisation. Outsourcing, however, can thus assist the business to develop long-term competitive advantages and increase the returns on investment and in the market. One good example is that some office buildings with high-security levels will outsource security control to security expert companies. The security companies will take up the control of the security measures of the whole office

building. Increased security helps in building up tenants' confidence. In other words, through outsourcing, facilities management companies can attract potential customers as they can keep up to their good image in providing customers who have concerns and expect high security and privacy in their working places.

Lok et al. (2018) mentioned that high-quality facilities are mostly adopted to tackle the problems such as efficiency and effectiveness in buildings. For example, the high speed and machine room-less lift can cater the problem of time and space in buildings. To well manage the resources, many industries agree that outsourcing is an efficient and effective way. In Hong Kong, many private and public organisations embraced outsource services in order to cut headcounts, save maintenance costs and tackle manpower shortages (Kurdi et al., 2011). Outsourcing enables to assist an organisation in solving the problem of facing the increasing technical skills requirement. There is a necessity for an organisation to conduct outsourcing activities to control costs and focus on its core competencies. Therefore, outsourcing is an essential activity in business strategies. This is the current and common trend of the facilities management industry to outsource the non-core parts of the business to service providers; this behaviour is called outsourcing.

1.3 Problem Statement

Hong Kong is the most densely populated city in the world. The increasing building height of the properties has caused the facilities management services to be more sophisticated nowadays. Due to high customer needs in quality buildings and sophisticated building design, facilities management companies in Hong Kong are required to tackle the challenge of managing more complicated buildings, such as mass adoption of artificially intelligent systems and high technology surveillance systems

which met with the customers' expectation and requirements on enhancing their quality of lives. Both the GDP and the property price of Hong Kong keep increased 64% and 123% respectively in the past ten years (from 2010 to 2020). Since the wealth and expectations in good living quality of Hong Kong people have increased, demand in high service quality in facilities management companies is a root to boost the rapid development of the facilities management companies in Hong Kong. Hong Kong facilities management industry had reached 220,000 staff involving all trades which represented 6% of the total labour force as stated by the Secretary of Labour and Welfare in his Blog on 13 November 2016 (Secretary of Labour and Welfare, 2016). Although facilities management has gained much attention recently, the scarcity of such research in Hong Kong is an issue that challenges the researcher. The database from Web of Science just found 6 articles that include Hong Kong facilities management in the title.

Even though many service quality models and measurements were developed for different service sectors like retailing, banking and information technology, etc. (Seth, Deshmukh, and Vrat (2005); Yarimoglu (2014)), it is still rare for the facilities management context. Over the past few decades, service quality research is still a critical topic in the service sector. It is lack of good and suitable service quality model in the facilities management context to maintain and enlarge the market share. Although the facilities management industry was established for decades, the database from Web of Science has recorded 13 articles that include facilities management service quality in the title. There is yet to be a sound business model for the concerned facilities management stakeholders to follow. Therefore, it is necessary to fully recognise the current facilities management by identifying the essential constituent for the service quality model for the concerned stakeholders' benefits and satisfaction.

For the purpose of maintaining the facilities management companies' competitive advantage, high service quality must be attained. In view of Resource-based View, for obtaining competitive advantage, companies have to run their business in such a way that their resources and competencies must not be common and imitable to the firm or firm-specific being fully utilized to sustain the competitive advantage for the long lasting survival (Peteraf (1993) and Wernerfelt (1984)). According to McIvor (2009), Resource-based view can be applied in facilities management companies justifying their common practice of outsourcing services, particularly when they do not have sufficient resources or competences internally. Hence, facilities management companies generally rely on outsourcing service providers for additional resources and capabilities. With the combination of their internal resources of facilities management practitioners through the best quality management practices with those external resources of outsourcing service providers in high capabilities, facilities management companies are definitely possible to sustain their competitive advantage for high service quality over its rivals. However, the relationships between service quality, quality management practices and outsourcing service provider capability are still under research.

For sustaining their competitive advantage in the facilities management industry, at first, facilities management companies must fully applied their best internal resources and competencies i.e. the quality management practices. Many management practices are being adopted by the facility management companies, which should include short-term and long-term planning (Lavy & Bilbo, 2009). By setting best management practices, facilities management companies are able to improve their service quality. For the goal achievement, facilities management companies in Hong Kong rely on accreditation of ISO certification. However, ISO

certification is deemed to satisfy the procedural documentation for the process but without any regard in the quality management practices in terms of supplier management, process management, strategic planning and customer focus, but with the benefits such as increasing of branding and market share or image. The database from Web of Science recorded 101 articles that include quality management and facilities management in the topic but just 5 articles that include quality management practices. Because of the above, there is a lack of the best quality management practices in the facilities management context.

Apart from the internal services provided by the facilities management companies, the performance of outsourcing service providers will also affect the service quality of the facilities management companies as the services of outsourcing service providers rendered to the customers represent the service quality of the facilities management companies as a whole. Therefore, it is important to capture how to implement various means of control on outsourcing service providers in order to achieve high capability. Can higher service quality be achieved when quality management practices increase outsourcing service provider capability? It depends on the practices of the facilities management companies on how to influence/monitor their outsourcing service provider capability. Brandl, Jensen, and Lind (2018) voiced their concerns about how the outsourcing service provider capability is able to achieve the result of interactions with the client companies based on services characteristics under outsourcing. If the outsourcing service providers are unable to enhance their capability, it will adversely impact the service quality provided to the customers. Since facilities management widely adopted outsourcing service providers, it is important to manage the outsourcing service providers achieving high service quality levels through industry practices. The database from Web of Science just captured 1 article that

includes quality management practices and outsourcing in the title. To develop organisational norms and values that support outsourcing service provider capability for improving the service quality, it is essential to conceptualise outsourcing service provider capability as the black box underlying to link up quality management practices and service quality in a relationship.

Outsourcing is the act of appointing a separate organisation with a contract base to provide services. McBlaine and Moritz (2002) initiated outsourcing as a partnership relationship. The professional services of outsourcing service providers can contribute to offering extensive and evolving services, solutions that work, provision of transition, and financial expertise to the facilities management companies. Outsourcing is a common trend and practice adopted by Hong Kong facilities management companies. The service quality of facilities management companies is inevitably linked up with the outsourcing service providers. It is difficult to find research on outsourcing service provider capability. Moreover, the literature and empirical study regarding the outsourcing service provider capability for the facilities management context is under-researched. The database from Web of Science just recorded 5 articles that include outsourcing provider capability in the title. The only available empirical research is investigating the influence of vendor capabilities on quality by Goles (2003) and service quality by Palvia, King, Xia, and Palvia (2010), which is confined in the information technology industry. It is a lack of literature and empirical study on outsourcing service provider capability for the facilities management context. The outsourcing service provider capability is possible to influence the service quality of facilities management companies. Therefore, it is necessary to fully recognise the current outsourcing service provider capability for the

benefits and satisfaction of the concerned stakeholders, including facilities management companies and customers.

In Hong Kong, due to the great demand for facilities management services, facilities management companies tend to focus on the resources to be assigned to core businesses and outsourced the non-core businesses to service providers in the market. Heikkilä and Cordon (2002) initiated to keep the in-house core competencies, including those with distinctive competence, essential competence, and protective competence and outsource those non-core activities without the above competence in the organisation. Even though most of the non-core activities can be outsourced to service providers, facilities management companies are also required to operate their core business. The empirical study regarding the influence on service quality, such as outsourcing service provider capability for the facilities management context, is scanty. The database from Web of Science just captured 3 articles that include outsourcing provider and service quality in the title. Therefore, it raised high concerns about how to enhance service quality by outsourcing service provider capability to work together to achieve the target service standard.

From the past literature, quality management practices have been applied among service providers to enhance their service quality (Al-Hawary & Abu-Laimon, 2013). Even though some scholars revealed various quality management practices positively influenced service quality, there is still some debate on these inconclusive results. Several scholars have argued that a missing link still existed between these management practices and service quality (Coo and Verma (2002); Samat, Ramayah, and Saad (2006); Ooi, Lin, Tan, and Chong (2011); Pattanayak et al. (2017)). Due to the widespread use of outsourcing service providers, the services provided to the customers are not directly delivered by the facilities management companies but by

the outsourcing service providers. As a result, facilities management companies require a direct link to the outcome of the services but only by means of supervision to the outsourcing service providers (Van Iwaarden & Van der Valk, 2013). The outsourcing service provider capability is vital to contribute to service quality delivered to the customers. It is critical to capture whether the outsourcing service provider capability will be the mediator to link up the quality management practices of facilities management practitioners and facilities management companies' service quality.

In view of the above-mentioned research gaps and the current problems of facilities management in Hong Kong, this study will focus on the service quality of the stakeholders, including facilities management companies and outsourcing service providers. This study will examine three aspects. The first aspect is examining the situation of facilities management companies using their quality management practices for outsourcing service provider capability. The second aspect is examining the situation of outsourcing service providers applying their capability for service quality. The third aspect is examining the role of outsourcing service provider capability for linking up the facilities management practitioners' quality management practices and the service quality of facilities management companies. Through the above three examinations, it is believed that facilities management companies can maintain their competitiveness in the market, outsourcing service providers can sustain their business by enhancing capability, and finally, end-users and customers can enjoy the enhanced service quality by good management and high capability to safeguard their valuable assets. As a result, a win-win situation can be reached.

1.4 Research Objectives and Questions

This study focuses on the examination of the relationships between quality management practices (strategic planning practice, customer focus practice, process management practice, and supplier management practice), outsourcing service provider capability, and facilities management companies' service quality in Hong Kong. The research objectives, as well as the research questions of this study, are listed below: -

1.4.1 Research Objectives

This study established the research objectives as below.

1. To examine the influence of quality management practices (strategic planning practice, customer focus practice, process management practice, and supplier management practice) on outsourcing service provider capability.
2. To examine the influence of outsourcing service provider capability on the service quality of facilities management companies.
3. To examine the mediating role of outsourcing service provider capability on the relationship between quality management practices (strategic planning practice, customer focus practice, process management practice, and supplier management practice) and service quality of facilities management companies.

1.4.2 Research Questions

Based on the research objectives, this study developed the research questions which are to be examined and listed below.

1. Do quality management practices (strategic planning practice, customer focus practice, process management practice, and supplier management practice) influence outsourcing service provider capability?
2. Does outsourcing service provider capability influence the service quality of facilities management companies?
3. Does outsourcing service provider capability mediate the relationship between quality management practices (strategic planning practice, customer focus practice, process management practice, and supplier management practice) and service quality of facilities management companies?

1.5 Scope of the Study

The scope of this study covers the influence of quality management practices, namely strategic planning practice, customer focus practice, process management practice and supplier management practice on service quality in the Hong Kong facilities management industry. It also examines the mediating role of the outsourcing service provider capability. This study focuses on facilities management companies in various types of buildings in Hong Kong, namely residential, commercial, office, and industrial buildings. To test the hypotheses in respect of the research questions, a questionnaire survey is included in this study. The targeted population of the questionnaire survey is the organisational unit of Hong Kong facilities management

companies. The unit of analysis is the facilities management office. The regional/district/area/portfolio property and/or facilities manager will represent the facilities management offices to respond to the questionnaire survey. Statistical software of SPSS and SmartPLS will be adopted for data analysis.

1.6 Significance of the Study

From the previous discussion on the study's scope, the significance of this study can be confirmed. It is deemed as the two major perspectives, including the theoretical perspective and practical perspective for the Hong Kong facilities management industry.

1.6.1 Theoretical Perspective

In the scope of the theoretical perspective, an extensive literature review is conducted. Resource-based View theory (RBV) is chosen as the theory underlying the research framework.

In view of Peteraf (1993)'s study on RBV, achieving competitive advantage, firm's resources are not in common and imitable to the firm or firm-specific. Therefore, such resources and a firm's competitive advantage will be sustained, and competitors are unable to readily copy them. The organization's competitive advantage can be sustained to achieve high service quality. Both Bromiley and Rau (2016) and Wernerfelt (1984) mentioned that RBV emphasizing the necessity of retaining critical, rare or unusual resources in a company as these resources offer a competitive advantage. McIvor (2009) indicated that a company must be operated in such a way that its competencies and resources are utilised entirely. RBV is always adopted to

justify outsourcing services, particularly when companies have insufficient internal competences and resources. Consequently, companies are somehow to approach outsourcing service providers for the extra competence, resources as well as capabilities. In combining the companies' own resources with those of outsourcing service provider capability, the companies' competitive advantage can be possibly sustained for the long lasting survival. Based on the above literature, facilities management companies are required to utilize entirely their sustainable competitive advantage of unique quality management practices that in line with their core business for maximizing outsourcing service provider capability to gain service quality in a high standard.

According to Palvia et al. (2010), RBV connects the performance of organisations to capabilities and resources in which they are firm-specific, unusual, and hard to reproduce or supplement. In combining resources in exclusive ways for the sustainability and promotion of superior performance, capabilities can reflect the ability of a firm. Capabilities are established, developed over time, and firm-specific. In the facilities management industry, the resources of quality management practices and the capability of outsourcing service providers are also firm-specific, unusual, and hard to reproduce or supplement. In exclusive ways for the sustainability and promotion of superior performance, the facilities management companies' ability should be reflected through the combination of the resources of quality management practices and the capability of outsourcing service providers. This study focuses on examining the significance of the relationships of quality management practices, namely strategic planning practice, customer focus practice, process management practice and supplier management practice between outsourcing service provider capability and facilities management companies' service quality in Hong Kong. RBV

has special characteristics that the theory is focused on organisational perspective on the strategy of outsourcing and mainly concentrates on the allocation of resources. Therefore, the organisation can explore the strengths of their core business and outsource other non-core parts to outsourcing service providers without losing the business opportunities on non-core operations. Holcomb and Hitt (2007) stated that as a critical strategy in their business, outsourcing is considered by many organisations.

According to McIvor (2009), RBV is vital in the outsourcing's study, which acts as the theory emphasising the superior performance activities to be achieved by an organisation compared to their competitors. As a result, the organisation can focus on investing in activities with outstanding performance compared to their competitors in the market and outsource other activities to service providers. Since RBV has contributed to the decision making on the organisational level, it is useful in this study for the organisational base to link up service quality delivered to customers through the outsourcing service provider capability as a mediator. With the ground of RBV, this study will further develop to link up the quality management practices for the facilities management companies to service quality received by customers with the capability of outsourcing service providers as mediators. To the researcher's best knowledge, no similar previous research can be found from the literature to study the influence of quality management practices and outsourcing service provider capability towards facilities management companies' service quality in Hong Kong. Moreover, the lack of similar findings in literature is also applied to the mediating role of outsourcing service provider capability in between quality management practices and service quality.

1.6.2 Practical Perspective

The competition of the facilities management industry is intense in Hong Kong. The facilities management companies are required to strive for survival in the highly competitive market. The key element to sustain the market position of facilities management companies is customer satisfaction. This is why the facilities management companies continuously strive to enhance service quality, which has become a major target of the facilities management companies. There are various quality management practices; total quality management, for example, is commonly used by the facilities management industry. This study targets the examination of the influence of quality management practices including (i) strategic planning practice; (ii) customer focus practice; (iii) process management practice; and (iv) supplier management practice, on service quality of facilities management companies mediated by outsourcing service provider capability. Therefore, facilities management companies are possible to apply the findings of this study as a guideline to develop a suitable strategy in complying with their strengths to develop the direction to enhance their service quality.

Although the deployment of outsourcing service providers has lots of benefits to the facilities management companies, it represents the facilities management companies to play an important role in service provisions. Therefore, outsourcing service provider capability can induce an impact on the service quality of the facilities management companies when delivering service to customers. This study targets to examine the relationship between outsourcing service provider capability and service quality which are perceived by the customers. In this connection, quality management practices including (i) strategic planning practice; (ii) customer focus practice; (iii) process management practice; and (iv) supplier management practice, can be explored

to enhance outsourcing service providers' motivation as well as the capability for better service quality.

This study also targets to explore the relationship between quality management practices of facilities management companies and outsourcing service provider capability. Service quality under the scope of services provided by outsourcing service providers can be controlled by the quality management practices through good monitoring or proper guidance to outsourcing service provider capability. The final outcome of the findings in this study is expected to have a certain ability that can enlighten facilities management companies to make use of best quality management practices for facilities management to influence outsourcing service provider capability.

Moreover, this study attempts to examine whether there is any mediating role of outsourcing service provider capability between quality management practices of facilities management practitioners and service quality perceived by the customers. Since outsourcing service provider capability is a significant role performing services to the customers for service quality, it is vital and need to be identified in the overall operation in facilities management companies. If this study is capable of identifying outsourcing service provider capability having the mediating effect on the relationship between quality management practices and service quality, facilities management companies are possibly capable of developing their policies to control or select outsourcing service providers with suitable capability levels to assist them in providing services to customers in the respective scope of services.