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FACTORS AFFECTING THE EFFICIENCY
OF
HUMAN RESOURCE UTILIZATION
IN
SHOPPING CENTRE MANAGEMENT

by

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A thesis submitted in partial fulfilment of the requirements
for the degree of Doctor of Philosophy
at The University of Hong Kong

January 2011

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Abstract of thesis entitled

Factors Affecting the Efficiency of Human Resource Utilization in Shopping Centre Management

Submitted by

HUI Wing To

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One of the key factors that determines the success of a shopping centre is how efficient are its human resources utilized to maximize its value. This study investigates how corporate business strategies, as reflected in the perceptions and beliefs of shopping centre managerial staff, affect management efficiency, which is defined as efficiency of human resource utilization in shopping centre management.

We measure the management efficiency of a shopping centre's management by comparing inputs and outputs using Data Envelopment Analysis (DEA). The inputs are defined as the different types of human resources utilized to manage a shopping centre, while outputs are measured by the rental value per floor area holding a range of exogenous factors constant. These exogenous factors include location attributes and physical characteristics of the shopping centres. Data on inputs and the beliefs and perceptions of managerial staff at different levels were collected by questionnaire surveys followed up by telephone calls and interviews.

We collected data from 106 shopping centres located along the Mass Transit Railway lines. At the strategic level, we found that management that focused on satisfying the needs of shoppers rather than those of tenants was more efficient. However, whether management adopted a centralized or decentralized approach to shopping centre management had no impact on management efficiency. Management that aimed to maximize short term rental

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income and that which focused on achieving longer term branding effects had similar levels of management efficiency.

For leasing and marketing management, we found that management that focused on achieving a planned optimal tenant mix was more efficient. Contrary to most people's beliefs, management that believed in maximizing customer flow was less efficient. Our empirical data also suggested that the professional qualifications of leasing and marketing staff were not important as far as the efficiency of shopping centre management was concerned.

At the operational level of property and facilities management, we found that shopping centres were more efficiently managed if management at this level believed that professional qualifications were important for property and facilities management, which was in sharp contrast with the findings for leasing and marketing management. We also found that management that aimed to control costs within budget and that which aimed to create value did not differ significantly from each other in terms of management efficiency. Finally, although property and facilities management were at the technical level of overseeing the physical structure, management that believed in satisfying users' needs more than merely maintaining the physical conditions of the property tended to achieve higher management efficiency.

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DECLARATION

I declare that the thesis and the research work thereof represent my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualifications.

Signed ……..

HUI Wing To

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For the superlative intellectual guidance and genuine dedication of Professor Chau, for the competent role and ardent support of Professor Wong, may I extend my cordial appreciation of my highest respect and admiration well deserved.

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With Professor Wong's kindness, I can continue to serve the needs and aspirations in my profession, a focal point in the light of my task of undertaking. My sincerest gratitude to Professor Wong!

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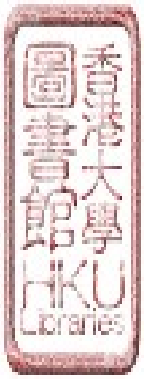
John Wing-to HUI



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CHAPTER 1

INTRODUCTION

This introductory chapter describes the motivation and importance that lead to the embarkation of this research. Background of the shopping centre industry, convoy of management professionals behind, relationship between retail developments and deployment of real estate professionals will be discussed. The objective and the prospective significance that this research can bring to the industry and the real estate economy as a whole, will be emphasized.

Some **Key Words** highlighting the gist of this research are identified as follows :-

- **Real Estate Professionals**
- **Shopping Centre Management**
- **Human Resource utilization**
- **Management Efficiency**
- **'Successfulness' of shopping centres**

1.1 Background Information

1.1.1 Real Estate Professional Services (REPS) in Hong Kong

Through the natural and gradual transitioning of Hong Kong's econom structure since the 80's, service industries have taken a major shape in Ho Kong's Domestic Products. The demand of REPS is different in vario disciplines due to the stage when services of these disciplines enter the proce of real estate developments.

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In this research, **Real Estate Professionals** can be defined as :

- Managerial personnel who have attained recognized qualifications in professional institutions related to real estate development activities; and
- Executive personnel of other accredited qualifications but possess prolonged and vast managerial experience in real estate development.

Real Estate Administrators, Planners, Architects, Estate surveyors are first to be seen in the early stage of development. Next at the implementation of design, contracting and construction are Architects, Engineers, Quantity Surveyors being appointed, and finally upon completion of the project, Property and Facilities Managers enter the picture. It has been through years of progress in property development in the last three decades when professionals have evolved to become executives by appointments, and furtheron, promoted as decision-makers in the field.

The volume of engagement of all these disciplines quite depends on the developers' intention whether to develop new or revitalized old projects that are, in turn, subject to anticipation of a disposable market situation, at the increase path of property price or when the supply is conjectured to diminish.
Therefore, the demand of these REPS would be related to the Domestic Product of real estate industry in Hong Kong, alongwith the rate of increase of new properties in the market.

Over the past 10 years the number of newly completed flats was 265,000, representing a 25.2% increase as compared to 1,050,800 in 2001. The area of commercial space completed same period was 3,635,000m^2 as compared to area 9,161,700m^2 in 2001, a 39.7% increase. Given the circumstance the demand for REPS and Real Estate Professionals had risen sharply to meet with the booming development in the late 80's and the 90's respectively.

In reality, the demand of Real Estate Professionals is subject to several open-ended factors and cross-related variables. For instance, demand for local Real Estate Professionals was acute in Mainland China when development opportunities were building up after 1997 but then later turned around under various regulatory measures engaged to cool down the industry over boom in some cities. Overtime, projects were picking up again shortly after China accession up to WTO, and furtheron success in hosting the 2008 Olympics, t 2010 Expo in Shanghai.

This phenomenon signifies the pulling effect of each city varies and it would intricate to generalize formulation of a demand model of Real Esta Professionals against disciplines of variability.

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1.1.2 Property and Facility Management

On the other hand, demand of other REPS like property managers depends more on the total number of existing domestic and commercial/retailing developments. For residential blocks, about 60 % of existing stock is with Property Management (PM) services. This stock profile is much larger than that of new residential blocks completed per annum. Thus increase in demand would be related to higher quality of services expected, Government policy to encourage or mandate PM services, and new projects constructed.

Property and Facility Management is one of the key roles in maintaining and up-keeping real estate properties and facilities to manifest effective usage and sustainable business operation especially for commercial and retail properties.
There are diverse and controversial definitions of Facility Management and Property Management that need be clarified and defined within the context of this study, vide infra:

Practising Property Management professionals declare that Facility Management is included in the real estate management of Property Management.
However,, Facility Management promoters proclaim that it is a broad profession which involves wide spectrum of fixed assets and intellectual properties in that Property Management is merely one of its disciplines.

Definition by the Hong Kong Institute of Facility Management (HKIFM (2000)) referred as *'facility management is the science and art of managing this integrative process from operational to strategic levels for promoting the competitiveness of organizations.'*

As such, after due consideration for the purpose of this study, the context of Property and Facility Management is deliberated to be confined to the management of physical retail properties and ancillary facilities including building and information services.

1.1.3 Demand of Property and Facility Management (PM/FM) Professionals

Quite different from other real estate professionals, Demand of PM / FM professionals, depends on the following factors :-

Tangible :

1 No. of existing Buildings with Owners' Corporations, Mutual Aid Committees, Management Committees
2 No. of Property Management Companies
3 New developments
4 New legislation
5 Age of buildings

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Intangible :

1 Improvement in living Quality
2 Complexity of social interactions
3 Weight of third party liabilities
4 Need of up-keeping of security
5 Professional advice and administration of maintenance work

In Hong Kong, the development of professional property management only dated back to the sixties, benchmarked by the establishment of the Chartered Institute Housing, Hong Kong Branch in 1966 (later officially renamed as the Asian Pacific Branch in 2001).

The Property and Facility Management Division of the Hong Kong Institute of Surveyors was established in 2005, in response to the growing demand for surveyors' specialized services in property and facility management.

1.2 Retail and Shopping Centre Industry in Hong Kong

1.2.1 Evolution of Shopping Centre Industry in Hong Kong

Since the nineteenth century, some of the English retail traders took foot-hold in Hong Kong. Established in 1850 by Scotsmen, Lane Crawford was originally a ship chandler in Hong Kong, now distribution of stores is strategically placed in the heart of the city's prime locations.

At the beginning of the twentieth century, Chinese entrepreneurs migrated to Hong Kong and established 'old trade marks' of retail businesses, bringing along capitals and vast experience in running large scale department stores that had been thriving in Shanghai. Among them was the well known Sincere Department Store established in Hong Kong in 1900, to be followed by Wing On Department Store in 1907.

Not long thereafter, state-owned enterprises of the Peoples Republic of Chi began to take hold in the retail industry as well. Evolving from the busine mode of 'friendship stores' in the Mainland, one of the oldest traditional Chine emporiums was CRC Department Store first established in 1930 under Chi Resources, and later in 1959 another Yue Hwa Chinese Emporium was set up operation.

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'T*raditional street retail within mixed use zones has been the norm since the city began to grow under British occupation in the 19th century. It was only in the 1960s that shopping malls appeared in the city'(Irazabal C.(Prof) et al (2007).* The brief statement has reflected the general historical account of local department store and shopping centre industry. Indeed, it was the opening of the Ocean Terminal in 1966 that had marked the commencement of Hong Kong's greater mall phenomenon.

1.2.2 Characteristics of Shopping Centres in Hong Kong

In an article of The Standard (2005) '*Reach for the sky',* an expert in the industry Heung brought up the trend of shopping centres in Hong Kong that *`Vertical' is a good option for developers looking to maximize retail floor space,' and 'The trend towards "vertical centres" - shopping malls similar to APM in Kwun Tong and Langham Place in Mong Kok - is set to continue'. Four other vertical centres are on the way including Tung Ying Building and I-Square in Tsim Sha Tsui.*

According to his estimates*, 'APM and Langham Place have floor plates of about 50,000 sq ft and 60,000 sq ft, respectively. Strictly speaking, vertical centres have characteristics of a small floor plate of about 40,000 to 50,000 sq ft and a vertical shopping mall. The first vertical shopping centre in Hong Kong is Times Square.'*

From the above, it appears that 'Vertical' has become one of the recent trends or solutions, that is to build large scale malls on sites of limited footprint in Hong Kong.

However, Shopping Centres are not sheerly signified by their heights but necessarily by the unique designs and tasteful atmosphere of major malls creat by renowned architects and designers; orderly and well organized public spac facilitated by professional property managers; dynamic tenant mix with pri worthy merchandise motivated by experienced marketing directors; and most all, commitment of customer-centred service pledge upheld by developers a centre management.

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Other significant typical characteristics of district malls include location at commercial podiums of residential or commercial developments; incorporation of food court with Eastern and Western styles of cuisine; proximity to major traffic nodes; and quite popular in newly developed housing estate clusters, linked up by pedestrian footbridges.

Irazabal C. (Prof) et al, (2007)'s description of major shopping centres in Hong Kong as Entertainment-Retail Centres (ERC) as *' transit-oriented ERCs are a result of strategic planning and public-private partnerships'* is a vivid illustration of one of the major characters, *' as seen in Pacific Place and other similar centers (such as the International Financial Center or IFC Mall and Skywalk) are a way of life in Hong Kong because they are fully integrated into the functions of everyday life and the regular pathways of many pedestrians.'*
This has described the very unique feature of Hong Kong shopping centres' amalgamation into mass transit nodes and hubs.

In broader perspective, **'Successfulness' of shopping centres** can be identified as: a qualitative measure of achieving the desired business goals in the operation of shopping centres, coupled with a quantitative measure of profitability in terms of revenue return and added value of the retail property.

1.2.3 Categories of shopping centres

There are established grouping systems of shopping centres in many of the developed countries with relatively longer history of shopping centre/mall developments such as the United States, Europe and Australia.

For instance, the National Research Bureau's Shopping Center Directory, USA (1999) has introduced the following types of shopping centres:

(1) Community centre, averaging 150,000SF, that has a wide range of soft a hard lines and is usually anchored by a department or discount store;
(2) Neighbourhood centre, often around 50,000SF and anchored by a grocery
(3) Power centre with 3 to 5 "big box" anchors and relatively few small store
(4) Regional shopping centre averaging 400,000SF with 2 or 3 departme store anchors; and,
(5) Super Regional Centre, often 1.0 million SF or more.

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On the other hand, the ICSC (International Council of Shopping Centres) has a definition slightly different from the above, viz:

(Source: ICSC Research Quarterly V. 8, No. 2—Summer 2001)

(1) Neighbourhood Centre Convenience 30,000–150,000 SF with 1 or more anchors.
(2) Community Centre General Merchandise; 100,000–350,000SF with 2 or more anchors.
(3) Regional Centre General merchandise; fashion 400,000–800,000SF with 2 or more anchors.
(4) Super-regional Centre Similar to regional centre but 800,000+SF with 3 or more anchors.
(5) Fashion/Specialty Higher end; fashion oriented 80,000–250,000SF.
(6) Power Centre Category-dominant anchors; 250,000–600,000SF with 3 or more anchors.
(7) Theme/Festival Centre Leisure; tourist-oriented; 80,000–250,000SF.
(8) Outlet Centre Manufacturers' outlet stores 50,000–400,000SF.

Whereas in Australia, the major categories of retail floor space include:

(1) Central Business District (CBD) shopping space in city centres;
(2) Regional shopping centres or department store centres;
(3) Sub-regional shopping centres, or discount department store centres;
(4) Supermarket shopping centres; and
(5) Traditional strip shopping centres in a town or suburb.

1.3 Shopping Centre Management as a unique type of Business Management

Professional management of a business operation opts for competent and proficie management skills exerted by experienced and sensible personnel with recognis professional qualifications and importantly, sense of integrity.

In brief, Business Management can be defined as :

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- *Influencing of people to help accomplish the goals of an organization and business. It involves planning, organizing, and guiding employees and activities surrounding these events.* (http://maura.setonhill.edu)*

Historically, the evolution of Business Management has based from the simple 'act of the managers' risen to complex and inter-correlated categories in terms of various processes, tasks, and objects of business activities.

Towards the end of the 20th century, business management arrived to a classification of six separate branches, namely:

- *Human resource management*
- *Operations management or production management*
- *Strategic management*
- *Marketing management*
- *Financial management*
- *Information technology management*

*In the 21st century observers find it increasingly difficult to subdivide management into functional categories in this way. More and more processes simultaneously involve several categories. * (http://en.wikipedia.org/wiki/Management)*

Rightly so, shopping centre management is factually a very special type of business that encompasses the above six categories of management and its actual operation would embark on goals, targets and tasks that simultaneously involve a combination of most, or all of them.

Serving the purpose of this research, hereby **Shopping Centre Management** is defined as :

> "a specialized scope of business management that encompasses management human resources, operations, business strategies, marketing, finance informatic all elements of which are essential for achieving the successful business goals shopping centres."

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1.3.1 Corporate Culture - the Four Ps' applicable to Shopping Centre Management

"All companies have a culture, a way they behave and operate. In order for employees to function and succeed, it is essential they understand and believe in the culture. Corporate culture pertains to the identity and personality of the company we work with, either in the private or public sectors.'(Ezinearticles, Bryce T.(2oo6)

It was emphasized that the Corporate Culture, being *'a vital part of the art management' could exercise a strong power on the successfulness of people-oriented function.*

(Source:http//ezinearticles.com/Understanding-Corporate-Culture&id=211379)

ARINC (Aeronautical Radio, Inc.), a global company (headquartered in Annapolis, Maryland, USA) advocates itself as *'a solutions company built on four enduring hallmarks: people…purpose…passion…performance'*.

The four 'P's' coincidentally and precisely outlined the objectives or target issues that real estate and shopping centre managements are looking for, and can be reinterpreted as follows:-

- **P**EOPLE : For those serving the shopping centre, appropriate human resource management policies be adopted. For those being serviced, appropriate customer relationship management be provided.
- **P**URPOSE : Asset enhancement, value adding to real estates, quality management and customer satisfaction.
- **P**ASSION : To uphold the core values and exceptional qualities of people and the corporation, to maintain delivery of quality services, customer priorities, innovative problem-solving, caringness within the corporation and the community at large, and most of all, a constant drive for continuo improvements.
- **P**ERFORMANCE : Competitiveness upkeep while preserving qualit monitoring and rewarding the able; providing good corporate governanc seeking value-adding alternatives and options, and the best optimum lev of operational and business efficiency through viable strategies a competent professional management.

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1.3.2 Corporate Business Strategy and Shopping Centre Development

Shopping centre development of a corporation, especially for listed companies, is often classified as fixed property assets able to generate long-term revenue for the company.

Under the retail property profile, the development and management of shopping centres would largely depend on the execution of business strategies, which should entail the choice of locations, allocation of financial and human resources, adoption of development concept and market positioning, and ultimately the evolvement of management characteristics of a shopping centre.

1.3.3 Shopping Centre Design, Management Quality and Customer Preferences

In recent years, the key to successful shopping centre development hinges on the capturing of the surging purchasing habits, customer characteristics and most crucially, the life style of the major group of target customers.

Take a landmark development: the Langham Place, an article of The Standard (2005), as remarked:

> *'To overcome the natural tendency of shoppers to move horizontally and not upwards, vertical centres used express escalators to reduce the time for shoppers going from floor to floor. Architectural features like the Digital Sky on level 13 covering the dining area of Langham Place also helped to attract visitors. Special events are also used to draw visitors''*

In fact, whatever the concept developed for the design of a shopping centre, t key objective is to explore opportunities and options to build up an image match with, or to lead the way of potential customers, to a new shoppi experience compatible to their purchasing power, characteristics and lifestyle.

Naturally, major considerations would be the physical constraints, yet what c be considered more crucial are the intangible constraints that would mould t

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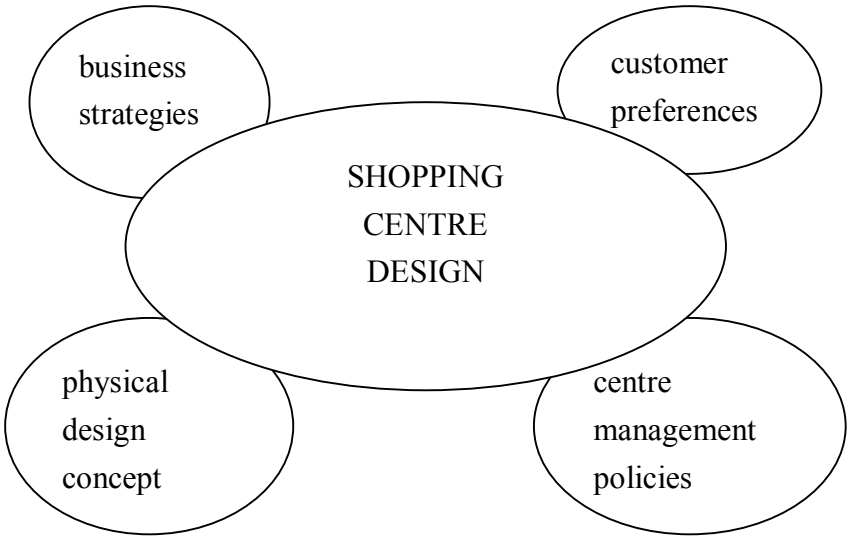
quality of 'shoppertainment' experience that can be created for, and perceived by the customers.

Thus in essence, business strategies, customer preferences, physical design concept and the centre management policies are the four key interactive elements, the 'soft wares' that shape the 'hardware' of a shopping centre as illustrated in the bubble chart below.

Fig. 1-1 Elements shaping Shopping Centre Design



1.3.4 Shopping Centre Management as an emerging profession

In the annual report of The Link REIT (2006), the Role of The Manager has been elaborated as –

> *'The Manager is responsible for managing the portfolio of 180 properties. As at 30 September 2006, the Manager had 326 staff. Key activities of t Manager include leasing, property management, enhancement a maintenance works, investment and fund management and associat corporate services.'*

In an Australian recruitment web site on the role of a Retail Centre Manager:

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" …… bright, ambitious and have strong customer service attributes able to demonstrate experience in marketing preferably have experience in shopping centre management."

Source:(http://mycreer.com.au/jobs/perth/property-real-estate/property-management-commercial)

In short, the opportunity would fit in with a current centre manager, portfolio manager or commercial officer wishing to diversify into the retail world.

1.3.5 Development of Professional Shopping Centre/Mall Management Organizations

Over the past few decades, numerous shopping centre management groups have been established to unify stakeholders in the industry and to uphold practice codes involved in everyday management.

Among the earliest organizations, the International Council of Shopping Centers (ICSC) is the premier global trade association in USA. Founded in 1957, its 60,000 members in over 90 countries presently include shopping center owners, developers, managers, marketing specialists, investors, retailers and brokers, as well as academics and public officials.

A list of organizations in countries/regions worldwide as below:

1. International Council of Shopping Centers (ICSC):
2. Argentina De Shopping Centers (CASC):
3. Shopping Centre Council of Australia (SCCA):
4. Austrian Council of Shopping Centres (ACSC):
5. Associacao Brasileira De Shopping Centres (ABRASCE):
6. China Council of Shopping Centres (CCSC):
7. Nederlandse Raad Van Winkelcentre (NRW):
8. Conseil National Des Centres Commerciaux of France (CNCC):
9. German Council of Shopping Centres e.V. (GCSC):
10. Japan Council of Shopping Centres (JCSC):

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11. Middle East Council of Shopping Centres (MECSC):
12. New Zealand Council of Shopping Centres (NZCSC):
13. Nordic Council of Shopping Centres (NCSC):
14. Portuguese Association of Shopping Centres (APCC):
15. Spanish Council of Shopping Centres (AECC):
16. Shopping Centre Development Council of Taiwan (SCDC):

1.4 Characteristics of Professional Shopping Centre Management

1.4.1 Outline of Characteristics

Shopping Centres are a totally different type of property development of which success does not merely depend on an 'inherited' location coupled with an appropriate design. Indeed in recent times it is crucial to maintain harmonious ensemble among marketing and property management, backed up by innovative and proactive business strategies at the corporate top management level.

In shopping centre management, the right person should possess the qualities and values of professional business management, plus a profound knowledge of leasing and marketing, customer relationship management, and a general knowledge of facilities and property management.

There ought to be unique characteristics that would bring forth large pedestrian flows, maximise revenue generation, sametime reflect the latest attributes of interest to the shoppers.

In this sense it is attempted to outline the **characteristics of professional Shopping Centre Management** :

- Shopping centre management is CUSTOMER (tenants and shoppe demand driven provider.
- Brand or signature building for popular image is important.
- Interactions among Shopping Centre Management (SCM), Leasing a Marketing Management (L&MM), Property/Facility Management (PM/FI are crucial.

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- Selection or planning of tenant/trade mix is a dynamic exercise to cope with the ever-changing market trend.

1.4.2 Further Elaborations on Characteristics:

a. Similar To Asset Management

Ownership of most of the shopping centres is usually retained by the developer or its subsidiary companies, generally under the business management team or a department set up within the corporation. The corporate policy and business strategies are often targeted at enhancement of company asset value by building up corporate image, reshuffling of trade and tenant mix, upgrading of physical provisions and facilities for sustainable maintenance and ultimately, optimisation of revenue income. Shopping centres are often important components of business profiles of a corporation and bear important weight in company stocks or shares.

Managing shopping centres would demand leading knowledge of financial management, marketing and business administration, property and facility management etc. that are no less proficient than that for asset management, in the sense of 'collective investment management'. The concept of centralized or decentralized management needs be established at various levels of centre management.

b. Marketing-lead and Market-sensitive

Shopping centre management is very closely knitted to the necessity of updating and analysing world trend of retail businesses, market trends and demand, purchasing habits and patterns. The management team should be acquainted with the corporate marketing strategies, regional and international market trend, changing rhythm of local economic swings, moreover the business development of competitors. The leasing section of the management has also to be vigila of the prevailing market rental of different types of retail business, ren differences of general tenants with anchor tenants, and the relationship of ren levels with shop locations in the centre.

c. Customer reaction-sensitive

Customers of shopping centres' business can be classified as primary (the sh

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tenants) and ultimate (the shoppers) customers. They form an intertwining relationship with the centre management as the shoppers are the patrons of the shop tenants, who in turn are rental income generators for the shopping centre. Interactions among the three entities are of paramount significance. The centre management has to provide physical facilities, enjoyable shopping atmosphere and professional services while tenants have to offer appealing, value worthy merchandise alongwith amicable services to shoppers, who in turn respond by continuous patronage and spread of goodwill.

d. Life style and purchasing power sensitive

Creating the appropriate shopping atmosphere to stimulate shoppers' appetite to spend is one of the basic components of successful operation, and the 'art' of substantiating these intangible elements would demand an insight into the demographics of potential customers which centre managers would need to analyse and develop attributable results of the highest perspective, for the benefit of business in the long run.

1.5 Objectives of the Research

The goal of this study is to investigate how the beliefs and perceptions of shopping centre executives in their companies' business strategies affect the efficiency of shopping centre management.

In the context of this research, **'beliefs and perception'** describe the executives' understanding of company policies derived from their own experience to perform the appropriate behaviours in operation and utilization of human resources as deemed fit.

Point marking this goal, it is necessary to achieve the objectives in respect of the selected samples along Mass Transit Railway lines outlined as follows:-

a. How Shopping Centre Management Characteristics are identified an categorized

As aforementioned, shopping centre management is a special form of busine management encompassed of at least six branches of management characteristi

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majorly based on 'customer and market biased' values that are intangible and difficult to measure. This research will attempt to categorize the management characteristics into hierarchies and natures of decisions prevailed in the industry that will achieve a successful operation. Such characteristics will be defined and short listed to represent major beliefs and perceptions of management executives in line with corporation's strategies. Correspondingly perceptions will be rated for convenience of choice and quantified for measurement.

b. How Management Efficiency of Shopping Centres is defined

Management Efficiency can be defined as "a relative measure of the success of a shopping centre in maximizing its desirable revenue outputs, meantime minimizing its relevant human resource inputs to achieve the intended business goal."

There are various ways to gauge the efficiency of business management. In shopping centre management, efficiency can be achieved through a number of means, including capital outlay vs long term return, running costs vs recurring income and utilization of human resources vs rental revenue or customer satisfaction. This research will confine the study to human resource utilization as a benchmark for management efficiency and to measure such value by categorizing different levels of human resource input.

c. How Hypothesis are formulated

Hypothesis will be formulated in respect of the cause-effect relationship between business strategy and management style and management efficiency of shopping centres. References will be made to an exploratory study and investigation of the retail development and operation industry through initial interviews, and also related literature and research papers via book reading and web browsir Hypothesis will be focused on key business decisions that are considered cruc to the successful operation and viable return on investment in shopping cen management.

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d. How Hypothesis are tested with Empirical Data

The hypothesis formulated will be tested with empirical data collected from various sources including interviews and questionnaires. Such data would include professional and executive level human resource input, priorities of business strategies or management policies and also factual demographic and physical data. This objective will be achieved through exploring various methodologies and research methods, including staged efficiency analysis that are often used for testing management efficiency in business operations.

1.6 Context of Research

1.6.1 Characteristic Analysis Approach for Efficiency in Utilization of Shopping Centre Management Professional Services

The 'nature and pattern of professional human resource allocation' will be studied since many factors will influence the utilization of services (Haksever C. [et al], 2000).

In this research, initial inquiries to practising professionals in the shopping mall industry have revealed the following situations and characteristics :

1. The management of malls involves not only property management, but also comprehensive business management for successful operation as a whole.
2. Shopping Centre Management is a multi-disciplined professional and organizational activity. Various professional disciplines including proper and/or facility managers, marketing/promotion managers, leasing managers e would be involved. Very often, the property management would take these multiple roles in mall management.
3. The management objectives would often be dependent upon the mal business and marketing strategies.
4. The management standard and quality achieved would highly be subject

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exogenous and inherit factors such as location, neighbourhood community, customer base and consumption power of potential customers, etc.

5. The endogenous and physical factors affect quality management, age and up-keep of the property, design, make and reliability of building services and facilities.
6. Other important but invariable factors would be the ownership of the property, restrictions under the Deed of Mutual Covenant, relevant codes and regulations.

1.6.2 Summary of Characteristics Segregation for Mall Operation and Management

Management & Operational Issues	**Characteristics**
Business strategies	General or Theme shopping, catchments
Marketing Strategies	Tenancy types, target customers, CRM, IM
Property & facilities management	Design, age, standard, maintenance, renovation
System management	Logistics, IT, security, HR

1.6.3 Scope and Structures of Centre Management

a. The Scope -

In the web site of the Hong Kong Institute of Surveyors (HKIS), it is stated that :

"*General Practice Surveyors have profound knowledge on la[illegible] administration and land control. We monitor all types of developments [illegible] leased land. Being the proficient property players, we take care of ma[illegible] tenancy administration works in property management. On behalf of t[illegible] landlord, we manage tenant occupancy and ancillary amenities (includi[illegible] any commercial lettings).*"

"Furthermore, we advise on planning of tenant mix and analyze sa[illegible]

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performance in case of shopping centre management.".

" We are responsible for the enforcement of Deed of Mutual Covenant and tenancy conditions."

(Source : web site of the HKIS)

This HKIS statement precisely outlined the scopes in management and administration of real estate properties in terms of professional consultancy and advice. Surveyor firms, property consultancy companies are often appointed to carry out preliminary investigation and research of the market situations to establish pricing, rental level, market positioning, sales and leasing strategies to maximise the property's capital value or profit margin. Property management companies are then expected to come in, at completion or near completion phase to take over the physical management for sustainable maintenance of the building and its facilities.

In essence, the scope of shopping centre management can be more widely described as - the overall holistic management of the retail property profile of a corporation, to achieve asset value enhancement and to sustain competitiveness of the retail business in the respective market.

b. The Structure and Key Elements of Shopping Centre Management

The key elements and crucial relationships with associated operations of shopping centre management can be outlined as follows :-

i) Centralisation or decentralisation of management
ii) Organizational structure
iii) Outsourcing of supporting services
iv) Relationship with Leasing and marketing operations
v) Relationship with property management operations
vi) Relationship with customer management and customer satisfaction
vii) Customer flow Management
viii) Segments and priorities of the professional Shopping Centre Manageme Services

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1.7 The Research Issues

Several fundamental and key issues pertinent to the success in the establishment and the sustainable business operation of a shopping centre include the physical and demographical characteristics, the modes and efficiency of business management that can be more specifically categorized hereunder:

1.7.1 Physical Characteristics and Customer Demographics of Shopping Centres

The primary and factual data cover the physical characteristics of age of operation, size, building height in number of storeys, whether internal layouts and shop cubicles available, number of entrances, provision of car parks, cinemas and other facilities. These are the 'in-born' or endogenous features that can provide the operator with a platform to run the business properly.

There are other physical and geographical factors that have crucial bearing to the successful operation, namely, the location in relation to central business districts (CBD), or major shopping districts (MSD), proximity to Mass Transit Stations (MTR/and former KCR), the accessibility to neighbourhood communities, etc.

Further consideration on the issue of patrons – the leasing and shopping customers, is taping into the core of shopping centre operation. Such issues would include the social and psychological demographics of customers, flow rate and pattern, rings of catchments and customers' target group. These can be categorized as external or exogenous factors that are beyond the control of the shopping centre developers and operators but require serious concern, action and resolution. .

1.7.2 Assessment of Efficiency of Shopping Centre Management

This efficiency issue is related to the minimal allocation of professional a senior management human resource that would bring forth the optimum succe

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in terms of revenue per unit floor area.
It is intended to reveal the management structure, the efforts of each stratum of management personnel put in, the allocation of professional personnel at each post from directorate to middle management.

The corresponding efficiency of each shopping centre would be a key indicator to analyse the management characteristics in terms of the direction or inclination of strategies adopted to achieve specifications.

1.7.3 Analysis of Characteristics of Shopping Centre Management

The ultimate focus of this study is to analyse the key characteristics in managing shopping centres to success and that should involve corporate business strategies on how a shopping centre is established and positioned; centre management style over deployment of professional personnel; priorities in customer care, meantime at the level of operational management, the allotment of professional personnel and the objectives of physical management.

1.8 Research Motivation

Through the experience of presidency of the Hong Kong Institute of Real Estate Administration in 2002, the author has come to realise 'professionalism 'as an essential value that can motivate and maintain the economic vibrancy of Hong Kong in the service industries. In the real estate sector, the utilization of professional human resource management is increasingly crucial and critical to the timely management of real estate properties, particularly for long-term investments.
Moreover, participating in various seminars and conferences around year 2004, t author had found scarce researches and studies that could reflect the complexity a intricacy of the increasingly customer-biased retail development.

Back to the last century, shopping centres were developed in Hong Kong predecessors in the form of department stores, then neighbourhood grouped stor

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housing estates shops, to the latest district and regional scale malls.

Now up to the present being, shopping centres have become evolved into 'mega pseudo-organisms' with intricate circulation and respiratory systems (utilities and facilities), complex interactions to exogenous and endogenous atmospheres, and extremely sensitive to food (capital and HR input) and energy (revenue and service output), all of which must be supervised under competent experience and professional capabilities.

Hence with an aim to identify an international perspective as inspired by the above journey of education through events and activities, a tendency from upclose experience has actuated a motivation for the author's research into the topic of this thesis.

1.9 Importance of the Research

This thesis is to adopt all points of view as a study target from differential angles to identify a concrete understanding on the sound basis of a successful shopping centre under human resource utilization.

In the past very few approaches had been based on the study of management characteristics that corporate management would adopt.
The opportunity is taken to conduct an infiltrated investigation comprised of personal interviews with senior executives as much as questionnaires on the subject under analytical review. .

The ultimate purpose aims to enrich the comprehension of the industry, for those within the field, also those who intend to join, through a practical reference with insight into the vital professionalism critical to success.
These attributed models derived should be of interest to other places in the wor China for instance, to be more market-orientated and customer-biased, to the bene of the real estate sector and local economy as a whole.

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1.10 Organization Of The Thesis

In Chapter 2, demand for real estate management, shopping centre management, professional human resources and efficiency management will be reviewed and discussed. Relevant thesis, academic and professional journals will be studied, and references be made to data collection and research methods respectively.

In Chapter 3, the initial findings of preliminary investigations will be disclosed. The intention is to realise the general mode of operation and management prevailing, so that the scope and methodology of data mining can be adopted for further analysis.

In Chapter 4, the development of hypothesis will be unveiled through previous investigations and data sourcing with reference to related literatures. Adoption of dependent and independent variables for primary data analysis, hypothetical assumptions of the inclination of choice of management characteristics will be made based on preliminary investigations, study of relevant materials and final interviews.

Chapter 5 will outline the design of this research and the methodology to test the hypothesis adopted in the previous chapter.

Chapter 6 will describe how the required data were sourced, what the criteria of selection for data mining were, the methods of collection, how the data and analysis were organized. The preliminary computation of raw data for human resource allocation will also be explained and demonstrated for preparation of statistical analysis in the next stage.

In Chapter 7, Empirical results will be depicted and analysis of the outcome will be discussed.

Chapter 8 will be the conclusion of the research summarizing the result of findin with emphasis on the contribution of the study, limitations and possible areas f further studies.

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CHAPTER 2

LITERATURE REVIEW

In this chapter, literature that leads to the motive of this research and literature related to the demand for real estate management, shopping centre management, professional human resource utilization and management efficiency will be reviewed and discussed. Due to limitation of direct literature relating to the research topic, relevant academic and professional journals, thesis will be supplemented, and references be made to their data collection and research methods, to form an integral part of this thesis.

2.1 Conventional and Contemporary Retail Objectives Overview

In an article featuring 'The Effects Of Technology On Retail Sales …', Professor Baen J. S. (2000), emphasized that the traditional retail centre or mall is made up of five major components of which the most important one is the physical real estate itself. He listed the basic conventional objectives, concerned by retail centre planners, investors and financing firms, to be achieved for their retail properties as follows:

- *Lease to tenants with the value added upside and inflation hedge of percentage rents based on gross sales at the point of purchase.*
- *Offer a tenant mix and design that enhanced both destination and impulse.*
- *Offer visitors pleasant and entertaining activities to create the atmosphere of a visit to the retail centre as an event rather than an errand or occurrence.*
- *Offer easy and safe access, parking and pleasant shopping experiences.*
- *Cash flow and appreciation of the sticks and bricks through proper management, facilities maintenance, marketing of the retail centre, and upside prospects of rents (contract and percentage).*

Over the last sixty years, these basic objectives of retailing had evolved from central city locations and migrated to the suburbs of most U.S. metropolitan areas.

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The objectives had also outlined the essence of contemporary shopping centre management in that the value adding elements gained through pleasant shopping atmosphere, proper tenant mix, convenient access, superb marketing, professional property and facility management still remain as the essential pursuits in retail property developments todate.

In the 'Shopping Centre Marketing and Promotions Practice Guide' jointly issued by the British Council of Shopping Centres, British Retail Consortium, RICS, nine basic criteria had too been outlined in the section 'Setting the Objectives', namely :

1. *Establish if there is a need to market the centre.*
2. *Set a list of objectives for the marketing plan.*
3. *The objectives will help form the marketing strategy for the centre.*
4. *The marketing strategy must fit the business plan /strategic goals for the centre.*
5. *Marketing strategy should always be orientated towards exceeding customer expectations.*
6. *The objectives need to be specific and measurable.*
7. *Marketing in centres is about partnership.*
8. *At all stages marketing must not be an assumed activity rather an investment for which a specified return is required.*
9. *The principles of good estate management practice should always be an integral objective.*

In respect of contemporary retail concept, Vickerstaff (2007) stated that *"new generation malls are no longer about shopping but are destinations in their own right with a requirement to provide a broad range of entertainment"*.

All the above issues would shed light on most of the components of SCM in this literature review pursued, vide infra.

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2.2 Real Estate (RE) Professional Services Overview

There is little literature directly relating to the study of the demand and supply of real estate professionals and Shopping Centre Management (SCM) professionals. It was only due to the gradual opening up of Mainland China's market in the last decade when the demand of Hong Kong real estate professionals in China induced plentiful studies in the area carried out by a number of NGOs' and academic institutions.

In 1998, a group of academics from the Beijing Industrial University and Hong Kong Shue Yan College jointly researched on the "Strategy and Policies of Professional Services Product Chain in Hong Kong and Mainland", and a joint report of various papers (in Chinese) was accomplished for publication.

Li, S.K. and Yeung W. M. (2000), in their paper "Correlation in Production Development of Hong Kong and the Mainland", discussed two contrasting theories of 'Equilibrium' and 'Empty Shell' describing the policies for developing service industries in Hong Kong in response to the transfer of production industries to the Mainland. Some of the concepts behind can be made references to with hypothesizing factors affecting the deployment of RE and PM professionals.

By adopting the "disequilibrium model" in analyzing and projecting the supply and demand of service industries in Hong Kong, they observed that in reality, the equilibrium of supply and demand of services was only co-incidental while disequilibrium was the usual norm.

In another paper, Zhang H.X., Lai Y. and Yang H. (2000) of Beijing studied the 'Comparative Strategies of Real Estate Market Development in Hong Kong and the Mainland'. A comparative examination of property management services of Hong Kong and the Mainland was reported and analyzed. However, no study was reported on the supply and demand aspects of property management personnel a professionals, although the trend and need to professionalize property manageme had been recognised.

A 'Statistical Digest of the Service Sector' was also first published by the Census a Statistics Department in 1998 with a view to provide " …sophisticated statistics abo services" as a "pre-requisite for understanding economic activities, and an essent

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ingredient of the policy-making process as well." General statistics for "number of establishments and persons engaged in the Real Estate Industry" was disclosed. In relation, statistics for property transactions, land disposals, building stocks were too documented, but still, there was no analysis made as to the relationship among the statistics for personnel, building stocks and business activities in the industry.

Moving on, a more comprehensive manpower survey was initiated by The Real Estate Services Training Board of the Vocational Training Council (VTC) in Jan 1999 and was subsequently conducted once every two years, covering the five sectors of real estate development of services, namely :

(a) Real Estate Development,
(b) Property Management and Maintenance,
(c) Estate Agency,
(d) Estate Surveying, Valuation and Consultancy, and
(e) Government Departments and Public Sector.

The latest Manpower Survey Report (2009) revealed a steady increase of 12.3% in a total workforce of 102,340 employees over the figure obtained in the 2007 survey. Among the workforce, the real estate development sector recorded the highest percentage of manpower growth (17.8%), followed by the property management and maintenance (14.9%) and estate agency (7.5%) sectors, well attested to a pickup in the real estate services industry, as a subsequence to the financial tsunami and the growing demand for new recruits.

Special references and definitions were made to personnel and job descriptions of each level of each sector. Employment statistics and projections of each trade were clearly depicted for various disciplines. A more apparent picture of the demand for property management personnel, especially professionals could be revealed (extract referred). Nevertheless, the study was only set off in 1999 at a biennial interval and long history of statistics could not be readily traced.

It is hoped that the VTC can retrieve previous figures so that a sounder database f formulating a model for future prediction can be made.

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Table 2-1
Manpower Projection of the Real Estate Services Industry in 2010 to 2012
(Extract of VTC Manpower Survey Report 2009 Table 4)

Year	Actual Manpower	Projected Manpower	Employers' Forecast (at the time of survey)
2009	104 157		
2010F		105 122 (0.93)*	104 981 (0.79)*
2011F		106 031 (0.87)**	
2012F		106 906 (0.82)**	

* As percentage increase / decrease of the actual manpower against 2009

** As percentage increase / decrease of the projected manpower in the previous year, i.e. 2010, 2011 respectively.

Quite conversely, a 'Study on Manpower Needs in the Property Management Industry' jointly conducted by The Centre of Urban Planning and Environmental Management (CUPEM) and The Hong Kong Association of Property Management Companies Ltd. (HKAPMC) signalled that at the time there was a surplus of active professional workforce in the industry and manpower supply was over met by the tertiary education institutions in Hong Kong (extract referred). This report can be regarded as a more relevant paper that has reflected the actual situation in the profession.

But argumentatively, the survey was conducted in 2003 and 2004 that could merely represent a cross section of demand and supply situation at a time of depression and under the shadow of SARS. As such it could be misleading and certainly could not represent the general trend of professional manpower demand for the long run. Nevertheless,, one of the findings is still important to note: 'The core skills of the housing management profession are found to be 'soft skills', i.e. communication skills, conflict resolution skills and customer service skills.'

Extract of CUPEM and HKAPMC Study - May 2005

- *Conducted in 2003, 2004*
- *Qualified Housing Managers required = 1846*
- *Active professional workforce = 3425*
- *Surplus= 1579*
- *Annual intake demanded = 13*
- *Annual supply by Tertiary training = 282*
- *Surplus= 269*

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In the search of literatures relating to utilization of professional services and management characteristics, two different approaches are taken:

First, to tape into 'human resource management' to reveal how labour demand modelling is developed, and how other professional services are analysed and correlated.
Second, to look into 'management efficiency' to reveal how professional services and successful retail management are correlated.

2.3 On Human Resource (HR) Demand and Management

2.3.1 Human Resource Demand and Analysis

National Research Council Staff etc., (1993) analysed the supply and demand of computing professionals. On the supply side, national economy and slowdown of other service industry prompted the increase of talent pool in the commercial computing field. This might be similar as in PMPS that the booming of property market would attract PM professionals to join the real estate agency force and vice-versa.

Positive and negative 'Factors impinging on Demand for Computing Professionals' were also discussed. Quite some natures of factors are found to be similar to REPS in terms of economic growth, Government policy impacts, expansion of user base, turnover rates (vs. housing stocks) and also qualitative factors that are harder to quantify. Intangible considerations such as the choice of quality employee were also discussed. Useful references can be made from this report to illustrate how the level of demand of any occupational group is affected and accounted for.

Galeazzi G. and Hamermesh D. S. (1992) provided in-depth studies in simil issues in dynamic labour demand modelling suggested that *'a firm's labo demand should be modelled to include dynamic behaviour of fundamen determinants such as wages, productivity and demand conditions, and t*

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general measures of job security', reflecting that in professional services, such determinants are very important in minimizing adjustment (hiring and firing) costs, building up of knowledge capital and goodwill although they are not easy to quantify.

Peeters M., (1995) collected lecture notes in Economics and Mathematical Systems, analysed into details 'gestation lag' of investment in physical capital (namely, structures, plant and equipment), delivery lag, labour adjustment costs, equipment and labour demand etc. Although not directly related to professional services, the concept of lags in investment of physical capital and investment in labour/human capital can be made references to in the discussion of human resource utilization.

Watson J. (2001) provided a basis by which human resource can be analysed and valued. Possible impact and long-term gains for HR Development in terms of cost savings and revenue increases were also discussed. Financial performance and measurement of 'return on investment' (ROI) of HR value were studied with emphasis on the added value of HRD and training.

The appointment of professionals in SCM industry can be seen as an important strategy and planning in HR development to partially increase the ROI of a corporation, by way of providing more quality service, improving knowledge asset management, better protection through minimizing business risks and liabilities, whilst injecting more professional care and judgment as deemed fit.

The common approach to human resource demand analysis is to correlate quantified HR capital attributes on the number of employees, workforce working hours, labour wages, output and capital investment, capital stock etc. (Heshmati, A., et al, 2003). This analysis is usually based on time series data of over ten to fifteen years.

Normally, an adopted dynamic labour demand model is incorporated w relevant changes in adjustment costs of labour force: hiring and firing; worki hours; the number of workers; etc. (Azetsu, K., et al, 2005). The discussi paper stressed the need to investigate the structure of adjustment costs so as prepare the labour force from impact, should a shock in technology or produ

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demand arise beyond expectation.

While this research does not portray direct analysis to professional human resource demand, it is aimed at bringing out the adequacy or deficiency in human resource input, by comparing management efficiency among selected samples. The approach to quantify HR capital attributes may be made reference to when formulating the professional HR input in shopping centre management.

2.3.2 Human Resource Management and Corporate Performance

Michie, J., Sheehan, M., (2004) stated that :

'Using original data collected from manufacturing and service sector companies, we find positive relationships between HR policies and practices and performance; that the relationship between HR and performance is dependent upon business strategy; and that companies pursuing an integrated approach to HR coupled with an innovator/quality-enhancer focus within their business strategy perform best……. We also find that HR is more likely to contribute to competitive success when introduced strategically as part of an integrated and coherent package, or bundle.'

They quoted that a consensus has emerged on the positive relationship between the use of human resource policies and corporate performance.

In concluding their research, they remarked that investing in *'progressive' style, HR* practices can clearly pay dividends in terms of corporate performance, yet it has to be actuated with particular caution as HR practices must be pursued as coherent *'packages'*, and combined with appropriate organizational design.

Also, in a study of European companies carried out by Cunha, R. et al. (200 the authors concluded that :

'Our results reinforce the advice offered by Tichy, Fombrum and Devanna (19 twenty years ago: "effective strategic management requires effective hum resource management" (p.60). Our evidence, in fact, indicates the strength

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the links between the environment, organizational strategy and HRM practices, as well as the connection between strategy and HRM factors.'

Apparently, the allocation of human resources can significantly affect the efficiency of business operations, alongwith quality customer relationships, marketing and promotion activities that will all contribute to the revenue generation of the shopping centre, thus corporate performance as a whole.

Cunha, R. et al. (2002) is worth noting:

'The management of human resources is one of the ways companies may use to increase their competitiveness in the new organizational landscapes, since managing in a global marketplace, introducing new technology, developing organizational knowledge, improving customer service or product quality or reducing product/service costs, requires considering the "human equation" (Pfeffer, 1998a).
A significant body of previous research has reported positive associations between human resource management (HRM) systems and organizational performance. These studies focus on the impact of several specific HRM practices, such as compensation (Gerhart & Trevor, 1996; Gomez-Mejia, 1992), training (Bartel, 1994) or performance management systems (McDonald & Smith, 1995). Other studies report the positive impact of progressive HRM practices on organizational performance (Delaney & Huselid, 1996; Huselid, 1995)'

Again, the positive correlation between human resource utilization and corporate performance is stressed.

2.3.3 Human Resource Utilization –

Human Resource Utilization can be defined as 'the allocation and deployme of various hierarchies of managerial and executive personnel for enabling sound and effective management of shopping centres within the retail prope profile of a corporation or business consortium.'

In discussing the background of HR development and utilization, Cohen, S.

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(1994) emphasised the importance of HR planning in an economic entity that requires the fruitful combination of several elements, namely: crucial grouping, relevant theories, alternative policies, analytical methods and organization considerations for HR policy-making. Thus, in the investigation of management efficiencies in the retail industry, the classification of different management levels, coupled with appropriate planning tools and viable business strategies, should form a significant factor in the decision-making process.

Overall, this research will attempt to segregate and group various levels of managerial HR in shopping centre management, so that the contribution of efforts to the success of operation can be analysed under suitable statistical methods.

On HR measurement, Watson J. (2001) (p.31) advocated putting a value on HR from an 'asset utilization' perspective. HR is apparently an asset to a corporation or operational unit such as a shopping centre, hence utilization and deployment of HR is of crucial importance to management efficiency which corresponds to revenue generation of a business.

In elaborating the significance of HR measurement, Watson further remarked that all decision-makers should be accountable and required to report on bottom line performance, which is largely driven by 'people'. In this sense measurement of HR can answer critical questions as an attribute to management decision-making:

- *How can HR decisions create an impact on the overall performance?*
- *How can HR cost benefit analysis prevent poor management?*
- *How can managers and business units achieve improved cost savings through better HRM practice?*
- *How can an organization improve its revenue performance through bet utilization of intellectual capita resources?*

Watson went on to elaborate the importance of relationship between HR utilizati and shareholder return and remarked that 'by utilizing the knowledge capital of t organization to its fullest capability, there is more likely to be an increase in valu This aspires that in analysing the strategies and patterns of HR utilization, t

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successfulness in operation can be gauged and compared, for revelation of the positive contributing factors.

2.4 On Management Strategies and Professional Services

Bradley F., (2003) focuses on customer orientated marketing strategy which allows *'for a wide scope for marketing to include all actors in the business system – customers, competitors, suppliers and partners in the provision, communication and delivery of value.'* This concept is inspiring to the field of REPS especially in the shopping mall industry in which all parties concerned are all in the play and contribute to the demand for quality and valued management.
One of the basic components of the core concept is to 'provide, communicate and deliver' values like product (management) planning and pricing (fee), sales (services) promotion, logistics (operational arrangements).

Internal marketing, 'the task of successfully hiring, training and motivating able employees…' was also discussed. It has stressed the importance of inter-support of various levels of operations as mutual customers, and this is crucial to the existence of middle management professional executives under this customer based concept in a demand and survival role.
In discussing the 'generic' and 'brand' for product/services, Bradley identified the demographic and economic factors, the differential and competition factors that would be very useful as reference to analyses on utilization of REPS and PMPS respectively.

In respect of market segmentation, Sun, S.M., (1984)'s thesis was chosen to make reference to, for analysis of customer nature in terms of social class, behavioural and consumption patterns, in order to correlate such patterns to segment hierarchies of professional management. She hypothesized that social class would affect consumption behaviour and demand for different levels of services. Such conce can be made reference to when analysing different levels of human resources deploy in response to customer characteristics.

Haksever C [et al] (2000) also gave a very comprehensive account of service indust in our society and analysed the characteristics of services. Consumer behaviour a

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a consumer decision model were also studied. This would give an insight into how professional services demand are influenced or depicted by different customer type with various hierarchies of demand. In presenting the operation of service systems, 'managing demand and supply in services' and 'nature and pattern of demand' were studied.

These papers are relatively useful in forming the basis for analysing various customer needs in the mall industry, and dissecting different functions and services provided by real estate professionals.

Falbey, J.W. (2001) also presented a research to explore the respective perceptions of the effectiveness of various segmentation variables for real estate developers. He expected that by defining and segmenting the market, demand for real estate could be anticipated. Such process aids in projecting the firm's resources (HR) and the scheduling of operations.

2.5 On Professional Property and Shopping Centre Management

2.5.1 Professional Property Management

Kyle, R. [et al] (1995) reckoned that the demand for professional property management *'began in the last decade of the nineteenth century..... because of a radical transformation in the nature of urban real estate.'* and introduced that the primary function of a property manager is to *'achieve the objectives of the property owners ....and preserving or increasing the value of an investment property.'*

The term 'professional property manager' was also emphasised to collectively describe management personnel who must possess specialist skills in understanding the dynamics of the real estate market, space marketing, tenant psychology, legal aspects of landlord-tenant relationship, maintenance procedures and accounting.

In fact, these are the quality and expertise that are called for in modern d

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property management in that qualifications of Housing Managers or Estate Surveyors will form the basic requirements heading the property management team of a management consultancy/company, or for a major property profile of a real estate corporation.

Kyle also traced back to 1908 the first meeting of the Chicago Building Managers Organization, the very first of its kind, when property managers met together to learn and exchange information, thus earmarked the evolution of professional organization in the field.

In Hong Kong, the development of professional property management only dated back to the sixties, benchmarked by the establishment of the Chartered Institute of Housing, Hong Kong Branch in 1966 (later officially renamed as the Asian Pacific Branch in 2001).

2.5.2 Shopping Centre Management (SCM)

For Shopping Centre Management, the professionalism and expertise required would be more demanding.

Alexander, A. [et al] (1992) gave a very detailed and comprehensive account of most aspects in SCM from planning, financing, development, design to operation, leasing and tenant matters, marketing to daily administration. Although it was written more than 18 years ago, the important lines of professional services required in shopping centre management outlined are still applicable today. Some of the core functions of SCM that entail professional level of care and judgement can be summarised as follows:-

- Strategic Planning for development – critically depends on very experienced personnel well versed in SCM, marketing, corporate business strategies make strategic decisions in the establishment, choice of site, positioning a anticipated business opportunities etc., for successful development of shopping centre.

- "Planning for Management" –a '*Management Plan*' to be formulated very experienced professional personnel that comprises a "*full mark*

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analysis", "property analysis", "rent analysis", "analysis of alternatives" and "recommendation for financing".

All these planning activities call for services of professional level that will be carried out by in-house management team consisting of Estate or General Practice Surveyors, Business and Marketing Management experts, and executives with strong financial related background.

Sometimes, some of the core tasks such as "*full market analysis", "property analysis"* and *"rent analysis"* will be outsourced to professional property consultant firms that may have accumulated sufficient data bank to arrive at a more objective and independent recommendation.

- "Management Responsibilities"- the success of a shopping centre "*requires effective management…….by certain key personnel – the asset manager , the property manager and the marketing and promotions directors."*

Alexander, A. [et al] (1992) also outlined the importance of management responsibilities of such key personnel and the hierarchy of management, namely:

1. *Portfolio Management- allocation of investor equity to types of assets*
2. *Asset management- focuses on one type of asset and the addition of value*
3. *Property Management-involves with the day-to-day operation and maintenance of specific buildings or land*

Of course there are differences and divergence in defining these levels of management nowadays. The terms set out a very important distinction of different levels of involvement of personnel and their professional proficiencies required. As such, the various *"professionals within the trade"* can be classified into:

1. *The Asset Manager*

   The key functions or ways to increase the value of a property are :

   Acquisition, Property management, performance monitoring and contr re-tenanting and rehabilitation, peripheral development, refinanci restructuring of ownership and disposition.
2. *The Shopping Centre Manager*

   There are *"six areas of responsibilities – administrative, fiscal operatio*

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tenant relationship, leasing, marketing and promotion…"

3. *The Marketing and Promotions Director*
   'This individual must have the creative skills to develop and implement programs to promote the shopping centre to consumers ……have strong observational and analytical skills …….to evaluation and promote the shopping centre to prospective tenants.'

From the above, the roles and responsibilities of key management personnel have been explicitly spelt out, and the professional proficiency and rich experiences required of such key personnel were crucial.

In fact, throughout the last decade, the hierarchical structure of shopping centre management has evolved into a pattern that is mostly business-strategically lead, with marketing and leasing activities to generate revenue, backed up by a technical and physical asset maintenance team of property and facility management.

2.5.3 Customer Relationship Management (CRM)

Customer Relationship Management (CRM) is a broad term that covers concepts used by companies to manage their relationships with customers, including the capture, storage and analysis of customer needs and relevant information.

In shopping centre management, CRM is one of the most important links in relating all customer data, demographics, characteristics, types, preferences and feed-backs to the formulation of business and marketing strategies. The success of CRM in the right direction is crucial in providing updated and factual information in the adoption of strategies. CRM is in fact, the most sensitive and interactive 'arm' that warrants professional care and attention of personnel who must be well versed in consumers and marketing affairs in the industry.

In response to such demand, professional bodies like the SOCAP Internatior (The Society of Consumer Affairs Professionals in Business) has be established to standardize practice and '*to help shape the business communit response to changing consumer needs and expectations.'*

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SOCAP International was established in 1973 and produced materials reflecting the latest trends in consumer affairs—including the increased focus on customer care, customer loyalty and retention, contact centre management, globalization, sourcing strategies and technological developments.

As development of CRM progresses through the last few decades, visions and expectations of customer care have been elevated to the level that professionals in the field feel the urge to re-evaluate their core values of services. As such, SOCAP introduced '*new mission, vision and core values for SOCAP International at… the 2007 Annual Conference….*'so as to '*..... drive business transformation through its global community of customer care experts'* and to '*develop experts who add business value through customer engagement.'.* and to recognize among others, the core value:

'1. Excellent customer care is critical to the success of business.

2. Customer Care is a specialized profession critical to business transformation ….'

(source http://www.socap.org/Welcome/history.html)

According to Berry's and Linoff's four components of CRM (Dennis, C., et al (2001)), identification of the customer groups together with their preferences can be addressed proactively and led to recommendations for 'corrective action'.

In BCSC's research paper, Myers, H. et al. (2006) (p.6) remarked that *'The next decade will see shopping centres and retail places seeking to attract older shoppers, as baby boomers grow into Silver Shoppers'* and studied consumer needs of shoppers over 55 years of age to provide information for investors, developers, managers and tenants to decide the best strategy in key areas such as: Tenant mix, Design, Access, Safety, Dwell Time, Leisure, Marketing And Pub Relations.

All the above papers outlined the importance of CRM for client-based busine strategies.

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2.5.4 Marketing and Leasing Management

Although marketing and leasing are by definition, different tactical activities in business management, yet they are often linked together in real estate property or asset management.

One of the leading commercial real estate service firms in USA 'Orchard' stated that -

'Our highly qualified marketing team ……demonstrated an ongoing ability to implement successful marketing programs for our clients, with services that include:

- *Preparing and implementing an Owner-approved leasing strategy for the property.*
- *Conducting market research to provide detailed analysis of current market conditions.*
- *Recommending improvements required to maximize marketability of properties; coordinate improvements with Property Management.*
- *Installing leasing signs and produce leasing brochures as required.*
- *Introducing brokerage community to available properties.*
- *Conducting lease negotiations and legal review subject to Owner's requirements.*
- *Conducting final review of all prospective tenants.*

(Source : http://www.orchardcommercial.com/marketing_leasing/mktg_leasing.html)

2.5.5 Planning and Design

"Planning is a crucial factor. You need to plan and determine the vision of your shopping centre.", expressed Woon, (2007)[4]. He also stated that a successful retail centre should adopt a two-tire strategy taking into consideration both "the shoppers and its shops". It is indeed fundamental that proper planning and design are the crucial procedures to present the business strategies of a shopping centre. Kim (2007) echoed that *"The right design plus the right tenant mix that matches the customers' experience are the best ingredients for any mall's success"*.

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2.5.6 "Operation of the Physical Plant" (premises) – Professional Property and Facility Management

Again, 'Orchard' vividly stated the primary objective (of Property and Facility Management) is:

'to protect and improve the value of our clients' real estate investments and to bring outstanding personal service to our tenant clients. Orchard provides the full spectrum of property management services to both parties, including:

- *Budget Preparation and Financial Reporting*
- *Tenant Relations Program and Service Evaluations*
- *Lease Administration & Renewal Coordination*
- *Core Vendor Program Contract Management*
- *Environmental Management and Consultant Coordination*
- *Legal Compliance and Coordination*
- *Emergency Response Plan*
- *ADA Compliance Program*
- *Capital Planning Program*
- *Disposition Services*

(Source :http://www.orchardcommercial.com/orchard_commercial/prop_mgmt.html)

With proper professional care for the properties, value of retail properties may even be enhanced in time at strategic locations. Tay et al (1999) reinforced this phenomenon by observing that in Hong Kong and other modern Asian cities like Singapore, extensive renovations are carried out regularly in shopping centres, especially in prime shopping districts. Regular upgrading and more readily reshuffling of tenant mix would negate the adverse impact of age. Older centres with longer history and tradition could cater more to the tourist market in terms of pricing, location, and product range. Tay concluded in the hypothesis, '*Therefore, in contrast to previous studies, we expect a positi influence (of rental) by AGE.'*

Of course there are variations of renovation and maintenance (R/M) polici under different corporate management styles, operating age of shopping centr prescribed standard of repair, quality of physical environment, and mo

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important of all, marketing strategies that may call for alterations and additions, redesigning of circulation patterns and improvement of facilities. **[***Chui, F.C.I., (2004)*]. Decisions and arrangements for all these issues would not be properly executed without professional management.

Kyle, R. [et al] (1995) also echoed that :

> *'the size of Regional shopping centres and super-regional malls……and their diverse tenant mix make professional management a necessity.'* and also outlined the importance of professional management by stating that *'the success or failure of a shopping centre often hinges on the property manager's ability to assess the market, to conduct sales promotion and public relations and to act swiftly and decisively.'*

2.5.7 Tenant Mix, Rental and Customer Flow Management

At a national conference (EUR) organized by the International Council of Shopping Centres (ICSC)'s Baltic States National Committee in Vilnius in September 2008, retailers and developers from across the Baltic States gathered, and Altraja A., Commercial Director of Sportland International, which has shops across The Baltic States, Russia and Finland, called on the industry to work together. He said:

> *"Shopping centre management must work more closely with their retailers to support them through this difficult time. If they do not, it is likely that retailers will either close stores or reduce their size within the shopping centre." "Landlords will always try to achieve maximum rental income from their properties, while tenants will use all the available arguments to reduce rents. ……. It will be the task of each landlord to evaluate each such individual request. With the huge financial commitment and value of t shopping centres at stake, landlord' will not be able to satisfy the demands all retailers',…."*

Also, in an Indonesian market report for retail/shopping centres in 2002, it w revealed that :-

> *"The increasing rent rate was due to building owners that increase its re*

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rate. It was occurred because of the shortage of new supply while demand tended to increase as increasing of occupancy rate of retail." (source :http://www.bi.go.id/biweb/utama/publikasi/upload/commercial-q3-02.pdf)

These remarks spelt out the constant tug-of-war and at the same time, the interdependency between landlords and retailers in the adoption of rental levels and trade mix that would mark the successfulness of a shopping centre.

There are also sufficient literature and researches related to the importance of tenant and trade mix in shopping centre management. Gerbich, M. (1998)'s research on rental and retail tenant mix concentrated on the '*economic importance of the retail tenant mixture within shopping centres, and provides empirical evidence of the influence of tenant type on base rentals. The results indicate that for some generic types of retail tenant (but not all), the type is an important determinant of shopping centre base rents.'*

He realised "Real Estate Professionals" posit that because of the differing roles between retail tenants, the centre manager should not act to maximize rentals on a shop by shop basis without considering the tenant mixture, and suggested that retail tenants who can only afford low rentals must invariably be accommodated with high rental retailers for an optimal retailer mixture.

He supported the findings of Eppli and Shilling (1993) that the price of the mall store and food court space depends on the space allocated to an anchor. If there is no anchor tenant, the sales profit achieved against the rental paid will move towards zero. Subsequently, that will cause total rental to become less than the optimal.

On the other hand, Gerbich also made reference to Brueckner's (1993) 'general shopping centre space allocation model' that does not differentiate betwe anchors and non-anchors, but between all retail tenant types. He noted th *'some additional consumers will patronize other stores during their visits, t existing retail tenants receive what Brueckner terms an ''externality'' from t new type of store locating in the centre."* In a nutshell, the implication Brueckner's theoretical work is that landlords must optimize inter-retail externalities to maximize centre total rental income.

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With both schools of theories, the importance of tenant mix and the invariable contribution to maximize rental income through mutually inclusive relationship, had been signified in justification.

You and Crosby et al.(2003), introduced that :

> *'..... agglomeration economies generated from the clustering of tenants are one of the most significant benefits to be pursued by retail managers. This cluster of tenants is referred to as the "tenant mix" by the shopping centre industry. It has been a long-term concern for shopping centre managers/operators and researchers in this area because of its significance in establishing the shopping centre's image and enhancing the synergies within the shopping centre.'*

Coupled with tenant mix, management of customer-flow is also of paramount importance for contribution to the success of a shopping centre.
Reference is made to the opening introduction of the customer counting services of a leading provider of UK:

> *"As a key objective of a shopping centre is to generate customer activity, measuring the number of customers attracted to a centre is critical in determining its success."*

It has also portrayed the importance and significance of customer-flow count by advocating that :-

> *"Measuring customer numbers provides an objective and consistent measure of performance so that the success of specific initiatives and broader strategic changes that impact on business performance can be properly evaluated."*

In summary, Tenant Management would entail :

- Marketing and Promotion
- Refurbishment and extension
- Tenant engineering and reconfiguration
- Introduction of new tenants or loss of current tenants
- Management of customer flows

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- Impact of competition
- Portfolio restructuring

2.6 Efficiency in Business and Shopping Centre Management

2.6.1 Technical and Management Efficiency

Despić, O., (2004), defined efficiency being engaged to measure and compare different degrees of efficiency as:

> *'a relative measure of the success of a production unit in maximizing its desirable outputs while at the same time minimizing its relevant inputs.'*

In his latest book of *'Efficiency and Management*', Callender, G., (2009) proposed the replacement of the generalized term "efficiency" by the more comprehensive notion of "performance efficiency" to provide a reliable basis on which management behaviour was to be evaluated. He emphasised the emergence of individual-focused technical efficiency (TE) and the organizational-focused Administrative efficiency (AE) in the past century and introduced the link between TE and management development. This evolution of TE to AE has formed the basis for the definition of Management Efficiency (ME) in this research.

Callender concluded four definitions from literature that, among others, technical efficiency TE (economies) should be based on the maximization of outputs and the minimization of inputs, without consideration of the best source of input, whereas Taylor's TE demanded a search for the best way to pursue efficiency. It was noted that *'the influence of professionals makes a significant impact upon the notion of efficiency within the context of management practice',* thus inspir the author to investigate how the qualities (levels in the organizational hierarch and quantities of input of real estate professionals would affect the ME shopping centre management.

In an article of business management in 'suite101.com', Brewer, D., (201 outlined how managers could use the efficiency, effectiveness and econor

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management model (also called three Es and 3E's) to measure and improve business performance. Brewer elaborated that management effectiveness concerned the achievement of preset targets, and management economy measured the cost of the resources consumed against the value of the output delivered, therefore management efficiency should evaluate the amount of output that can be generated by the amount of input of resources available to a business unit. It is then concluded by an inspiring remark:

> *'It is important that the priorities of senior management are established as this will then drive the most appropriate measures to be used and lead to the best effectiveness, efficiency and economy mix. This mix will change over time depending on the focus of the organization and external factors too.'*

Summarizing the above literature, **Management Efficiency** can be stated in the context of this research as :
"A relative measure of the success of a shopping centre in maximizing its desirable revenue output, meantime minimizing its relevant utilization of human resources input, in order to achieve the desired business goal."

As it is one of the main objectives of this research to reflect how the efficiency of shopping centre management, measured in terms of human resource input against unit rental output, is affected by the directions and strategies set out by the corporation in major business goals, henceforward, priorities in business operations of senior management will be investigated and analyzed against the management efficiency of each shopping centre in the data sourcing to follow.

This topic was also discussed in the Annual Report and Financial Statement of Citycon (2006):

> *'The efficiency of shopping-centre management will be increased by classifying similar shopping centres under one umbrella. The classification will help to position the shopping centres in the market and facilitate the formulation of a consistent business concept, a desired tenant mix lessee structure and marketing communications for each shopping centre.'*

Such remarks apparently signified the importance of business strategies, mark

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positioning and management efficiency of various retail properties under a developer's corporation.

2.6.2 Efficiency Analysis in Retail Management

Donthu, and Yoo (1998) assessed productivity of retail management using Data Envelopment Analysis (DEA), an operations research based methodology. They categorized the major input and output criteria that had been considered relevant for retail productivity assessment and further differentiate input factors into uncontrollable and controllable ones, which could be divided into *'retail managerial factors'*, and '*labour personal factors'*.
These two factors are very important and would be investigate via the study of management characteristics and human resource input that would yield optimum efficiency for the business operation. Outputs in terms of '*economic outcomes*' (consisting sales volume, profits, value added and market share, and *'behavioural outcomes'* consisting of service quality, customer and employee satisfaction etc) would also be classified. In short, the importance of customer-biased management style in shopping centre management would be unveiled.

De Jorge, J. (2005), studied how the impact of retail regulation in Spain had affected the technical efficiency and performance of retail industry firms and the effects on their efforts over time before and after the regulatory process, DEA methods were employed. For the efficiency analysis, accounting variables expressed in constant monetary units were used due to limitations from available information (outputs in terms of material consumption and services flow). Consideration would be given to the mode and choice of output in further analysis of this research.

In another PhD dissertation, Xue M. (2002) investigated the impact of t increasing participation of customer service delivery process and introduced t concept of Customer Efficiency (CE) along with a conceptual framework f Customer Efficiency Management (CEM). DEA, a 'productivity analysis too was also used to measure customer efficiency and its potential internal a external factors as well as its relationship with other customer characteristi

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such as satisfaction and loyalty. The goal of the research was to illustrate the relevance of the concept of customer efficiency to the successfulness of self-service business (including e-business and self-service banking).

Although the focus of this research is not oriented towards the theme of the 3 preceding papers, yet references can be made in respect of the relevance of business efficiency in management characteristics that are adopted for shopping centres.

The efficiency and performance of Real Estate Investment Trust (REITs) was also studied in Topuz, C., (2002)'s DBA dissertation, with the objectives to investigate input and output efficiency, and to understand the impact of *'size, property share,……. Property and geographic diversification, control and governance variables, ……. and management type on a number of efficiency measures including profit, cost, allocative, technical, pure technical and scale efficiency.'* Again, both the nonparametric approach of DEA and the parametric approach of Stochastic Frontier Approach (SFA) were employed, similar to the two stages bootstrapped method proposed by Simar and Wilson (2007). It was revealed that REIT efficiency had increased due to both scale efficiencies and better management practices, thus illustrating the importance and relationships between efficiency and management.

In discussing effectiveness and efficiencies of HR deployment, Watson J. (2001) remarked that adding value to an organization or a business did not merely concern producing outputs, but also identifying the appropriate inputs to generate the expected outputs, reflecting if HR or knowledge-capital input is well managed, value can be added to the quality of output. He went on to discuss the link between performance improvement and HR management and emphasized the importance of integrating HR planning with the strategic direction of the business organization.

Watson's literature is of particular relevance to the scope of this research studying the relationship between HR inputs in shopping centre manageme and the business performance outputs in terms of revenue generation and val adding to tangible and intangible assets of the business operation.

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CHAPTER 3

EXPLORATORY STUDY

This chapter records the author's initial findings of the shopping centre business operation, strategies and styles in management of the company structure, the corporation's retail properties profile and how human resources for quality 'shopping centre management' were utilized under the coverage of the corporation's headquarter. 30 interviews were conducted since the last quarter of year 2006 through end of 2007, in parallel with the author's research for physical and demographical data for each shopping centre and its corporation. The findings of this study shall form a basis for formulating the research questionnaire survey, and the development of hypothesis.

3.1 Preliminary Investigations And Selections For Research

This section describes how data for potential choices of samples, corporations and objects of future interviews have been categorized and selected for further research.

3.1.1 Selection of Shopping Centres

There are over 1000 shopping centres in Hong Kong. The scope of shopping centres under this research has to be limited to a manageable size of samples, while maintaining a size measured up to provide sufficient data for analysis. The population was thus set at the range of 100 to 150, i.e. about 10% of the to number of shopping centres. There was a number of considerations selection:-

- By location
- Size and Grouping of categories
- Some other criteria

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and elaborated as follows :-

a In terms of location, the research shall concentrate on shopping centres along MTR lines (including the former Kowloon Canton Railway lines), to minimize the number of independent variables tended in the regression analysis. Samples adjoining MR stations do have similar patterns of visitor-flow, customer catchment and accessibility.

b In order to systemize and prioritize the choice of shopping centres, they are categorized into different groups, reference made to established grouping systems of developed countries of relatively longer history , such as the United States, Europe and Australia.

Hereby shopping centres have been categorized into five groups with due considerations to the situations in Hong Kong under the following criteria:-

i. Group One -
Super-regional mall sized over 45,000 sq.m. and located within 3 railroad stations from CBD/main railway transaction points.

ii. Group Two -
Regional mall sized 23,000 sq.m. to 45,000 sq.m., or
Regional mall sized above 45,000 sq.m. but more than 3 railroad stations from CBD.

iii. Group Three -
Trans-district mall sized 14,000 sq.m. to 23,000 sq.m.

iv. Group Four -
District mall sized 4,500 sq.m. to 14,000 sq.m.

v. Group Five -
Neighbourhood mall sized below 4,500 sq.m.

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c. Then, by short-listing the shopping centres along MTR lines, some are also eliminated according to prescribed criteria hereunder :-

i. All super regional malls at CBD or main transportation transaction points.
ii. Malls along the railway stations and within 5 minutes' walking distance from the railway exits.
iii. Malls being excluded:

- "mall inside malls" i.e. mall located at the centre of other malls and acting as a linking passage between other malls e.g. The Link, Queensway.
- department stores or malls with less than 10 shops.
- street malls.
- malls of under 1,000 s.m.
- when other mall(s) within the same district, managed by the sameowner(s)/ property compan(ies), of similar size already been chosen to study.

3.1.2 Selection of Developers, Corporations and Shopping Centre Management

Following the choice of shopping centres, considerations had to be given to the selection or elimination of those owned or managed by developers or management companies unavailable to reach, reluctant to be interviewed and from those only limited data could be obtained. Out of the 152 shopping centres of which basic physical and demographic data were searched, some were of multiple ownership and managed by property management companies but neither could the developer be located, nor the owners' incorporations be traced.

A few of the shopping centres were developed under joint venture developmer and the major developers had assigned the management responsibilities to th joint venture partners. In some cases, the managing party could not contacted and the human resource allocation and management characteristics da could not be obtained, hence eliminated in the final analysis.

There were also a small number of shopping centres that were sold to anoth

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corporation who had taken over the operational management. As such, there were difficulties in obtaining information and consistent data from the developers who had formulated the development concepts and physical features (say, market positioning, tenant mix, pedestrian flow pattern, mall design and provision of facilities etc.) while the shopping centres were run and operated and managed by another party.

Thus after short-listing, only 106 numbers of shopping centres remained with sufficient data for further analysis.

3.1.3 Choice of management executives for personal interviews

The most appropriate subject of interview for shopping centre management is naturally the Centre Manager of a shopping centre, yet very seldom is there a particular job allocation or specification in Hong Kong representing the post of a Centre Manager. In reality, the functions and job responsibilities of such a post is often distributed among a few senior executives including the Retail Director, Marketing Director, Assistant General Manager (Commercial), Portfolio Manager, Property Manager, Facility Manager; and sometimes, outsourced to professional consultants as feasible.

Therefore, the selection of personnel for interview would be targeted at those policy implementers at top management level, and those business strategy operators at the executive level of the retail section of corporations.

Since the task distribution among executives is different for individual corporations, the main targets of invitation for interview would be extended to the Executive Director or General Manager level who would usually assign appropriate personnel to respond to the interview or answer the questionnaire.

3.1.4 Selection of basic information for study

The basic information regarding a shopping centre would be the physic characteristics and business conditions that depict the uniqueness a successfulness of the shopping centre.

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The physical characteristics would basically involve endogenous factors including: height in number of storeys of retail shopping, area, number of entrances, connections to MTR stations, age since operation, the nature of the adjoining properties, provision of car parks, and its location in relation to the CBD or the major shopping districts (MSD) etc. These factors are expected to exert influences to the market positioning, customer-flow, tenant mix, renovation frequencies, and in turn, the allocation of human resource and management characteristics of the shopping centres.

Tay et al (1999) revealed that many of the physical characteristics of a shopping centre including: overall size, age, provision of car parking spaces, linkage to MTR entrances, do have positive impact on the rental rate.

Management characteristics expected to bear growing importance to shopping centre management were also studied to reveal their effects contributing to successfulness in operation. They included: retail strategies, leasing and marketing policies and physical management objectives, such as the extent of outsourcing services, single or multiple ownership, number of tenancies, vacancy rates, proportion of turnover rents, extent of theme shopping and whether the shopping centres were operating under real estate investment trusts (REIT).

3.2 Field Surveys of Physical Attributes

Upon collection of basic data of subjects for research, actual visits, surveys and initial enquiries to developers and Government departments were conducted to reveal physical characteristics of selected samples. This section describes how such investigations were carried out and documented.

3.2.1 Initial enquiry to shopping centre developers and manageme corporations

With a view to formulate various hypotheses and to develop the questionna for later data-mining, a pilot study with initial investigation of some of t leading shopping centre developers and property management companies by w of interviews and telephone enquiries were carried out since the last quarter

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2006.

The major objectives of the pilot study cover:

a. To reveal the updated development of the shopping centre industry and its impact on economic growth and how it affects citizens' living/purchasing pattern.
b. To analyze property and facility management styles and degree of outsourcing tasks that would apparently affect its business strategies and human resource management. It is necessary to study the trend of coverage of professional services provided by property management companies whether they would provide comprehensive services including marketing and operational strategies.
c. To facilitate on-going study of physical, demographical and management characteristics.
d. To understand contractual arrangements among the owners, PM companies and sub-agents etc.

Based on the above objectives, the following chart of checklist (Table 3.1) was derived for interviews or enquiry over phone or email. In advance an 'OUTLINE OF INFORMATION REQUESTED' had been emailed or faxed to the interviewees for their understanding of the research objectives so that they could gather relevant data in preparation for the survey.

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CHECKLIST FOR INITIAL ENQUIRY

(Table 3-1)

NOTES FOR DISCUSSION IN PRE-SURVEY INTERVIEWS

for academic research of PhD Candidate : Mr. John W.T. Hui

Department of Real Estate and Construction

Faculty of Architecture, University of Hong Kong

Research Topics: (abstracts attached)

An investigation of demand for professional management services in retail developments –
A characteristic analysis approach

OUTLINE INFORMATION REQUESTED for discussion

1. Corporate level business and human resource management strategy for shopping centre.

2. Business/operation strategy at individual shopping centre level.

3. Management system and outsourcing situations.

4. Renovation and/or maintenance frequency vs age of mall.

5. Physical characteristics – size, shop and tenant number etc.

6. Leasing strategies and related data – occupancy rate, leasing conditions, rental range etc.

7. Pedestrian data – methods of counting, average and peak flow on different days etc.

8. Organization Chart.

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(Table 3-2)

NOTES FOR INITIAL RESEARCH OF SHOPPING CENTRES				
Internal business strategies				
				Details/ remarks
Professional Services provided	All-in comprehens ive			-Business development -operation -O & M -CS
HRM- demand for professional level executives	Managerial level			Hierarchy Chart
	Divisional Heads			
	Executives			
	Direct staff			
HRM strategies	IT personnel	No apparent deduction	More may be required for 'knowledge retention'	Self-sustained team
	Technical personnel	Difficult to recruit due to recent construction boom in Macau		
Proportion of outsourcing contracts	Cleaning			

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Business and marketing strategies for operating Shopping Arcade				
Standard and quality				
Theme shopping				
Customer base				
Rate of return				

Rental options	Base rent			
	Turnover rent			
Choice of retailers/tenant mix	Total no.			
	Occupancy			
	mix			
Customer catchment				
transportation				
Pedestrian flow pattern	Peak flow			Counting methods
	Average flow			
Peak hours				
frequency				

Remarks :

1. Management system
   - Outsourcing details i.e. To what extent are management works outsourced e.g. cleaning, security, administration, lease management, etc.
2. Pedestrian data
   - Method of counting pedestrian number e.g. the kind of systems (manual & electronic) being adopted.
3. Number of shops in each centre.
4. Occupancy of these centres.
5. Rental range, lease categories (or probably just total rateable value).

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3.2.2 Site-visits of selected shopping centre

Site-visits to selected shopping centres were conducted to verify some of the physical demographics and to reveal some of the non-physical conditions including shopping atmosphere, pedestrian-flow pattern, occupancy rates, quality of property management and degree of customer care, etc. Some of the visits were carried out immediately before or after interviews with the executives stationed on sites.

3.2.3 Field survey of Physical features and Non-peakhour pedestrian-flow counts of shopping centres

A group of student helpers were recruited in the summer of 2007 to assist in carrying out data collection for basic physical information of shopping centres and field surveys in pedestrian-flow counts of major entrances. The physical data collected for each site included total number of entrances, number of tenants (acquired from directory or promotion pamphlets), number of storeys, any existence of theatres within the mall and car parks annexed.

The major tasks of these helpers were to conduct a survey of pedestrian-flow through a designated entrance to the shopping centre. Since the selected targets were at stations along the main mass transit lines (the MTR and former KCRC lines), the pedestrian flow through the major entrances could be very substantial at peak hours in the morning and in the evening. Therefore, special non-peak hours from around 3 pm to 5 pm were chosen and a 15 minutes' count was conducted at all entrances simultaneously by different groups. In short, the number of pedestrians entering the shopping centre during non-peak hours would represent a higher shopper to browser ratio than peak hours and would be more realistically correlated to the attraction of the shopping centre.

Summarizing for the purpose of this research, over one hundred shopping centr had been targeted to produce sufficient data for statistical analysis to arrive significant results, whereas the actual number accomplishing survey was 15 allowing some margin of error or unavailability or miscount of data.

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3.2.4 Request of Rateable Values from Government Department

Rateable value and internal floor areas of the selected shopping centres had to be obtained for analysis of the 'successfulness' of shopping centres. A Letter of Request endorsed by the author's Supervisor was dispatched to the relevant Department of the HKSAR in March 2007. Subsequent to further clarifications on the scope and methodology of this research to Government officials in April /May, extremely helpful and positive responses were received in June 2007, providing the required data of most of the specified shopping centres for incorporation in to this exploration study.

3.3 Corporate Level Business Strategies and Management Characteristics of Shopping Centres

The findings collected from the 22 developers/operators shared profound insight into a fundamental idea that different corporations had adopted different business strategies that developed into diversified management characteristics.

This section briefly describes the findings as conveyed by senior executives from various types of corporations as follows:-

3.3.1 Business Strategies

The corporations examined included:

- listed companies under corporate governance of which some were evolved from family business;
- companies with large profile of retail properties;
- those not majoring in shopping centre developments with only single or ve few shopping centres.

The interviewees held positions of senior executives of directorate or manager level personnel who were either in charge of retail properties in the corporatic heads of leasing and marketing departments or property management divisio Through them various strategies came to light as identified hereunder:-

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- **Positioning** - Accurate positioning of a shopping centre is one of the key factors of its successful operation. According to some of the senior executives, positioning a shopping centre is a very professional and market orientated exercise that requires constant monitoring of customer needs with a very sensitive mindset cum knowledge of emerging and changing trends of purchasing habits of customers within a target catchment.

  Note that the key person or team to oversee such a task needs to possess thorough working knowledge of business marketing, financial controlling, investment funding, and preferably a general knowledge in leasing, design, and property or facility management.

- **Branding** - Throughout the last decade or so, shopping centre development has become one of the major lines of real estate developments contributing to create a brand-building effect for developers. As such, asset value of related properties would greatly be enhanced by marketing and promoting innovative concepts of modern day 'classy' living styles, spontaneously management styles were updated.

  Under business strategic purpose into more favourable position, there are frequent cases when 'branding' exercise is outsourced to special expertise consultants at pre-planning stage, i.e pre–study of customer behaviours, physical and psychological demographics of potential shoppers within a given catchment.

- **Leasing** - The prime objective of a traditional style of business strategy (or conservative style as some stakeholders in the industry may term) is to maximize the leasing percentage of shops. This style had been prevailing in the last three decades for most of the shopping centres that we developed as ancillary facilities. Of course, revenue generated from ren and ancillary income should be a major source of recurring income yet the were other considerations that would enhance the tangible and intangib values of the retail properties.

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3.3.2 Management Characteristics

With an intent to reveal the management characteristics developed from the abovesaid business strategies, three levels of preferences were enquired to ascertain the general directions the industry heading for growing developments, namely :

- Priorities in corporate business strategies
- Priorities in promotion and revenue generation
- Priorities in operational management of physical assets

According to the interviewees, the recent management trend is customer orientated. 'Customers' of a shopping centre can be identified as the retailers who lease or purchase shop units in the shopping centre (i.e. the tenants; the end-users who are visiting the centre with a likelihood to carry out purchasing or retailing activities), or those who wish to utilize the services of the centre (i.e. the potential purchasers of goods and services provided by the centre).

Management has to be proactive in grasping the pulse of local and international market trends, innovative in creating a fresh and comfortable shopping atmosphere, and sensitive in mitigating the right tenancy mix and tenancy policies for optimisation of revenue growth. Such management style can be characterised as 'proactive' or 'dynamic' style.

The introduction of REIT[1] (Real Estate Investment Trust) also revolutionized the business strategies and management concepts of real estate assets. REIT was first introduced in the nineties in Hong Kong and was first launched in 2005[2]. The prime objective of REIT management was to maximise dividends of its stocks and *'... To realize growth potential in income and appreciation in net asset value per unit'* (*The Link Corporate Site 2007*). The concept and practi of REIT was still new to Hong Kong until the incorporation of the Li Management Ltd.[3] in February 2004. It was envisaged that the ass management style of REIT retail properties might generate differe characteristics of professional management services.

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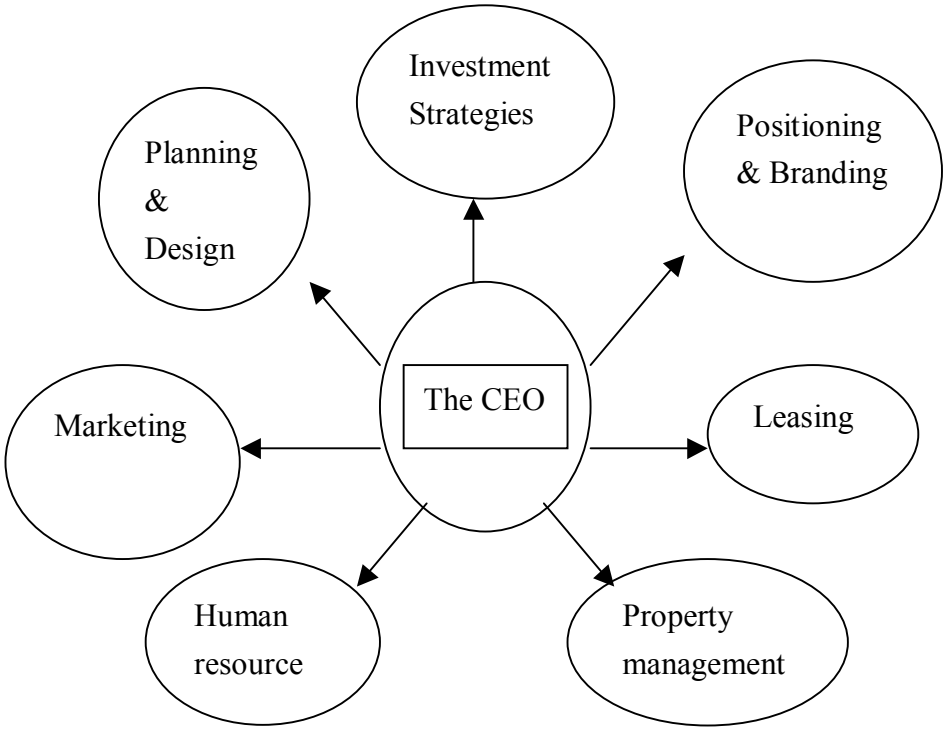
3.4 Corporate Level Human Resource Utilization Strategies

Initial interviews have disclosed that generally there is no specifically assigned professional personnel at the Directorate level to manage shopping centre. The tasks of overseeing the business directions and operation policies are sometimes rested with a well-experienced director who has sound marketing skills and knowledge, or if not, the managing director is to take charge. Generally, this executive may not only be responsible for shopping centre developments, but the whole of company profile covering commercial and residential developments. As such, all crucial and major strategic issues will have to be decided at Board level.

The designated personnel shouldering the abovesaid responsibilities in a corporation can be termed as the 'professional shopping centre management CEO', as suggested by some of the executives in the industry. This CEO has to possess an all round ability in all relevant aspects of investment, financing, marketing, planning, and human resource management, illustrated in the following diagram :-

Fig. 3-1 Diagram of Knowledge required and functions of a 'Shopping Centre Management Professional CEO'



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It is difficult to define or specify 'professional management' at this directorate or strategic business level since most of such personnel are highly experienced business operators with extensive expertise in asset investment and marketing management. They are probably not 'real estate' professionals but 'very senior professionals' in their own rights.

In studying the human resource utilization of these professionals, executives who have prolonged and vast managerial experience in real estate business, though do not possess relevant accreditations, can be regarded as real estate professionals.

The share of responsibility of personnel in overseeing management of shopping centre cannot be easily quantified due to the complexity of investment and business strategic decisions/operations. An estimate of the proportion of working hours spent on shopping centre matters as obtained during interviews and questionnaires was rough or intuitive, but still feasible in quantifying manpower resource allocated for shopping centre at the director/general manager level. For example, a director estimated that he had spent about 80% of his efforts and time in the subject matter, then human resource allocation at directorate level could be considered as 0.8 person. On the other hand assuming that person was to oversee 4 shopping centres at one time, then one might consider, for simplicity of formulating the demand model, that the corporation would be spending about 0.2 personnel at director level, average out for each shopping centre. However, for shopping centres of diversified sizes, weighting of human resource allocation based on certain factors would have to be engaged.

3.5 Centre Level Human Resource Utilization Strategies

The management structure at shopping centre level is generally subdivided into various management functions. The centre is headed by an executive, who normally a real estate professional in charge of two or three teams specialised promotion, leasing and marketing, facility or property management plus a technic team. Seldom is there a position titled 'Centre Manger' in Hong Kong where similar responsibilities are covered by the head executive of the centre, thus for t convenience of this research, this position is herein termed as 'Centre Manage Organizational structures and team divisions are categorized as vide table 3.5.

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Through continuous interviews and further deliberation with experts in the industry, the following general phenomena have been observed :

- In Shopping Centre Management (SCM), there are generally 2 or 3 combinations of teams or departments concerned. There may be variations in the team divisions whereby promotion and/or technical operation may be executed by a separate team or department:

    i. Leasing & marketing + promotion + property management (including technical) or
    ii. Leasing & marketing (including promotion) + property management + technical (with in-house technical team)

  The two major teams or departments are LM team (leasing and marketing, sometimes also carry the function of promotion) and the PM team (property management) or FM team (facility management).

- There are two styles of management for different companies at shopping centre level, namely the 'combined' or 'unified' style and the 'detached' or 'segregated' style. The management style adopted by each company will also change along time or switched from one to another through trial and error, or the need to match with the development and expansion of the corporation, also under revised business strategies in operation.

  In the 'unified' style, combined team efforts of both the LM and PM teams are exerted, in parallel to maximize tenancy ratio and optimize revenue return under the supervision and strategic guidelines set out by the headquarter. PM staff will sometimes take the role of leasing officers in dealing with tenancy matters.

  In the 'detached' style, the two teams are operating independently b simultaneously towards a common goal – to maximize revenue under customer-satisfactory shopping environment. In fact, the two teams are worki complementarily whereas each tasks and responsibilities are more clearly defin In some of the corporations, the LM is taking a more leading role while the P team acts as a supporting role in facilitating the LM strategies.

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- The promotion team usually deals with business promotion (for tenants), shopping centre promotional activities (for shoppers), advertising and public relations (for target catchment area) and so forth.

  The Centre Manager shall report to the General Manager or Director in charge in the head office. (Generalised organizational structure Table 5.3 referred) Sometimes the Centre Manager and his/her teams may have to look after shopping centres of smaller scales. As the size and complexity of shopping centres increase in the corporation, individual team management will be adopted as appropriate.

- There is no direct or definite rule of thumb as to the hierarchy or size of management team and professional personnel to be allocated for a specific shopping centre. It is therefore intended to segment shopping centre management services into:

  i. Strategic management (at corporate headquarter)
  ii. Centre management (at centre level) which is further subdivided into :
      a. Leasing & marketing (L & M)
      b. Property management (PM)

3.6 Property Management System and Outsourcing Situations

The Property Management (PM) team is sometimes termed Facility Management (FM) team. Although the definition and terms of references for PM and FM are different, they will be defined and unified for the purpose of this dissertation.

The major services (e.g. overhauling and replacement of building services systems) the technical team are usually outsourced and supervised under the PM tea Routine repair and maintenance (R & M) works are usually done in-house under t PM team.

The PM operation is mostly carried out by PM team or company within the shoppi centre corporation's direct organizational structure or under the subsidiaries of t

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same mother group. This may be due to the fact that PM services, being a long-term steady revenue generating business, can reinforce the business profile and can benefit from an economy of scale should the corporation possess a substantial amount of properties to be managed.

The PM team is usually headed by professional trained and qualified personnel possessing qualifications of international or regional institutions such as the Chartered Institute of Housing, Hong Kong Institute of Housing, Royal Institute of Chartered Surveyors and Hong Kong Institute of Surveyors. The assistant PM managers are also professionally qualified or holding relevant bachelor or master degrees. Appointing such personnel is considered necessary in administrating and maintaining the integrity and proper functioning of the PM team.

3.7 Renovation / Maintenance (R/M) Frequency vs Age of Centre.

For shopping centres studied, the normal duration for the first major R/M activity is in the range of 7 to 10 years. Subsequent R/M activities are generally adhered to a 5 year cycle of which a 5 year R/M plan would be scheduled under many PM policies. Naturally, there will be an annual maintenance checking programme but such activities would only involve routine assessment of building services systems and auditing of state of repair. The scheduled R/M operations would sometimes be termed 'defensive renovation' by some experienced elites in the industry. The R/M cycles may have a sustainable effect on the life and outlook of hardware in a shopping centre that directly contributes to the degree of satisfaction of customer comfort.

Normal R/M cycles may be disrupted by strategic decisions in upgrading facilities; redesigning to meet with changes in adjoining developments; restructuring of tenancy mix; and meeting the challenges of competitors. As a consequence, they invol substantial overall or sectional renovation works; overhauling of building servic systems; realignment of passageways; refurbishment of external façade and interr common areas, all of which are motivated to enhance business and branding effe termed as *'offensive renovation'* in the industry. Thus, age of operation th influences renovation and R/M cycles would be one of the factors affecting t demand and utilization of professional human resources.

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Further initial findings revealed that scheduled R/M activities would usually be conducted by technical personnel under the supervision of PM team. Major renovation works would be outsourced to specialised contractors and very often supervised by appointed consultants because those outsourcing activities would not acutely increase demand for in-house professional personnel. However for longer term projects, assistant level professional managers and technical level officers would be employed to take charge, thus leading to an increase of team members.

For larger corporations with a substantial profile of retail properties, a separate technical team would be formed on same basis. Conceptual design of new extensions or revamping of old malls would still be outsourced to renowned design consultants. For some developers with project developments as their main stream business, professional personnel would be seconded from the project department. The demand of in-house professional personnel would be restructured accordingly. The economy of scale and flexibility of human resource utilization formulate a factor affecting the efficiency of human resources utilization.

For smaller corporations, a separate PM team has to be set up to handle new projects thereby creating a demand of .professional personnel. Simultaneously this circumstance affects utilization of human resources.

3.8 Styles, Design and Development Considerations of Shopping Centres

An overall study of different groups of shopping centres had been conducted to explore the styles and design of prevailing retail properties in Hong Kong. This section has recorded the findings and what fundamental considerations developers have taken in retail developments.

3.8.1 Categories by Style

Most shopping centres in Hong Kong are typically podium type multi-trade m
with mixed tenancy, and encompassed in comprehensive commercial
residential developments. Yet, acute competition and demand-growi

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customers had stimulated developers/operators to develop diversified and unique styles of malls in the last two or three decades, thus enhanced Hong Kong as one of the successful retail business hubs in Asia. The styles, of which shopping centres can be categorized, either single or multiple, are outlined hereunder:-

- Themed mall – with specific trade or merchandise
- Vertical mall – multi-level for more than four storeys
- Iconic mall – individual building uniquely designed
- Annexed mall – adhoc to commercial or residential developments
- Comprehensive 'shoppertainment' mall – with full service shopping, food and entertainment facilities

3.8.2 Types of Arcade Designs

Sourcing from promotional brochures, design magazines, web sites and discussions with practising architects has reflected arcade designs being restrictive in Hong Kong due to control of building bulk and envelope, compliance with building and fire service regulations and other relevant legislations, but still, their designs can be categorised as follows :-

- Radial – arrays of shopping alleys converging into central atrium
- Linear – rectilinear and straight forward shopping alleys
- Slab/plate – large shopping plate with multiple activities areas
- Module interactive - different focal attraction at different points interconnected by express elevators with visual linkage
- Mixed – a mixture of different design concepts

3.8.3 Formulating Design Concept From Business Strategies

From preliminary investigations into the topic, it reveals that the followi business strategies have usually been adopted before the formulation of a desi concept with the project architect:-

- Target business goals and target customers
- Target retailers and merchandise

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- Flexibility and versatility
- Corporate image and/or unique definition
- Branding and signposting
- Activities and facilities

3.8.4 Design Considerations

Through the study of developers' company profiles, web sites introducing retail developments, promotion brochures and practising architects, the following major design considerations have been taken into account :-

- Location
- Catchment
- Vehicular traffic
- Customer flow pattern
- Focus of the mall
- Visual impact
- Spatial interactions
- Retailers/customers interface

3.9 Factors Affecting Shopping Centre Management

In this dissertation, the influences and effects of various factors that are exogenous and endogenous to shopping centre management are investigated at interviews and questionnaires.

These factors, according to Kwan (2007), are set out in the following table :-

Table 3-3 Exogenous and Endogenous Factors Crucial To Shoppi Centre Management

2 Core Elements	Accessibility	Creativity

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	5 Controllable Variables in the Internal Environment (Endogenous factors)		5 Uncontrollable Variables in the External Environment (Exogenous factors)
1	Management Services		Change in Customer Needs
2	Promotion Activities		Innovation and New Technology
3	Shopping Environment		Market Competition
4	Rent Fixing		Demographic Changes
5	Trade and Tenant Mix		Economic Situation

Such factors are mostly related to human resource utilization and customer characteristics considered as 'soft' elements of management.

Apart from the above, there are also other factors crucial to effective management and successful operation of shopping centres, vide infra:-

3.9.1 Other Exogenous Factors

Other factors that can be described as 'hard' elements moulding the physical characteristics of a shopping centre but cannot be controlled by the management, namely, the physical demographic data are:

a) Size :

There are several ways of measuring or describing the size of a shopping centre. Under the Building (Planning) Regulations of the Hong Kong Buildings Ordinance (Chapter 123), the total building bulk is restricted by the plot ratio which controls the 'gross floor area' (GFA) of a building or development. The 'gross floor area' can be simply described as the area enclosed by the exter and internal walls of the premises deducting areas for building services and voi Such GFA may include common areas of circulation and rooms for buildi services on the same level of the shopping centre and therefore may not refle the true bulk or the actual size of the shopping centre.

In respect of area of shopping centre for sale or rental, reference may be appli

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to sales brochures of the development in which aggregate areas of all retail spaces can give an indication of the total 'gross building area'. However, there is still no statutory definition of 'gross building area' and very often, exempted areas as excluded for plot ratio calculation may be included (sometimes termed as 'construction floor area') to reflect the development cost that had been spent. Nevertheless, those sales brochures may not be readily available since some of the shopping centres under research may be over 10 years in operation. Such information may be available from the developer or the shopping centre owners but there may be a 'catch'. Sometimes, this 'gross building area' may be based on disproportionate allotment of common areas, services areas, and even landscape areas of the whole development, to be calculated in the shopping centre area.

For leasing purpose, area of individual shops would normally be calculated in 'net area' or 'lettable area'. This is usually taken as the internal area of a shop premises and would be considered an accurate account of the actual usable area. However, adopting this area measurement is not a practice common to all developers/shopping centre owners and it would be difficult to obtain all area measurements on a common basis.

Definition of area could also vary in different countries. For instance, Shopping Centre Council of Australia Sales Reporting Guidelines (2006) stated that:

> *"Gross Lettable Area (GLA) is to be measured according to the Property Council of Australia's 'Method of Measurement for Lettable Area' and is to include the trading area of all tenants located at the centre, whether currently leased or not leased. The GLA will not include separate storage areas and will exclude land lease areas."*

The most standardised documented data based on a common basis is the 'interr floor area' with a clearly defined interpretation accepted in the industry a available to be searched in Government departments – the Land Registry and t Rating and Valuation Department. It is thus intended to work out the rate return in terms of rental income per unit area as one of the indicators f professional service performance.

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b) Age of operation :

Sometimes the age of a shopping centre may not be the same as the time when the whole development can be occupied for its intended use (which may be demarcated by the issuance of the 'Occupation Permit' by the Buildings Department). Upon occupation of a commercial or composite complex, the shopping centre portion could take about another 3 to 6 months for renovation and preparation before actual operation. It could take another 3 years for the shopping centre to reach its maturity period – a sustainable state of steady customer-flow and tenancy turnover rate.

Occasionally, some of the existing shopping centres have been completely overhauled and revamped upon change of ownership or upon total re-steering of business strategies (e.g. changing from department stores to theme malls as in Shui Hing in Tsim Sha Tsui, overall re-planning for better subdivision of shops or further upgrading like The Landmark in Central). Also, there have been cases that shopping centres were created out of other less commercially viable premises like cinema house (e.g. The Palace into World Trade Centre Mall), Bowling alleys (e.g. The Brunswick) and large scale night clubs or Chinese restaurants. Under such circumstances, the age of the shopping centres would be taken from the new or re-operation date that could be substantially different from the building age.

The main significance of this physical demographic data is that the operation age of the shopping centre may be one of the factors that affect the renovation frequency, refurbishment extents, repair and maintenance costs etc. that can in turn drive demand on more professional services. Initial investigations reveal that the operation age does have significant effects on increasing the intervals of R/M activities. In general, building life is taken as 40 years (for accounting purpose) and more intensive R/M activities are expected after 15 years a especially after 25 years when building materials, waterproofing membran sealants, building services wiring and ducting etc. are deteriorated, harden and/or oxidised.

Commercial decisions for over-aged shopping centres may have to be made either total re-planning or refurbishment (e.g. The Landmark, Central)

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complete redevelopment together with the commercial or residential complex (e.g. Chung Ying Mansion in Tsim Sha Tsui)

On the other hand, age of a shopping centre in Hong Kong may have positive influence on the successfulness of its operation. This may not be consistent with literatures and research studies in other countries where over-aged malls without upgrading and value adding facilities were less attractive and prone to decline. However, some of the older malls in Hong Kong are usually situated in prime locations in CDB or MSD (major shopping districts) that in history had been focus of ensemble for locals and frequent customers. Their established position in the market and in the sentimental memories of the community has ensured a certain level of revenue return.

c) Location and Catchments :

Location is the prime consideration for property investment decision-makers to formulate their investment strategies. However, the choice of location is not always a free decision that can be made by any property investor or shopping centre operator. Unlike some of the purposefully designed and developed regional scale shopping centres in past few decades intended to attract larger catchment of target customers (e.g. The Ocean Terminal, The Festival Walk, The MegaBox, etc.), many of the older shopping centre developments have become 'by-products' of commercial or composite developments in which the podium floors are simply packed up with arrays of shops waiting to be leased or sold. Yet through years of experiences gained in property developments, sale and marketing of arcade shops, and realisation of asset values of retail shops in an investment profile, totally different business strategic approaches have been evolved and generated.

But still, 'location' is one of the passive and unchangeable factors that shoppi centre investors and operators have to cope with, and to take the maximu advantage of, in producing the optimum business return for the property. Tl would involve:

- 'positioning' of the centre in the retail market,
- 'target customers' that the centre expected to draw or to attract,

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- the anticipated physical bound of the 'potential customer catchment' where customers are expected to come from.

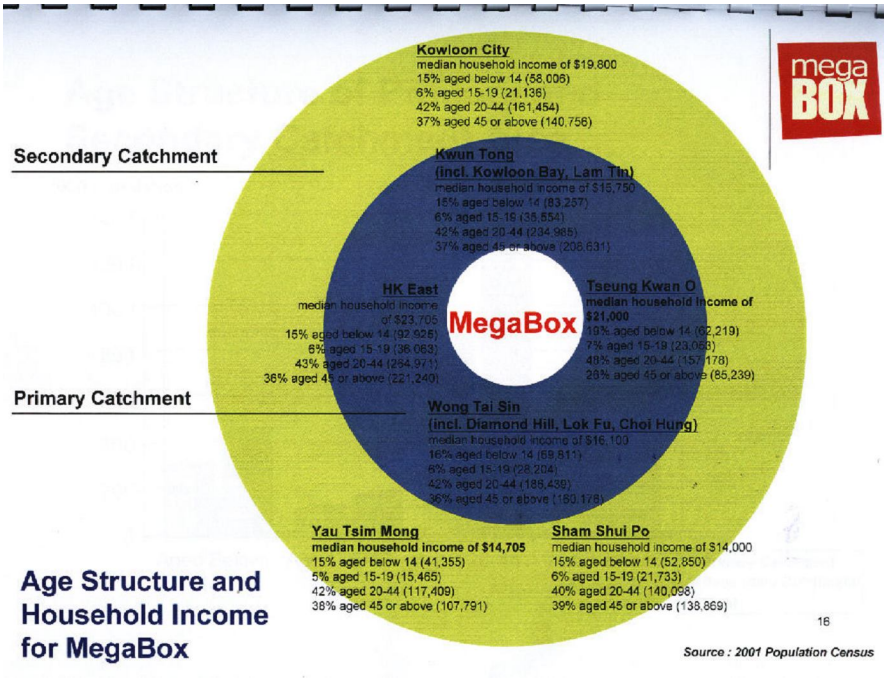
Catchments can basically be categorized or segmented into primary, secondary and tertiary zones:

- The primary catchment of a shopping centre can be characterised as the zone that contains the local or district residents and working population living or having a permanent occupation within that neighbourhood.
- Secondary catchment may be defined as the zone that covers the neighbouring districts from which customers may be attracted to the shopping centre.
- The tertiary catchment is a general description in a more regional context that customers are literally attracted from all over a region (e.g. all of Hong Kong Island, Kowloon and the New Territories, a town, a city or even a province or state.).

A typical catchment diagram can be seen in the following figure extracted from the 'Megabox' promotional brochure.

Figure 3-2 Diagram of a Typical Catchment

(source; Megabox promotion brochure)



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d) Legislations, Statutory Tenancy terms and conditions

Statutory controls over the physical properties and operations differ among countries and even among states within a country. Specific legislations for retail properties and contracts are enacted for shopping centres' business operations in some countries whilst in other countries, it can be governed by general business legislations and contractual laws.

In Australia, very detailed and comprehensive 'Retail tenancy legislations' have been enacted throughout various states since 1985, spelling out the legislative definitions, requirements of retail premises (and even specifically for shopping centres for some states), legal obligations and liabilities of retail property owners and tenants etc. However, due to different paces of real estate developments and geographical demographics, each state or territorial government has developed individual set of retail tenancy legislation and regulations. As listed and compared in detail in the 'Retail tenancy legislation compendium' in the Ellison M. website (www.minterellison.com), some of the latest legislations include: Retail Leases Act 2003 of Victoria, Leases (Commercial and Retail) Act 2001 of Australian Capital Territory and Business Tenancies (Fair Deal) Act 2003 of Northern Territories.

In Hong Kong, there is no specific legislation governing the management, operation and tenancy of retail business and properties. Shopping centres are treated as commercial properties and are controlled under the provisions of Buildings Ordinance and related legislations, while business operations are governed by normal business related legislations including Company Ordinance etc. Tenancy leases are protected under contract law which is not enacted under legislations but following the principles of common law.

3.9.2 Other Endogenous Factors

a) Planning and Design -

"Planning is a crucial factor. You need to plan and determine the vision

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your shopping centre.", expressed Woon, (2007)[4]. A successful retail centre should adopt a two-tire strategy taking into consideration both "the shoppers and its shops". Kim (2007) echoed that *"The right design plus the right tenant mix that matches the customers' experience are the best ingredients for any mall's success"*.

b) Shop numbers and size –

In a shopping centre, there ought to be a minimum or optimum number of shops with a certain range of sizes that can accommodate a certain number of key tenants plus others. As such, a balanced trade and tenant mix can then be planned through a variety of choices of shop locations and sizes in order to generate the intended number and mix of target customers, same time minimizing unhealthy competition. Of course, for some theme malls or neighbour malls, a standard size of smaller shops in arrays may be the dominant style and desirable solution to accommodate the maximum number of tenants with a view to achieve higher occupancy rate. In any case, there should be a right mix of shop numbers and size for a shopping centre to be able to survive through its maturity stage of operation in about 3 years' time, according to some operators in the industry. By then, there can be a wave of reshuffle and replacement of tenants and trade mix. Shop numbers and sizes may have to be revamped to accommodate these changes. It is therefore very important for the planning and design of a shopping centre to be flexible, reversible and interchangeable.

Ongoing investigation reveals a possible correlation between the size of a shopping centre and positioning versus optimum shop numbers and average size.

c) Tenant numbers and turn over rates –

These attributes may not have direct correlation with the shopping centre size b rather, have an impact on the positioning, marketing strategy and leasi management. According to some senior executives of leasing departments, the are rules of thumb for ratio of number of tenants to number of leasing office taken into consideration.

With another developer holding 5 major shopping centres (of category 5) with

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total of 385 shops in its property profile, each shopping centre is serviced by 1 to 2 assistant centre managers and officers (total 5 in no.) and 2 customer service assistants, therefore the leasing officer to tenant ratio is about 1 to 77, whereas annual tenant turnover for this developer is relatively low (close to nil %) due to the steady state of business for tenants in such shopping centres being at minimum 14 years in operation.

Information from other developers and consultants revealed that tenant turnover rate was usually below 15% for matured shopping centres but could be able to arise to 20 to 30% in circumstances like major refurbishment, steering of investment or business strategies (e.g. reviewing tenant/rental policies), and probably in the first tenancy cycle (end of the 3rd year) of a newly operated shopping centre.

All the above attributes aim to show that the number and turnover rate of tenants do have a correlation with number of leasing and customer service related officers, but whether the assigned personnel are of professional or quasi-professional grade will depend on corporate leasing policy, positioning of individual shopping centre and the demand of quality service of target tenants.

d) Positioning of target tenants

As prioritised by most senior executives in the industry who are determined to excel their business in that particular district or neighbourhood, 'location' is the prime factor that dictates the type of tenants.

On the other hand, for some newly developed shopping centres that may be substantial enough to create their own batch of target customers, key or prime branded tenants, franchised and chain stores would be lured to extend their business enterprises therein. As such, the scale, corporate investment strategi branding concepts and physical planning and design can also be maj considerations in setting criteria of target tenants to match with prime busine objectives. Some very famous and recent examples are the Langham Pla situated at back street in Mongkok, the new Miramar Shopping Mall at t Northern fringe of Tsim Sha Tsui and the Festival Walk in a very non-CB environ.

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e) Tenancy/Trade mix

According to senior executives or professional consultants, fixing tenancy mix is one of the most market-sensitive and controversial tasks in leasing operations. The rationale is: how the mix should be distributed, to what extent flexibility should be allowed for, or whether tenancy mix should be prescribed at all.

The tenancy positioning and mix for shopping centres owned by multiple owners, which may have been preset by the developer as its sales strategy, will eventually find their way to settle down for businesses that can survive and thrive in that particular shopping centre. Owners who have purchased units in such shopping centre will operate or lease to tenants to seek for the most viable business that can attract shoppers within the customer catchment. For non-theme shopping centres, the mix of tenant businesses will ultimately be depicted by shoppers' purchasing power, age groups, external neighbourhood activities and competitions among tenants and shop operators.

A well-known example is the shopping floors of the World Wide Centre in Central. Originally it was designed and marketed as a high-class shopping centre, but later most of the shops on the upper level had turned to uncoordinated business operations relating to hiring of foreign domestic helpers.
Another example is the Tung Ying Mansion shopping centre in Tsim Sha Tsui, now demolished to make way for a new commercial development. As recalled by a senior executive of the property management company then, the market orientated tenant mix began to evolve into a combination of medical related operations (private clinics and test laboratories) on the upper floors, and highly traditionally operated boutiques and audio-visual equipment stores. The main reason was due to the aged appearance of the building and the passive operation strategies, the shops were operating under a non-dynamic marketi condition and shoppers attracted were majorly middle-class or retired custome some of whom were habitual visitors after morning exercises in the Kowlo Park just across Nathan Road.

There is undoubtedly a need to predetermine a tenancy mix in the case developing or refurbishing a new shopping centre. Such as in the case of t

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MegaBox, it was claimed by the developer as *"specifically designed to cater to the lifestyles and aspirations of local shoppers with their increasingly sophisticated demands. From its spectacular design to its innovative tenant mix, MegaBox has all the ingredients required to make it a family destination,"*[7].

On the other hand, commercial tenants of Hong Kong Housing Authority's (HKHA) retail properties, in giving comments on the Divestment Project and Future Business Plan of the Link, *"generally asked that the trade mix and location of different trades should be kept in a balanced manner to avoid unhealthy competition, and to meet customer demands."*

This would involve a fine-line balance between inflexible prescribed trade mix for previous (and existing) HKHA retail properties to a 'rationalised and optimised trade mix' as pledged by the Link.

f) Rental type and range

Determining the pricing and modes of rental collection is one of the major tactics to achieve the goals laid down under a shopping centre's leasing strategy. This exercise would usually involve executive personnel well experienced in leasing and marketing sometimes with the support of professional surveyors, specialist retail valuers or proficient retail estate agents. There are various factors to be considered in setting the rental level depending on the method of valuation adopted in the industry. Interviews with senior executives in major shopping centres revealed that retail rental can be determined by :

a. Comparative method
b. Contemporary valuation method
c. Base rent plus turnover rent with reference to turnover in terms of business receipts and expenses
d. Base rent plus turnover rent in terms of customer (client) numbers e.g. r of children for private kindergartens

In the 'Tenant Guide For New Retail Shop Leases'(1999) of Australia Commercial Tenancy (Retail Shops) Agreements Act, limitations of methods rent review are spelt out to include :

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- Market Rent
- Consumer Price Index (CPI)
- Percentage increase
- An agreed formula or combination, eg. CPI + 10%

The types of review may even *"vary over the life of the lease, for example Year 1 CPI, Year 2 Market rent, Year 3 a fixed increase then a higher rate if turnover exceeds an agreed level, Year 4 Market rent, Year 5 CPI + a percentage increase."*

In Hong Kong, the rental mode of most of the shopping centres is fixed rent or a base rent plus a percentage turnover rent. The choice of rent type will sometimes depend on the trade mix, according to executives of some shopping centres.

g) Occupancy rate

Occupancy rate is an important indicator of 'successfulness' of a shopping centre and maintaining high rate is usually one of the 'long term goals' (Tiew)[6] set out by the shopping centre management. Apparently, occupancy rate directly contributes to generation of revenue, hence the quality of investment profile of a corporation. The stimulation and up-keep of high occupancy will rely on sensible leasing strategies, wise choice of tenant and careful planning of the right trade mix to lure targeted customers for successful operation. This is extremely crucial especially for newly developed or re-established shopping centres. The usual tactics are to negotiate with anchor tenants to take up strategic locations at lower rent, to offer ample rent free periods to new tenants, and extend proficient tenant management services and most importantly to ensure sufficient customer-flow for business opportunities maximized. All these tasks would involve senior personnel of vast experience in leasing and marketing, a sou knowledge of prevailing customer's purchasing behaviour, and professior mindset in addressing to tenants' overall needs.

However, the mere pursuit of occupancy rate in the short run may not sustainable and may disrupt the positioning and branding of the shopping cent initially adopted in line with the corporation's business strategy.

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From primary research findings, there are varied attitudes as to how to tackle this problem, depending on the type of ownership, location and target customers of the particular shopping centre, catchment and status, that can be categorised as follows :-

Table 3-4 Management Strategies of Different Hierarchies of Shopping Centres

TYPE	Choice of tenants	Setting of rent rates	Provision of management services
Multiple ownership	Free choice w/o tenancy mix control	Mutual negotiation for market rent w/ reference to neighbour rents	Standard services
Neighbourhood shopping centre	According to neighbourhood customer needs	Rent according to location, size	Standard and leasing services
Themed mall	Restricted to theme trades	Rent according to location	Standard, leasing and marketing
District/regional shopping centre	Careful planning of tenant/trade mix Choice of anchor tenants	Rent rate according to tenant/trade type and location	Higher quality PM/FM, leasing and marketing, promotional

From various sources, occupancy rate in general does have a correlation with unit rental, customer-flow, supply of retail spaces in the neighbour or district, leasing policies for choice of tenants and trade mix etc.

At low occupancy level, the rent rates should have a negative relationship with occupancy rate, while vice versa, at near full occupancy, occupancy rate does not have a consistent and direct correlation with rent rates, but is more depende and affected by the supply of shopping centre space in the neighbourhood.

Thereby, both occupancy and rent rates are correlated to supply of retail spac in the target catchment, and quite independent on each other when touching certain occupancy level (say a near saturation level of above 95%).

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h) Customer/Visitor-Flow

As a promotional slogan or 'punch line' for many of the shopping centres in Hong Kong, the statistics of high customer-flow , especially during peak hours of weekend and holidays, is seemingly the key indicator of the successfulness of a shopping centre, and a 'bread earning' attribute to bring in higher tenant occupation rate, rental revenue and advertising income.

In the industry, 'customer flow' is only a broad term describing the influx of pedestrians or visitors passing through the shopping centre without specific references to those actually purchasing or participating in recreational activities, those consuming food and beverages and others enjoying the services provided in the premises.

More in-depth study of customer-flow would involve average and peak-flow on different days, pattern of flow, modes of transportation pattern and range of purchase etc. Since this research is to focus on professional management services, only relative statistics of customer-flow within a non-peak hour period will be taken as a reference for effective and best practices for operation of shopping centres in the industry.

i) Pedestrian data collection

The following methods of counting are employed in the industry worldwide :

i. Camera or CCTV systems
ii. Latest electronic counting technology and online information delivery mechanisms *(source : http://www.spring-board.info/shopping.shtml)*
iii. Thermal Imaging or Infra-red counters
iv. Hand counters

In Hong Kong, most of the pedestrian-counting methods adopted are by infrared and hand-counting but some of the statistics revealed by the shopping cent operators cannot be verified since the time, location and flow direction may r be standardised for comparison. Moreover, in many of the shopping centr connected to the MTR or KCRC route stations, the main entrances are usua situated along the major thoroughfares from the stations to adjoining commerc offices or residential blocks whereby daily commuters will pass through t work. Henceforward counting pedestrian flow at these passages will r

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represent a true picture of the influx of potential customers entering the shopping centre.

In this research, pedestrian counting was taken at non-peak hours (1500 to 1700hrs) on weekdays in order to avoid peak hour's peak-flow, also to minimize the 'dilution' effect of passers-by to the flow of actual potential customers entering the shopping centre.

j) Customer Characteristics

In fact, in studying the characteristics of actual customers, the following features have to be considered in order to determine the right match of retail tenants, lines and quality of products or services to be planned and provided in the shopping centre:-

- Physical demographics including age, gender, places of work and residence, or from which hierarchy of catchment.
- Social demographics including income group, occupation, marriage status etc.
- Psychological demographics including shopping habits, preferences of brands and types of shops, choice of shopping centre design, shopping atmosphere, lighting and colour etc.

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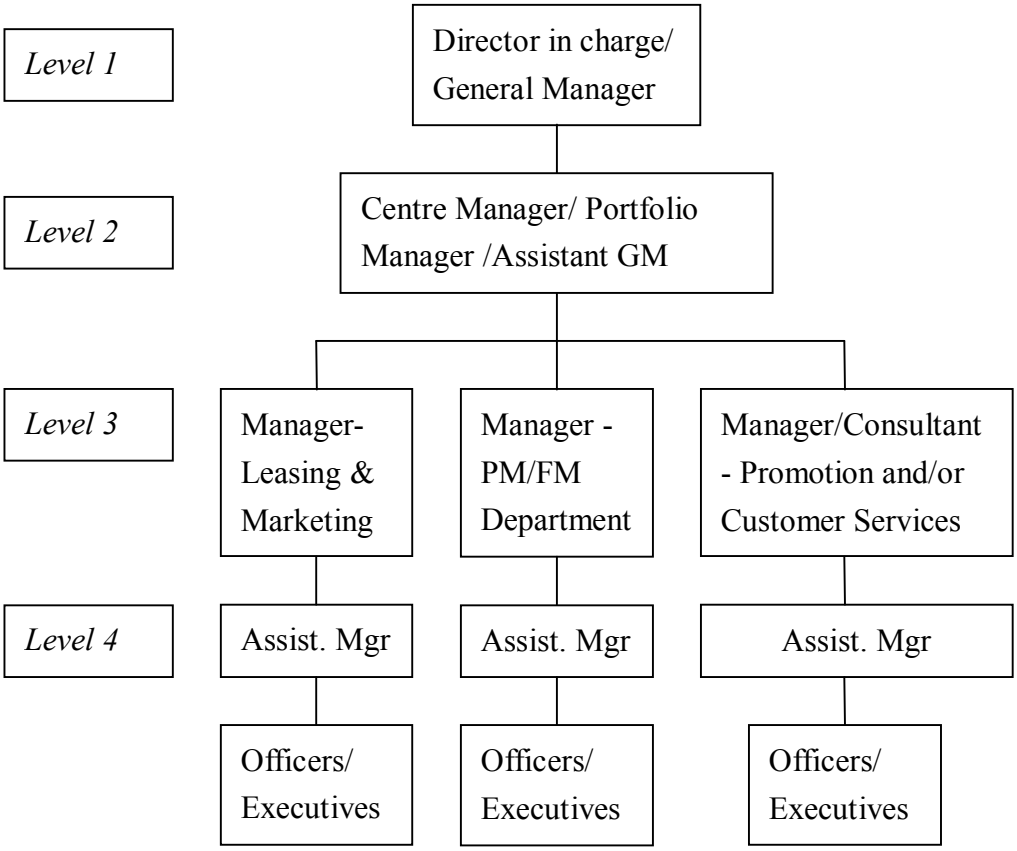
3.10 Management Organization Chart

After thorough research through interviews and review of organizational structures of shopping centre management systems in many of the developers, operators and retail management teams or consultants, the management strata can be generalised as shown in the following chart :-

Table 3.5



In an attempt to ascertain the levels of managerial human resources employ and the actual efforts or expertise exerted in shopping centre operations, t following chart has been derived to segregate the hierarchy of management a the percentage input of managerial and professional personnel (representi the HR input), to produce the intended business benefits : -

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Table 3-6

Human Resource Allocations for ALL Shopping Centres under the Corporation

Involvement of Senior Executives and Professional personnel in Shopping Centre(s)
(no. can be non-integers. Pl. estimate the average % of workload or responsibility allotted for each shopping centre e.g. 0.4 or 1.2)

a. Director at Headquarter

b. General Manager at Headquarter

c.

Portfolio Manager/Centre Manager(s)	nos.
Assistant Manager(s)	nos.

d.

Leasing & Marketing Manager(s)	nos.
Assistant Manager(s)/Officers	nos.

e.

Property/Facility Manager(s)	nos.
Assistant Manager(s)	nos.

f.

Technical Manager(s)	nos.
Assistant Manager(s)	nos.

3.11 Parallel Investigation of Shopping Centre development ar Management in Mainland China as a Comparison

Interviews have been conducted with executives who are carrying out proper development in the Mainland, with a view to portray the differences in busine

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approach, marketing and leasing strategies and professional human resources demand.

Very often, projects in the Mainland are rather large in scale and the planning of shopping centres in terms of size, proportion and the type of trade mix cannot be predetermined at the planning stage, due to uncertainties in the market situation, customer demographics and purchasing power.

In the past two or three decades, the proportion of shopping centres in mixed developments could be more flexible as determined by the size of the site and negotiation of land premium. Market research or customer catchment studies were not carried out professionally thus frequently resulted in over supply or misjudgement of market positioning, ended up in failure of business operation.

However, situations have been gradually changing in the past few years in frontline major cities (like Beijing, Shanghai, Guangzhou and Shenzhen etc) when the development of shopping centres have become more sophisticated with more participation of foreign and Hong Kong investments. Professional extensive market researches are often carried out and renowned architects and designers are commissioned to produce contemporary and unique designs. As a result, sophisticated upfront and high-end shopping centres are emerging in the mainline cities.

Nevertheless, such booming phenomenon in the Mainland has called for quality and efficient management hence creating a wide gap of demand for professional and experienced personnel lacking in big quantity. It is envisaged that such a demand will prevail for some time before sufficient personnel of adequate professional training and experience can be attained in the Mainland.

Footnotes

1. REIT - Investopedia 2007 defines that REIT is 'a security that sells like a stock on the ma exchanges and invests in real estate directly, either through properties or mortgages. REITs invest shopping malls, office buildings, apartments, warehouses and hotels. Some REITs will inv specifically in one area of real estate - shopping malls, for example - or in one specific region, state country. Investing in REITs is a liquid, dividend-paying means of participating in the real est market.'
Primaris Retail REIT advocated that Real estate investment trusts (REITs) are an ideal vehicle individuals wanting to invest in to institutional-grade real estate whilst maintaining the liquidity a benefits of the equity markets. REITs offer stable, real income over the short term, and capi appreciation over the long term. They offer the economic benefits of real estate ownership with

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investment benefits of the public markets.

2. Hong Kong Financial News Mar 2010 - The REIT code was issued in 2003, when there would not be active takeover and merger activities. Since the launch of the first REIT in 2005, the Securities and Futures Commission has seen increased corporate activities amongst REITs.

3. Link Management Ltd –

Since 1 March 2005, The Link Management Ltd (The Link), the manager of The Link REIT, has taken over from HA (The Hong Kong Housing Authority) the day-to-day management of the 180 RC facilities within the divestment portfolio.

Wikipedia 2007 described The Link REIT (領匯房地產投資信託基金, or 領匯;SEHK: 0823) as 'one of the world's largest REITs, or real estate investment trusts with assets of around US$3.3 billion. The REIT includes 180 properties, primarily shopping malls and carparks, formerly owned by the Hong Kong Housing Authority'

4. Woon S., Managing Director, Immortal The Design Station Pte Ltd., gave his expert opinion on the planning and design of shopping centres in the *RFP journal, April 2007.*

5. In the summary of Responses By Housing Authority / The Link, 'Legislative Council Panel on Housing Progress on Divestment of Housing Authority's Retail and Carparking Facilities 2005' - The Link sees opportunities to rationalise and optimise the trade mix and tenant profile within the shopping centres, as well as between centres within close proximity. These can take the forms of (a) proper and systematic retail planning, (b) to ensure optimal location of trades and compatibility of tenants), (b) introduction of brand name tenants, and (c) reduce duplications of trades and tenants between properties [Ref : OC pp.153]. The objective is to increase shopper traffic and satisfaction, thereby enhancing business for commercial tenants.

Going forward, the Manager intends to adopt a market-oriented approach with regard to setting rents, based on normal commercial considerations. In addition, the Manager intends to implement various initiatives aimed at improving the overall commercial attractiveness of shopper traffic and tenants' sales at the Properties, which will in turn enhance their rental potential.

6. In an article 'The Summit breathes new life with upgrade" in the 'biz.thestar' web site, SUBANG JAYA: Meda Inc Bhd, owner and operator of The Summit Subang USJ, is breathing new life into the shopping complex in a move to reposition it as the preferred neighbourhood mall. Complex operations director Vincent Tiew told *StarBiz* that management had been upgrading the mall since middle of last year and expected the exercise to be completed by end-2007 at a cost of about RM7mil to RM10mil. Among the improvements are the installation of additional closed circuit televisions, upgrading of the lighting, air-conditioning systems, toilets and lifts, and external building painting works. The management has also revamped the mall's tenancy mix.

Tiew said the mall's occupancy rate had jumped from an average of about 70% to 92% in the past months due to careful tenant selection and attractive rental packages. "The management's **long-te goal** is to maintain an occupancy rate of not less than 95%. We will achieve this by focusing on right tenancy mix and attracting the right customers," he said.

7. Press release of Kerry Properties Limited, 2005/10/24.

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CHAPTER 4

DEVELOPMENT OF HYPOTHESES

This chapter develops hypotheses that explain how business strategies and management characteristics enforce management efficiency, which is defined as the efficiency of human resource utilization in management operationalized as a combination of different levels of input as compared to output.

Throughout the course of investigations, there were several views: some universal, yet somehow diversified, what more contradictory school of thoughts to this agent of business strategies, resulted in different management characteristics derived for different shopping centres, as each individual operator may deem fit and sound to engage.

This chapter also outlines the background for identifying the essential elements of shopping centre management characteristics and the development and formulation of the hypothetical preference for comparison with analytical results in the next chapter. The development of hypotheses will be unveiled under the digestion of previous investigations and data sourcing with reference to related literatures.

Adoption of dependent and independent variables will be discussed and steps of da analysis will be illustrated. Hypothetical assumptions of the inclination of choice management characteristics will be made based on preliminary investigations, study relevant materials and subsequent interviews.

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4.1 Analysis of Human Resource Utilization of Shopping Centre Management

One of the important success factors of shopping centre operation is the utilization of human resources, specifically professionally trained or qualified in the related field of retail management, leasing and marketing, property and facilities management, and how they are deployed in an efficient manner to maximize output. An indication of the demand of professional personnel in various sectors through analysing the management efficiency and demand gap is laid out in due respects.

4.1.1 Role of Professional Shopping Centre Management Personnel

The demand for multi-discipline knowledge for shopping centre management personnel is growing drastically in view of the complexity and the competitiveness of the recent retail market environ. Such knowledge and skills are evidenced by curriculum of many of the emerging degree and certificate courses offered around the world.

For instance, the Property Council Diploma Course curriculum in Shopping Centre Management / Marketing (2006) Property Council Of Australia, listed out many of essential elements and some of the more essential ones that are management characteristics related to this research are outlined as follows :-

Essential Skills

Introduction to Shopping Centre

Management

Introduction to Marketing

Tenancy Mix

Leasing Fundamentals

Advanced Skills

Property as an Investment

Management Accounting

Advanced Lease Fundamentals

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Lease Administration

Strategic Marketing

Managing a Refurbishment

Global Developments

Retailer Training

Advanced Market Research

Professional Skills (Diploma level or above)

Strategic Management & Leadership

Project Planning

Evaluation Techniques

Staff Training

Property Performance Measurement

Marketing a Refurbishment

Large Retailers

Strategic Business Planning

Negotiation Skills & Dispute

4.1.2 Workforce Planning in Senior or Professional Management

In order to explore different dimensions of human resource utilization in shopping centre management, workforce planning as well as areas of input and output are studied for adoption of the input variables in the development of the hypotheses. The following table depicts the inputs and outputs of various HR planning activities participated by all levels of management executives concerned:

Table 4-1 Inputs and Outputs of HR Planning in Shopping Centre Management

(Adopted from *Workforce Planning in HHS, (1999), Office of Human Resources, Departm of Health and Human Service, USA)* (Appendix E referred)

Activity	Input	Output	Participants
Supply Analysis	Workforce demographic and transaction data	Workforce profiles (such as age, grade, service, occupation, permanent	Senior Manageme –Director / Senio

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	Workforce skills / (professional qualifications) experience data collection; workload measurement inputs	/temporary tenure, supervisory ratio, and diversity) (% of working hours and efforts)	manager level Shopping Centre Managers, PM/FM Managers, supervisors, and staff
Demand Analysis	Management Assessment of Shopping Centre management direction GPRA Objectives Strategic Plans Budget Plans	Future workforce profile: skills, numbers, levels	Senior Management –Director / Senior manager level Shopping Centre Managers, PM/FM Managers, supervisors Optional: contract support; internal consultant
Gap Analysis	Supply Analysis data: Demographics, employment trends; skills inventory Demand Analysis data: Future skills needs; (professional qualifications);staffing levels	Analysis of differences between present workforce and future needs; priorities for addressing change	Senior Management; Shopping Centre Managers; supervisors GPRA/Strategic Planning staff; HR staff Optional: contract support; internal consultant
Solution Analysis	Output from Gap Analysis: Identified "gaps" between present workforce and workforce needed for the future.	Strategies / options for workforce transition Analysis of interventions needed for transition	Senior Management; Shopping Centre Managers; Supervisors

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			Supervisors Optional: contract support; internal consultant

Apart from the above, human resource input ought to be quantified in terms of wages or salaries paid to executives who are totally or partially involved in shopping centre management. However, through further investigation into the professional management industry and relevant human resource statistics, it was revealed that sufficient data in respect of wage rates trend, production or output measure (e.g. in terms of sales volume of tenant customers, increase in shopping customer flow), cost of management inputs, and real stock of capital (in terms of costs of physical assets including investment capital and net book value of individual shopping centres) were not at all available.

In the end, the wages of professional Shopping Centre Managers cannot be standardised due to (i) business confidentiality and (ii) different interpretation of job nature of Shopping Centre Management and different allocation of human resources. Also it is impossible to obtain salary range for managers based on the individual post in SCM since seldom is there an assigned Centre Manager position in the Operational Structure in SCM in Hong Kong. Subsequently, human resource input cannot be studied in terms of salary payment but has to be based on efforts exerted by management executives in terms of man-hours.

4.1.3 Hierarchies of Human Resources in Shopping Centre Management

Management executives can be categorized into different levels or hierarchies in the management organization structure. In order to define more specifically the development of hypotheses in this research, the types of personnel and their roles at each level are illustrated in the following table:

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Table 4-2

Hierarchies of Human Resources in Shopping Centre Management

Hierarchy	Post	Role	Estimated Workload range % for n centres
HR 1-	Director. Senior Managers	Development of business strategies	≤ 30%
HR2 -	Shopping Centre Managers, Portfolio Managers	Overall management of shopping centres	100% /n to 100%
HR3 -	Leasing & Marketing Managers PM/FM Managers	Specific tasks in revenue generation and value-management of physical assets	≤ 100%
HR4 -	Technical Managers Assistant Managers	Up-keeping of property and facilities	≤ 100%

4.2 Hypotheses of Management Efficiency

4.2.1 Analysis of Management Characteristics of Shopping Centre Management

The management characteristics of a retail development are crucial elements in successful business operation on top of the physical attributes that have be studied and analysed. The business and management decisions in consideri the establishment of a shopping centre are strategic within the context corporate management of a developer. Retail developments alone or the ret portions of a composite development are often long-term holding assets with the property profile of a corporation especially for listed companies. T corporation has to position itself in line with its corporate business goals a

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objectives such that, utilization of professional human resources, management style that the headquarter is adopting, the attitude of care towards primary and purchase-end customers, the mode of physical management of tangible assets etc., are geared towards achieving such goals. All such attributes would contribute to the successful operation of the retail developments, hence continual revenue generated for the corporation.

4.2.2 Determinants of the 'successfulness' of a Shopping Centre

CHAN, C.S.(2006) summarized *'the generally acceptable yardsticks to measure whether a shopping center is running successfully*', and listed how developers, tenants, and customers take different criteria to measure the '*successfulness of shopping centers'* in the following table :-

Table 4-3 Measurement of Successfulness of Shopping Centres

Different Type of People uses Different Yardsticks to Measure the Shopping Center			
Type of People	***Main Objective***	***Tool***	***Tool Components***
Developer	• *Maximizing rental income* • *Full occupancy rate*	*Marketing Plan*	• *Locational Factors* • *Market Analysis* • *Tenant Mix*
Tenants	• *Maximizing sale volume*	*Merchants' Association*	• *Representation to Developer* • *Joint Promotion with Developer*
Customers	• *Goods and services matching customers' demands* • *Modest shopping environment*	*Consumers' Survey*	* *Market Analysis* • *Facility Management*

Source : CHAN, C.S.(2006)

In determining whether a shopping centre is successful can be simple, compl or multi-dimensional. The most straightforward and tangible way is

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determine the sales revenue generated per unit floor area of the shopping centre. However, due to commercial confidentiality, normally it would not be possible to make comparisons other than those within the same corporation or self-management group. It is essential and crucial for a corporation and a shopping centre management group to determine the allocation and distribution of financial, physical and human resources for the optimization of the corporation's profit. Nevertheless, the determinant of sales revenue may not be readily available since tenants may not be willing to disclose their sales revenue to the management unless the rental is based wholly or partially on turnover rent. Moreover, some tenants are reluctant to disclose their sales revenue at a time the shopping centre is under a maturing state when the retailers are capitalizing on steady customer base and good will that has been built over a certain period of time.

To benchmark the success of a shopping centre, Ooi J.T.L. et el (2006) remarked that :

'There are numerous ways in which a mall's performance can be benchmarked - the most direct way would, of course, be to gauge its profitability through its rental revenue or total receipts from retail sales. The Urban Land Institute (ULI) and the International Council of Shopping Centres (ICSC), for example, measure shopping centre performance in terms of non-anchor retail sales per square foot. Other possible non-monetary performance measures for malls are traffic count, shoppers and tenants' satisfaction survey, occupancy and turnover rate.'

In their study, they have gauged shopping centres' performance by their 'magnetism', the ability to attract and retain shoppers, through researching on the distance, size and the presence of a Cineplex of suburban malls.

Mejia, L.C. et al (2002) explored the determinants of retail sales by revealing t effects of spatial and non-spatial factors as shown in Fig. 4-1 'Exhibit 2' below

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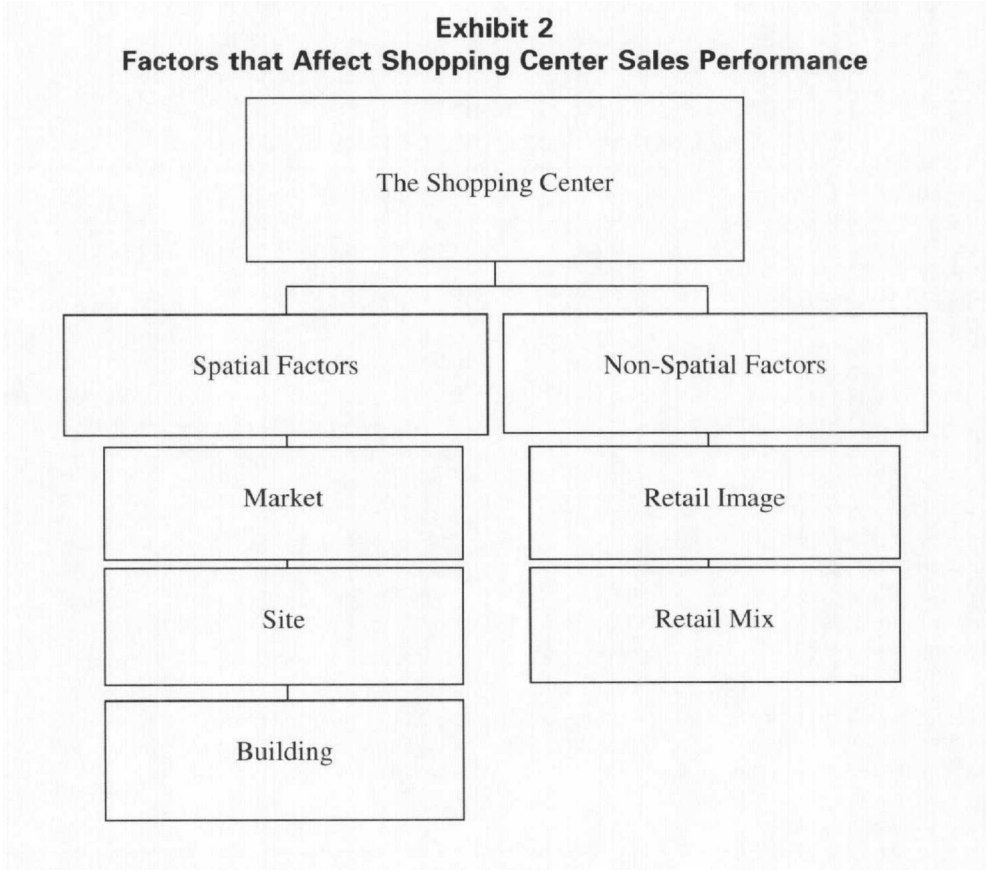
Figure 4-1



They concluded that non-spatial factors would be increasingly valuable in today's competitive market, representing a source of intangible value contributable to the sales difference between retailers with the same spatial factors of market, building and site characteristics in a shopping centre. They went on to suggest that it would be particular valuable to model and to test the shopping centre sales maximization problem in the presence of spatial and non-spatial inter-store externalities, and to assess the economic trade-off between spatial and non-spatial factors. Thus, their research revealed the importance of management strategies and characteristics accountable for the success of a shopping centre with a given set of exogenous physical characteristics (locatic transportation modes, customer catchments and demographics etc.) a endogenous physical characteristics (design, customer flow pattern, provisior of ancillary facilities, car parks etc.).

The feedback of initial exploration reflected that business goals and hum resource allocation set down under the corporate strategies of large corporatio

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especially those with a profile of multiple shopping centres, are also very crucial to the successful operation of the shopping centres.
Thus, it would be necessary to include business strategies and human resource factors into this thesis for elaboration in this chapter.

4.3 The Dependant Variable reflecting the 'Successfulness' of a shopping centre

There is a number of options in setting the dependant variable to depict the revenue generated for the shopping centre developer/owner, viz: the rental income per unit floor area.

However, in determining the rental of a certain tenant, there are several variations as to the calculation of the comparative amount of rent collected from different tenants under different tenancy agreements, for instance :

1. Monthly rental, base rent (BR) – plus turnover rent

2. Average annual rental, Annualized Base Rent (ABR) *(ICSC, SCT 2002)*

3. Average rental per lease term (Discounted for rent free period) - for new lease terms in new shopping centres or new tenancy, there are usually rent free periods allowed for initial decoration or refurbishment of the shop premises and the periods can range from one month to even six months in times of economic downturns. Henceforward, merely taking the monthly rental for the model does not give a true representation of the actual average monthly rental paid throughout the lease term.

4. Adjusted comparative rental.

5. Rateable Value –
   According to the explanatory notes given by the Rating and Valuati
   Department of the HKSAR Government, Rateable Value is :

   'an estimate of the annual rental value of the property at a designat

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valuation reference date, assuming that the property was then vacant and to let. ……. In assessing the rateable value, reference is made to other open market rents agreed at or around the date of valuation, for similar properties in the locality, with due adjustments to reflect any differences in size, location, facilities, standards of finish and management.,

Martin, D., (2006) also stated that :

'The Rateable Value is supposed to equate roughly to the open market rental value of the property. The resultant collection of all RVs becomes the Rating List. To avoid the necessity to revalue every commercial building each year, the RV for new or altered buildings is determined by reference to the valuations of similar properties forming part of the existing rating list.'

On the other hand, the choice of floor area description in calculating the unit rental income is also very important in reflecting the actual floor space utilized by the retailer tenant to generate viable business to sustain and justify the rental payment.
There is a variety of floor area calculations that are employed in the property market for sale or lease of premises, namely :-

1. Retail shop space plus a weighted share of public circulation space, unit gross area of each shop (including public space)

2. Saleable Area of each retail space.

3. Net retail shop space – equivalent to lettable area, net floor area, carpeted area.

4. Internal Floor Area (IFA) - the area of all enclosed space of the unit excluding wall thickness, instead of "saleable area". (Source: Rating and Valuation Department, HKSAR Government)

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4.4 The Independent Variables - PRIORITIES in Shopping Centre Management

After initial interviews and communications with senior executives in the industry, management characteristics of shopping centre development can be categorized into three priority strata as follows :-

[A]. PRIORITIES in Business Strategies
[B]. PRIORITIES in Leasing & Marketing (L&M) policy
[C].PRIORITIES in Property Management/Facility Management (PM/FM) policy

The rationale for priorities is based on their sequential and hierarchical status in the development and operation of a retail establishment. These are also the three principal business activities that entail possible success, in administrating and managing the intangible and tangible assets of the company, which major issues for discretion include:

- the corporate practice of centralized management,
- choice of professional personnel and allocation of human resources,
- targeting of customer groups,
- dependence on customer flow and tenant mix.

For uniformity, three key business decisions are chosen for each priority, and the choice of each decision will be tested for correlation with management efficiency , by being assigned as independent variables in the Step 3 model, to regress on the dependent variable of the business output, i.e. the efficient utilization of professional human resources to arrive at the optimal level of rateable value per unit IFA.

4.4.1 [A] Priorities in Business Strategies

A1. Choice of Location:

It is a common conception to consider location as the primary and most importa issue to decide plus a right timing to embark on a retail development. Such decision is critical for the following business goals:

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- the generation of long-term revenue to add tangible value to the retail property profile, and,
- a continual successful operation to build up the corporate image to form an intangible asset of the corporation.

This research aims to test the priority of the two goals in the choice of location for retail developments.

Henceforward, the first hypothesis would be whether the choice of location is more based on revenue generation, or more based on enhancing the developer's company image.

Skogster, P.,(2006) quoted Clarkson et al. (1996) who categorised the theories as follows:

- central place theory
- spatial interaction theory
- land value theory
- the principle of minimum differentiation

In discussing the factors of 'successful retail', Skogster also questioned the traditional wisdom of real estate experts advocating that the three most important factors for successful shopping environment are "Location, Location, Location.".
Dated back to a 1990 survey, he had laid out the primary reasons for consumers to choose their favourite stores as shown in the following table:

Reason	**Percentage**
Price	22%
Selection	18
Quality	17
Location	15
Service	10

Henceforward, the above analysis can merely serve a focus on one point in time, a the degree of suitability has yet to be determined.
Take for instance in Hong Kong, the choice of location is not a proactive decision th management has the luxury to make because most of the shopping centres are part

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comprehensive developments annexed to residential blocks, commercial and hotel developments. As a consequence, how a particular centre would derive long-term income to enhance the value of the comprehensive development forms a major rational agent in decision-making.

Nevertheless, the discovery of an outcome is worth noting:-
Although larger corporations tend to favour high-status locations that can uphold company's image, yet additional human resources are required for achieving a reputation of brand building, thus likely resulted in lower efficiency.

Conversely, other corporations would tend to favour less prestigious locations in densely populated areas that can generate more rental revenue, thus likely higher efficiency would be achieved.

Hence the Hypothesis for 'Choice of Location', which empirical result is envisaged to favour 'optimizing financial returns', is formulated as follows :-

Hypothesis A1 :

Management, who believes that strategic decision on choice of locations for shopping centres should be based on optimizing financial returns rather than for image building, can achieve higher management efficiency.

A2. Centralized Shopping Centre Management

In discussing urban area commercial revitalization, Karl F. Seidman (2002) outlined Centralized Retail Management (CRM) as :

'involves formal contractual arrangements among property owners to jointly fund and undertake activities through a central retail management organization, impleme common property covenants (governing such things as the cleanliness and quality storefronts and signs), and coordinate retail leasing. The scope of CRM, whi attempts to achieve common store practices and coordinated retail mixes, most close approximates the nature of a retail mall,'

Also, a recent Li & Fung Research Report (2008) on China Retail Market stated th

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poorly managed "stratified" properties are commonplace in Mainland China. It further remarked that :

'To reap in cash returns more quickly, selling retail units to more than one corporate or individual buyer is a common practice for retail real estate developers in China, at the expense of centralized property management…… Decentralized management has led to problems such as poor customer traffic, uneven trade mix, high vacancies and disputes.'

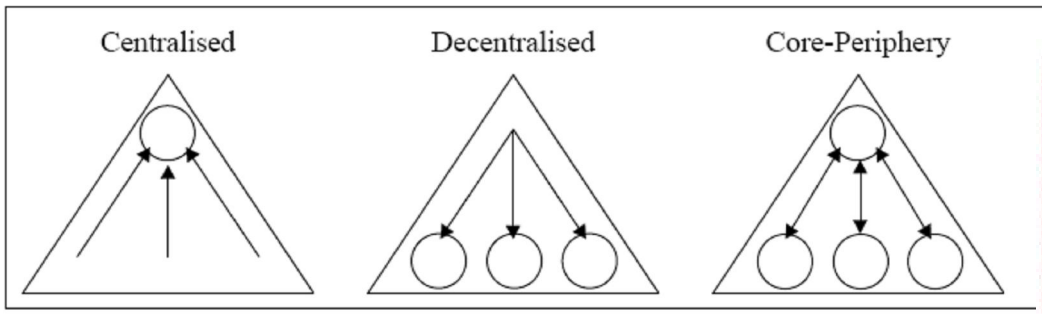
Despite of the interpretation of 'Decentralized Management' in this report taken to mean uncoordinated and segregated management of individual retail premises specially upon selling of retail units, the awareness of the importance of a well organized holistic management does formulate an overriding factor for its success.

In studying centralized vs decentralized management of public information systems in UK, Heeks, R., (1999) stated that :

> *'There are three possible approaches to these IS responsibilities which will be discussed in this paper:*
> . *Centralised: decisions are taken at the most senior or central level.*
> . *Decentralised: decisions are taken at some level lower than the most senior; typically by individual work units within the organization or even by individual staff.*
> . *Core-periphery: decisions are taken at both senior and lower levels, either separately or in an integrated manner.*

These approaches can be represented by the following figure :

Figure 4-2: Different Approaches to Information Systems Responsibilities



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Although this is not a directly related quote of example for retail management, it has outlined the possibilities of management approaches that can be employed. This is similar to managing shopping centres in terms of decision-making systems, in gathering and dissimulating information on retail business. Such information would include market trends, consumers' spending power, competitors' edges, customers' feedbacks etc. that would have profound influence on decision-makers at corporate strategic level and how the decision-making system can be established as appropriate.

A more relevant analysis of 'Centralised and Decentralised Organization' is extracted from an article in a management learners' web site http://www.learnmanagement2.com/index.htm in which the advantages of centralized and decentralized management structures are defined and compared, outlined as follows :

> *'In a centralised organization, head office will retain the major responsibilities and powers. Conversely decentralised organizations will spread responsibility for specific decisions across various outlets and lower level managers, including branches or units located away from head office/head quarters.'*

This signals in one way or another that organizations may adopt a combination of centralisation and decentralisation for more effectiveness, quoted management functions such as accounting and purchasing may be centralised to save costs, whilst tasks like recruitment may be decentralised as units away from head office may have staffing needs specific to their own. According to initial investigations, such a combination of systems is commonly applied to large corporation with a substantial profile of shopping centres to optimize the benefits of both management structures.

Decentralization can also be expanded into vertical and horizontal modes. Vertical decentralisation means that the decentralized units have been delegated the power to make certain decisions, down the hierarchy of their organization. Thus, the input people at the bottom of the organization chart involved in decision-making would b increased.

On the other hand, *'horizontal decentralisation spreads responsibility across t organization. A good example of this is the implementation of new technolo*

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across the whole business. This implementation will be the sole responsibility of technology specialists. '

The priority or preference in Centralized Shopping Centre Management differs from corporation to corporation. Corporations with larger profile of smaller scale shopping centres tend to favour Centralized Shopping Centre Management for economy of scale and viable distribution of resources. Others with smaller profile but of larger regional scale are inclined to deploy Decentralized Shopping Centre Management for effective and directly responsive style of management. As revealed in the exploratory study, the inclination towards either of the modes or a mixed mode is diversified.

In general, though management efficiency of shopping centres under Centralized Management is expected to be higher, yet intangible gains of Decentralized Management may outweigh such advantage. Therefore there is no strong indication for the preference of either one of the management systems because this has actually depend on the size of retail property profile and positioning of shopping centres. When coming into force, characteristics incidental to circumstantial factors or variables of its own will decide on which is more appropriate for practical purpose.

Hereby the Hypothesis for 'Centralized Management', which empirical result is envisaged to be statistically insignificant on 'management efficiency', is formulated as follows:-

Hypothesis A2 :

Whether top management believes in Centralized or Decentralized Centre Management has similiar impact on management efficiency.

A3. Developers' Target Customer – Tenants or Shoppers

To developers of shopping centres, their immediate (direct) customers are retaile who rent their shopping centres – the Tenants, while the ultimate shoppers purchasers are secondary (indirect) customers. The common business strategy

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shopping centre management in the earlier developments of the retailing industry was to satisfy the business needs of retailer tenants, who would, in turn, seek for the most optimum business mode to maximize their revenue by targeting their own customer (shoppers/ purchasers) group.

This research aims to find out the preference of target customers from developers' viewpoints in establishing contemporary retail developments and whether such choice of preference would affect their management efficiency and successful operation. Responses from senior executives can either reflect their prescribed business strategies, or their judgment revealing the adopted practice in everyday operations.

While academic studies of relationships among shopping centre developers, retail tenants and shopping patrons are limited, there is quite a wide range of professional and trade organizational researches on similar issues though not directly pinpointed, references as follows :

Prendergast, G., et al (1996) stressed the importance of tenant-manager relationship and showed that :

> *'tenants see the best managers as more than simply landlords, and these managers are often involved in the day-to-day operations of the centres to help ensure that their tenants, and their centres, are successful.'*, and suggested that *'if managers wish their centre to become successful, they must become involved in its day-to-day operations and they must be accessible to the tenants'*

Their study revealed the merits of treating tenants as target customers to achieve success.

Initial interview results reflected that slightly more developers chose 'Tenant' as their target customer, indicating that tenant-based management may be more direct a efficient. Whether shopper-based management would utilize more human resour resulting in lower efficiency will remain to be tested.

On the other hand, recent observations in contemporary retail marketing seem unveil a more important direction of targeting strategies to the ultimate customers the shoppers. In the last decade or two, the trend of shopping centre management h

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been changing towards more emphasis on customer relationship management, customer knowledge management, with a view to provide 'shoppers-based' physical facilities and shopping atmosphere.

Li & Fung (2008) also remarked for shopping centre developments in the Mainland China that :

> *'Property developers (are) paying more attention on enhancing shopping experience. As Chinese consumers become more discerning and sophisticated, retail property developers and operators now put greater emphasis on enhancing shoppers' consumption experience.'……"**Retail-tainment**", the concept of combining both retail and entertainment formats under one roof, is also increasingly popular in China.'*

Such remarks invariably brought out the important concept of 'shoppers-based' design focusing on shoppers' and visitors' enjoying atmosphere and provision of comprehensive facilities for all round activities.

In studying customers' segmentation based on their activities, Ruiz and Chebat (2004) stated that *'How mall atmospherics trigger hedonic values and approach behaviors even among the most difficult shoppers'* is one of the crucial elements for contemporary shopping establishments. Sng, S., (2008) also commented for Malls in Singapore that *'Mall owners and operators can help their tenants -- and themselves -- by trying to attract shoppers, increase the number of visits, extend shoppers' trips, and have shoppers spend more per outing.'* (Business Times – 27 March, 2008, SChousing.com.)

It is apparent that researches and studies of end-consumers (i.e. shoppers) are becoming more important and more acknowledged by developers in adopting major business strategies in shaping their retail developments. By exerting more care a focus on shoppers, management will consequentially bring forth more busine opportunities to retailer tenants and eventually revenue to the shopping centre.

Summing up the bipolar views above, neither tenant-based nor shoppers-bas management would have sole domination in management efficiency.

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Thus the Hypothesis for 'Target Customer', which empirical result is envisaged to be insignificant, is formulated as follows:-

Hypothesis A3 :

Whether top Management believes in tenant-based management or shopper-based management has similiar impact on management efficiency.

4.4.2 [B] Priorities in Leasing and Marketing Policies

B1. Pursuing of quantity of Visitor Flow

Visitor flow is customarily taken as one of the indicators of the attractiveness of a shopping centre, hence the alleged successfulness. However, it must be distinguished between the meaning and the actual implications of the terms 'Visitor Flow' and the commonly used term of 'Customer Flow' that are shown and studied in many trade articles, researches and related literature.

In a general sense, 'customers' of a shopping centre should be the actual 'purchasers' of merchandise or 'users' of the services of the centre facilities. In this research, 'Customer Flow' is taken as the 'Visitor Flow' defined as the influx of pedestrians entering into or through the shopping centre for the purpose of purchasing or using the facilities therein, window shopping or browsing, passing through to other parts of the comprehensive development, or for taking part in non-purchasing or community activities such as exhibitions and promotional shows.

In an article of 'Multi-level shopping' of Shopping Centre Magazine (2007), (http://www.shopping-centre.co.uk/news/fullstory.php/aid/2070/Multi-level_shopping.html, *Published: 10 September, 2007* p14), the importance of 'customer flow' i vertical shopping was emphasized:

> *'Accessibility and customer flow are important considerations for multi-le shopping centres and as such fitting escalators and lifts into new and existi centres can often take a lot of forward thought and planning.' said Natio service sales manager S. Hibbard.*

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On the other hand, the term 'visitor count' was used and its importance was also stressed in a promotional pamphlet of Peocon Ltd., a company specialized in providing business solutions for the retail and shopping centre industry, which elaborated that such counts would be crucial to establish the buyer/browser's benchmark, i.e. the proportion of visitors converted into sales. In order to initiate proper improvements, such counts can be used to :-

- *'Plan staffing*
- *Determine opening hours*
- *Negotiate rent in shopping centre locations*
- *Estimate effectiveness of marketing efforts and promotion*
- *React to emergencies*
- *Analyse flow of people through individual entrances, car parks etc.'*

In an article of RFP magazine (Feb. 2007) on shopping centre management, experts in the trade emphasized that *'obtaining information on basic demographics of a shopping mall is very difficult,'* and to find out what the target customers' needs and favourites are equally difficult.

'This is why companies that produce visitor tracking software are becoming so popular' remarked Kennel, Y, *(GM, Footfall Asia),* who also advocated that such technologies could help analysing data on the ideal tenant mix, and praised the use of sensors such as colour video processing for providing measurable information on ingress and egress of visitors.

According to Kennel, an understanding of traffic and demographic allows the shopping centre manager to:

'• Know your average spend per visitor
• Justify your rental levels - thus you can know your landlord and renegotiate your lease
• Measure the return on your marketing efforts
• Optimise your sales efforts
• Benchmark yourself against peers in the industry
• Look at the bigger picture in shopper trends'

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In one paper Downie, M. L. et al, (2002), highlighted the importance of creating maximal 'pedestrian flow' in UK by :

> '*locating them (the shops) carefully within the centre, both in relationship to the centre's layout and in relationship to each other (Calus 1975). Abratt et al (1985) express the objectives as "creating maximal pedestrian flow in order to ensure there is a 100% location for all tenants" and "a logical layout of shops", and suggest that developers tend to neglect this aspect of mix.'*

From literature research and review, related journals and trade articles, it tends to conclude that visitor-flow planning and management within a shopping centre is crucial to the success of a shopping centre. Very often, the number of visitors per day (especially on holidays) is taken as a benchmark for potential business volume in promoting the successfulness.

At initial interviews with management personnel, most of them advocated the importance of high 'Visitor Flow'. Nevertheless, some executives had a different view in that a higher number of visiting potential customers may not mean positive contribution to generation of revenue since it is a mere browser ratio being attained.

In order to verify the popular belief of the merits of high visitor-flow, the Hypothesis for 'Visitor Flow', which empirical result is envisaged to be significant, is formulated as follows:-

Hypothesis B1 :

The stronger management's emphasis on maximizing the volume of visitor-flow, the higher will management efficiency be.

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B2. Preference in Professional Human Resource for Leasing and Marketing

In the Market Overview of 'Careertimes' (2008), *(source: http://www.careertimes.com.hk/english/newsroom/salary/sm2008_robert_walters.pdf)*, it was reported that :

> *'the demand for top tier sales and marketing talent in the retail, consumer and FMCG industries remained high with both the Hong Kong and Chinese markets. ……. Retailers continued to experience healthy and stable growth through a focus on emerging markets and new market development across Asia.',*

Such remarks implicated the rising demand of senior retail marketing executives in the industry. Under the development of increasingly regulated business environment and complex customer relationships, there are views that the senior personnel of the Leasing and Marketing sector should have professional training and attained a level of academic qualifications in the related field.

However, from initial interviews conducted, it did not appear entirely so. In fact, some of the Leasing and Marketing executives do not possess related accreditations but are rich in experience and connections in the field, holding the advantages of long-term relationship with tenants, keen sensitivity to the tempo and market changes and customer-handling skills, which expedient tactics professional personnel often amiss.
As yet the preference for HR professional degrees is still represented by a majority in number under a critical review of evidence.

Thus the Hypothesis for 'Utilization of Professional Human Resource', which empirical result is envisaged to be significant, is formulated as follows:-

Hypothesis B2 :

Management, who believes that professional qualifications is mo important than experience when selecting leasing and marketing personn can achieve higher management efficiency.

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B3. Importance of Control in Tenant Mix

In analysing the contribution of tenant mix to shopping centre success, Gerbich M., (1998), remarked that :

> *'The contribution of retail tenant mix to shopping centre success has increasingly been emphasized by occupiers, investors and professional advisers. The seminal idea is that a planned centre should aim to create an optimal combination of tenants that will maximize centre turnover and retailer profits and therefore total net rentals.'*

He also emphasized the importance of total tenant/trade planning by stating that :

> *'Real estate professionals posit that because of the differing roles between retail tenants, the centre manager should not act to maximize rentals on a shop by shop basis without considering the tenant mixture. From theoretical models and the empirical evidence it is apparent that landlords do not allocate space to maximize total rentals in a piecemeal fashion……'*

Yuo T.S. et al (2003) [2] revealed that :

> *'Under a wider definition of positive inter-store externalities, these inter-store effects should have a broader content including compatibility and complementarily among tenants, enhancement of the shopping atmosphere and resulting sales efforts, shopper circulation and the public services and facilities provided by the shopping centre. These positive interactive effects are the sources generating increasing returns (Fujita and Thisse 2002)."*

Downie M. L. et al, (2002) concluded in their research that :

> *'The success of any new shopping centre depends on the initial tenant mix, whi is dominated by the choice of anchor tenants.*
> *The positioning of the centre in relation to its competition, its attraction shoppers and its potential for drawing repeat patronage are all strong influenced by the tenant mix.*
> *The importance of maintaining anchor stores is recognized by asset managers,*

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it is in the literature. Short-term income maximization appears to be balanced against the need to plan a tenant mix which will add to asset value in the medium to long term.'

In addition to the above, commercial tenants of Housing Authority's (HA) retail properties, in giving comments on the Divestment Project and Future Business Plan of the Link, concerned that the trade mix and location of different trades should be kept in a balanced manner to avoid unhealthy competition, and to meet customer demands. This would involve a fine-line balance between inflexible prescribed trade mix for previous (and existing) HA retail properties to a 'rationalised and optimised trade mix' as pledged by the Link.

The result of initial interviews also revealed that large majority of managements favoured tenant mix control. From the exploratory findings and review of related papers, it can be concluded that the rational planning of Tenant Mix is crucial to successful operation of a shopping centre by optimizing the benefits generated by externalities of anchor shops and providing the right dynamic mix of retail businesses to attract shopping customers to maximize shopping activities. In short, a planned and optimal tenant mix in shopping centre management would be more efficient.

In view of the foregoing, the Hypothesis for 'Control of Tenant Mix', which empirical result is envisaged to be significant, is formulated as follows :-

Hypothesis B3 :

Management, who believes that strict controlling of Tenant Mix is more important than relying on market forces in selecting tenants, can achieve higher management efficiency.

4.4.3 [C] Priority in Property and Facility Management Policies

The description of PM/FM literally refers to the management of physical property a utility facilities. Although the differentiation of the scopes of management of P and FM are allegedly quite different, it is not the intention of this research distinguish their scopes and strategies in management, but to take their genera

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accepted meaning in retail management, and study how their priorities would affect the successful operation of a shopping centre.

The importance of Facility Management was addressed in the 'Property & Facilities Management (PFM) Congress' in May 2009 in Bangkok that :

> '*In recent years Facilities Management has become top management and financial priority at all the industries across the country. Business entities have come to realize that maintaining a well-managed and highly efficient facility is critical to success.'*

Martin, D., (2006). (p 8.-10) outlined that the obligations of Facility Management of property assets are three fold:

1) *Facilities administration,* (integrated activities to facilitate business performance)
2) *Budgetary and expenditure control.* (Financial control)
3) *Property administration* (of physical assets)

However, there are still various principles or management policies that vary among different corporations and management companies. This research intends to ascertain how some of the key policies and the professional human resource input in PFM would affect the successfulness of the operation of shopping centres.

C1. Principal Management Objective – budgeted or proactive value adding operations

For most of the shopping centres in Hong Kong, the property and facility management (PFM) functions are executed by in-house property mangers or property management team. Some shopping centres are managed by property management compani under the same corporate group or that of joint-venture partners, while some a managed by outsourced property management companies under an independe budget contributed by tenants.

It is almost a common goal for PFM companies to pledge for value adding services Clients' real estates. But in reality, PFM companies often have to work under limit

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budgets as a result of competitive tendering in acquiring the business.

For corporations with single shopping centre developments or those without in-house PFM teams, PFM companies appointed for the project will be confined to operate under a controlled budget simply based on management fee income.

For those lower end retail developments that are managed by outsourced companies, PFM functions will inevitably be operated under a strictly budgeted condition for simple business viability reasons since profit margins are very low nowadays due to keen competitions.

However, for listed corporations with multi-discipline developments of which upholding corporate image and enhancing asset values are their major business goals, PFM operations are often an integrated effort within the corporation to achieve such goals. This is especially important for high end retail developments to the extent that management fee income is unable to cover the actual quality PFM services required, thus need be subsidized by the corporation. Of course, long-term benefits of sustaining and adding tangible and intangible values to the properties would be expected to outweigh the upgrading costs through detailed cost-benefit analysis.

On the whole, preference over value-adding objective of PFM is prevailing under the edgy environ of the retail market, despite the tension to provide reasonable PFM services under limited resources.

Thereby to verify whether the 'value-adding' role of PFM should contribute to the success of shopping centre operations or not, the Hypothesis for 'Management Objective, which empirical result is envisaged to be significant, is formulated as follows :-

Hypothesis C1:

Management, who believes that property and facility management activiti should aim at creating value rather than controlling costs within budg can achieve higher management efficiency.

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C2. Preference in Professional Human Resource for Property and Facility Management (PFM)

As stated in the Industry Outlook of a HKSAR Government website, Government has strengthened the monitoring and regulatory role of professional property management in management of buildings. Their demand was further reinforced in the following remarks :

> *'In view of the complexity in meeting the requirements, more property owners have to rely on property management agencies' assistance in handling legal, financial and maintenance issues. In addition, many property owners and occupants have realized the need to reduce costs, and have subsequently outsourced the security, cleansing, repair and maintenance of their premises to professional management bodies. These developments have generated a corresponding demand for professional property management services that are increasingly reliant on computerized technology.'*

In Career Time (2004), Low E., Assistant General Manager of China Overseas Property Services Ltd. remarked that :

> *'with stricter standards being set down by the government and owners' corporations, there has recently been an increase in the range of valued-added services being offered by many property management companies.'*
> *"As the scope of the industry grows, more talented people will be needed in property management in Hong Kong," says Mr Low.*

Similarly as portrayed in the exploratory study, relevant professional qualifications are essential for personnel at top and middle management level of property management companies including corporations of public undertaking (e.g. The Link, MTRC).

Further interviews also revealed that a large majority of developers and managemer advocated the importance of professional human resource in PFM operation.
According to industrial feedbacks, competent and professional PFM are essential up-keeping company's real estates in a sustainable manner, particularly for ret properties which are of higher usage and dilapidation rate. Maintaining a hi standard of control to ensure effective daily operation and consistent long-te

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functioning is a key to enhance management efficiency of shopping centres.
Concludingly, the complexity of today's PFM operations will undoubtedly call for expertise and professionalism in delivering quality and high-end services to meet with this demanding trend.

Given the circumstances, the Hypothesis for 'Utilization of Professional Human Resource', which empirical result is envisaged to be significant, is formulated as follows :-

HYPOTHESIS C2 :

Management, who believes that professional qualification is more important than experience when selecting property and facility management personnel, can achieve higher management efficiency.

C3. Subject of Care – Customers or Property

In the web site of a customer management consultant (Source: *http://www.aleri.com/solutions/customer-management*), the importance and benefits of customer care was vividly spelt out with the ultimate goal of increase in revenue customer satisfaction as follows :-

'Every customer interaction represents an opportunity to derive greater value from your relationship with that customer, and thereby maximizing sales revenue and improving customer service. The key to maximizing the results of these interactions is to understand the current attitudes, behaviour and status of that one customer, and translate that into actions which accommodate the needs and desires of that one customer!'

On the other hand, according to the Programme Philosophy of the Hong Kong Po University Graduate Programme, Facility Management is described as a discipli grounded in management, with a clear understanding of the nature and demands of t core business requirements, and the role of the Facility Manager is increasing recognised as critical in supporting the realisation of business plans, through caref alignment of the physical asset base and appropriate sourcing of facilities suppo services.

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Also, as stated in the prospectus of the Hong Kong Link REIT (2005), management of the 180 numbers of shopping centres owned by the Hong Kong Housing Authority *'has adopted a decentralized management structure……. by separating the managerial role into four functional divisions'* including,: (i) asset management; (ii) project and planning; that are dealing with operations, improvement and maintenance of properties. Such organizational structure outlined the physical properties' based function of property management in the retail profile.

Besides, from initial investigations, Property Management (PM) and Facility Management (FM) are commonly referred to as the functions within the corporation to take care of the physical properties and building services systems to facilitate an efficient and effective operation of shopping centres.
It is apparent that both PM and FM are claimed as physical asset based in caring for properties and facilities in line with business goals of revenue generation and added value to assets.

Although the preference of 'subject of care' may not be obviously reflected in operation, it is intended to ascertain whether management's perception would have any impact on the business output, if PFM who aims at maintaining physical conditions of the property more than satisfying users'/customers' needs would upkeep asset values in the long term, thereby constituting a key factor of higher management efficiency.

Thus the Hypothesis for 'Subject of Care', which empirical result is envisaged to be significant, is formulated as follows :-

HYPOTHESIS C3 :

Management, who believes that up-keeping physical conditions of t property is more important than merely satisfying users' needs, can achie higher management efficiency.

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4.5 Summary of Hypotheses

Table 4-4 Summary of Hypotheses

	PERCEPTION AND BELIEFS	Impact on management efficiency
A	**STRATEGIC BUSINESS DECISIONS**	
1	Choice of Location – short term financial returns more important than image building	**SIGNIFICANTLY HIGHER**
2	Shopping Centre Management Style – Decentralized vs Centralized	**INSIGNIFICANT**
3	Service priority – Tenants more important than Shoppers	**INSIGNIFICANT**
B	**LEASING & MARKETING**	
1	Visitors flow management – increase visitors flow as the primary objective	**SIGNIFICANTLY HIGHER**
2	Selection of staff - professional qualifications more important than experience.	**SIGNIFICANTLY HIGHER**
3	Selection of Tenants – planned tenant mix more important than market forces	**SIGNIFICANTLY HIGHER**
C	**PROPERTY AND FACILITY MANAGEMENT**	
1	Management objective - budgeted basis more important than long term Value Added basis	**SIGNIFICANTLY HIGHER**
2	Selection of staff - professional qualifications more important than experience.	**SIGNIFICANTLY HIGHER**
3	Service priority – Physical properties more important than Shoppers	**SIGNIFICANTLY HIGHER**

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CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the research methodologies in analysing the data collected, organized and pre-treated for weighting by three steps, encompassing the initial regression of physical constraints to arrive at the residue of the step 1 model. Then a 2-Stage bootstrapped non-parametric analysis model (DEA) would be applied to the residue as input to arrive at the efficiency score. Finally, correlation and significance of each characteristic towards the successfulness of shopping centre management would be analysed under step 3.

5.1 Statistical Analysis of Data

The objective of the statistical analysis is to develop a model comprised of sequences of parametric and non-parametric analysis of how the 'management characteristics' affect and contribute to 'efficiency' through the input of professional human resources as deemed fit.

Although the 'profitability' in terms of 'rental income per unit area' is one of the major indicators of 'successfulness' of a shopping centre, it is not simply depicted by the mere figure of dividing the aggregate rental by the retail floor area. The effects of the controlling factors that limit or enhance the profitability, such as the physical and demographic characteristics, have to be levelled to a state comparable to other shopping centres. A multiple regression analysis would be applied to regress remove the influence of all the physical factors controlling the profitability so that t standardized 'output' (the 'regressed profitability') can be put to further analysis t 'human resource (HR) input'.

Such **'HR input'** is defined in this research as **'the deployment and utilization professional human resources in the overall management of a shopping cent**

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under the retail profile of a corporation'.

Within the context of this research, 'professional human resources' include very experienced policy-planning executives and professionally trained operational management executives.

In order to study the effectiveness of such HR input, a non–parametric Data Envelopment Analysis (DEA) would be adopted to derive the 'Technical Efficiency' or more appropriately the 'Management Efficiency' for further analysis.

The 'Management Efficiency' of each shopping centre will then be tested for the significance of various management characteristics, priorities in operations, to derive at the major considerations attributable to profitability.

More specifically, a **3-Step Method** would be adopted for the purpose.

5.2 Step 1 -

Regression of the 'Successfulness' indicator vs major Physical Attributes

The first step is to regress the 'rateable value per unit area' (RVM), the 'profitability' as one of the 'successfulness' indicators against all relevant location and physical attributes as defined in Table 5.1.

Independent Variables include:-

- age of the mall (AGE),
- number of stations from major shopping districts (MSD),
- Internal Floor Area (IFA),

and Dummy Independent Variables include :-

- presence of a Car park (CP),
- whether the shopping centre is incorporated in a non-residential compl

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(NRES),

- whether the number of storeys of the mall is less than 15 – (ST<15).

These location and physical attributes, which vary from centre to centre, are factors that affect rental level but beyond the control of the management, therefore their differences must be discounted for comparative analysis.

Tay, Lau and Leung (1999) had conducted a very similar research on the determinants of rent, and revealed some of the significant rental rates controlling physical factors. Extracts of Table 2 and 3 of the article depicting the dependent and independent variables and the estimation results are laid out as follows :-

Figure5 - 1 Key Determinants of Shopping Centre Rental

Table 2. Summary and description of variables

Variable	Definition	Minimum	Maximum	Mean	Standard Deviation
Dependent					
LRENT	Logarithm of monthly rent in HK$ per sq. ft.	2.773	6.215	4.80	0.70
Independent					
LRSIZE	Logarithm of the size of the shopping center in sq. ft.	8.655	12.268	11.69	0.65
AGE	Age of shopping center in years	6	33	21.21	8.99
LSIZE	Logarithm of the size of the retail shop in sq. ft.	4.205	9.558	6.68	0.95
ALEVEL	Number of levels away from the ground floor	0	4	1.29	1.11
FBSUB	Footbridge or subway on same floor = 1, otherwise = 0	0	1	0.54	0.50
GFLOOR	Shop on ground floor = 1, otherwise = 0	0	1	0.25	0.43
FRONT	Frontage of retail shop in ft.	0	160	27.47	21.08
RETFRONT	Return frontage of retail shop in ft.	0	109	7.73	14.52
PROXACC	Shop located next to access point = 1, otherwise = 0	0	1	0.50	0.50
CPARK	Number of car parking spaces in the shopping center	0	177	44.58	55.47
MTR	MTR entrance at shopping center = 1, otherwise = 0	0	1	0.88	0.33

This research goes further to evaluate the successfulness of each shopping cent through the analysis of efficiency and characteristics of management. In this ste the purpose of the regression process is to obtain the Residues of the model of t population for ongoing research. This would control all the differences in the maj physical characteristics to arrive at the residues as a set of 'output' data that can be f

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into the DEA model for efficiency rating. The function of this regression process can be generalized as follows :-

P (Profitability) = {(locational factors), (physical attributes)} + ε

Or can be symbolized into the equation as follows :-

Model 1

$$P_k = \sum \alpha_i L_{k,i} + \varepsilon \qquad \text{.....(1)}$$

where P_k is the profitability in terms of revenue (rateable area) per unit area (internal floor area) for shopping centre k. $L_{k,i}$'s are explanatory variables including a constant term, which represents physical and locational factors and other control variables and ε is an error term.

The equation of this step would consist of transformation of some of the variables to capture some of the non-linear effect of the model, and in this case, by logging the dependent variable to increase the linear relationship between the variables as follows:-

$$Ln\ (RVM) = C + \alpha_1 AGE + \alpha_2 CP + \alpha_3 MSD + \alpha_4 NRES + \alpha_5 St<15 + \alpha_6 IFA + \varepsilon_1 \qquad \text{.....(2)}$$

Where ***Ln (RVM)*** is the natural log of rateable value per square meter of internal floor area of each shopping centre while the independent variables are physical and locational attributes as vide Table 6.1. ε_1 is the residual of the regression representing the output in terms of profitability, after discounting all diversities. These residual values will be adopted as the 'Output' for the next step of analysis to arrive at the efficiency scores of each shopping centre respectively.

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5.3 Step 2 –

First Stage of the 2-Stage Bootstrapped Data Envelopment Analysis (DEA) model approach to obtain the Technical Efficiencies of DMUs'

For Steps 2 and 3, a recently developed two-stage, double bootstrapping Data Envelopment Analysis (DEA) approach (Simar and Wilson, 2007) would be applied for further analysis of the technical efficiency of each of the Decision Making Units (DMUs'), i.e. the shopping centres, and to examine the relationship between shopping centre management efficiency and professional human resource utilization in management.

DEA was first introduced by Farrell (1957) and then developed by Charnes, Cooper and Rhodes (1978) as a non-parametric procedure that compares a decision making unit with an efficient frontier, using performance indicators.

Ray, S.C.,(2004) introduced that '*DEA is a nonparametric method of measuring the efficiency of a decision-making unit (DMU) such as a firm or a public sector agency, ……. The original CCR model was applicable only to technologies characterized by constant return to scale globally. In what turned out to be a major breakthrough, Banker, Charnes, and Cooper (BCC) (Management Science, 1984) extended the CCR model to accommodate technologies that exhibit variable returns to scale.'*

Bernroider, E. W., Stix, V., (2006) stated that Data envelopment analysis (DEA) *'was traditionally applied to assess the relative efficiency among different organizational decision making units (DMUs) such as governmental organizations (Bowlin, 1986), bank branches (Boufounou, 1995) or universities (Abbott and Doucouliagos, 2003). Due to its simple structure and intuitive base-idea it has spread through the last decades in different domains and a large amount of variations and adaptations to t model have been introduced……. The original DEA model by Charnes, Cooper a Rhodes (Charnes et al. 1978), referred to as CCR-model, optimizes the fraction output per input (efficiency measure) defined by multiple inputs and outputs. It can translated into the following linear program (LP):*

$$h_k = \max_{u,v} \sum_{r=1}^{s} u_r y_{rk}$$

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Subject to

$$\begin{aligned} \sum_{i=1}^{m} v_i x_{ij} - \sum_{r=1}^{s} u_r y_{rj} &\geq 0 \quad \text{for } j = 1, \ldots, n \qquad (2) \\ \sum_{i=1}^{m} v_i x_{ik} &= 1 \\ u_i, v_j &\geq 0 \quad \text{for all } i, j \end{aligned}$$

In respect of the efficiency measure of a DMU, Despić, O., (2004) defined efficiency that can be used to measure and compare differences as: *'a relative measure of the success of a production unit in maximizing its desirable outputs while at the same time minimizing its relevant inputs.'*

The two-Stage Data Envelopment Analysis (DEA) is used to estimate the relative efficiency scores ranking according to their efficiency ratings (Charnes, Cooper and Rhodes, 1978). In the second stage, the Simar and Wilson (2007) procedure is applied to bootstrap the DEA scores with a truncated regression. The adoption of this approach is to obtain more reliable evidence. Such development of the two-stage bootstrapping DEA allows random errors in the model and it is able to correct estimation bias that the traditional DEA fails to deal with. There is quite an ample supply of literature and research papers that are discussing and applying this approach in academic and commercial efficiency analysis.

In examining for the first time the cost efficiency of Greek cooperative banks, Pasiouras, F. et al (2007) *'follow a two-stage procedure to…..... Our sample consists of 16 banks over the period 2000-2004.'* DEA was used to estimate the technic allocative and cost efficiency for each bank in sample. Efficiency scores we estimated in the first stage of their analysis *'for each DMU j (j=1,..., n), using t Farrell/Debreu-type output-oriented technical efficiency measure:*

$TE(x_j, y_j) = \max\{\theta : (x_j, \theta y_j) \in T\}$'

Tobit regression was then used to determine the impact of internal and external facto on banks' efficiency.

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Donthu, and Yoo (1998) assessed productivity of retail management using Data Envelopment Analysis (DEA), an operation research based methodology. In their paper, retail productivity was conceptualized as the relative performance efficiency of a retail store characterized by multiple inputs and outputs, which methodology seemed to address most of the concerns with current productivity measures.

Chen, L., et al (2008) used the non-parametric double bootstrapping DEA method to examine the effects of banking competition and information sharing via credit agencies on bank efficiency of more than 1200 banks across 69 countries.

In the first-stage estimation, the DEA methodology was used to compute an operational efficiency score for each bank in the sample and the second-stage estimated the determinants equation of the efficiency score. For a sample size of *n* with *m* inputs and *s* outputs for each bank, *'The variable returns to scale DEA model can be expressed with the following n linear programming problems for each bank k (k=1, 2,....n):*

$$Max(\prod_k \varepsilon 1 \mid x_k, y_k, X, Y) = Max(\prod_k \varepsilon 1 \mid \prod_k y_k \delta Y \lfloor_k, X \lfloor_k \delta x_k, \lfloor_k \varepsilon 0, I_1 2 \lfloor_k = 1) \quad (1)$$

where I_1 denotes an n·1 vector of ones, $\prod_k$ denotes a scalar parameter, and $\lfloor_k = (\lfloor_{1k}, \lfloor_{2k}, ., \lfloor_{nk}) 2$ denotes a n·1 non-negative vector of parameters.'

Barros, C. P. et al [1] (2008) analysed efficiency drivers of a representative sample of European banks by means of *'the two-stage procedure proposed by Simar and Wilson (2007). In the first stage, the technical efficiency of banks is estimated using DEA (data envelopment analysis) in order to establish which of them are most efficient…….. In the second stage, the Simar and Wilson (2007) procedure is used to bootstrap the DEA scores with a truncated bootstrapped regression'* so that their policy implications can be considered.

There are other literatures that presented the application of the two-stage DEA various DMUs' and some are summarized as follows : -

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Table 5.1 : References of 2-Stage DEA

Authors	Paper Title	Area of study	DMU
Barros, C.P et al [2] (2008)	*'A Two-Stage Efficiency Analysis Of The Insurance Industry In Nigeria*	Nigeria	Banks
Hall, M. J. B. et al (2008)	*'Environmental Factors Affecting Hong Kong Banking: A Post-Asian Financial Crisis Efficiency Analysis'*	Hong Kong	Banks
Alexander, W. R. J. et al (2007)	*A two-stage double-bootstrap data envelopment analysis of efficiency differences of New Zealand secondary schools*	New Zealand	Schools
Banker, R.D. et al (2005)	*Evaluating Contextual Variables Affecting Productivity Using Data Envelopment Analysis*		General productivity
Topuz, C., (2002)	*'Efficiency and Performance of Real Estate Investment Trust (REITs): An Empirical Examination'*, PhD thesis	USA	REIT

The DEA model used in the first stage of this empirical analysis is a non-parametric technique that allows the inclusion of multiple inputs and outputs in the production frontier.

In general, the Input of DMUs '(shopping centres') for shopping centre management can be categorized into four major elements–

- Capital investment
- Renovation and upgrading
- Marketing and promotion
- Professional and Managerial Human Resource

While Output of DMUs' can also be categorized into four major elements –

- Collateral benefits to related developments
- Asset value adding
- Goodwill and business growth
- Profitability in terms of revenue income per unit area

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In this research, it is intended to adopt a single element input with multiple levels (the Professional and Managerial Human Resource) and a single output (Profitability in terms of revenue income per unit area) approach for simplicity of further analysis of the management characteristics of shopping centres.

The chosen inputs for this analysis are four levels of human resource allocations for a comprehensive management in terms of percentage of efforts exerted on decision-making matters as illustrated in the following table:

Table 5.2 Quantifying Input of Levels of HR

INPUT LEVEL	**POSITION & ROLE**	**Workload in % of effort per person**
HR 1-	Director. Senior Managers	
HR2 -	Shopping Centre Managers, Portfolio Managers	
HR3 -	Leasing & Marketing Managers PM/FM Managers	
HR4 -	Technical Managers Assistant Managers	

In selecting the Input or Output oriented model, xlDEA (the DEA programme developed by Microsoft Excel) explained that :

- *In an input-oriented model, the calculations to find the most favorable weights and the efficiency of a DMU are equivalent to improving the performance of this DMU by minimizing its inputs while producing at least the observed output levels.*
- *In an output-oriented model (the default), these calculations aim at improving t performance of a DMU by maximizing its outputs while consuming at most the observed input levels. The emphasis here is more on the output side, as in the case of maximizing sales, profit etc.*

Since this research aims at studying the efficiency of human resource utilization shopping centre management, the analysis would seek for maximizing the profitabili

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output while consuming at the observed levels of human resources input. Therefore, the 'output-oriented model' would be adopted.

In the model of this step, the residual values obtained from Step 1 would be adopted as the 'Output' for fitting into the DEA formula to arrive at the efficiency score of each shopping centre accordingly. Since the residue values ε_I consist of positive and negative figures, transformation into their exponential values is necessary to feed into the DEA formula which does not take into negative values. Therefore the output of this model shall be $Exp\ (\varepsilon_I)$.

The input shall be the single element of human resource utilization with four levels of managerial/professional personnel, in terms of their efforts and proportion of time that each level has deployed. The input value shall be HRi, $i = 1, \ldots 4$.

The efficiency score obtained from the DEA model would be the Technical or Management Efficiency of the DMUs' that would be further analyzed in Step 3.

According to xlDEA, the constant returns-to-scale score (the CCR score) is a kind of "global" efficiency measurement in which inefficiencies, due to pure technical reasons, are confounded by inefficiencies, due to the scale of operations. It is therefore possible to decompose the global CCR efficiency as :

CCR score = (pure) efficiency score x scale efficiency

In this model, it can be possible to adopt the CCR score as the efficiency score since all the DMU's are operating at different scales and the scale efficiency of each DMU should be taken into account in obtaining the efficiency score. The DMUs' are also able to linearly scale the inputs and outputs without increasing or decreasing efficiency since the shopping centres are usually operated under a limited range of human resource input and revenue output.

As stated in xlDEA, the linear programming problem is now:

$$Max\ \varphi$$

$$s.t.\quad x_0 - X\lambda \geq 0$$

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$$-\varphi Y_0 + Y\lambda \geq 0$$

$$\lambda \geq 0 \qquad \ldots\ldots(3)$$

where the variables are as in the CCR model, and φ is the Management Efficiency of DMUs', x_0 is the input i, y_0 is the output j, $X\lambda$ and $Y\lambda$ are the input and output vectors for the analyzed DMUs'.

The linear programming of this step, therefore, is developed to:

$$Max\ Em$$

$$s.t.$$

$$HR_{n,i} - \Sigma\lambda\, HR \geq 0 \qquad n = 1 \text{ to } 106,\ i = 1 \text{ to } 4.$$

$$-Em\ Exp(\varepsilon_1)_{n,j} + \Sigma\lambda\, Exp(\varepsilon_1) \geq 0 \qquad j = 1$$

$$\lambda \geq 0$$

$$\ldots\ldots(4)$$

Where Em is the Management Efficiency of shopping centres, $HR_{n,i}$ is the human resource input i and $Exp(\varepsilon_1)_{n,j}$ is the profitability output j (the exponential values of residue obtained from Step 1) for shopping centre n, λHR and $\lambda Exp(\varepsilon_1)$ are the input and output vectors for the analyzed shopping centres.

5.4 Step 3 –

Second stage of the 2-Stage Bootstrapped Data Envelopment Analys (DEA) model approach for Regression of Technical Efficiencies DMUs' vs Management Characteristics

In the second stage of their two-stage analysis, Pasiouras, F. et al (2007) examin the '*impact of bank-specific factors and local market conditions on bank's efficienc* and used two financial and two non-financial bank-specific characteristics.

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In another example, Chen, L., et al (2008), p13, measured bank operation efficiency with the non-parametric method – the DEA, with the 'best practice' banks forming the non-parametric frontier.

In the second stage, they *'estimate the following equation to identify the determinants of the banking efficiency score* e_k *:*

$$e_k = \sum \beta_j X_{k,j} + u_k$$

where e_k *is the efficiency score for bank k.* $X_{k,j}$*.s are explanatory variables including a constant term, which represent information sharing and competition proxies, as well as other control variables'*

In this research, the efficiency scores from step 2 are regressed on the management characteristics as listed in Table 6.3 below, with the physical attributes as regressed in Step 1, added to the function as controlled variables, generalized as follows:-

E (Efficiency Score) = {(management characteristics), (physical attributes)} + ε

The management characteristics as mentioned in previous chapters are summarized hereunder:-

Table 5.3 SHOPPING CENTRE MANAGEMENT CHARACTERISTICS (Independent Variables)

PRIORITIES in Business Decisions			**PRIORITIES in Leasing & Marketing**			**PRIORITIES in PM/FM policy**		
Location-for Image(-3)/ for Revenue (3)	**Central Mgmt(3)/ Decent-ralise Mgmt(-3)**	**Target Customer-Shopper (-3)/ Tenant(3)**	**Visitor flow-Not Imp(-3)/ Imp (3)**	**Prof HR-Not Imp(-3)/ Imp (3)**	**Strict tenant mix-Not Imp(-3)/ Imp (3)**	**Manage -ment objective-budgeted (-3)/Value Added(3)**	**Prof HR-Not Imp(-3)/ Imp (3)**	**subject of care-Customer (-3) /Property (3)**
LOCN	**CNMG**	**TGCM**	**VFLW**	**HRLM**	**TNMX**	**MOBJ**	**HRPM**	**SBJT**

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The CCR (Constant Return to Scale - CRS) efficiency score is adopted as the dependant variable of the model to identify the determinants contributing to the 'successfulness' of the shopping centres.

Barros, C. P. et al [1] (2008) briefly outlined the CCR efficient score model*,' is probably the most widely used and best known DEA model. It is the DEA model that assumes constant returns to scale relationship between inputs and outputs. It is named following their authors, Charnes, Cooper and Rhodes (1978) and measures the overall efficiency for each unit, namely aggregating pure technical efficiency and scale efficiency into one value, Gollani and Roll (1989).'*

The model for this step would be tried out as shown in equations (4) and (5).

Model 3

The CCR efficiency score would be regressed on the management characteristics as tabled in Chart 4, to analyze the effects of how the inclination of management strategies would affect the Technical Efficiency (TE) or the Management Efficiency (ME), in terms of CCR score (CCR) derived from the Data Envelopment Analysis (DEA), demonstrating the successfulness of a shopping centre.

In respect of the above, the following equation to identify the determinants of the shopping centre management efficiency score is formulated as :-

$$e_k = \sum \beta_j M_{k,j} + \varepsilon \qquad \text{.....(5)}$$

where e_k is the CCR efficiency score for shopping centre k. $M_{k,j}$'s are explanatory variables including a constant term which represent managements characteristics as well as other control variables, and ε is an error term. βj is the coefficient independent variable j.

Transformation of the Dependent Variable Ln (e_k) would be examined together wi the independent variables of management characteristics and controlling variables

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physical attributes consisting of CP, IFA, MSD and NRES. Therefore the function of this step would be :-

$$Ln\ (CCR) = C + \beta_1\ LOCN + \beta_2\ CNMG + \beta_3\ TGCM + \beta_4\ VFLW + \beta_5\ HRLM + \beta_6\ TNMX + \beta_7\ MOBJ + \beta_8\ HRPM + \beta_9\ SBJT + \beta_{10} AGE + \beta_{11}\ CP + \beta_{12}\ IFA + \beta_{13}\ MSD + \beta_{14}\ NRES + \varepsilon_2 \qquad \text{.....(6)}$$

where Ln (CCR) is the natural log of the CCR efficiency score of each shopping centre, while the independent variables are management characteristics as listed in table 5.3 above and control variables of physical attributes as vide Table 6.1. Based on the definitions of the independent variables shown in Table 5.3, the expected signs of the coefficients in equation (6) as predicted by the hypotheses are shown in Table 5.4

Table 5.4: Expected results

HYPOTHESIS	PERCEPTION AND BELIEFS	Expected Sign
	A. Strategic business decisions variables	
A1	Choice of Location (LOCN) – β_1	+ve
A2	Management Style (CNMG) – β_2	Neutral
A3	Service priority (TGCM) – β_3	Neutral
	B. Leasing & marketing	
B1	Visitors flow (VFLW) – β_4	+ve
B2	Staff qualification (HRLM) – β_5	+ve
B3	Tenant mix (TNMX) – β_6	+ve
	C. Property and facility management	
C1	Management objective (MOBJ) – β_7	+ve
C2	Staff qualification (HRPM) – β_8	+ve
C3	Service priority (SBJT) – β_9	+ve

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CHAPTER 6

DATA AND SOURCES

This chapter describes how the preliminarily investigations and pilot studies of the planning and business strategies of shopping centres were carried out to explore the range of data relevant to the research, and to organize the data for further processing. Initial computation of raw data for human resource allocation would also be explained and demonstrated for preparation of statistical analysis in the next stage.

6.1 Sourcing and Mining Of Data

Data on the physical and demographical characteristics of each shopping centre were duly examined. Rateable values and internal floor areas were specifically obtained from the relevant Government Department for analysis in the Step 1 Model, descriptive statistics as outlined:-

Table 6-1 Descriptive Statistics

Step 1 Model						
Method: Least Squares						
Date: 02/18/09 Time: 18:00						
Sample (adjusted): 1 106						
Included observations: 106 after adjustments						
Variable		**Definition**	**Min.**	**Max.**	**Mean**	**Standard Deviation**
Dependent Variable:						
LOG(RVM)		The Natural Log of Rateable Value per s.m. of Internal Floor Area of each Shopping Centre	7.314	10.428	8.870	0.761

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Independent Variables:						
AGE		Age of operation of the shopping centre in no. of years as at 2007	2	42	17.981	8.184
CP	DV	Presence of an attached car parking facility C/P (Y(1)/N(0))	0	1	0.754	0.432
MSD		Distance from major shopping in terms of no. of MTR stations	0	20	5.273	4.874
NRES	DV	Adjacent to non-residential (1)/ residential (0)	0	1	0.386	0.489
ST<15	DV	No. of Storeys less than 15(1)/ more than 15 (0)	0	1	0.971	0.166
IFA		Internal Floor Area	443	84510	13924.74	16128.49

DV = Dummy Variable

6.2 Further Investigation of Shopping Centre Management Characteristics and Human Resource Allocation

6.2.1 Formulation of Research Questionnaire

Upon completion of the initial investigations and field surveys, all data collected were organized, digested and used as a basis for formulation of the survey questionnaire.

6.2.2 Main objectives of Questionnaire -

The main objectives can be summarized as follows:

a. To investigate the corporate business strategies and management style shopping centre management.

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b. To obtain data from senior management executives in Business Decisions, Marketing and Leasing, and Property and facility Management.
c. To explore priorities in human resource allocation for various hierarchies of management executives.
d. To study distribution and delegation of scope of duties for various levels of management personnel.

6.2.3 Features and Format of the Questionnaire :-

The first part of the Questionnaire was to investigate management characteristics that could be categorized into three 'PRIORITIES', namely: in Business Decision, in Leasing and Marketing activities, and Property and Facility Management operations. This part was originally designed to formulate dummy variables for putting into the regression analysis to ascertain its relationship with the performance of a shopping centre.
However, upon initial interviews, it was reflected that some of the characteristics could not be simply categorized as a 'yes' or 'no' options.
Henceforward, in order to facilitate practicable analysis, each of the characteristics was graded by a *Likert Scale from -3 to +3, a 'forced choice' method, so that interviewees could express the marginal preference of their choices in either direction. A 6-point scale was chosen to provide sufficient options of gradation as some of the items might be very close to unity where both poles were considered important, e.g. the choice between 'Subject of care – tenant or customers, Control of tenant mix-strict or flexible" . (Vide Table 6.2)

In the second part of the Questionnaire, Human Resource allocation information was to be collected by filling in a HR organization chart to record the numbers of personnel for each hierarchy allocated for shopping centre management. Initially it revealed an involvement of generally six strata of HR personnel, ,who are: the Director, the General Manager or Assistant General Manager Headquarter, the Centre or Portfolio Manager, Promotion and/or Marketi Manager, Property or Building Mangers, and Technical Managers or Engineers The percentage of effort or time-spent on shopping centre management of ea hierarchy of HR was also laid out. This percentage was expected to be intuiti 'guesstimates' of the interviewees but adequate to represent a relatively tr reflection of the proportion of workload injected into a particular task.

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Thus:

"the aggregate number of personnel contributing input would be computed by multiplying the number of personnel of each hierarchy, by the percentage of workload exerted."

However, such numbers of personnel could be non-integers since higher rank executives were often involved in multi-discipline tasks within a corporation and could only be 'split' between different business profiles. For instance, a director involved in the commercial profile of a corporation might only exert one-third of efforts into the retail business.

Henceforward, for simplicity of input into the database, human resource allocation would be categorized into four levels hereunder:

HR 1	Director or General Manager
HR 2	Centre or Portfolio Manager (in charge of the centre)
HR 3	Leasing and Marketing Manger /Property and Facility Manager
HR 4	Technical Managers / Assistant Managers

The questionnaire was finally formulated vide Table 6.2

Table 6-2

RESEARCH QUESTIONNAIRE for

CORPORATE BUSINESS STRATEGIES & MANAGEMENT STYLE IN SHOPPING CENTRE MANAGEMENT

1. PRIORITIES IN BUSINESS DECISIONS

Order of Importance (e.g. 2 1 3)			**Choice of preference** ◄——►						
Choice of location	☐	Positioning in line with Corporate Image	-3	-2	-1	+1	+2	+3	Anywhere for Generation
Centre Management Style	☐	Decentralised	-3	-2	-1	+1	+2	+3	Centralised

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Primary Target Customers	☐	Shoppers	-3	-2	-1	+1	+2	+3	Tenants

2. PRIORITIES IN MARKETING & LEASING

Customer flow rate for setting rental	☐	Not important	-3	-2	-1	+1	+2	+3	Important
HR input for quality services	☐	Only Experienced personnel	-3	-2	-1	+1	+2	+3	Only Professional Qualified personnel
Tenancy Management	☐	Flexible tenant mix	-3	-2	-1	+1	+2	+3	Strict Control on tenant mix

3. PRIORITIES IN PROPERTY & FACILITY MANAGEMENT

Prime Management objective	☐	Adequate services under available budget	-3	-2	-1	+1	+2	+3	Proactive value-adding management of assets
HR input for quality services	☐	Only Experienced personnel	-3	-2	-1	+1	+2	+3	Only Professional Qualified personnel
Subjects of Care - Property and People	☐	Caring for people-customer satisfaction	-3	-2	-1	+1	+2	+3	Caring of physical property-sustainable maintenance

‘Priorities in Human Resource Allocations

Involvement of Senior Executives and Professional personnel in Shopping Centre(s)

(no. can be non-integers. Pl. estimate the average % of workload or responsibility allotted for each shopping centre e.g. 0.4 or 1.2)

HR for ALL Shopping Centres under the Corporation

a. Director at Headquarter

b. General Manager at Headquarter

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c.	Portfolio Manager/Centre Manager(s)	nos.		
	Assistant Manager(s)	nos.		
d.	Leasing & Marketing Manager(s)	nos.		
	Assistant Manager(s)/Officers	nos.		
e.	Property/Facility Manager(s)	nos.		
	Assistant Manager(s)	nos.		
f.	Technical Manager(s)	nos.		
	Assistant Manager(s)	nos.		

CENTRE Demographic Data (please provide separate list if necessary)

	SHOPPING CENTRES		**shopping centre1**	**shopping centre2**	**shopping centre3**
a.	**Name**				
b.	**Total Gross Floor Area**	sq.ft.			
c.	**Total lettable floor Area** (if available)	sq.ft.			
d.					
e.	**Years of Operation (as at 2007)**	year(s)			
f.	**Appr. Total renovation cost**	**HK$Mil**			
	Company/Corporation				
	Name of Respondent(optional)				
	Position				
	Date	**2008**	m	d	

6.2.4 Weighting of Human Resource Input for each shopping centre

Feeding data for efficiency analysis, the weighting of professional hum resource input for each shopping centre had to be derived from the total H input allocated for the management of the retail profile of the company. T

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choice and rationale of method adopted for weighting will be discussed later in this chapter.

6.2.5 Personal interviews with Senior Executives in charge of shopping centres and HR management of major corporations

A second round of detailed enquiry by emails, teleconversations and appointments for interviews based on the above formulated questionnaire was conducted in March 2008 and sufficient information and data were collected by July. Realizing that the research was academic, aiming to contribute to the industry the establishment of a business model that would help optimizing the 'successfulness' of a shopping centre, most corporations were extremely helpful.

Positions targeted were executive directors, sales directors, general managers or assistant general managers responsible for retail or commercial properties and shopping centres. Other interviewees were represented by profile managers, property managers and heads of relevant departments.

6.2.6 Final interviews and Data Collection for Statistical Analysis

Subsequent to the initial pilot study, investigations and process of adoption around the last quarter of 2006 up to mid 2007, all organized data for statistical analysis were incorporated by end 2007 towards mid 2008, when interviewees' participation in the first round commenced.

Deep appreciation goes to most of the Managements who had been highly cooperative completing the questionnaire, and furtheron followed up by receiving the author again in person; some others responded by fax or email .

6.2.7 Collected Data of Management Characteristics and Human Resour Allocation

All data for management characteristics were uniformly collected in Likert Sc with a 6 point bipolar gradation of -3 to +3.

Initial enquiries and final verifications from the last round of intervie

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portrayed that many of the 'characteristics' could not be simply classified as +ve or –ve because there were levels of importance at either poles. Very often, interviewees alleged that both of the management characteristics (e.g. the primary target customers of Shoppers and Tenants) were of equal importance, yet it was felt that some of the answers could be a choice of 'convenience' , since Centre Managers would often tend to strike a balance for maintaining an 'all round' situation. And as a matter of fact, initial research and related literatures have indicated frequent diversified preferences in the management styles and primary target of services, either due to corporate business strategies, corporate culture or practices adopted by individual company.

Reference can be made to a developer with retail property profile of multiple shopping centres as illustrated in the following table :-

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Table 6.3 : Sample of Data Collected

RESEARCH QUESTIONNAIRE for

CORPORATE BUSINESS STRATEGIES & MANAGEMENT STYLE IN SHOPPING CENTRE MANAGEMENT

1. PRIORITIES IN BUSINESS DECISIONS

Order of Importance (e.g. 2 1 3)			**Choice of preference** ◄——►						
Choice of location	☐	Positioning in line with Corporate Image	-3	-2	-1	+1	+2	+3	Anywhere for Revenue Generation
Centre Management Style	☐	Decentralised	-3	-2	-1	+1	+2	+3	Centralised
Primary Target Customers	☐	Shoppers	-3	-2	-1	+1	+2	+3	Tenants

2. PRIORITIES IN MARKETING & LEASING

Customer flow rate for setting rental	☐	Not important	-3	-2	-1	+1	+2	+3	Important
HR input for quality services	☐	Only Experienced personnel	-3	-2	-1	+1	+2	+3	Only Professional Qualified personnel
Tenancy Management	☐	Flexible tenant mix	-3	-2	-1	+1	+2	+3	Strict Control on tenant mix

3. PRIORITIES IN PROPERTY & FACILITY MANAGEMENT

Prime Management objective	☐	Adequate services under available budget	-3	-2	-1	+1	+2	+3	Proactive value-management of
HR input for quality services	☐	Only Experienced personnel	-3	-2	-1	+1	+2	+3	Only Profession Qualified perso

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Subjects of Care - Property and People		Caring for people-customer satisfaction	-3	-2	-1	+1	+2	+3	Caring of physical property-sustainable maintenance

shopping centre MANAGEMENT CHARACTERISTICS (-3/+3)									
	PRIORITIES in Business Decisions			**PRIORITIES in Leasing & Marketing**			**PRIORITIES in PM/FM policy**		
shopping centre Number	**Location-forImage (-3)/forRevenue(3)**	**Decentral Mgmt(-3) /Central Mgmt(3)**	**Target Custmr-Shopper(-3)/Tenant(3)**	**custmr flow-Not Imp(-3)/ Imp (3)**	**prof HR-Not Imp(-3)/ Imp (3)**	**tenant mix-Not Imp(-3)/ Imp (3)**	**Mg objective-budgeted (-3) /Value Added(3)**	**prof HR-Not Imp(-3)/ Imp (3)**	**subjt of care-Custmr(-3) /Property (3)**
shopping centre	**Locn**	**CNmg**	**TGcm**	**Cflw**	**HRlm**	**Tnmx**	**Mobj**	**HRpm**	**Sbjt**
13	2	2	1	2	2	-1	2	2	-1
17	2	2	1	2	2	-1	2	2	-1
19	2	2	1	2	2	-1	2	2	-1
23	2	2	1	2	2	-1	2	2	-1
38	2	2	1	2	2	-1	2	2	-1
44	2	2	1	2	2	-1	2	2	-1

6.3 Weighting Analysis of Professional Human Resource Allocatio for Shopping Centre Management

6.3.1 Hierarchies or Levels of Human Resource

As an outcome from further investigation, it was suggested that Human Resour allocation was different and unique with each corporation, and it would to gre

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extent depend on the total real estate profile and proportion of retail properties, management style (centralized or decentralized), the choice of the leading role in the management team, parallel to the business strategies of the corporation. Analytical factors of significance vide infra:-

- At HR1 level, deployment of efforts was often at the business decision and planning stage, which was vital to the positioning and future management strategy, though it could not be considered as an operational input.
  Upon the establishment of a new shopping centre, a Director would execute the responsibility of reviewing the positioning of customer base, boosting tenancy occupation rate, updating marketing and promotion strategies to cope with the actual market situation. All these measures would be based on on-site surveys/observations and reports from frontline at the HR 2 level. When business is reaching maturity stage in about 2 to 3 years' time, the Director would take a more routine role in overseeing the centre managers' scope until the next revitalization cycle.

  It should be noted that Directors at headquarters would take about 10 to 30% of their schedule on matters of shopping centre management, while the rest of the time for other business profiles of the company. As such, the number of personnel allotted for this HR 1 level would generally be 0.1 to 0.3 but not more than 1 for each corporation. For some of the corporations possessing several shopping centres, a Retail Director at the HR 1 level would sometimes be appointed to supervise all the shopping centre managers of the HR 2 level, thus the time percentage spent on shopping centre management would be close to 100%. As in the case of this chosen sample, the involvement of the Director in charge of retail properties and the Leasing Manager stationed in the headquarter was 20% and 80% respectively, making up a total of 1.0 personnel input in the group.
  Overall, the Directors or General Managers designated were genera
  expertise in business and marketing strategies, and possess a vast knowled
  of corporate management, eligibly classified as 'professional busine
  management personnel with extensive experiences in the real estate sector.'

  Indeed, it is difficult to quantify the proportion of efforts (in man-hours
  day work) at this level of management. But through interviews w

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personnel of that category and their subordinates, an approximate percentage of time deployed could be estimated, and the figures were given as a fraction of the total number of personnel as shown in Table 6.4.

- For the level HR 2 (Centre Manager/Leasing Manager) management, a more frontline involvement would be engaged in line with management system and characteristics of the corporation. While the term and the role of a Centre Manager are well recognized in the Western and Australian communities, such a post in the Hong Kong context is yet to be identified in the frontline management. There is only a handful of corporations that systemize the job responsibilities of a Centre Manager, sometimes termed as the Profile Manager, while others usually delegate this role to the Property Manager or the Leasing Manager. Human resource input for this level can be more readily assessed since the personnel involved are directly related to the total operational management. For some leading corporation with substantial high grade retail property profile, the delegation of one Centre Manager to a large shopping centre or to two smaller shopping centres would be adopted. As such, the weighting of HR 2 level of personnel would not be on a pro-rata basis but rather on a one-to-one (1.0 for each centre) or one-to-two (say 0.5 for each centre) basis, since the time/effort distribution for the latter case, as revealed, would be on quite an even basis if the shopping centres are of similar size.

  The management style of a corporation would also have direct effect on the distribution factor of human resources for this level. For those inclined to adopt a centralized management system, the shopping centre management team would usually be comprised of a retail director, marketing and leasing managers and assistants, supported by property manager(s) and technical manager(s). As such, the function of a centre manager would be disseminated, and the weighting would be pro-rata to the unit area or sh numbers in total, depending on the positioning and marketing strategies the shopping centres.

- For the level HR 3 (Property Manager/ Facility Manager) management, t allocation of HR would be more complicated. In most cases the shoppi centres are often the retail portion of the comprehensive developmen

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comprised of residential blocks for 'composite developments' or offices, hotels as 'commercial developments'. Given the circumstances, the Property or the Facility Manager would have to be responsible for the management of the whole complex, including ad hoc facilities. As investigated, the proportion of efforts for this level 3 required for the retail portion would go parallel with a variety of factors, including:

(1) The proportion of retail and non-retail portion

This is not a direct area-to-area ratio but a scale point on the complexity of both portions. For commercial office and retail complex, the area ratio may be ranging from 13/2 to 10/5, but the PM services for offices are usually much less intensive than shopping centre when the whole complex has 'run in' smoothly in two to three years' time. For some of the major regional malls with multi-level shopping, the efforts exerted for PM services may be up to 70% of the whole professional team, taken into notion that top quality services are expected by primary customers who pay high rentals to attract frontline shoppers, for sustainability of business more promising.

Whereas, for residential and retail complex, the area ratio may reduce to 8/2 and the proportion of property management services for retail portion may come down to 30 to 40%, since the shopping centres are usually district malls and the residential section may involve multiple blocks of towers. The Property Management would technically have to allocate major portion of HR resource to upkeep the standard of services as residents nowadays are more demanding towards the up-keep of properties, for added value and sustainability in the long run.

(2) Management style of the corporation – Centralized or Decentralized

The weighting of PM services would depend on whether the full PM team centralized at Headquarter with operating assistants allotted for district neighbourhood malls; or the designation of a Property Manager Assista Manager at each centre, for larger or regional centres. For distribution weighting, the factor would usually correlate to the total or gross floor ar since the scope of management would not only cover the retail spaces, b also the common areas, services and mechanical areas extensively.

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(3) Outsourcing of services

This distribution of weighting is again more complicated when the PM services are outsourced. In these cases the weighting calculation will be based on the distribution of workload that the property management company is hired for and managed by a particular team, inducing a separate research to those companies necessary. However, since targets under research are managed either by in-house property management or in-group associates of same corporation, that separate research is not applicable to this thesis.

- For the level 4 (Technical Managers and Assistant Managers) human resource allocation, the weighting calculation is relatively simpler. The Technical Managers are usually employed in-house for monitoring and supervising general maintenance and repair of building services performed by in-house technicians; whereas for serious overhauling of mechanical plants, outside specialist contractors will be engaged.

For large district or regional malls a Technical Manager can be assigned on a 1 to 1 basis, who usually stations in the Headquarter or at one of the major malls, and work efforts are distributed by prorated sizes of the shopping centres within the group. Subordinate managers can be allocated in accordance with their scope of duties.

The following is a sample chart depicting the organization structure and allocation of professional human resources of a chosen sample. It illustrates the Director at headquarter spending roughly 20% of his efforts in all shopping centres in the group, while the Senior Leasing Manager dedicates 80% of his time and effort in doing so. As a result, the calculation protrudes:
" the total personnel input allocated for level HR 1 is 0.2 plus 0.8, i.e. 1.0." a
which input would be distributed among all shopping centres in the group
weighting of gross floor area or number of shops.

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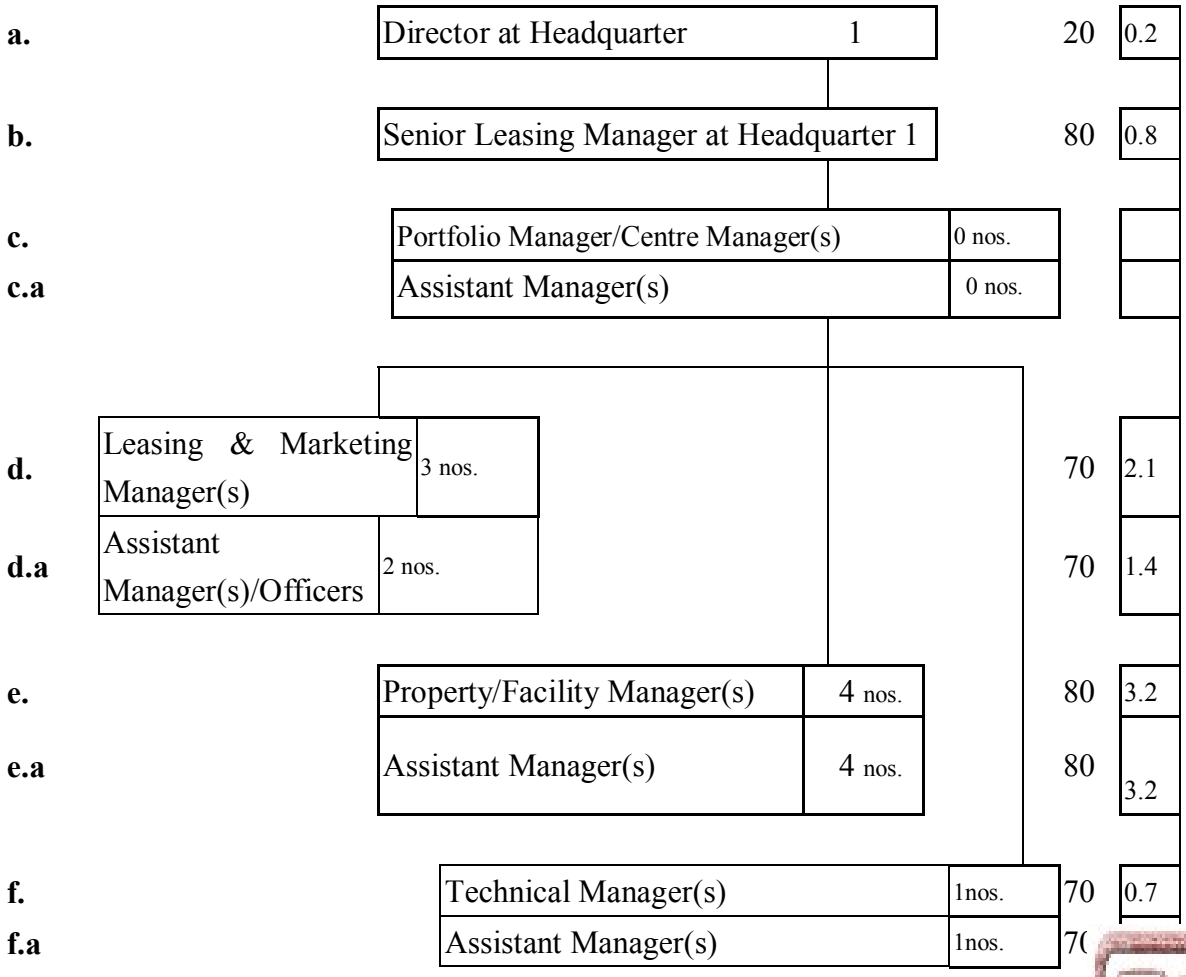
Table 6-4
Sample Chart for Priorities in Human Resource Allocations

HR level Involvement of Senior Executives and Professional personnel in Shopping Centre(s)

(no. can be non-integers. Pl. estimate the average % of workload or responsibility allotted for each shopping centre e.g. 0.4 or 1.2)

HR for ALL Shopping Centres under the Corporation



Similarly, other categories of HR allocated are calculated as above, while bei grouped into four levels hereunder:-

HR 1 = **a.** Director + **b.** Senior manager = 1 x 0.2 + 1 x 0.8 = 1.0

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HR 2 = **c.** Centre Manager + **d.** Leasing and Marketing Manager (s) (who takes the role of a Centre Manager in this corporation) = 0 + 3 x 0.7 = 2.1

HR 3 = **e.** Property/ Facility Manager (s) = 4 x 0.8 = 3.2

HR 4 = **c.a.** Assistant Centre Manager + **d.a.** Assistant Leasing & Marketing Manager (s) + **e.a.** Assistant Property Manager + **f.** Technical Manager + **f.a.** Assistant Technical Manager
= 0 + 2 x 0.7 + 4 x 0.8 + 1 x 0.7 + 1 x 0.7 = 6.0

6.3.2 Choice of Weighting

Investigations and subsequent interviews postulated that the distribution of professional human resources at a given time is subject to the following factors :-

(1) Number of shopping centres that are under planning, marketing for opening or renovation – Obviously personnel at the higher management level will have to spend more time and efforts in formulating the financial planning, adopting the positioning, marketing and leasing strategies, the rental level, tenancy mix, so forth. Whereas, at this stage in time, less input will be required of the professionals at operation and executive ends of the HR structure. In this sense it would be pre-matured to assess the proportion of input of personnel at preliminary stage before the maturity of a shopping centre is to take shape normally within a timeframe of three years.

(2) Age of shopping centres – Under a renovation or refurbishment cycle of about 7 to 10 years, personnel at management level ought to be re-mobilized for the scope of works involved, namely : assessments on cost benefits of renovation, design and style to be achieved, the staging of wor to be executed at minimal disturbance to the whole shopping atmosphe Under the circumstance more executives and technical professionals w need be brought into action.

(3) Number of shops – This is apparently a strategic planning consideration response to design of tenant mix, size of shops suitable and affordable

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potential tenants, change of market sentiments, response to external competitions and physical constraints, as remarked by experienced personnel in the industry. According to interview results, the quantity of shops will have direct effect on the demand of personnel in the leasing and marketing section of the whole management team. There is an informal rule of thumb pointing that for every 6 to 10 shops, a leasing assistant is required to deal with tenancy and customer care related matters, thus certain loading on the demand of personnel at the senior leasing management level would be inevitable. Moreover, it is understandable for bigger shops of higher hierarchy in district or regional malls to expect higher quality of professional care services.

(4) Lettable Floor Area (LFA) or Internal Floor Area (IFA) – This factor reflects the actual scale of revenue generating envelope within a shopping centre. For some of the corporations with malls below district scale (usually consisting of standardised or prototype provisions of common area and facilities), weighting by LFA may be more appropriate for adoption since professional personnel would usually be deployed to handle the leasing and revenue generating tasks.

(5) Gross Floor Area (GFA) – For corporations with larger malls at and above district level, management would usually allocate human resources proportionate to the overall size of that particular centre. As the shopping centres are of cross district or regional scale, efforts in managing them would be correlated to the total GFA of each. In this sense the weighting of human resource distribution amongst the corporations with larger malls should be more appropriately based on the total GFA of each shop.

Summing up the overall, in considering the choice of weighting of human resource allocation among shopping centres within the same corporation, overriding preference must be selected, based on whether the data of such fact can be universally obtained, and whether the weighting based on those data c represent a fairer scenario closer to the actual situation.

For factors (1) and (2), the conditions that demand professional care is sporad considering whether a particular shopping centre is newly operated or necessa

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for renovation. It is because these activities are not consistent and regular among shopping centres at a given time, therefore it would be inappropriate to use these factors to compute the average distribution of workload of each category of human resources.

This study attempts to try out other different weighting methods to arrive at the most appropriate one for feeding into the Data Envelopment Analysis programme as onward analysis.

Thereby, to analyse and compute the weighting of human resource allocation, the total retail profile of a corporation has to be searched, including the floor area and shop numbers of each shopping centre. This has involved an extensive search covering over 150 shopping centres. Certain extent of difficulties would be inevitable since not all floor areas and shop numbers can be revealed by interviewees under the code of business confidentiality; otherwise, information was unavailable.
In the end, meticulous study and extensive search through corporate web sites, shopping guides and pamphlets, building plans and even counting on-site directories and calculation of floor areas have been carried out as supplementary support for this discussion.

6.3.3 Weighting by Number of Shops

The weighting of each category of human resource allocation for each shopping centre by **number of shops** can be expressed by the following simple equation : -

$$W_{HRmn} = HR_m \times \frac{S_n}{\Sigma S_{(1,n)}} \quad - \quad EQ\ (7)$$

for the **n**th shopping centre of the corporation, where **S** represents the number of sho in that centre, HR_m as the total human resource allocated for category m, where m = to 4.

Shopping centres under research are identified by numbers in the order allotted in t

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total population categorized under each business district, while those non numbered are identified by abbreviated letters.

An example of distribution weighting of professional human resources by number of shops in each shopping centre of a developer with eight shopping centres, as shown in the table below:-

DISTRIBUTION WEIGHTING OF PROFESSIONAL HUMAN RESOURCE BY NUMBER OF SHOPS in each Shopping Centre

Table 6-5 Sample of Professional HR Weighting by no. of Shops

Shopping Centres of whole group / shopping centre under research No.	No. of Shops/ Tenants	Wt for HR on Shop no.	HR1 (Director/ GM/Sen.M at HQ)	HR2 (Centre M/ Leasing M)	HR3 (PM/FM)	HR4 (Tech M/AM)
20	151	0.17	0.17	0.35	0.54	1.01
25	160	0.18	0.18	0.38	0.57	1.07
27	154	0.17	0.17	0.36	0.55	1.03
33	89	0.10	0.10	0.21	0.32	0.60
56	102	0.11	0.11	0.24	0.36	0.68
65	120	0.13	0.13	0.28	0.43	0.80
TZ	10	0.01	0.01	0.02	0.04	0.07
ISA	110	0.12	0.12	0.26	0.39	0.74
Total	**896**	**1.00**	**1.00**	**2.10**	**3.20**	**6.00**

6.3.4 Weighting by Total Gross Floor Area or Total Internal Floor Area

The weighting of each category of human resource allocation for each shopping cent by **Total Gross Floor Area** can be expressed by the following simple equation : -

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$$W_{HRmn} = HR_m \times \frac{FA_n}{\Sigma FA_{(1,n)}} \quad - \quad EQ\ (8)$$

for the **n**th shopping centre of the corporation, where **FA** is the Total Gross Floor Area in that centre, HR_m is the total human resource allocated for category m, where m = 1 to 4.

Meantime, the result of weighting calculation for the same developer is shown as follows :-

DISTRIBUTION WEIGHTING OF PROFESSIONAL HUMAN RESOURCE BY GFA/IFA of SHOPS

Table 6-6 Sample of Professional HR Weighting by Area of Shops

Shopping Centres of whole group / shopping centre under research No.	GFA s.m.	IFA s.m.	Wt for HR on IFA	HR1 (Director/ GM/Sen M at HQ)	HR2 (Centre M/ L M)	HR3 (PM/F M)	HR4 (Tech M/AM)
20	3437	2,203	0.05	0.05	0.10	0.16	0.30
25	3339	4,052	0.09	0.09	0.19	0.29	0.54
27		4,266	0.10	0.10	0.20	0.31	0.57
33	38090	10,578	0.24	0.24	0.50	0.76	1.42
56	23226	17,127	0.38	0.38	0.81	1.23	2.30
65	17000 (L)	1,728	0.04	0.04	0.08	0.12	0.23
TZ	2425	1500*	0.03	0.03	0.07	0.11	0.20
ISA	4645	3200*	0.07	0.07	0.15	0.23	0.43
Total		**44,655**	**1.00**	**1.00**	**2.10**	**3.20**	**6.00**

* estimated for weighting

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6.4 Discussion of collected data of Management Characteristics

The data collected for management characteristics of each shopping centre are entered into the Step 3 Model which statistics are described in the table hereunder. A summary of results is tabulated for brief discussion.

Table 6.7 DESCRIPTIVE STATISTICS

Step 3 Model						
Method: Least Squares						
Date: 02/18/09 Time: 18:21						
Sample (adjusted): 1 106						
Included observations: 106 after adjustments						
Variable		**Definition**	**Min.**	**Max.**	**Mean**	**SD**
Dependent Variable:						
LOG(CCR)		The Natural Log of the CCR efficiency rating of each Shopping Centre	-5.339	0.000	-2.723	1.280
Independent Variables:						
LOCN	LS	**Location-for Image(-3)/for Revenue(3)**	-3.000	3.000	0.123	1.793
CNMG	LS	**Decentralized Mgmt(-3) / Centralized Mgmt(3)**	-2.000	2.000	0.519	1.520
TGCM	LS	**Target Customer-Shopper(-3)/Tenant(3)**	-3.000	2.000	-0.462	1.402
VFLW	LS	**Visitor Flow-Not Imp(-3)/ Imp (3)**	-1.000	3.000	1.443	1.367
HRLM	LS	**Prof HR-Not Imp(-3)/ Imp (3)**	-2.000	2.000	0.349	1.414
TNMX	LS	**Strict Tenant Mix-Not Imp(-3)/ Imp (3)**	-2.000	3.000	0.708	1.585
MOBJ	LS	**Management objective -budgeted(-3) /Value**	-2.000	3.000	1.330	1.378

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		Added(3)				
HRPM	LS	**Prof HR-** **Not Imp(-3)/ Imp (3)**	-2.000	3.000	1.132	0.916
SBJT	LS	**subject of care-** **Customer (-3) /Property(3)**	-2.000	2.000	-0.415	1.279
AGE		Age of operation of the shopping centre in no. of years as at 2007	2	42	17.9811	8.1847
CP	DV	Presence of an attached car parking facility C/P (Y(1)/N(0))	0	1	0.7547	0.4322
MSD		Distance from major shopping in terms of no. of MTR stations	0	20	5.2735	4.8746
NRES	DV	Adjacent to non-residential (1)/ residential (0)	0	1	0.3867	0.4893
IFA		Internal Floor Area	443	84510	13924.74	16128.49

LS= Likert Scale DV = Dummy Variable

6.4.1 Priorities in Business Strategies

1. LOCN - Choice of Location in pursuit for Image (-3) or for Revenue (+3)
Summary of Interview Results

Choice of Location in pursuit for	**Image**			**Revenue**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SCs (total 106)	5	25	17	28	26	5
No. of Developers involved (total 22)	2	8	4	4	3	1

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The number of choices for negative scale is 47. This group consists of 14 developers, 11 being major listed corporations of family business origin and corporate business origin. 3 are developers owning relatively smaller sized local or district groups of malls.

The number of choices for positive scale is 59. This group consists of 8 developers, one is of Western origin in the major CBD, a major corporation operating under the form of REIT, and some others being major listed corporations.

The choices for both sides of the scale are quite even, indicating that there is no specific preference for choice of location in the industry.

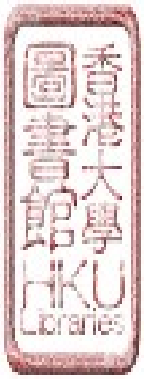
2. CNMG - Adoption of Decentralized Management (-3) or Centralized Management (3) in shopping centre management

Summary of Interview Results

Mode of Management	**Decentralized**			**Centralized**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SCs (total 106)	0	19	15	36	36	0
No. of Developers involved (total 22)	0	6	5	6	5	0

The number of choices for negative scale is 34 out of 106 shopping centres. This group consists of 11 major listed corporations; 1 major corporation operating under the form of REIT while some others under major leasing and marketing consultant firms, thus holding slightly different views.

The number of choices for positive scale is 72. This group consists of 11 major loc developers, among whom three possess more than 8 (to over 45) shopping centres, c be considered corporation with larger retail property profiles. The other develope possess not more than 2 shopping centres yet their scale is very large.



Note that the scales of +3 and -3 were not chosen by any of the interviewees, indicating that there was no tendency to adopt an extreme policy of Management in strategy.

As an outcome of the analytical weightings from all perspectives available, it postulates:-

There is no definite pattern for developers or operators of shopping centres to adopt a Centralised or Decentralised management style, whether or not do they possess a larger profile of retail property.

3. TGCM - Designation of Target Customer – Shopper (-3)/Tenant (3)

Summary of Interview Results

Designation of Target Customer	**Shopper**			**Tenant**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SCs (total 106)	9	8	52	28	9	0
No. of Developers involved (total 22)	2	1	7	9	3	0

The number of choices for positive scale (Tenants as target Customers) is 37 out of 106 shopping centres, consisting of 12 developers/operators out of 22.

The number of choices for negative scale (Shoppers as Target Customers) is 69, consisting of 10 developers/operators.

Although the number of developers choosing 'Shoppers as Target Customers' w only 10 out of 22, yet they were holding a majority of the shopping centres und research, meaning they possess a large profile of retail properties in Hong Kong; wi the exception of one.

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6.4.2 Priorities in Leasing and Marketing

1. VFLOW - Pursuit of Visitor Flow - Not Important (-3)/ Important (3)

Summary of Interview Results

Pursuit of Visitor Flow	**Not Important**			**Important**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SCs (total 106)	0	0	21	18	45	22
No. of Developers involved (total 22)	0	0	6	4	8	4

The number of choices for positive scale is overwhelmingly 85 (out of 106) which group consists of 14 developers and shopping centre operators.

The number of choice for negative scale is 21 which group consists of 6 developers/ operators of major retail property owners, with two operating under the management of REIT.

Although most of the developers and operators (14 out of 20) have rated customer/visitor flow as 'important to very important' to the operation and rental setting, yet there were other views from other angles. It signifies that whether 'customer flow' is an important factor would depend on how it is defined and interpreted by individual management. Obviously different status would identify different factors of priority.

2. HRLM - Demand for Professional Human Resource in Leasing and Marketing operations - Not Imp(-3)/ Imp (3)

Summary of Interview Results

Demand for Professional HR	**Not Important**			**Important**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by	0	9	36	31	30	0

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SCs (total 106)						
No. of Developers involved (total 22)	0	3	7	9	3	0

The total number of choices for negative scale is 45 which group consists of 10 developers with two of the operators under one same developer's corporation. From the latest interviews with executives in the category, personnel in charge of leasing and marketing are often well experienced senior executives who have been serving the company for quite some time. They are broadly connected to potential tenants in the field though they may not necessarily be professionally trained, nor do they possess relevant academic degrees.

The total number of choices for positive scale is 61, and this group consists of 12 developers with two of the operators under same corporation, two others under REIT form of management, and another under a public corporation. Most of the developers interviewed have admitted that professional training with relevant academic degree in marketing and business management would be favourable, nevertheless, the attainment of rich experience in the field and good customer relationship would, too, play a significant role.
Ultimately, no choice has been made on either extremes of the scale, reflecting that in addition to vast relevant experience, professional training and qualifications are also preferential in the areas of documentation and lease administration.

3. TNMX - Strict control in Tenant Mix - Not Important (-3)/ Important (3) -

Summary of Interview Results

Strict control in Tenant Mix	**Not Important**			**Important**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SCs (total 106)	0	13	23	21	44	5
No. of Developers involved (total 22)	0	2	7	3	8	2

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The number of choices for positive scale is 70, while that for negative scale is 46.

Control in Tenant Mix has appeared to be the mainstream school of management policy in Leasing and Marketing. Out of 22 developers and operators interviewed (covering 70 out of 106 shopping centres), 14 of them have advocated the importance of Tenant Mix, with an intention to attract the maximum number of target customers, to optimize rental revenue and to uphold the target positioning of the shopping centre.

6.4.3 Priorities in Property and Facility Management

1. MOBJ - Management objective in PM/FM –Budgeted (-3) /Value Added (3)

Summary of Interview Results

Management objective in PM/FM	**Budgeted**			**Value Added**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SCs (total 106)	0	6	10	39	29	22
No. of Developers involved (total 22)	0	2	3	6	6	5

The number of choices for positive scale (viz value added management objectives) is 90 involving 16 developers/operators out of 22. The number of choices for negative scale (viz budget orientated management objectives) is only 16 out of 106 shopping centres, involving 6 developers/operators.

This result reflects that a majority of developers favours the objective of adding val to physical assets through proactive management of properties.

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2. HRPM - Utilizing Professional Human Resource in PM/FM – Not Imp(-3)/ Imp (3)

Summary of Interview Results

Utilizing Professional Human Resource	**Not Important**			**Important**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SC (total 106)	0	1	10	60	33	2
No. of Developers involved (total 22)	0	1	3	12	5	1

The number of choices for positive scale (viz professional human resource is important) is 95 out of 106 shopping centres, involving 18 developers/operators out of 22.

The number of choices for negative scale (viz professional human resource is not so important) is only 1, involving 4 developers/operators, of whom three are major listed corporations of local origin with long family history.

The survey result is also mostly biased in favour of employing professional personnel, and yet the majority of choice is +1 (on the lower scale), indicating that management executives are still cautious in proclaiming professional qualifications and not entirely ignoring the advantage of rich experience as well.

3. SBJT - Subject of Care - Customer (-3) /Property (3)

Summary of Interview Results

Subject of Care	**Customer**			**Property**		
Scale	**-3**	**-2**	**-1**	**+1**	**+2**	**+3**
Frequency of Choices by SC (total 106)	0	12	65	13	16	0

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No. of Developers involved (total 22)	0	2	11	5	4	0

The number of choices for positive scale (viz property as subject of care) involved 9 developers/operators, two of which are operated under REIT type of management.

The number of choices for negative scale (viz customer as subject of care) involved 13 developers/operators.

In summary, no choice of the extreme scale at both ends has been chosen apparently due to the need to look after the 'property' as a primary function of PFM, while contemporary PFM theories call for 'customer' care. Therefore, interviewees tend to seek for a balance for both, resulting in a more popular choice of -1 versus nil choice of 3 or -3.

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CHAPTER 7

RESULTS AND DISCUSSIONS

This chapter illustrates how the Three Steps statistical analysis evaluates the management efficiency of each shopping centre and examines the validity of the hypothesis.

Implications of the resultant data and consistency with the hypothesis will be projected to arrive at a universal application to shopping centres similar to the chosen samples.

7.1 Empirical Result of Step 1
- Analysis on Measurement of Output (OP)

A Total of 106 shopping centres were tested for Model 1a with natural log transformation of the dependent variable.

Multiple regression analysis was applied to regress on the locational and physical attributes of all the shopping centres. These attributes were factors that affected rental level and the factors were not within the control of the management. This step would control all the differences in major physical characteristics, to arrive at the residues as a set of 'output' data that could be fed into the DEA model for efficiency rating.

As stated in Chapter 4, Output was measured by the residue of the following regression model :-

$$ln(RVM) = a_0 + a_1AGE + a_2CP + a_3MSD + a_4NRES + a_5ST + a_6IFA + \varepsilon \quad \ldots\ldots(2)$$

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The empirical results after feeding into the regression model tabled as follows:-

Table 7.1 Step 1 Model Empirical Results

Dependent Variable: ln (RVM)

Number of observations: 106

		Coefficient	t-Statistic	Prob.
C		9.7434	21.3009	< 0.1%
AGE		0.0079	0.9391	0.35
CP	***	-0.5493	-3.3689	< 0.1%
MSD	***	-0.0561	-3.7773	< 0.1%
NRES		0.09016	0.6152	0.53
ST<15		-0.3987	-1.0091	0.31
IFA		3.38E-06	0.8222	0.41
Adjusted R-squared		0.2997		
F-statistic		8.4918		

*** Significant at the 1% level

** Significant at the 5% level

* Significant at the 10% level

7.2 Discussion of Results of Step 1

The main function of this exercise is to reduce influences of physical factors for further analysis of Management Efficiency.

The Adjusted R-squared of about 30% indicates that only less than one-third of t variables are explainable by this regression model, and out of the six physic attributes, only two (CP and MSD) are statistically significant at 95%.

7.2.1 Age of operation of Shopping Centres (AGE)

One of the physical attributes selected was age of the malls which was rangi

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from a timeframe of 2 to 42 years, with a mean of about 18 years and a mode of 20. This could reflect that a majority of the malls along the mass transit lines had been in operation for nearly two decades in line with the developments at Mass Transit Stations.

As mentioned in Chapter 3, age of a shopping centre in Hong Kong may have a positive influence on the successfulness of its operation. This empirical result with positive coefficient is consistent with such initial findings, but the correlation with the revenue is found to be statistically insignificant at a weak 10% level only, thus implying the operating age is not an overriding factor of its successfulness.

There are examples of 'young' shopping centres that have been thriving to maturity stage in about three year's time. On the other hand, there is also no shortage of examples of older shopping centres located at major shopping districts (MSD) or central business districts (CBD) that can maintain their edge by building up their prestigious positions over time, and succeed in attracting a steady base of high end customers.

7.2.2 Presence of attached Car Parking facilities (CP)

The provision of car park is also assumed as a positive influence. Out of the 106 shopping centres, 80 (75%) are provided with car parking facilities or adjoining, but only 17 (16%) are at MSDs' and 3 are at the CBD of Tsim Sha Tsui. Of the 26 shopping centres without car-parking facilities, 7 are at MSDs while 6 are at CBD of Central and Tsim Sha Tsui. This has the implication that car-parks are necessary in more remote sites away from MSDs to support influx of customers by private cars. Conversely, some ranking shopping centres in MSDs and CBDs are not provided with car-parks due to site constraints in prime locations but patronized by high calibre customers who are working in the MSDs or CBD or assessed by chauffeured private cars.

Henceforward the negative coefficient and significance at 95% level indicate th provision of car parks may not be a positive factor for high revenue yield but just necessary for less prime sites to attract more customers.

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7.2.3 Distance in number of stations away from Major Shopping District (MSD)

This location attribute ranged from 0 to 20 stations away from major shopping districts (Causeway Bay, Mongkok and Shatin Town Centre), gave a Mean of 5.27 and the Mode of 0 (24 out of 106). This indicates that most of the major shopping centres along mass transit lines have a certain degree of convergence towards major shopping districts, thus locations at or near the MSD should have positive effect over rental rate.

In contrast the coefficient is negative for shopping centres further away from MSD when less rental revenue per unit area would be anticipated and more promotion and marketing operations need be engaged for clientele catchment. The correlation of this factor is more than 95% significant and therefore the regression and control of factors is important to arrive at the residue for further efficiency analysis.

7.2.4 Shopping Centre adjoining Non-residential Developments (NRES)

Another attribute, either considered as locational or physical is NRES, depicts the location within or adjacent to a commercial (non-residential) complex. This may have diverse effect to the rental rates since the positioning and the target customers can be relatively different. The result shows that there are 44 shopping centres that are annexed to commercial complexes while 62 are within residential developments.

The correlation of this attribute with the unit rental revenue is statistically insignificant; postulating the successfulness of a shopping centre is not dependent on whether it is in a commercial or residential complex.

Under general observations this is consistent as some of the successful shopping centres, such as the Central Admiralty, are found in commercial developments, in or adjoining CBD whereas others are in residential developments of Sha Tin a Tsuen Wan.

7.2.5 Height of Shopping Centres in storeys (ST<15)

One of the major characteristics is the height and number of shopping levels th can be entitled ‘vertical shopping’ in Hong Kong.

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The maximum number of storeys of shopping centres is 17 and the minimum is 1, with a mode of 4 storeys (21 out of 106). There are only three shopping centres that are above 15 storeys high that should really be classified as 'super vertical shopping'; four other shopping centres range from 10 to 14, while eighteen of 6 to 7 storeys. Although the researched population of shopping centres may not be representational to all shopping centres in Hong Kong in terms of physical characteristic, yet it does portray almost 25% of the total 106 are above 5 storeys. In summary, most of them are between 2 to 5 storeys, comprising 70 numbers or 66% of the total figure.
This reflects that prevailing shopping centre layout and building envelope are still 'slab' type or horizontal in form and are mostly situated in podiums of residential or commercial developments.

The choice of this dummy variable to segregate shopping centres over 15 storeys high served to test the correlation of 'super vertical malls' for high rental yield. The negative coefficient may indicate higher revenue yield for such super malls but since the result was not statistically significant, it shows that there is no correlation with the dependent variable.

7.2.6 Internal Floor Area (IFA)

The IFA of the studied shopping centres ranges from 443 s.m. to 13,924 s.m., with quite a wide spread of individual retail shop sizes.
The IFA is defined as the area of shops within a shopping centre measured by the internal dimensions of the shops but excluding all public circulations, structures, utilities areas etc. Although shopping centres are generally classified by Gross Floor Area (GFA) of the whole shopping complex, note that not all GFA data were available for application in computation.

As an outcome, in terms of IFA, the grouping of shopping centres as described previous chapters are re-categorized with frequency of each, as follows:

Group	1.	Super-Regional malls with IFA above 24000s.m.	21nos.
Group	2.	Regional malls with IFA from 12000 to 24000s.m.	14nos.
Group	3.	Trans-district malls with IFA from 8000 to 12000s.m.	16nos.

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Group 4. District malls with IFA from 2400 to 8000 s.m. 37nos.

Group 5. Neighbourhood malls below 2400 s.m. 18nos.

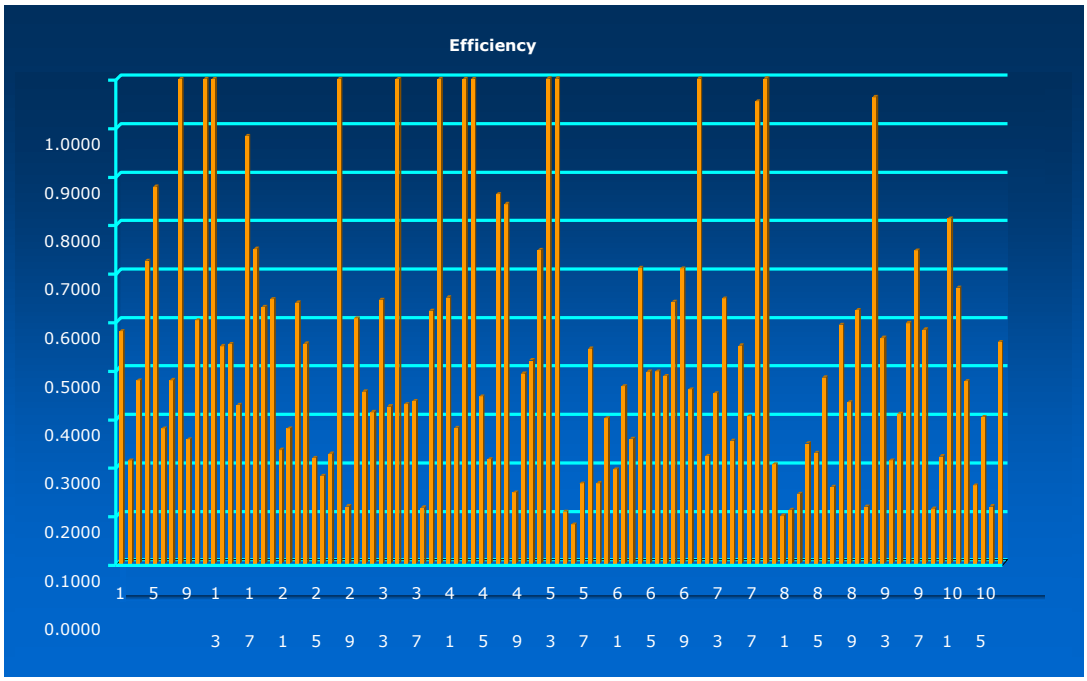
As shown, the range of sizes is quite wide with similar numbers of G1 and G5 that are 10 times different, while the majority is G4 malls.

It is therefore rational to control this physical attribute for the purpose of arriving at the residue as the revenue output free from size-influence.

7.3 Empirical Result of Step 2

The Efficiency Score Table of this step of analysis is enlisted in the Appendix. For a more illustrative presentation of the result, the Efficiency Score Chart is laid out hereunder:-

Figure 7.1: EFFICIENCY SCORES CHART



As a result, 12 DMUs' obtained the management efficiency of 1, but only thr obtained the CCR (Constant Return to Scale) score of 1, vide Table 7.2 :-

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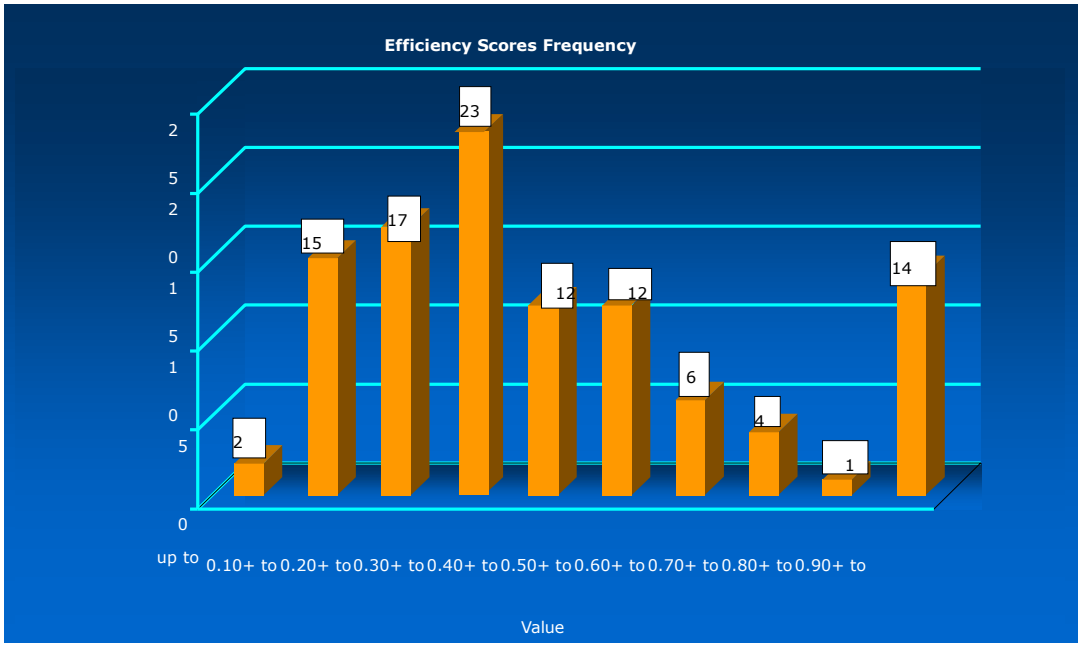
Table 7.2 : DEA SCORES WITH UNITY MANAGEMENT EFFICIENCY

shopping centre no.	Efficiency scores	ME2	Scale efficiencies	Returns-to -scale	CCR score
8	**2**	1.0000	1.0000	constant	**1.0000**
11	**-1**	1.0000	0.2466	decreasing	0.2466
12	**-1**	1.0000	0.3015	decreasing	0.3015
27	**-1**	1.0000	0.4248	decreasing	0.4248
34	**-1**	1.0000	1.0000	constant	**1.0000**
39	**-2**	1.0000	0.5767	increasing	0.5767
42	**-1**	1.0000	1.0000	constant	**1.0000**
43	**-1**	1.0000	0.5402	decreasing	0.5402
52	**-2**	1.0000	0.4164	decreasing	0.4164
53	**-1**	1.0000	0.4166	decreasing	0.4166
70	**-1**	1.0000	0.3405	decreasing	0.3405
78	**-2**	1.0000	0.3984	decreasing	0.3984

As an illustration of the number of DMUs' that fall into each one-tenths of the efficiency score scale, and to show the mode of the samples, the Frequency Chart is further extracted for understanding:-

Figure 7.2 : EFFICIENCY SCORE FREQUENCY CHART



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Score frequencies	up to 0.10	0.10+ to 0.20	0.20+ to 0.30	0.30+ to 0.40	0.40+ to 0.50	0.50+ to 0.60	0.60+ to 0.70	0.70+ to 0.80	0.80+ to 0.90	0.90+ to 1.00
	2	15	17	23	12	12	6	4	1	14

7.4 Discussion of Results of Step 2

DEA (Data Envelopment Analysis) is a non-parametric analysis of DMUs' (Decisions Making Units, i.e. shopping centres under this research) by exploring the efficiency frontier and obtaining the CCR (or CRS-Constant Return to Scale) scores for each of the DMUs' in relationship to each other, and in this case, reference is made to the next step of analysis.

The initial result for the Technical Efficiency, or the Management Efficiency, for the purpose of this research, revealed that the shopping centres that have reached the unity score belong to nine developers, their locations scattered around, being 4 on Hong Kong side (2 in Admiralty); 4 on Kowloon side (2 in Mongkok); and 4 in the New Territories (2 in Tsuen Wan). All of these are within the group of Local and District Malls with IFA ranging from about 2,000 s.m. to 6,700 s.m. Only one is within the CBD of Tsim Sha Tsui, four others are closer, while three are within the MSD (major shopping district) of Sha Tin and Mongkok and four others are closer. With the exception of one in Hang Hau of 2 years'old, all of them are of longer history, established over 11 years ago up to a time frame of 27 years.

After discounting for the 'scale efficiency', only three DMUs' eligible of full management efficiency, namely: a computer mall in Wan Chai, a gallery mall in the Admiralty and a newer estate mall in Hang Hau.

The above picture indicates that an efficiently operated shopping centre can be with a certain range of area and age, but not necessarily within or close to CBDs.

The CCR score, after taking the reduction factor in scale efficiency to the ME, h shown significant decrease in most of the DMUs and over half were under 0.1 (w

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41 nos. over 8,800s.m. out of 62), 21 nos. were from 0.1 to 0.2, and only 23 were over 0.2 with IFA below 8,900 s.m., illustrating 'economy of scale' may not be a basis for efficient management shopping centres. In fact, from the general findings of research interviews, more executive and professional inputs need to be injected into managing and operating larger shopping centres above district mall scale, especially those regional and high-end prestigious malls.

While the correlation of various physical and demographic characteristics as against management efficiency can be studied in more details, the main purpose of this research is to arrive at the CCR scores for all the shopping centres so as to evaluate and verify which of the management characteristics would have significance in contributing to management efficiency.

In order to bring the Dependent Variable to a reasonable range of figures, the CCR scores were transformed to their natural log, thus taking the research analysis to the next stage of Step 3.

7.5 Empirical Result of Step 3

The model for this step is shown in equation (6) :-

$$\boldsymbol{Ln\ (CCR)} = \boldsymbol{C} + \beta_1\,\boldsymbol{LOCN} + \beta_2\,\boldsymbol{CNMG} + \beta_3\,\boldsymbol{TGCM} + \beta_4\,\boldsymbol{CFLW} + \beta_5\,\boldsymbol{HRLM} + \beta_6\,\boldsymbol{TNMX} + \beta_7\,\boldsymbol{MOBJ} + \beta_8\,\boldsymbol{HRPM} + \beta_8\,\boldsymbol{SBJT} + \beta_9\boldsymbol{AGE} + \beta_{10}\,\boldsymbol{CP} + \beta_{11}\,\boldsymbol{IFA} + \beta_{12}\,\boldsymbol{MSD} + \beta_{13}\,\boldsymbol{NRES} + \boldsymbol{\varepsilon}$$

To analyze the effects of how the inclination of management strategies would affect the Technical Efficiency (TE) or the Management Efficiency (ME), the Dependent Variable is the natural log of the CCR efficiency score derived from the Data Envelopment Analysis (DEA) and regressed by the management characteristics tabled in Chart 4. Controlling Independent Variables of physical attributes consisti of CP, IFA, MSD and NRES would also be included for examination in this model.

The empirical result of estimating this Equation is elaborated in Table 7.3: -

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Table 7.3 Step 3 Empirical Results

Dependent Variable: ln(ME)				
Number of observations: 106				
		Coefficient	t-Statistic	Prob.
C		-2.1357	-5.3091	<0.1%
LOCN		0.0311	0.3421	0.73
CNMG		-0.0894	-1.1462	0.25
TGCM	**	-0.1925	-2.3549	0.02
VFLW	***	-0.2502	-2.8596	<0.1%
HRLM	*	-0.1341	-1.6502	0.10
TNMX		0.1069	1.1828	0.24
MOBJ		-0.1279	-0.9361	0.35
HRPM	**	0.3525	2.1752	0.03
SBJT	***	-0.4719	-3.4537	<0.1%
AGE		0.0164	1.3253	0.19
CP	**	-0.5633	-2.3105	0.02
IFA	***	0.0000	-6.0100	<0.1%
MSD		-0.0054	-0.2361	0.81
NRES		0.1324	0.5304	0.60
Adj R^2		0.4862		
F-statistic		8.0972		

*** Significant at the 1 % level

** Significant at the 5% level

* Significant at the 10% level

7.6 Discussion of Results of Step 3

The Adjusted R-squared of about 49% indicates that slightly less than half of t variations in the dependent variable can be explained by the independent variables the regression model. The results show that of the nine shopping centre manageme characteristics, only five variables (TGCM, VFLW, HRLM. HRPM and SBJT) a statistically significant, with one (HRLM) at the 10% level, two (TGCM and HRP at the 5% level, and two (VFLW ad SBJT) rest at the 1% level.

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7.6.1 Choice of Location (LOCN)

(Hypothesis A1: Management, who believes that the strategic decision on choice of locations for shopping centres should be based on optimizing financial returns rather than for image building for the company, can achieve higher management efficiency.)

From the estimation results of model Step 3, it can be revealed that coefficient of LOCN is not statistically significant (Prob. = 0.73), therefore, **prediction of hypothesis A1 rejected.**

This result postulates that in adopting the business strategies for the choice of location of a retail development, whether top management focuses on tangible revenue return or intangible brand building would have no significant effect on management efficiency in the end.

Such finding may be due to the developers being large and listed corporations keen to optimize financial returns to enhance their property values on the one hand, while uphold corporate image for long term benefits on the other.

Furthermore, the selected shopping centres are distributed mainly along major Mass Transit traffic nodes which choice of location has been purposefully predetermined. Therefore, the selection of preference for this item is highly subject to corporate strategies and the positioning of shopping centres respectively.

7.6.2 Decentralized or Centralized Management (CNMG)

(Hypothesis A 2 : Whether top management believes in Centralized Decentralized Centre Management has similiar impact on manageme efficiency.)

The coefficient of CNMG is statistically insignificant (prob. = 0.25), implyi that the mode of management has little influence on human resource utilizati

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efficiency i.e.: different modes of management have their own advantages and disadvantages. Consequently, each mode of management is suitable for each different type to each individual respects, subject to the history and corporate culture of a company, human resource allocation policy, marketing and leasing strategies and property management operation modes.

In fact, the feedbacks of this analysis collected in the final interviews have fallen in line with the assumption, bearing evidence that: 'whether a management believes in centralized or decentralized mode of management, the impact on management efficiency is neutral' i.e. **confirming the prediction of Hypothesis A2.**

7.6.3 Customer Priorities (TGCM)

(Hypothesis A3 : Whether top Management believes in tenant-based management or shopper-based management has similar impact on management efficiency.)

The coefficient of TGCM is negative and is statistically significant at the 5% level (prob. = 0.02) suggesting management who perceives satisfying the needs of shoppers rather than those of the tenants has higher management efficiency.

However, from another perspective it can be noted that some developers with large profile are becoming more keen in demographics, purchase patterns, shoppers' feedbacks, shopping paths all of which are attributive to visitor-flow design and control, trade and tenant mix, marketing and promotion strategies. Indeed this perspective has proven the overseeing factors being crucial to the total shopping centre management, that will in turn be beneficial to the tenants.

Henceforward, if management's believe is assumed to be consistent with the actual behaviour in strategic policies, then one practical implication of the result from the data sample would have to be: 'Management should concentrate on satisfying the needs of shoppers in order to improve shopping centre management efficiency', thus **rejecting the implication of Hypothesis A** duly.

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7.6.4 Increasing Visitor Flow (VFLW)

(Hypothesis B 1 : The stronger the management's emphasis on maximizing the volume of visitor-flow, the higher will its management efficiency be)

The coefficient of VFLW is negative and statistically significant at the 1% level (prob. = 0.005) suggesting management who believes in increasing visitor-flow as their primary objective has lower management efficiency.

The negative result of Hypothesis B1 suggests that a boosting number of mere visitors, who may not be target purchasing customers could overload public circulation and facilities , thus degrade the quality of services and effectiveness of public facilities, such as car parks, toilets, air-conditioning, resulting in a 'diminishing return'.
In addition, the deploy of human resources in flow control, security, repair and maintenance costs would correspondingly need be increased, thus leading to a decline in management efficiency.
If management's belief is assumed to be consistent with their marketing strategies, then over focus on increasing visitor-flow would bestow a lower standard of management efficiency. Obviously **Hypothesis B1 is rejected.**

7.6.5 Professional qualifications of Leasing and Marketing personnel (HRLM)

(Hypothesis B 2 : Management, who believes that professional qualifications is more important than experience when selecting leasing and marketing personnel, can achieve higher management efficiency)

The coefficient of HRLM is negative and statistically significant at the 10% lev
(prob. = 0.1) indicating that management, who believes that professior
qualifications are not an overriding criteria for selecting leasing and marketi
personnel, can achieve higher management efficiency.

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Referring to the comparison of successfulness of operations, the number of shopping centres with management efficiency (ME) larger than 0.5 was similar for both options in the interview result (18 vs 19), indicating that the choice of 'professional personnel' would not be an advantage over the choice of 'nonprofessional but experienced personnel'. This is accounted for by the necessity of long-term customer relationship with leasing tenants, sensitivity to the tempo and changes in the market, and customer-handling skills which tactics may not be well versed by 'professional personnel' who are lack of those capacities.

In other words, professional qualifications of leasing and marketing staff were not so important as far as the efficiency of shopping centre management is concerned, which finding has **rejected Hypothesis B2.**

7.6.6 Controlled Tenant Mix (TNMX)

(Hypothesis B3: Management, who believes that strict controlling of Tenant Mix is more important than relying on market forces in selecting tenants, can achieve higher management efficiency.)

The coefficient of TNMX is positive but not statistically significant (prob. = 0.24), indicating that management who believes in controlled tenant mix has similar management efficiency to those who rely on market forces to determine tenant mix. Thus **Hypothesis B3 is not upheld.**

This can be explained by the different degrees of tenant mix control applicable under different conditions. For instance, predetermined tenant mix of a 'new' shopping centre as initial leasing and marketing strategy will eventually have to be re-shuffled to conform to market forces until a right mix can be reached time.

Given the circumstances, it can be seen that strict control in tenant mix is mo effective in 'established' shopping centres, particularly the high-end one whereas a more flexible approach is more appropriate for 'new' opening allowing them to tread on the path to maturity in due course. Different degre of control of tenant mix should also be adopted for different positionir

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grouping or style of shopping centres.

Therefore, in theory, due to externalities, relying on market forces does not guarantee an optimal result. Mostly, the success of a controlled tenant mix depends on how management goes through a trial and error process before attaining the "right" mix that may still need to change from time to time. That is why the empirical evidence does not support the implication.

7.6.7 Property/Facility Management objective (MOBJ)

(Hypothesis C1: Management, who believes that property and facility management activities should aim at creating value rather than controlling costs within budget, can achieve higher management efficiency.)

The coefficient of MOBJ is negative but not statistically significant (prob. = 0.35), indicating that management who believes in creating value with a more flexible budget has similar management efficiency as those who focus on tight control of expenses within a predefined budget. Therefore **Hypothesis C1 is not upheld.**

The survey result under this management characteristic almost seemingly depicts a common goal for the majority of PFM companies and shopping centre operators to pledge for value adding services to Clients' real estates, but in reality, PFM operators often have to work under limited budgets because of competitive tendering in acquiring the business.

This can imply that although there is no strong indication that 'budget orientated' is positively correlated to 'management efficiency'; the result can still be maintained as a basis for strategic planning. It can also be interpreted th while 'value added' is a principal goal that designated executives are aspired achieve, the actual operation often has to be executed under a budget control, order to strike a practicable balance between financial viability and long-te asset enhancement.

In a research paper on return on property investment, Simms & Rogers (200

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identified that it is extremely difficult for companies to achieve a wide spectrum of added value from property and facilities.

> *'Property and Facilities Management (PFM) can be an important method of improving financial performance, and adding value to a company's operations, and quoted De Jonge (1996, as cited in Krumm and Vries, 2003)[2] who identified seven main elements of added value in PFM:*
>
> *(1) Increasing productivity.*
> *(2) Cost reduction.*
> *(3) Risk control.*
> *(4) Increase of value.*
> *(5) Increase of flexibility (in financial risk in property and occupancy patterns).*
> *(6) Changing the culture.*
> *(7) PR and marketing (establishing company's corporate identity).'*

Simms (et al) indicated the '*suppressed demand for flexibility. The reality for PFM decision-makers is that there are a number of inhibiting factors in the market, such as the length of current leases that companies are tied into, that make it difficult for them to add value through effective use of space and facilities.'*

Such findings point out the value-adding function of PFM is merely an ideal aspiration of decision-makers in achieving the best return in property investment, whereas practically there are various constraints hindering full flexibility for PFM to excel in the function.

Thus it can be concluded that neither creating value nor controlling costs is a dominant means to achieve efficiency in operational management, a **Hypothesis C1 not upheld.**

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7.6.8 Professional qualifications of Property/Facility Management personnel (HRPM)

(HYPOTHESIS C2: Management, who believes that professional qualification is more important than experience when selecting property and facility management personnel, can achieve higher management efficiency.)

The coefficient of HRPM is positive and statistically significant at the 5% level (prob. = 0.03) indicating that management, who believes that professional qualifications is important in the selection of property and facility management personnel, can achieve higher management efficiency.

This is consistent with the general expectation and actual practice in the deploy of professional human resource in PFM operation in shopping centres.

The outcome in the analysis of this management characteristic can be explainable by the fact that duties and responsibilities in contemporary PFM in retail properties, does call for professional level of care and services with proficient understanding and practising of relevant codes and regulations, and such eligibility must be professionally trained and qualified.

That has formed a major reason for developers holding larger profiles to establish in-house or in-group property management companies, with teams of professional managers in charge of PFM. Whereas, for developers with smaller profiles or merely single shopping centre, outsourcing PFM services to professional firms is the usual option. **Hypothesis C2 thereby upheld.**

7.6.9 Objectives of Property and Facility Management (SBJT)

(HYPOTHESIS C3 : Management who believes that up-keeping physic conditions of the property is more important than merely satisfying users' nee can achieve higher management efficiency.)

The coefficient of SBJT is negative and statistically significant at the 1% lev (prob. < 1%), suggesting that prioritizing care for physical properties ov

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customer satisfaction will have a negative impact to management efficiency.

This result echoes the importance of emphasising customer care rather than just ensuring proper maintenance of "hardware" in modern philosophy of property and facility management. In reality, the fundamental subject of care for providing quality services of PFM is actually people, who are, in the context of retail developments: the visitors, shoppers, tenants and employees servicing the premises, namely: the occupants and end-users down the line.
With 'people' as the subject of care in mind, all PFM objectives will be directed towards achieving customer satisfaction, which is wise of management to perceive as priority over the physical structure for effecting higher management efficiency. Without question, **Hypothesis C3 is rejected.**

7.7 Control variables of Physical Attributes

The coefficients of the control variables are consistent with that in Step 1 model except IFA, which is statistically significant with a Prob. Value of 0 and with negative coefficient. This can reflect a decrease in management efficiency with an increase in IFA size, implying that large scale shopping centres correspondingly require more professional HR input in order to operate more efficiently. However, as observed in the research, large shopping centres are usually managed by a similar team of personnel irrespective of size, indicating that there might be a demand gap in professional personnel for very large shopping centres.

For AGE (years of operation), the coefficient is positive, indicating that the management team may find the optimum state to deploy the appropriate amount of HR for efficient management but the correlation is not statistically significant with a Prob. Value of 0.188.

Other physical attributes of CP and NRES (dummy variables) and MSD are al physical and location factors that can affect the output of efficiency, therefore need be put into the model for control of the samples in analyzing the nine manageme characteristics. Of these attributes, only CP is statistically significant with a Pro value of 0.023 and a negative coefficient, implicating that even though carpark facil may support customer influx, nevertheless its presence may become a hindrance

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management efficiency in the sense that heavier workload would be involved. This result is also consistent with the Step 1 model correlating CP to RVM.

7.8 Discussion of Overall Results

These 3 steps of analysis had categorically revealed the influence of physical and locational characteristics on the rental revenue in Step 1; lined up all samples for order of management efficiency through analysing professional human resource input in Step 2; and evaluated how each management characteristic affects such management efficiency, thus leading to the successfulness of shopping centre operation in Step 3.

The final results in Step 3 do have an indicative direction for shopping centre management in terms of business strategies, leasing and marketing policies, and property management objectives. One of the major principles that can be inferred in the design, planning and operational stages of shopping centres is the ultimate care for end users, viz: the shoppers or service receivers. This phenomena can be revealed in the coefficients and P values of TGCM (direction of service to Shoppers or Tenants as Target Customers), and SBJT (direction towards Customers or properties as the subject of care for Property Management). Such a finding can be considered as a basis for development of Client-based Customer Relationship Management, development of business strategies and operational management policies in shopping centre industry.

In respect of Human Resource Management of each of the three 'Priorities' (in A - Business Strategies, B - Leasing and Marketing, C- Property Management), there were different results as to the inclinations and statistical correlation with management efficiency. For Priority A, Centralized Management policies in shopping centres for some developers could be more suitable than others. However, it could be observed that among the developers who chose the tendency for Centralized Management (out of 22, covering 72 shopping centres out of 106), a majority of 8 consider professional personnel to take care of leasing and marketing more important, while considered professional personnel to operate property management more important.

On the other hand, for those who had chosen the tendency for Decentraliz Management (10 out of 22, covering 34 shopping centres out of 106), 6 consider

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professional personnel to take care of leasing and marketing more important, and 8 considered professional personnel to operate property management more important.

It can be seen that irrespective of the style of headquarter management, the importance of professional personnel is preferred and the demand is more apparent in property management than in leasing and marketing sector. The above regression result verifies the phenomenon that the coefficient of HRLM is negative (more inclination towards experienced personnel) while that of HRPM is positive (more inclination towards professional personnel) and both management characteristics are at 10% level of significance.

From the overall results, a general pattern of the three management priorities indicate some of the attributes such as shopping customer care approach, demand for professional management in different sectors were consistent with practice and expectations in the industry. On the other hand, some other attributes such as visitor-flow, tenant mix and major objective in property management might not give rise to the normally expected result, however, still explainable within the scope and chosen samples of this research.

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CHAPTER 8

CONCLUSION

8.1 Analytical Summary of Findings

The major findings of this research on Shopping Centre Management can be summarized into three categories, following the three steps of analysis, namely:

- the effects of physical factors on the rental revenue generated;
- the management efficiency derived from professional human resource input and regressed rental revenue output;
- the management characteristics affecting the management efficiency of shopping centres.

a. At the `strategic level of shopping centre management :-

The choice of location could be passive since most of them were located within comprehensive developments near down town Mass Transit Stations or in new towns, or within commercial developments in business districts. There was no conclusive evidence that could justify any one of the major reasons for choice of locations for shopping centres.

In actual fact, it has revealed that managements who either aimed at maximizing short term rental income or those who focused on achieving longer term branding effects had correspondingly attained similar level of management efficiency.
On the other hand, managements who focused on satisfying the needs of t shoppers rather than tenants could achieve higher efficiency.

Henceforward, whether top management adopted a centralized or decentraliz approach in shopping centre management apparently had no impact management efficiency.

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b. At the administrative level of leasing and marketing management :
It was worth noted that:-

- Managements who focused on achieving a planned optimal tenant mix had higher management efficiency;
- Contrary to most people's beliefs, managements who strived for maximizing visitor-flow resulted in lower management efficiency;
- Empirical data from analysis has revealed professional qualifications of leasing and marketing staff to be insignificant as far as efficiency of shopping centre management was concerned.

c. At the operational level of property and facilities management :-

Shopping centres were more efficiently managed if management believed that professional qualifications were important for property and facilities management, which was in sharp contrast with the findings for leasing and marketing management.

It was also found that managements who aimed at controlling cost within budget and those who aimed at creating value did not differ significantly from each other. Lastly, although property and facilities management were at technical level of dealing with the physical structure, yet management who believed in users' needs more important than mere maintenance of the properties' physical conditions tended to achieve higher management efficiency.

8.2 Contribution of the Study

Few studies had been carried out in respect of the management characteristics a efficiency of shopping centre business operation. It is anticipated that this study c contribute to the academic world in research methods as well as to the ret development industry in performance rating.

The fundamental idea is to provide a practical reference to the demand of professior human resources and management characteristics constructive to the growth of t

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retail business. Since most of the interviewees were of directorate or senior managerial level, their feedbacks should generally represent the market trend.

The 'Exploratory Study' has arrived at the various business strategies, styles of management and all crucial issues for incorporation into the questionnaire, on which basis has postulated the hypotheses of effects of comprehensive factors on management efficiency.

From overall analyses, the attribute results should be of significance to the successfulness of shopping centre management in Hong Kong, under a practicable approach without infringing privacy of business confidentiality.

It also serves to inspire and stimulate more similar studies in the perspective of retail properties, and the model derived can be extended to other realms such as the Mainland China and other developing countries, amplifying spin-off effects in the stimulation of economic growth.

Last but not the least, the ultimate purpose aims to enrich the comprehension of professionalism in effecting efficiencies, with an insight into the significance of the best management system as appropriate for each individual setup, compatible with success.

8.3 Limitations

Within the research scope of reference, all respects of limitations are envisaged hereunder for insight into further study :

- **Size of Sample Population**

  The number of shopping centres under research was limited. The sampl selected did not represent a full range of shopping centres in terms of size a hierarchy. For instance, malls of smaller size and 'mall inside malls' we excluded, while the independent variables were management characteristics listed in table 5.3 above and control variables of physical attributes as vide Tab 6.1.
  This research may not give a compatible result for reference of small malls but

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general, the size factor had been resolved by regressing the variable of IFA (Internal Floor Area) in the Step 1 analysis as described in Chapter 6.

- **Location of samples**

  Since the choice of sample shopping centres was along or adjacent to MTR (including former KCR) stations, the analysed results had to be adjusted according to locational factors of other shopping centres at a distance from MTR stations. Among the selected samples, the location of each shopping centre relative to the MSD (Major Shopping District) was calibred in terms of number of MTR stations but this could not be applied to other shopping centres away from MTR lines.
  Thus the locations of shopping centres under research apparently had a predetermined condition and possibly an advantage over other shopping centres, and yet resulted in some form of adjustments essential when applying the model to other samples.

- **Number of developers involved**

  In researching and studying the management characteristics of shopping centres, the major policy-makers were the developers or operators who have established or managed the shopping centre under their retail asset profiles.
  However, many of the smaller developers/operators were not included because their retail properties were not along the MTR lines or did not fall into the criteria of choice for this research. Moreover, some of the targets could not be reached due to unavailability of company information or connections.
  As such, it ended up with just a majority of the contacts ultimately made possible through the author's acquaintances on personal level, but regrettably, not all targets in full could be accomplished.

- **Possible deviation in perception of interviewees**

  There were also possible minor deviations of perception from business strategi as indicated in answers provided by management executives within the sar corporation, and also with chained shopping centres managed by differe subsidiary management companies/centre managers when some viewpoints management priorities could be diversified.

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As such, the accuracy of answers to the survey would be subject to the degree of understanding of each individual. Some answers might be intuitively given sheerly out of own personal preference or past experience.

- **Business Confidentialities**

There were essential missing data that individual companies would treat as confidential business information, viz: rental revenue return, leasing contract types, occupancy rates, tenant turnover rates, salary and benefits of senior executive. Consequently alternative data sets and research methodologies had to be adopted.

- **Time lapse in data collection**

The research was intended to be carried out on a non-time-related basis at a cross sectional period of around 6 months' time frame.

However, due to the tedious pre-arrangements in confirming interviews, it had taken about a year across the last quarter of 2007 till the end of 2008 before all essential data could be collected for analysis. Whereas by that point in time some of the retail properties had already been modified or renovated to meet with market changes, thus inducing the adjustment of human resource allocations accordingly. In any event those adjustments should not have material influence over the analytical results since the number of senior executives deployed was minimal and the effects on marketing, leasing and property management level should basically be short-term only.

8.4 Areas of further studies

8.4.1 Professional human resource demand

In analyzing management efficiency (ME) of shopping centre operation professional human resource input data were inserted for comparison in the Da Envelopment Analysis (DEA).

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During the process, it was found that some shopping centres with 'less' HR input were generating the same rental output as those with 'more' HR input, signifying the former management was more efficient than the latter, who thus had room for improvement. Henceforward by studying the gap between the more efficient and the less efficient ones in terms of HR input, an appropriate yardstick to justify demand of professional executives could be induced.

In fact, researches and studies of demand of professional human resource had been a universal and essential exercise in optimizing cost benefits, and in providing information for career opportunities for academic and professional training. Apart from the traditional and well-documented methodologies in those studies [such as the dynamic labour demand model (Azetsu, K., et al, 2005, Falk M., and Koebel B., 2001) and the disequilibrium model (Li, S.K. and Yeung W. M., 2000)], the methodologies in this research aim to provide a clue to supplement furtheron studies.

8.4.2 Studies in Determination of 'successfulness' in terms of physical design

Particular attributes of physical characteristics of shopping centre planning and design could be further studied to reveal correlations between degrees of attraction to visitors and physical aspects, e.g. number and location of entrances, number of storeys above and below main entrance, common space to rentable space ratio, atrium and void space to retail space ratio, location of anchor tenants and level of provisions of facilities etc.

While some of the correlations had been analysed in the step 1 model, the explanatory power of the model was not actually high (adjusted R^2 was only 0.29) on account of insufficient physical design data available. Therefore, more of such data should be extracted and categorized under further in-depth research as to enable developers and architects in producing designs more appealing.

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8.4.3 Studies in Customer Care and in Shopping Centre Management and other Real Estate Developments

From the result of the Step 3 analysis, it was revealed that 'caring for ultimate customers, 'the shoppers' as the target client, along with 'caring for people' should form a significant strategy for adoption.

Henceforward, in further pursuit of researches on shoppers' behaviour and management's attitude, it is felt that planning and design can be steered towards more of a client-based business model. By this rationale on quantitative and qualitative techniques, shopping centres can be explored from different perspectives, including shopping customers, so as to derive more pragmatic and effective ways in efficient management of the retail property.

End of Thesis

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References

Alexander, W. R. J., Haug A. A. and Jaforullah, M., (2007), *'A two-stage double-bootstrap data envelopment analysis of efficiency differences of New Zealand secondary schools',* University of Otago, NEW ZEALAND, Economics Discussion Papers No. 0714, November 2007.

Alexander, A.A., Muhlebach, R.F., 'Shopping Center Management" (1992), *Institute of Real Estate Management, of the National Association of Realtors, USA.*

Azetsu, K., and Fukushige, M., 2005, *'The Estimation of Asymmetric Adjustment Costs for the Number of Workers and Working Hours - Empirical Evidence from Japanese Industry Data'.* Discussion Paper Series.

Baen J. S., (2000), Professor, FIREL Department, "*The Effects of Technology on Retail Sales, Commercial Property Values, and Percentage Rents*" Presented at the American Real Estate Society national Meeting, April 8, 1999, Tampa, Florida. Journal of Real Estate Portfolio Management, Volume 6, Number 2, 2000, pp 185-201. URL: www.coba.unt.edu/firel/baen

Banker, R.D., Temple University, Natarajan, R., The University of Texas at Dallas, (2005) *'Evaluating Contextual Variables Affecting Productivity Using Data Envelopment Analysis',* Operations Research Journal, December 2005.

Barros, C. P. et al (2008) [1], Barros, C. P., Caporale, G.M., and Abreu, M., (2008), '*Productivity Drivers in European Banking: Country Effects, Legal Tradition and Market Dynamics'*, London Centre for International Capital Markets, London Metropolitan University Discussion Papers, March 2008.

Bechet T. P., (2008) *'Strategic staffing [electronic resource]: a comprehensive syste for effective workforce planning'* / New York : American Manageme Association ; [Alexandria, Va.] : Society for Human Resource Manageme c2008.

Bernroider, E. W., Stix, V., (2006), *'On The Applicability of Data Envelopme*

香港大學圖書館 HKU Libraries

Analysis for Multiple Attribute Decision Making in the Context of Information Systems Appraisals'. Vienna University of Economics and Business Administration, Communications of the IIMA 107 2006 Volume 6 Issue 2.

Blair, M., Kochan, T. (2000), "Human Capital in the American Corporation', *Broodings Institution Press.*

Bradley F., (2003), "*Strategic Marketing in the Customer Driven Organization"*, John Wiley & Sons Ltd., England.

Brewer, D., (2010), 'Management Efficiency Effectiveness and Economy Managers Improve Performance by Understanding the Three Es (3 E's) ', Suite 101.com

Bryce, T. (2006), Understanding Corporate Culture, Article Source: http://EzineArticles.com/?expert=Tim_Bryce

Callender, G., (2009), *'Efficiency and Management'*, London; New York, Routledge.

Chen, L., Yue, M., Song F.M., (2008), *'Competition, Information Sharing and Bank Efficiency: Some International Evidence'* Lingnan University, University of Hong Kong, Hong Kong.

Census and Statistics Department, (19xx to 2003), "Report of Salaries and Employee Benefit Statistics managerial and Professional Employees (Excluding Top Management)", HKSAR.

Census and Statistics Department (1998), *Statistical Digest of the Services Sector*, Hong Kong Special Administrative Region.

Chui, F.C.I., (2004)**,** *'The Determinants Of Renovation Frequencies: An Empiric Study Of Shopping Centres In Hong Kong'* , thesis, Department of real estate a construction, The university of Hong Kong, April 2004.

Cohen, S. I. (1994), *"Human resource development and utilization : econon analysis for policy making"*, Aldershot, Hants, England : Avebury.

香港大學圖書館 HKU Libraries

Cunha, R. et al. (2002), RITA CAMPOS E CUNHA, MIGUEL PINA E CUNHA, ANTÓNIO MORGADO, CHRIS BREWSTER *'Market forces, strategic management, HRM practices and Organizational performance, a model based in a European Sample'*

CHAN, C.S. (2006), *'A Comparative Study of Marketing Strategies of Shopping Centers in Hong Kong'*, DISSERTATION for the degree of Master of Housing Management, The University of Hong Kong, 2003.

Citycon Annual Report and Financial Statements (2006), Finland. Citycon is an active owner and long-term developer of shopping centres in Finland.

CUPEM 2005, *'Study on Manpower Needs in the Property Management Industry'* jointly conducted by The Centre of Urban Planning and Environmental Management (CUPEM) and The Hong Kong Association of Property Management Companies Ltd. (HKAPMC).

Despić, O., (2004), 'DEA-R Relative Efficiency Model: Some Theoretical and Practical Considerations', Aston Business School, Aston University, Birmingham, UK.

Donthu, N.; Yoo, B. (1998), *'Retail productivity assessment using data envelopement analysis', Journal of Retailing;* Spring 1998; 74, 1; ABI/INFORM Global.

Falbey, J.W. (2001), *Business segmentation and real estate development*, [electronic resource , Digital dissertation.

Galeazzi G. and Hamermesh D. S. (1992), *"Dynamic labor demand and adjustment costs"* Aldershot, Hants, England : Edward Elgar Pub., c.

Gerbich, M. (1998), '*Shopping center rentals: An empirical analysis of the reta tenant mix',* The Journal of Real Estate Research.

Gerbich M., (1998), *'Shopping Centre Rentals: An Empirical Analysis of the Reta Tenant Mix', JOURNAL OF REAL ESTATE RESEARCH,* Volume 15, Number 1998, p.284.

香港大學圖書館 HKU Libraries

Hall, M. J. B., Kenjegalieva, K., Simper R., (2008), *'Environmental Factors Affecting Hong Kong Banking: A Post-Asian Financial Crisis Efficiency Analysis',* Department Of Economics, Loughborough University, United Kingdom, Discussion Paper Series, WP 2008 – 01.

Haksever C [et al] (2000), *"Service Management and Operations"*, Upper Saddle River, N.J. : Prentice Hall.

Heshmati, A. (2003), The United Nations University World Institute for Development Economics Research and Ncube, M., Department of Economics University of Gothenburg *'A Flexible Adjustment Model of Employment with Application to Zimbabwe's Manufacturing Industries',* SSE/EFI Working Paper Series in Economics and Finance No. 278.

Hong Kong Trade Development Council, (2003) "CEPA: Opportunities for Hong Kong services industries", Research Dept., Hong Kong ,

Irazabal C. (Prof) , Chakravarty S, (2007), *'Entertainment-Retail Centers in Hong Kong and Los Angeles: Trends and Lessons'*, School of Policy, Planning and Development, University of Southern California.

Kwan, S.M. Mingo (2007), *"M K's Shopping Centre Management Model"*, paper for CUPEN, University of Hong Kong.

Kyle, Robert C. & Baird, Floyd M.(1995), *"Property Management"* Chicago, Ill. : Real Estate Education Co.,. 5th ed.

Lee, S.K. and Yeung, W.M. (2000), *"An Analysis on the Inter-relationship of the Industrial Development between Hong Kong and the Mainland and a Strategic Study on Its Impact on the Co-operation of the Service Industries in the T Area, "* (in Chinese), in C.W. Yeung (ed), The Strategies of Hong Kong a Mainland Chinas Service industries Report, Chinese Economy Press : 197-226.

Li & Fung (2008), Research Report 2008 on China Retail Market.

Michie, J., Sheehan, M., (2004),*''Business Strategy, Human Resources, Labo*

香港大學圖書館 HKU Libraries

Market Flexibility, and Competitive Advantage', School of Management and Organizational Psychology, Birkbeck, University of London and Graduate School of Management, University of Dallas.

National Research Council Staff etc., (1993) *'the supply and demand of computing professionals'.*

Pasiouras, F., Sifodaskalakis, E. & Zopounidis, C. (2007), 'Estimating and analysing the cost efficiency of Greek cooperative banks: an application of two-stage data envelopment analysis', University of Bath, School of Management, Working Paper Series 2007.12.

Peeters M., (1995) *"Time-to-build : interrelated investment and labour demand modelling with applications to six OECD countries".*

Prendergast, G., Marr, N., Jarratt, B. (1996) *"An exploratory study of tenant-manager relationships in New Zealand's managed shopping centres"* International Journal of Retail & Distribution Management. Bradford: 1996. Vol. 24, Iss. 9.

Ray, S.C.,(2004), Data Envelopment Analysis, *'Theory and Techniques for Economics and Operations Research'*, University of Connecticut, Cambridge University Press.

Rouatt, S.J., (2003), *"Two Stage Evaluation of Bank Branch Efficiency Using Data Envelopment Analysis (DEA)"*, thesis for Master of Applied Science, University of Toronto.

Sun, W., "Human resources policies and labor market outcomes in Taiwan [electronic resource] : the impact of higher educational planning since t 1970s", *Digital dissertation.*

Shopping Centre Council of Australia Sales Reporting Guidelines (2006).

香港大學圖書館 HKU Libraries

Sun, S.M., Lirranna (1984), An investigation (sic. investigation) of social class as means for market segmentation in Hong Kong, [electronic resource].

Tay, R.S.; Lau, C.K.; Leung, M. S. (1999), *"The determination of rent in shopping centers: Some evidence from Hong Kong"*, *Journal of Real Estate Literature;* Jul 1999.

Topuz, C., (2002), *'Efficiency and Performance of Real Estate Investment Trust (REITs): An Empirical Examination'*, PhD thesis, College of Administration and Business, Louisiana Tech university, USA.

Vocational Training Council (1999, 2001, 2003, 2005, 2007, 2009), Manpower Survey Report – Real Estate Services, Real Estate Services Training Board, HKSAR.

房地產服務業現狀及前景研究論壇(Dec. 2000) – 學術報告會論文集.

Watson J. (2001), "Human resource : What value HR? ", *Warriewood, NSW : Business & Professional Publishing*, , c2000.

Woon S.,(2007) Managing Director, Immortal The Design Station Pte Ltd., gave his expert opinion on the *'Planning And Design Of Shopping Centres'* in the RFP journal, April 2007.

Vickerstaff R. (2007), Consultancy Director, Lloyd Northover, one of the experts in the retailing industry contributed to the article *'New Trends – Successfully branding retails centres'*, Real Estate Facilities Projects Journal, April 2007 issue.

Xue M., (2002), *'Customer Efficiency: Concept and its Impact on Service Management'*, PhD Dissertation in Operation and Information Manageme Faculties of the University of Pennsylvania,USA.

You T.S.T., Crosby N., Lizieri C. and McCann P. (2003), *"The Management Positive Inter-Store Externalities in Shopping Centres: Some Empiric Evidence"* Paper Presented at the European Real Estate Society 2003 Conferen Helsinki, Finland.

香港大學圖書館 HKU Libraries

Yuo T. S., Crosby, N., Lizieri, C. and McCann, P., (2003) [2], The University of Reading, *'The Management of Positive Inter-Store Externalities in Shopping Centres: Some Empirical Evidence',* Paper Presented at the European Real Estate Society 2003 Conference Helsinki, Finland. P.1,2

Zhang H.X., Lai Y. and Yang H. (2000) of Beijing, '*Comparative Strategies of Real Estate Market Development in Hong Kong and the Mainland'.*

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APPENDICES

Appendix A

DATA FOR PHYSICAL CHARACTERISTICS and RATEABLE VALUE OF SHOPPING CENTRES

SCn	ST	AGE	CP	IFA	MSD	NRES	RV	RVpm
1	4	16	0	1,173	4	1	6,666,000	5,685
2	6	21	1	17,162	4	1	89,209,500	5,198
3	4	20	1	1,370	4	1	10,593,000	7,733
4	4	31	0	4,545	3	0	82,032,000	18,050
5	3	5	0	4,189	3	0	78,873,000	18,827
6	5	42	0	12,534	3	0	178,914,000	14,274
7	5	27	0	18,040	3	0	319,941,000	17,735
8	4	27	0	5,948	2	1	47,780,400	8,033
9	2	19	1	1,386	2	1	6,996,000	5,048
10	5	16	1	39,177	2	1	605,550,000	15,457
11	1	26	0	3,397	2	1	110,616,000	32,563
12	3	19	0	2,203	1	0	62,331,000	28,289
13	7	15	1	6,084	0	0	66,411,000	10,916
14	7	15	1	8,633	0	0	95,949,600	11,114
15	14	15	1	1,019	0	1	7,836,000	7,692
16	4	22	0	4,052	0	1	135,539,400	33,451
17	3	22	0	4,266	0	1	106,347,000	24,930
18	2	22	0	3,957	0	1	82,728,000	20,908
19	5	33	1	5,879	0	1	75,180,000	12,787
20	16	13	1	44,511	0	1	517,281,000	11,622
21	17	25	1	10,578	0	1	135,547,440	12,814
22	6	32	1	8,048	0	1	100,656,000	12,507
23	1	42	1	986	4	1	5,040,000	5,112
24	6	25	1	57,312	5	0	311,931,000	5,443
25	5	19	1	37,279	5	0	163,097,400	4,375

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26	3	18	1	15,985	8	0	68,405,400	4,279
27	2	24	1	6,169	9	0	62,091,600	10,065
28	7	5	1	19,807	1	1	57,998,400	2,928
29	3	7	1	5,196	7	0	27,187,800	5,233
30	3	7	1	24,805	7	0	156,151,800	6,295
31	2	20	0	717	3	1	5,682,000	7,926
32	5	19	1	11,740	3	1	116,925,600	9,960
33	7	10	1	16,343	3	1	135,688,200	8,302
34	1	22	0	6,683	3	0	225,948,000	33,812
35	6	24	1	17,127	3	1	162,192,600	9,470
36	4	32	1	84,510	2	1	1,123,519,200	13,295
37	6	27	1	48,321	2	1	193,878,600	4,012
38	1	23	0	1,021	2	1	12,348,000	12,100
39	1	12	0	445	2	0	1,689,000	3,794
40	3	32	0	1,728	0	1	30,532,200	17,665
41	7	10	1	30,157	0	1	269,106,000	8,924
42	5	11	1	443	0	1	4,740,000	10,690
43	4	23	0	1,971	0	1	56,772,000	28,802
44	16	3	1	19,484	0	1	291,302,400	14,951
45	4	20	1	10,438	0	1	63,066,000	6,042
46	1	20	1	1,025	0	1	13,116,000	12,792
47	5	28	0	1,976	0	1	50,615,400	25,620
48	3	18	0	12,569	3	1	75,851,400	6,035
49	6	15	1	28,462	7	0	214,424,400	7,534
50	4	8	1	28,131	7	0	226,856,700	8,064
51	3	24	1	6,244	10	0	69,189,000	11,081
52	2	23	1	5,234	10	1	97,035,000	18,540
53	1	22	1	5,640	10	0	56,510,400	10,020
54	7	27	0	10,513	10	0	20,701,260	1,969
55	7	16	1	23,692	6	0	40,875,000	1,725
56	4	7	1	23,102	9	0	63,813,600	2,762
57	7	9	1	44,328	3	1	550,845,000	12,427
58	5	24	1	32,310	4	0	86,167,200	2,667
59	4	6	1	11,869	5	0	43,304,400	3,649

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60	4	24	1	11,861	5	0	32,244,000	2,719
61	4	9	1	28,519	6	0	207,903,000	7,290
62	3	25	1	25,781	8	0	137,355,600	5,328
63	2	27	1	25,918	8	0	313,581,000	12,099
64	6	11	1	18,576	10	0	103,094,400	5,550
65	11	2	1	25,688	10	1	159,606,000	6,213
66	2	10	1	26,578	15	0	110,517,600	4,158
67	3	13	1	9,021	15	0	35,770,800	3,965
68	2	8	1	3,860	15	0	13,711,200	3,553
69	2	8	1	6,834	15	0	28,016,400	4,100
70	2	2	1	2,446	15	0	24,570,000	10,045
71	2	3	1	11,741	14	0	30,747,600	2,619
72	4	8	1	65,665	16	0	303,720,900	4,625
73	7	24	0	3,697	0	1	90,251,400	24,412
74	4	21	1	6,438	0	0	37,322,400	5,797
75	4	23	1	9,749	0	0	132,231,000	13,564
76	10	23	1	70,311	0	0	790,428,600	11,242
77	2	25	1	7,810	0	0	144,745,200	18,534
78	2	25	1	6,011	0	0	111,838,800	18,607
79	4	4	1	6,084	3	0	13,390,800	2,201
80	4	22	1	5,664	1	0	11,448,600	2,021
81	1	11	1	6,491	2	0	17,291,400	2,664
82	6	20	1	6,982	2	0	15,443,400	2,212
83	3	13	1	4,854	8	0	14,388,000	2,964
84	3	12	1	17,671	8	0	64,252,200	3,636
85	3	10	1	3,595	8	0	12,973,200	3,609
86	2	16	1	3,595	3	0	12,973,200	3,609
87	2	16	1	9,597	3	0	72,141,000	7,517
88	3	19	1	2,396	4	0	9,299,400	3,882
89	2	14	1	6,770	5	0	74,277,000	10,972
90	5	25	1	8,195	6	0	12,870,600	1,570
91	4	12	1	8,847	6	0	97,098,600	10,975
92	2	16	0	5,367	6	0	48,660,000	9,066
93	2	15	1	4,085	6	0	17,233,800	4,219

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94	13	17	0	1,187	8	1	6,155,400	5,184
95	3	18	1	8,500	8	1	52,663,200	6,196
96	6	18	1	6,574	8	0	52,933,800	8,052
97	1	19	1	2,078	8	0	17,322,000	8,336
98	3	14	1	15,859	7	1	28,372,200	1,789
99	4	14	1	26,284	10	0	93,876,600	3,572
100	3	20	1	3,447	12	0	22,789,200	6,612
101	5	19	1	58,066	12	0	579,712,800	9,984
102	1	18	0	5,815	17	0	41,229,000	7,090
103	2	17	1	8,373	20	0	12,577,200	1,502
104	2	14	0	1,853	14	0	7,167,000	3,868
105	1	30	0	2,429	14	1	3,958,200	1,630
106	4	7	1	6,947	12	0	24,947,400	3,591

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Appendix B

PROFESSIONAL HUMAN RESOURCE INPUT AND CONTROLLED OUTPUT

(FOR STEP 2 ANALYSES)

	INPPUT				**OUTPUT**	**SCORE**
SCn	**hr1**	**hr2**	**hr3**	**hr4**	**OP2=Exp(resid)**	**CCR score**
1	**0.002**	**0.049**	**0.033**	**0.103**	1.108491409	0.4007
2	**0.300**	**0.500**	**1.760**	**1.760**	5.812437394	0.0165
3	**0.050**	**0.400**	**0.400**	**1.200**	3.320116923	0.0584
4	**0.030**	**0.170**	**0.200**	**0.340**	1.404947591	0.1712
5	**0.030**	**0.260**	**0.190**	**0.320**	1.377127764	0.2337
6	**0.090**	**0.760**	**0.600**	**1.020**	2.773194764	0.0403
7	**0.260**	**1.310**	**1.670**	**2.820**	16.77685067	0.0200
8	**0.002**	**0.005**	**0.010**	**0.023**	1.02326654	1.0000
9	**0.050**	**0.300**	**0.300**	**0.400**	1.491824698	0.0677
10	**0.100**	**1.000**	**2.000**	**8.900**	7331.973539	0.0196
11	**0.060**	**0.080**	**0.160**	**0.650**	1.915540829	0.2466
12	**0.049**	**0.100**	**0.160**	**0.300**	1.349858808	0.3015
13	**0.270**	**0.330**	**1.730**	**3.600**	36.59823444	0.0347
14	**0.270**	**0.330**	**1.730**	**3.600**	36.59823444	0.0350
15	**0.200**	**0.180**	**0.250**	**1.340**	3.819043505	0.0616
16	**0.090**	**0.190**	**0.290**	**0.540**	1.716006862	0.1660
17	**0.100**	**0.200**	**0.310**	**0.570**	1.768267051	0.1171
18	**0.090**	**0.130**	**0.250**	**0.980**	2.664456242	0.0937
19	**0.070**	**0.100**	**0.190**	**0.770**	2.159766254	0.1184
20	**0.100**	**0.700**	**13.800**	**18.000**	65659969.14	0.0087
21	**0.240**	**0.500**	**0.760**	**1.420**	4.13712044	0.0269
22	**0.029**	**0.210**	**0.289**	**0.630**	1.877610579	0.1216
23	**0.010**	**0.020**	**0.040**	**0.150**	1.161834243	0.2736
24	**0.100**	**0.500**	**1.000**	**4.500**	90.0171313	0.0145
25	**0.680**	**0.950**	**1.900**	**7.640**	2079.743817	0.0059
26	**0.220**	**1.000**	**0.980**	**1.970**	7.170676488	0.0171
27	**0.013**	**0.094**	**0.129**	**0.282**	1.32577872	0.4248
28	**0.141**	**0.389**	**0.822**	**1.839**	6.29024487	0.0092

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29	**0.020**	**0.120**	**0.320**	**1.870**	6.488296399	0.0706
30	**0.070**	**0.590**	**1.520**	**8.940**	7631.197056	0.0169
31	**0.030**	0.050	**0.090**	**0.370**	1.447734615	0.1194
32	**0.031**	**0.226**	**0.311**	**0.679**	1.971904841	0.1169
33	**0.031**	**0.785**	**0.523**	**1.657**	5.243556555	0.0600
34	**0.150**	**0.000**	**0.000**	**2.000**	7.389056099	1.0000
35	**0.380**	**0.810**	**0.810**	**2.301**	9.986989251	0.0259
36	**0.200**	**0.700**	**18.000**	**24.000**	26489122130	0.0122
37	**0.500**	**1.000**	**1.600**	**3.200**	24.5325302	0.0054
38	**0.020**	**0.030**	**0.050**	**0.200**	1.221402758	0.3032
39	**0.001**	**0.022**	**0.015**	**0.047**	1.048122009	0.5767
40	**0.040**	**0.080**	**0.080**	**0.230**	1.25860001	0.2361
41	**0.109**	**0.796**	**1.094**	**2.387**	10.88080252	0.0254
42	**0.000**	**0.010**	**0.030**	**0.160**	1.173510871	1.0000
43	**0.020**	**0.030**	**0.060**	**0.220**	1.246076731	0.5402
44	**0.300**	**0.800**	**0.800**	**10.100**	24343.00942	0.0264
45	**0.240**	**0.330**	**0.230**	**2.610**	13.59905085	0.0429
46	**0.030**	**0.040**	**0.070**	**0.280**	1.323129812	0.3630
47	**0.020**	**0.140**	**0.120**	**0.710**	2.033991259	0.2473
48	**0.410**	**0.360**	**0.510**	**2.730**	15.33288702	0.0152
49	**0.082**	**0.597**	**0.821**	**1.791**	5.995444915	0.0447
50	**0.380**	**1.000**	**1.680**	**3.350**	28.50273364	0.0187
51	**0.140**	**1.000**	**0.600**	**1.200**	3.320116923	0.0803
52	**0.020**	**0.800**	**0.170**	**0.740**	2.095935514	0.4164
53	**0.023**	**0.137**	**0.091**	**0.319**	1.375751325	0.4166
54	**0.020**	**0.142**	**0.195**	**0.426**	1.531120775	0.0320
55	**0.266**	**1.595**	**1.063**	**3.721**	41.30567914	0.0048
56	**0.100**	**1.000**	**1.900**	**9.950**	20952.22238	0.0066
57	**0.100**	**0.900**	**0.900**	**5.400**	221.4064162	0.0351
58	**0.100**	**0.750**	**0.250**	**0.250**	1.284025417	0.0607
59	**0.100**	**0.500**	**0.420**	**0.250**	1.284025417	0.1086
60	**0.100**	**0.500**	**0.420**	**0.250**	1.284025417	0.0701
61	**0.100**	**0.700**	**7.000**	**14.000**	1202604.284	0.0135
62	**0.570**	**0.800**	**1.610**	**6.320**	555.5729925	0.0100
63	**0.280**	**0.600**	**1.780**	**3.520**	33.78442846	0.0305

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64	**0.076**	**0.400**	**1.260**	**2.630**	13.8737699	0.0348
65	**0.076**	**0.554**	**0.762**	**1.663**	5.275112468	0.0481
66	**0.061**	**0.442**	**0.608**	**1.326**	3.765949422	0.0546
67	**0.200**	**0.750**	**0.460**	**0.250**	1.284025417	0.1975
68	**0.010**	**0.080**	**0.220**	**1.290**	3.632786556	0.1109
69	**0.020**	**0.800**	**0.220**	**0.960**	2.611696473	0.1191
70	**0.050**	**1.000**	**0.200**	**0.410**	1.506817785	0.3405
71	**0.030**	**0.800**	**0.380**	**1.650**	5.206979827	0.0432
72	**0.106**	**2.744**	**1.829**	**5.793**	327.9955365	0.0188
73	**0.040**	**1.000**	**0.170**	**0.340**	1.404947591	0.1896
74	**0.260**	**0.000**	**0.000**	**4.480**	88.23467268	0.1461
75	**0.247**	**1.000**	**1.000**	**4.790**	120.3013687	0.0287
76	**0.161**	**1.168**	**1.606**	**3.504**	33.24817904	0.0187
77	**0.010**	**0.257**	**0.171**	**0.543**	1.721162613	0.3469
78	**0.009**	**0.224**	**0.150**	**0.473**	1.604801383	0.3984
79	**0.100**	**0.250**	**0.520**	**0.200**	1.221402758	0.0758
80	**0.072**	**0.200**	**0.422**	**0.944**	2.570241851	0.0124
81	**0.080**	**1.000**	**0.340**	**0.680**	1.973877732	0.0241
82	**0.050**	**0.250**	**0.460**	**0.250**	1.284025417	0.0506
83	**0.010**	**0.800**	**0.160**	**0.680**	1.973877732	0.0819
84	**0.131**	**0.363**	**0.767**	**1.716**	5.562234967	0.0190
85	**0.007**	**0.179**	**0.119**	**0.377**	1.457904309	0.1738
86	**0.091**	**0.661**	**0.909**	**1.984**	7.271771976	0.0167
87	**0.025**	**0.181**	**0.249**	**0.543**	1.721162613	0.1240
88	**0.100**	**0.500**	**0.250**	**0.200**	1.221402758	0.1271
89	**0.150**	**1.000**	**1.000**	**4.440**	84.77494167	0.0357
90	**0.100**	**0.750**	**0.380**	**0.250**	1.284025417	0.0430
91	**0.017**	**0.121**	**0.166**	**0.362**	1.436198942	0.3294
92	**0.014**	**0.099**	**0.137**	**0.298**	1.347161788	0.1870
93	**0.070**	**1.000**	**1.000**	**3.220**	25.02812018	0.0194
94	**0.011**	**0.078**	**0.107**	**0.234**	1.263644492	0.1400
95	**0.023**	**0.166**	**0.228**	**0.497**	1.643782519	0.1332
96	**0.012**	**0.315**	**0.210**	**0.664**	1.942547003	0.2061
97	**0.130**	**0.620**	**0.620**	**2.380**	10.80490286	0.0478
98	**0.043**	**0.309**	**0.426**	**0.928**	2.529445225	0.0196

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99	**0.228**	**0.633**	**1.336**	**2.988**	19.84595087	0.0114
100	**0.029**	**0.176**	**0.117**	**0.410**	1.506817785	0.2453
101	**0.130**	**1.050**	**3.050**	**17.880**	58235168.5	0.0148
102	**0.080**	**1.000**	**0.340**	**0.680**	1.973877732	0.0815
103	**0.110**	**1.000**	**0.510**	**1.020**	2.773194764	0.0236
104	**0.030**	**1.000**	**0.120**	**0.240**	1.27124915	0.1114
105	**0.050**	**0.550**	**0.420**	**0.200**	1.221402758	0.0452
106	**0.018**	**0.128**	**0.177**	**0.385**	1.469614321	0.1490

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