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Hong Kong Design Centre
香港設計中心

Human Capital

Investment

A STUDY ON
THE FRAMEWORK OF
HONG
KONG
DESIGN
INDEX

Industry Structure

Market Demand

Social and Cultural Environment

Intellectual Property Rights (IPR) Environment

Major Sponsor:

General Conditions for Business Environment

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A STUDY ON
THE FRAMEWORK OF
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Prologue

Welcome to the new initiative towards the development of Hong Kong Design Index.

Hong Kong Design Centre champions the development of the Index to provide an objective source of information about the design sector in Hong Kong. Against the backdrop of a fledging creative economy globally and regionally, we hope this document will serve as a framework for examining both the landscape and dynamics of design-related industry developments. We also hope it will help promote constructive exchanges among the business and professional communities and the public on the subject.

Through extensive research, data mining and series of workshops and interviews, we have gained a better understanding of how the design index framework shall be developed. We also get to understand better the complex array of issues involved, noting the wide applications of design, design thinking and design services across business sectors, the many ways that business develop and outsource design capabilities, and globalisation of businesses. In fostering creativity and wider use of design for value creation, government leadership and the evolving roles and interplay of designers, educators, entrepreneurs, industrialists, business executives and advisers also warrant closer examination.

Development of industry survey takes time as it needs to embrace relevant and practical measurements across complex industry and evolving business landscape. We believe that this piece of methodological research of "A Study on Hong Kong Design Index" has timely created a path towards better appraisal of the dynamics, reach and impact of the design sector in our society and for us to chart progress.

I would like to thank all participants, Patrick Mok (Project Consultant), Amy Chow (Project Director), Clara Fu and Alick Lau (Project Co-ordinators) for compiling this report. Happy reading and we welcome your feedbacks.

Dr Edmund Lee
Executive Director
Hong Kong Design Centre

Executive Summary

Insights Revealed in the Study

Design's power becomes evident in the global creative economy. Design is shaping the way we communicate; it is a catalyst for reinventing products, brands, services and even cities; it is the oil lubricating business processes and adds premium to businesses; many companies and organizations using design thinking to recast their business strategies have become even more evident of design's growing influence. As a rising economic sector, design helps create jobs, generate wealth and grow local and export markets. The multiple values of design, despite being evident in the rising creative economy, are the least understood in Hong Kong and rarely documented, nor is it communicated effectively to the business sector and local populace so that design is genuinely appreciated among different communities of our society.

The initiative by the Hong Kong Design Centre to develop a measurement framework for examining the landscape of design sector and its dynamic changes is unmistakably a pioneer work. It will enhance our understanding of the design sector in Hong Kong and strengthen the evident base for policy development.

Through the research – "A Study on Hong Kong Design Index" – we are exploring the way to construct such measurement framework. As a methodological study, it lays the foundation towards that an ultimate goal by describing the breadth and depth that the Index should be developed in future. In the meantime it highlights the limitations of data that can be used for framework building; we also identify some key issues that further studies on design index have to address. Substantial effort is expected in the next stage of research to fill up the deficiency of relevant data, and/or to enhance data quality in specific aspects of the Design Index.

Drawing lessons from the methodological research, a far more comprehensive Design Index can be developed on the basis of solid findings and suggestions as shown below:

- **Framework:** The index framework shall embrace *seven dimensions* to reflect the vitality, dynamics, competitiveness and favorable social and cultural environments of the design sector. The dimensions include human capital, investment, industry structure, market demand, social and cultural environment, intellectual property rights environment and general conditions for business environment, with each comprising a cluster of composing indicators.

- **Definition Issues:** In course of the research we found the conventional definition of design which includes specialized design activities and services of architecture, town planning, urban design, interior and furniture design, multi-media, visual and graphic design, fashion design and industrial design too narrow to encompass the dynamic scope and changes of the design sector. Revised definitions of design industry and respective sub-segments shall be developed in the Index Framework, reflecting the expanding scope and boundary of the sector. In particular, visual communication, some branches of advertising, craft/artisan-based design, design education and emerging forms of design shall be included in the landscape of design sector.

- **Data Mining and Research Agenda:** The index framework should be supported by robust data. Given the limitations of official statistics, there is strong demand for further studies on topics which are of little knowledge. In particular, high priority of quantitative researches should be given to:

Design Workforce Study which examines the status of design workers (formal and informal) across manufacturing and service industries;

Business Survey of Design Industry which reveals the economic contribution, organizational features, development and business outlook of design companies;

Use of Design in Business Sectors which studies design investment within and outside design industry; and

Public Survey on the Perceptions of Design, a study revealing the understanding of and value placed on design among the general public.

These studies, if implemented, will help policy-makers and the public narrow existing information gaps to gauge the status, needs and aspirations of design workers. Findings of these studies will also provide solid data for examining current landscape, business development and opportunities of design companies as well as use of and demand for design services in business sectors.

- **Collaboration among Stakeholders:** Official statistics about design sector should be one of the important sources for constructing the Design Index. It is recommended that relevant departments or statistical units of the Government shall conduct regular review of statistical definitions and improve the methods of data collection with inputs of stakeholders and data suppliers from the design sector. It can assist the Government to consolidate data sources, improve data quality and publicize information about the design industry on regular basis. Regular exchanges among different segments of design industry shall be encouraged for collecting updated information and data within the industry. Case studies on outstanding trends of design development may also bring insights to the theoretical development of the Design Index. To facilitate exchange, supports shall be given to industry organizations of the design sector in order to encourage them to invest in data/ information management.

- **International Comparison:** The Index Study shall be placed in the context of regional and international comparison. Findings of the study should make comparable with international measurements; and regular exchange of data and information to overseas organizations which have common interest in index-building should be encouraged. Besides, rapid development of design industry in neighbouring region such as the Pearl River Delta, South Korea, Taiwan and Singapore generates growing demand for collecting strategic and updated information about the design sectors in the Asia-Pacific region. Preliminary scan of recent development in these places and countries will draw valuable reference for enhancing the Index Framework for regional comparison.

- **Role of Intermediary Organizations:** A design observatory function taken by intermediary organization in partnership with relevant industry associations and local design institutions will be essential to index building and data management. Organizations responsible are essential in pioneering new research, identifying information gaps, promoting collaboration among various stakeholders and data suppliers. Their supports are vital to support better use of information from conceptualization, selection, compilation to management and evaluation for promoting the understanding of design sector.

Index study is a longitudinal research which takes time to mature. The present research is a meaningful start only if there are further studies on the subject, particularly as for new data mining and collection processes to narrow existing information gaps. Continuous efforts in building the index system, as we anticipate, will generate new findings and expand the scope and depth of the Index Framework. And we believe that a more comprehensive structure based on robust data will emerge in the implementation stage of the Design Index.

Contents

West Kowloon Walled City by Douglas Young from G.O.D., an installation in 2009 Hong Kong & Shenzhen Bi-City Biennale of Urbanism\Architecture at West Kowloon Waterfront Promenade.

Photo Courtesy: G.O.D. Limited

Organized by Zuni Icosahedron, the Forbidden City is a contemporary and educational exhibition held at the Hong Kong Cultural Centre in Tsimshatsui.

Photo Courtesy: 84000 Communications

READING
HONG KONG
DESIGN INDEX

"Developing a new analytical tool to collect, compile and critically examine data specific to the design sector is a task of high priority since it would provide better information on the status of Hong Kong's design sector to local and international audiences. The tool is expected to provide better framework for regional comparisons while retaining focus on specific local factors."

1.1
The Study

Design encompasses different realities. However, this usually escapes people's minds. We use design products in everyday life although many of us do not realize that the industry that produces the goods and products is an essential part of a rising and creative economy. Design penetrates business services, production, and almost every delivery process of economic activity. However, its value and contribution are intangible and hard to measure and therefore difficult to comprehend, even by the business communities. In its tangible manifestation, design offers us aesthetic and visual enjoyment although only few of us recognize that it is in fact communicating a language or knowledge of aesthetics to us. The various dimensions of design are all-encompassing. Nevertheless, its multi-faceted realities are least understood. In the course of this research, we found that even practitioners in this field, not to mention general public, find it difficult to comprehend the overall picture of the Hong Kong design sector or its potential for development. In short, available information about the design sector is sparse and incomplete, thus leading to deficiency of knowledge, understanding and appreciation of the sector among different groups of audiences.

We believe this study would provide readers a "mind tool" to understand the Hong Kong design sector better. We have avoided use of technical jargon so that general readers, who are not familiar with the sector, can appreciate the importance of this study; the methodological framework proposed here would help them comprehend the overall picture of the sector. Further, the study would meet the expectations of policy-makers, practitioners and professionals in related fields, who have been long awaiting an analytical tool to assess the status of the Hong Kong design sector. We demonstrate a method for collecting and analyzing data for this purpose.

The study on the Hong Kong Design Index (the Index Study) was commissioned in August 2009. The Hong Kong Design Centre (HKDC) conducted this in collaboration with Cul and Culture Consultant Ltd. It all started with an idea to complement research by the Central Policy Unit (CPU) and the Home Affairs Bureau (HAB) of the SAR Government on the creative economy. The CPU's and HAB's studies should be duly credited for focusing on the economic contribution of creative industries in Hong Kong and ecology conducive to the vitality of creativity.[1] Although the Hong Kong design industry is a part of these reports, its importance is understated, with the creative economy being the primary agenda. Thus, there is a need to plug this gap in information on the design sector.

Another reason for conducting the Index Study is to meet the growing need of regional and international comparison, and not just to serve internal needs of audiences in Hong Kong. In the past decade, research on the design sector has intensified. The *International Design Scoreboard* (2007) by the UK, the *Global Design Watch* (2008) by Finland and the *Seoul Design Survey* (2009) are some examples.[2] These studies relate to the design capabilities, competitiveness and/ or design policies of select countries (or cities). Their findings are invaluable references, but, exploring what can be measured against these select countries is sometimes more important than gauging the means of enhancing the understanding of the design sector in respective countries.

To update local and international audiences of the status of Hong Kong's design sector, we have developed a new analytical tool to *collect, compile and critically examine data specific to the sector*. The tool is expected to engender a better framework for regional comparison without losing sight of local specificities. In this regard, the study develops a "prototype of research framework" to evaluate the design industry and its wider implications for development of the sector in terms of education, training and deployment of design practices in the mainstream industrial or business processes.

In short, the Index Study intends to achieve a host of objectives:

- critically examine the design industry in Hong Kong;
- map the current design environment and assess the strengths and weaknesses of the industry;
- develop a draft set of statistical indicators for profiling of the design economy;
- develop a framework to be used as a tool for monitoring the industry regularly;
- provide a basis for comparison with regional studies;
- serve as a reference for policy-makers and other key stakeholders; and
- provide sample data and make suggestions for collection of vital information for Index Study in the future.

We believe the proposed framework needs to refined regularly, and more importantly, be substantiated by cautious compilation of robust data. This would be an ongoing process that requires commitment, and the Index Study is a beginning. Even the Index Study is not a comprehensive study to tackle some important issues that the design communities may be looking forward to. For instance, more applied studies are required on subjects such as measurement of value of design in business or regional and international trade on design goods and services. This study will highlight the information gaps to some extent, which would be substantiated by further research that would improve the quality of data collection for the Index Study and enrich our understanding of the design sector and its different aspects.

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[1] Centre for Cultural Policy Research, The University of Hong Kong (2003). *Baseline Study on Hong Kong's Creative Industries* commissioned by Central Policy Unit, the Government of the Hong Kong Special Administrative Region; Centre for Cultural Policy Research, The University of Hong Kong (2006). *A Study on Creativity Index* commissioned by Home Affairs bureau, the Government of the Hong Kong Special Administrative Region.

[2] Moultrie, James & Livesey, Finbarr (2007). *International Design Scoreboard: Initial indicators of international design capabilities.* United Kingdom: University of Cambridge; Sorvali, Katja & Nieminen, Eija (2008). *Global Design Watch.* Helsinki, Finland: DESIGNIUM; Seoul Design Survey (2009) Seoul Metropolitan Government, Seoul.

This Index Study entails *methodological research* to address the primary issue of building indicators. Its intended use is audience-specific, providing a segment of readers with an analytical framework to understand Hong Kong's design sector. The education sector would benefit from information on development and supply of design manpower and industry practitioners would be informed about the current landscape of the structure of the design industry. Through this study, community stakeholders are provided with a yardstick to examine the status of the local design sector while policy-makers would be able to gauge its strengths and weaknesses.

1.2
Methodology

"Design is everything. Everything!" – a proverb by Paul Rand. The design communities tend to see design as a field with no boundaries; it is considered an expanding domain of knowledge, discipline, and dynamic thinking. This holds true to a large extent. However, in a specific context, when we examine production aspects of the design sector, we have to make a choice to demarcate the manageable scope of design.

Definition

In the Index Study, we adopt the *conventional definition* of design, which includes *specialized design activities* and *services of architecture, town planning, urban design, interior and furniture design, multi-media, visual and graphic design, fashion design* and *industrial design*. This definition is also adopted for official industry classification of the HKSAR Government. We accept this definition not because we agree that its scope of conventional definition is encompassing enough to cover the expanding knowledge and discipline of design. Yet, insofar as we are mapping the *productive activities* of design sector, the above definition is still useful.

Compare with some international studies on design, conventional definition is relatively narrow. As we can see in the studies in Singapore and Australia, *design education, visual communication design* and *artisan design* are three categories not fully covered in Hong Kong's definition *(Info Box A)*. Such deficiency may significantly undervalue productive activities of the design industry. For instance, in case of industry mapping, the conventional definition would overlook schools or institutions offering educational services and training on design and related disciplines or firms engaging in advertising services, installation, exhibition and display designs.

Needless to say, examining the design sector through the lens of conventional definition is inevitably beset limitations. For one thing, it does not exhaust many social, cultural and economic processes where aesthetics, knowledge and skills of design apply. Further, it is not effective in examining the *use of design* across industries and sectors. Moreover, the conventional definition does not cover emerging designs. In particular, growing design activities such as process design, engineering design, information design and green design would be out of the picture simply because they do not fit into the conventional types.
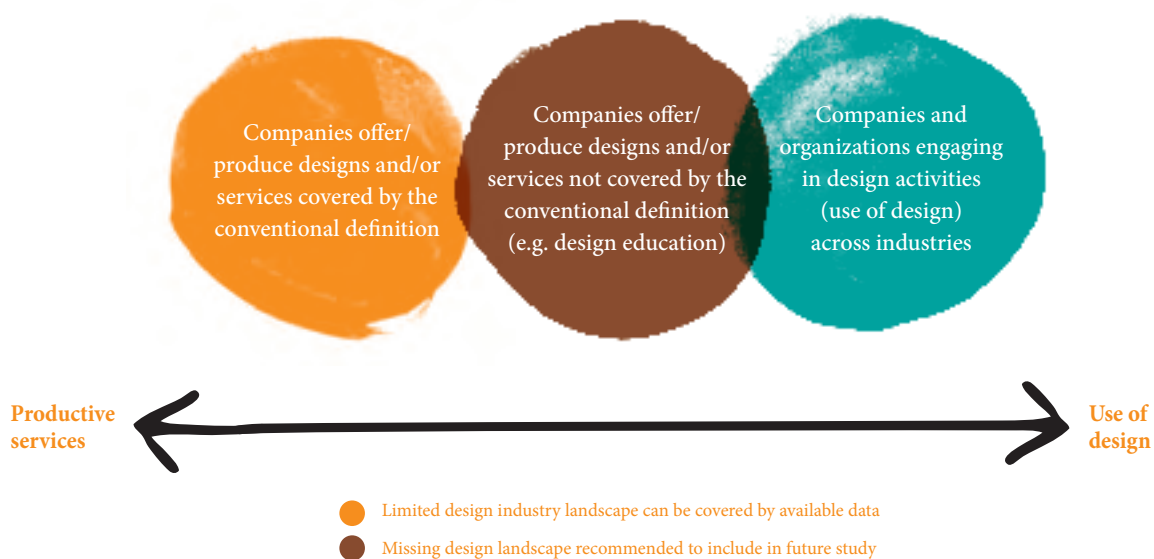
International Design Scoreboard
United Kingdom (2007)
———
• Graphic/communication design
• Interior design
• Industrial/product design
• Digital/web/media design
• Fashion design

Five Years On
Victoria, Australia (2008)
———
• Physical (architecture, interior design, landscape design, urban design)
• Industrial (industrial design/engineering design, consultancy services)
• Viscom (communications design, corporate brand design, commercial artists/graphic design, TV, film and theatre set design, exhibition and display)
• Artisan (textile design, fashion design, jewellery design, furniture design)
• Multimedia (multimedia/web design/computer, software/computer games)
• Design education (services provided by universities/vocational education and training provider)
• Other (design management/facilitation services)

Hong Kong's Study
———
• Architectural design services
• Town planning and urban design activities
• Interior and furniture design services
• Multi-media, visual and graphic design activities
• Fashion design services (incl. Accessories)
• Industrial design services
• Specialized design activities n.e.c.

Strategic Blueprint of the DesignSingapore
———
• Environmental design
(e.g. architectural services, landscape design and architecture)
• Industrial, product and fashion design
(e.g. electronic-related industrial design services, furniture design services)
• Advertising and visual communication design
(including advertising activities, art and graphic design services)
• Software design
(development of other Software, including Web Design).

Despite all these limitations, conventional definition serves operational purposes through which official statistics work. It also lays the foundation for social and economic organizations to define their operational scope. In our view, the conventional definition remains a mapping tool for describing productive activities of a particular group of *producers* (or corporate entities) in the field. Given that further improvements such as the inclusion of design education services and visual communication design are required, at best, it provides us information on the *established industry landscape* and not the emerging field. As the least acceptable working tool, the also has another merit: it offers a relative stable framework for compiling data specific for the design sector across the regional and international context *(Info Box B)*. To expand conventional definition a little bit, we include in the study data for *supportive industries to design to* reflect the expanding and fluid boundaries of the design industry. Industries such as *advertising, photographic production services, performing arts activities* and *computer games* etc., are covered in the study to describe the landscape of the design industry. The wide range of activities in these industries, from graphic, multimedia design, exhibition, stage, and installation, to set design, justifies their inclusion.

Practitioners in the local design sector have a passionate drive to go beyond the limitations of the conventional definition. Their aspirations can be met when the Government official classification of the design sector is improved. Some efforts have been made in the latest Hong Kong Standard Industry Classifications (version 2.0) in which more detailed and new categories of design activities appear. Refined categories in the Hong Kong Population Census and Population By-Census, for instance, offer another source to estimate design personnel engaged in different economic sectors. Besides, regular surveys by Government statistics units or business communities can provide valuable data for tracking the trend of design manpower. Although, efforts are underway to improve these data sources in Hong Kong, any improvement in these statistical sources takes time and resources to mature.

Info Box B : Matrix for Defining Design Industry Landscape

Companies offer/produce designs and/or services covered by the conventional definition

Companies offer/produce designs and/or services not covered by the conventional definition (e.g. design education)

Companies and organizations engaging in design activities (use of design) across industries

Productive services ← → **Use of design**

● Limited design industry landscape can be covered by available data
● Missing design landscape recommended to include in future study

Reference Models

Apart from the definition issue, we refer to existing reports on creative Industries both local and international. We have considered an in-depth analysis of the industries to reflect the current dynamics of the creative economy in general. In addition to background research, scanning *three categories* of literature helps us develop the conceptual framework for the Index Study. These include:

Review of studies on design indicators/index

The International Design Scoreboard: The UK report on "Initial indicators of international design capabilities" provides a framework for measuring national design capability that considers design at a national level as a system comprising enabling conditions, inputs, outputs and outcomes. It aims to provide an initial comparison of the design capability of nations based on available data, highlight challenges in comparing data from different nations, and develop a framework to enable ongoing data collection and international comparison.

A series of indicators have been identified that collectively provide a picture of national design capability in absolute and relative terms. *Relative indicator*, such as the number of design graduates per million population, help in showing the relative intensity of design capabilities within a nation. *Absolute indicators*, such as the total number of design graduates, show the overall scale of design capability in each country. Indicators that fall into the two broad categories include total public investment in design promotion and support, total WIPO design registrations, total WIPO trademark registrations, total design firms, total turnover of the design services sector, and total employment in the design services.

The *Global Design Watch 2008* report by Designium, the Design Innovation Centre at the University of Art and Design in Helsinki, Finland deals with a combination of design-related metrics from the World Economic Forum (WEF)'s *Global Competitiveness report* and draws up a design competitiveness ranking on that basis. Design Competitiveness Ranking 2007 is based on an average of seven design competitiveness related indices. The selected indices measure: elements of competitiveness including status of production processes; effects of product design; marketing and after sales services; and international competitiveness of export companies and their position in the value chain. Some of the metrics used in the ranking are: company spending on research and development; nature of competitive advantage; value chain presence; capacity for innovation; production process sophistication; the extent of marketing; and the degree of customer orientation.

Review of studies on National Innovation Systems (NIS) and clusters development

NIS refers to system of interacting private and public firms, universities, and government agencies aiming at production of science and technologies within national borders. Networking among these units may be technical, commercial, legal, social, and financial, in as much as the goal of interaction is development, protection, financing or regulation of new science and technologies. Both hard and soft infrastructure of this network is considered critical in the development of a local industry. Hard infrastructure includes buildings, facilities, and software is the mechanism that interconnects them and helps them to function as a network.

Looking at this network at a different level, the "Triple Helix" model depicts interaction of three key organizations key to economic development: academia, industry and the government. Within this melting pot, the merger of all three will create synergies and an engine to drive development via innovation. Design London's concept is similar to this. It has used this model of triangular synergy between business, science and technology and design to develop a local design cluster. Lessons learnt from these studies draw our attention to different factors contributing to the vitality of NIS and triangulation of different sectors in promoting an industry. The insight is absorbed in our Index Study.

Review of competitiveness and related research

The *Global Competitiveness* Report, a yearly report published by the World Economic Forum, assesses the ability of countries to provide high levels of prosperity to their citizens. This in turn depends on how productively a country uses available resources. Therefore, the Global Competitiveness Index (GCI) measures the set of institutions, policies, and factors that set sustainable current and medium-term levels of economic prosperity. The GCI is made up of more than 113 variables. Of this, approximately two thirds comes from the Executive Opinion Survey that gathers valuable information on a broad range of variables for which hard data sources are sparse or in most case, non-existent. One third comes from publicly available sources. The variables are organized into 12 pillars, the important ones being Institutions, Infrastructure and Innovation. Each pillar represents an area considered as an important determinant of competitiveness.

Further, the *Anholt-GfK Roper Nation Brands Index* provided by government advisor and author Simon Anholt and GfK Roper Public Affairs & Corporate Communications is a comprehensive system for measuring the power and quality of each country's "brand image". It combines six dimensions — Exports, Governance, Culture and Heritage, People, Tourism, and Investment and Immigration. The dimension of Culture and Heritage "reveals global perceptions of each nation's heritage and appreciation for its contemporary culture, including film, music, art, sport and literature"; the dimension of People "measures a population's reputation for competence, education, openness and friendliness and other qualities, as well as perceived levels of potential hostility and discrimination". Each country's score across these six dimensions is captured in the Nation Brand Hexagon, a visual rendering of the total Index score. It provides a consistent framework for country-to-country comparisons against the key factors impacting a nation's reputation.

Studies of this sort do not directly relate to design index; however, they offer valuable insights to quantify the industry, social and cultural environments that affect the competitiveness and intangible qualities of a country. In constructing the social measures of the design sector, this study refers to their methodological models.

Stakeholder consultations

Following the composite of the draft framework, two workshops were conducted in March and November 2010 in which members from design associations, industry practitioners and educational stakeholders participated. Their feedback and recommendations have been factored into the study. In-depth interviews were conducted with a small sample between July and August, following the workshop. Quality opinions were solicited on topics such as curriculum and manpower development, status and prospects of the design industry, the China factor, design policy and government support, and general observations about social

and cultural environment in favor of design. Their views reflect in the existing framework and have deeply influenced the writing of this report. For a list of participants in the workshops and interviews, see *(Annex 3)*; for summary of opinions expressed in the interviews, see *(Annex 4)*.

From Ideas to Framework-building

Drawing lessons and relevant reference from multiple sources of inspiration enables us to conceptualize an "input-output/outcome" model as a guide to develop the design index. The many insightful ideas gleaned from discussions with workshop participants and interviewees and a deep study of relevant literature have enabled creation of a framework for identifying critical elements for the design sector. In the chapters that follow, we walk through the proposed framework, its composites, data compilation as well as pros-and-cons in using the framework. We hope this study will provide readers a deeper understanding of the design sector in Hong Kong.

"The many insightful ideas gleaned from discussions with workshop participants and interviewees, and a deep study of relevant literature, have enabled the creation of a framework for identifying critical elements for the design sector."

The Antoine + Manuel Graphic Village Exhibition was organized by the Hong Kong Design Centre in collaboration with the Hong Kong Heritage Museum for the Leisure and Cultural Services Department.

FRAMEWORK OF HONG KONG DESIGN INDEX

"The Index Study purposes to conceptualize a model embracing a cluster of important dimensions. These dimensions reflect the vitality, dynamics, competitiveness, and conduciveness of socio-cultural environments of the design sector."

2.1
Introduction

Hong Kong ranks among the top service economies in the world. Hong Kong's business environment has given its design community a unique strength of using design as a key component in brand building, innovation, marketing and communication of products and services. Local designers are generally versatile, having strengths in image-building and commercializing of their own brands and service delivery. This unique strength, as illustrated by The "Hong Kong: Creative Ecologies" exhibition, a Hong Kong SAR programme for Expo 2010 Shanghai, combines the best of Hong Kong design with international ones, ranging from individual designers to innovative design-based businesses, brands and systems. As one of the freest economies of the world, Hong Kong supports this characteristic. Our business mindset rests on the top of unparalleled institutions and assets that include freedom of expression, high standards of governance, efficient infrastructure, and a strategic location within Asia. Given Hong Kong's international horizons and respect for tradition and culture, its business and design communities are equipped with cosmopolitan and dynamic enterprises. This enables designers to be recognized worldwide in different business sectors — fashion, jewellery, animation, car design, and design of products and services.

All these highlight Hong Kong's sophistication, pluralistic culture, supporting systems and environments that enhance the vitality of local design sector. However, the design sector faces a host of challenges that threaten its competitiveness and sustainability. We often hear about brain drain of competent designers and loss of jobs and business opportunities. These factors result in integration into regional markets of mainland China or global markets. Complaints abound of insufficient support to design from the public sector and lack of appreciation of design from the business sector and the general public. Perhaps, these perceptions, influenced by obvious and exaggerated successes, color our understanding of the sector, creating an impression that these barriers and challenges are too formidable to overcome.

2.2
Important Dimensions in the Index Framework

To obtain a balanced view of the sector, setting a few objective indicators would be helpful and this is the task the Index Study sets out to achieve. It would provide a constructive view to enhance our understanding of the external world and clear the cobwebs of confusion or conflict, to give a picture of the core essence of realities. As far as the design sector is concerned, the Index Study conceptualizes a model that embraces a cluster of important dimensions to reflect the vitality, dynamics, competitiveness and conduciveness of socio-cultural environments of the design sector. The model is of course an "ideal type", but it also lays the foundation for objective facts that are worth being measured and quantified.

In this conceptual framework, as shown in the illustration below, the outer ring suggests seven dimensions that are the inputs for the design industry; they include:

- Human Capital
- Investment
- Intellectual Property Rights Environment
- Industry Structure
- Market Demand
- Social and Cultural Environment
- General Conditions for Business Environment

Factors in each dimension are important to our industry and they are somehow related to each other. The *(Info Box C)* below explains *why each dimension informs us of the landscape of the design sector*, and *how it contributes to the sector*. In the column type of measure, we propose items to be measured if relevant indicators are constructed. The list of type of measures is exhaustive and it can be expanded when new inquiries emerge. Instead of using a cause-effect linear approach, we subscribe to the relational approach in describing the factors. This is because this approach comprises a combination of factors and in turn contributes to the design industry and helps in generating outputs and outcomes.

The notion of output and outcome is used in this report in transversal perspective. *Output* means results directly stemming from an activity by individuals, companies or a system; for example, the number of graduate design students is an output of educational system, reflecting in the amount of value added to the design industry. *Outcome*, however, means aggregate effect brought to the design sector; higher value placed on design by the general public, for instance, is the outcome of the favorable socio-cultural environment for the design sector. By the same token, the percentage share of the design industry vis-à-vis local gross domestic production (GDP) and the amount of import/export value of design goods would be the outcome that the design sector contributes to our economy. The report takes a view that the concept of output and input may enable researchers to examine the dynamic relationship among a host of factors under the framework, but it is not our intention to determine a linear causation for the indicators and for the dimensions as well.

Dimension	Why it is important?	What type of measure can be quantified?
Human Capital	*Human capital is productive wealth embodied in labour, skills and knowledge, which is referred to as manpower or talent.* Dynamics of manpower in turn represent the flow of knowledge and ideas into or within the design industry. A large dynamic talent base covering design skills, business management and entrepreneurship is essential in developing a design capability.	• Talent base pool • Quality of training/education • Pool of practitioners • Employment and vacancies in market • Aspiration for and status of professional training • Experience and professionalism
Investment	*Robust systems that enable easier access or specific resources to either private or public support in nurturing an immature industry or development of a cluster.* The systems can be in terms of public policies, private or public investments.	• Research and development in private and public sectors • Public supports in promoting design • Investment in design education
Industry Structure	This category *maps the status and landscape of design industry, demographic profile of companies and design personnel* as well as the status of various related institutions in the design sector.	• Status and landscape of design industry • Status and landscape of design practitioners across industries
Market Demand	*Market demand measures the value that businesses and consumers place on design goods and services plus human capital.* In this category, we measure the value of design in terms of its demand from domestic businesses and private sectors for design to global demand for Hong Kong's design goods and services.	• Business expenditure in design • Household consumption of design goods and services • Trade of design goods • Manpower demand for design skills and knowledge
Social and Cultural Environment	*Strong social and cultural capital is required to establish the soft infrastructure for the industry.* It creates a positive environment for learning and sharing of knowledge and ideas, which consolidates the foundation of creative thinking.	• Stimulus in a creative environment • Accessibility of design culture/knowledge • Public perception of and value placed on design
Intellectual Property Rights (IPR) Environment	In general, *a robust legal structure can facilitate stable development of all industries. In design, intellectual property rights are a type of primary outputs.* Capability and accessibility of IP-related legal protection plus efficiency of its system is critical to the design industry in terms of profitability and competitiveness.	• IPR protection • IPR outputs • Efficiency of business system • Business and personal attitude towards IPR value
General Conditions for Business Environment	*General business conditions that facilitate the start-up of a business within the design industry.* A business-friendly environment enhances efficiency and encourages entrepreneurship.	• Status and procedures of start-up businesses

"Instead of using a cause-effect linear approach, we subscribe to the relational approach."

2.3
Proposed Set of Indicators in the Framework

Quantifying dimensions into measurable indicators is always a challenge for any index study. Some conceptions, albeit being literary and eloquently expressed, are not necessarily quantifiable. This study encounters the same difficulty in finding a quantifiable measurement for the most desirable aspects. For example, readers may be interested in knowing how a favorable socio-cultural environment contributes to the vitality of the design sector. However, there is hardly an external and corresponding reality that allows us a direct measure of the environment, except that a combination of indirect measurements such as available of information, channels communicating design culture, and people's general perception of design may indirectly tell about the extent of supportive conditions.

It would be equally difficult to establish appropriate indicators or source available data to support the notions proposed in the Index Framework. Quality of design talent or professionalism levels in the design industry, for instance, is not easy to measure quantitatively, notwithstanding the fact that data on expenditure of companies on design services is available. All these difficulties must be addressed with further research to construct a more comprehensive index framework. Nevertheless, it is still possible to construct a framework based on incomplete data. A pool of available data could be used and analyzed to reflect the dynamics of the design sector in Hong Kong.

The Index Framework selects a set of indicators under seven dimensions that directly or indirectly reflect manpower, market landscape, investments, and business and socio-cultural environments of the design sector *(Info box D)*. Selection of indicators is via a three-step assessment that involves *defining the conceptual foundation, clarifying the definition*, and *assessing the measurability* of each indicator. Indicators that come from consistent and reliable sources are *confirmed indicators* in the framework whereas those derived from ambiguous data sources or one-off data are excluded.

The confirmed indicators are not without limitations. Missing gaps and inaccurate classification make them vulnerable, leading to an incomplete picture of the design sector. Thus, we propose a list of *suggested indicators* that should be substantiated in the next stage of research and new data sources should be mined for an evidence base. The suggested indicators will plug some missing gaps in the Index Framework and engender a relatively comprehensive framework in the future. At this stage of model building for the Design Index, we accept the limitations of the confirmed indicators in showing a partial picture of the design sector.

Based on the above principles, we propose the Index Framework comprising seven clusters of indicators. *Confirmed indicators* are assigned a serial number under each dimension and *suggested indicators* are highlighted in blue color. For further details on the definition and specifications of indicators, see *(Annex 1)*.

Info Box D : List of Indicators in the Design Index

Human Capital

No.	Indicators	Type of Measure
I-1	No. of design students	Measures the number of students currently enrolled in accredited design and related programmes
I-2	No. of design graduates	Measures the number of students that graduated from accredited design and related programmes
I-3	No. of design academic staff	Measures the number of full-time teaching staff/researchers at art/design institutions
I-4	No. of design programmes	Measures the number of accredited programmes in design and related programmes in the tertiary educational sector
I-5	No. of persons engaged in design industry (Tier 1: Major design disciplines)	Measures the current skilled labor force in the market that is engaged in major design disciplines (Junior, senior and management levels)
I-6	No. of persons engaged in design industry (Tier 2: design supportive disciplines)	Measures the current skilled labor force in the market engaged in design related disciplines
I-7	No. of design job vacancies (Tier 1: Major design disciplines)	Measures demand for skilled labor and jobs created as a result of activities of the industry
I-8	No. of design job vacancies (Tier 2: design supportive disciplines)	Measures demand for skilled labor and jobs created as a result of activities of the industry
S	Employment rate of design graduates in design and related industries	Measures the employment status of design graduates in design and related industries
S	No. of designers across industries	Estimates the gross number of designers across different segments of industries
S	No. of freelance designers across industries	Estimates the gross number of freelance designers across different segments of industries

Investment

No.	Indicators	Type of Measure
II-1	Total amount of Research and Development (R&D) expenditure by the business sector (in million HK$)	It measures expenses of a business sector on any creative work undertaken on a systematic basis to increase the stock of knowledge and make use of it to devise new products, services, and applications and institute improvements in existing products, services and applications.
II-2	Amount of R&D expenditure by the government sector (in million HK$)	It measures expenses of a government sector on any creative work undertaken on a systematic basis to increase the stock of knowledge and make use of it to devise new products, services, and applications and institute improvements in existing products, services and applications.
II-3	Total amount of government funds granted to design-related projects	Measures the availability of potential public funds for design research or business development.
II-4	No. of approved applications for government funding	Measures utilization of government funds available to the design sector.
S	Total amount of public investment in design education	Measures the amount of public investment in post-graduate and graduate education in the design segment.

Note

S: Suggested indicators to be developed in next stage of research

Industry Structure

No.	Indicators	Type of Measure
III-1	No. of establishments (Tier 1: Major design disciplines)	No. of establishments engaged in traditional disciplines of the design industry
III-2	No. of establishments (Tier 2: design supportive disciplines)	No. of establishments engaged in non-traditional and related industries in the design sector
III-3	Direct value-added contribution of the design industry (in million HK$)	Gross amount of economic contribution by the design industry
III-4	% share of value-added contribution of design industries to local GDP (in %)	Economic contribution of the design industry to the local economy
III-5	No. of design professional associations	Industries bodies that represent, promote and support the design sector
S	% of business establishments in the design industry by firm size	Percentage share of business enterprises (large, medium and small size) in the design industry
S	% of value-added contribution of design industry by firm size	Share of economic contribution by the design industry by firm size
S	Annual business receipts of the design industry by firm size	Annual business turnover of the design industry by firm size
S	% share of business receipts of the design industry by types of design services	Business trends of design services based on primary and secondary activities of the design firms
S	% of design firms setting up branches in regional markets	Business activities and presence of the local design companies in regional economies other than Hong Kong

Market Demand

No.	Indicators	Type of Measure
IV-1	Value of imported design goods (in million HK$)	Reflects import demand for and trading opportunities in design goods
IV-2	Value of exported design goods (in million HK$)	Reflects export demand for and trading opportunities in design goods
IV-3	Value of design goods re-exported to value of design goods exported (in million HK$)	Measures the trading opportunities in design goods
S	Value of household consumption of design goods/services	Measures household consumption of design goods/services
S	Business investments in the design segment	Measures internal and external design investments of companies

Note

S: Suggested indicators to be developed in next stage of research

Social and Cultural Environment

No.	Indicators	Type of Measure
V-1	No. of online design database or portal websites	Measures content, information and knowledge domain of design made available to the community via the Internet, printed and electronic media
V-2	No. of hours of design TV programmes broadcasted	
V-3	No. of available design magazines in Hong Kong	
V-4	No. of design/art museums	Availability of institutions disseminating design culture/knowledge to the community
V-5	No. of design libraries	Availability of institutions disseminating design culture/knowledge to the community
V-6	No. of local design competitions or awards	Measures the achievements/credits recognized by the design sector
V-7	No. of design exhibitions	Measures the intensity of information resources and promotional activities of the design sector available to public
V-8	Royalty fees paid to copyright fees per population	Measures the economic value placed on IPR
V-9	Public awareness of Intellectual Property Right Protection: Misdemeanors such as involvement in infringement of copyrights	Measures the awareness of IPRs protection
V-10	Business attitudes to Intellectual Property in trademark, patent and design registration in HK as well as IP compliance on prohibition from using pirated computer software	Measures the general attitude toward IPRs
S	Public perception of and value placed on design	Measures the level of appreciation of design by general public

Intellectual Property Rights (IPR) Environment

No.	Indicators	Type of Measure
VI-1	No. of trademarks, designs and patents registered	Measures the output of the design industry
VI-2	No. of cases under copyright ordinance	Measures the severity and willingness to enforce IPRs
VI-3	No. of law firms whose practice areas include intellectual property	Reflects the availability of legal expertise in IPRs
VI-4	Ranking of IPR protection/Total no. of countries ranked	Reflect the general status of protection of IPRs

General Conditions for Business Environment

No.	Indicators	Type of Measure
VII-1	Ease of forming a business index	Measures the ease of starting a business
VII-2	Time required to start a business	
VII-3	Cost of business start-up procedures	
VII-4	No. of start-up procedures to register a business	
S	Aspiration to set up own business among design workforce	Measures the willingness of design workers to establish their own business or brands

Note

S: Suggested indicators to be developed in next stage of research

2.4
What Does the Index Framework indicate?

The Index Framework is designed to enhance our understanding of the design landscape. Individual indicators or a group of indicators can indicate the status, dynamics or development trends of certain aspects of the design sector. Readers are updated about supply of design graduates, their employment status, or the general employment pattern of design workforce in the market. People who are interested in the overall landscape of the design industry can find useful information about the economic contribution, business profile and size and scale of the industry. Each dimension of the framework is theoretically addressing one or multiple facets of the design sector as that reader can be benefited from the reading to appreciate a wide spectrum of the sector from talent development, market development to social and cultural milieus affecting the vitality and well-being of the sector.

Composite Indicators in the Design Index have to be supported by consistent and reliable data. As a methodological research, this study tests the framework with compilation of sample data with due diligence, subject to availability of data for confirmed indicators. The primary objective of this test is to: *reveal the available data sources to highlight the limitations and pitfalls of confirmed indicators; shed light on the importance of the efforts in correcting the incomplete picture; and/or narrow the information gaps that hamper the understanding of the design sector.*

By proposing a list of suggested indicators, the Index Framework recommends some new indicators. Further research must be done and data gaps must be filled. For instance, available information about the percentage of business establishments in the design industry by firm size is so fragmented that it offers a longitudinal view of the changing structure of design firms; whereas some indicators such as business expenditure in design and related services, despite being conceptually well-grounded, lack support data. Indicators such as assessment of design workforce, number of local design enterprises with overseas branch(es), or public perception of and value placed on design are important aspects to measure. Nevertheless, they are yet to be quantified due to deficiency of relevant data sources. All these gaps are not impossible to bridge so long as the Index Framework is designed flexibly. New and relevant data can be obtained via surveys or research. Thus, the proposed framework tends to be an open-ended model, subject to further improvement.

"Readers are updated about supply of design graduates, their employment status, or the general employment pattern of design workforce in the market. People who are interested in the overall landscape of the design industry can find useful information about the economic contribution, business profile and size and scale of the industry."

G.O.D. Street Culture Museum showcasing traditional Hong Kong
mailboxes in Jockey Club Creative Arts Centre (JCCAC) at Shek Kip Mei.

Photo Courtesy: G.O.D. Limited

DESIGN SECTOR IN PERSPECTIVES

"Data cannot speak for itself. Unless it is contextualized with meaningful interpretations and analysis, plain presentation of massive data or an oversimplified list of ranks would create misunderstanding rather than offer a deep view of the status and dynamics of the design sector".

3.1
Introduction

The Index Framework is designed to present a quantitative view of the landscape of Hong Kong's design sector. The completeness of the framework can only be obtained when data gaps are plugged and more meaningful indicator aspects are added. Thus, we illustrate the operation of the framework by collecting a pool of sample data. Preliminary findings are presented in this chapter. Data cannot speak for itself unless it is put into a meaningful context with sufficient elaboration and interpretative analysis. Thus, we show *how confirmed indicators can be used for descriptive purposes, why they are important to understand Hong Kong's design sector,* and *the missing gaps that are yet to be plugged in the Index Framework.*

In the following sections, we undertake contextualized analysis on each dimension from *human capital, investment, industry structure,* and *market demand* to *IPR, business and socio-cultural environments,* to understand the indicators and the data and appreciate the findings. At the same time, readers should be critical of these findings; particularly those areas with pitfalls and insufficient depth of the indicators should be highlighted. We admit that without further efforts in improving the framework and its data sources, the current study would only reinforce the distorted view of the design sector than enhance the understanding.

3.2
Human Capital

Human capital entails labor with skills and knowledge, referred to as manpower or talent. Dynamics of manpower in turn represent the flow of knowledge and ideas into or within the design industry. Designers develop and apply their skills for a variety of employers (or enterprises) in the economy. They are the propellers of creation and innovation, driving design applications from one business sector to another. Firms benefits when designers are able to transfer knowledge. In short, a thick pool of high-quality design workforce benefits the design industry and a large talent base covering design skills, business management and entrepreneurship is essential to strengthen the design capabilities of an economy. Some salient aspects of human capital as far in this study are being concerned: *Supply of talent*, a critical factor affecting the labor force market, *magnitude of training/education* matters both in tertiary or professional field and *quality of design manpower* are equally important. The concerns point to the substance of training in formal or informal manners or raise the importance of life-long education for design workers.

In Hong Kong's context, tertiary design education services have developed rapidly in the past few years, resulting in an outstanding increase in supply of design students. Particularly, enrollment in sub-degree programmes increased substantially due to expansion of tertiary institutions in design education/training, although dedicated design schools in Hong Kong remain limited to a few. The following table *(Info box E)* of two indicators shows the dimension of human capital; growth in the number of design graduates has been stable. Graduates hold potential for the design industry, but not all of them would be in the market. Some would choose to study abroad or develop their own career path in other fields. However, the real impact of the expansion in 2008/09 on the labor market would be seen in coming years. Robust growth of sub-degree design programmes may engender higher demand for educational opportunities at higher levels and exponential increase of potential workers in the field. Some practitioners and educators who are concerned about the "flooding effect" stemming from the expansion would worry about quality training and teaching, professional standards and the availability of job opportunities.

Info Box E : Missing Gaps in the Picture of Supply of Design Talent

The two indicators are precursors of the size of design talent pool and potential workers. They are useful in charting the overall trend of the supply of design talent in Hong Kong. Yet they are of little use in indicating the changing structure of design education (such as development of sub-degree and top-up programmes, etc), depth of curriculum, and quality of training and teaching. Therefore, reading of these quantitative findings should be guarded against mere pursuit of numeric growth at the expense of qualitative assessment of design education.

Second, there is too little public information reporting the immediate employment of graduates. It is far from clear how many graduates would join the workforce in the design industry in a particular year. In fact, individual schools conducted graduate surveys for internal reference. Undisclosed sources confirm that more than 80% of graduates are engaged in the design industry and/or in activities related to design in the business sector. Such information, despite not being a standardized indicator for regional or international comparison, would be an alternative measure to indicate a growing pool of design talent across different segments as well as demand for design workers in the local market.

Supply of Design Talent

No. of design students	2006/07	2007/08	2008/09
Sub-degree programmes	3,284	3,761	6,983
Degree programmes	1,742	1,959	2,086
Postgraduate programmes	788	828	923
Total no. of students	**5,814**	**6,548**	**9,992**
No. of design graduates	2006/07	2007/08	2008/09
Sub-degree programmes	1,030	1,422	1,402
Degree programmes	426	642	696
Postgraduate programmes	346	370	427
Total no. of graduates	**1,802**	**2,434**	**2,525**

Indicators on the supply-side of design talent, on the other hand, should be supplemented by further information about changes in the education structure and resources in teaching so that a more balanced view can be obtained regarding the trend of curriculum development. Local tertiary education institutions offering design training are in fact sensitive to the new educational needs and changing demand of the design industry. Educators often express strong willingness to develop inter-disciplinary training for students in addition to basic design knowledge, capabilities and skills *(Info Box F)*. Moreover, they are aware of the importance of pragmatic training and broadening of business and industry knowledge and skills via internship, placement, touring studies, or collaboration with business partners and external expertise to enable students locate on-the-job trainings and gain access to highly specialized knowledge domains. Such change in the curriculum development and educational resources in recent years is, however, difficult to measure quantitatively (latest 2010), although it can be captured to some extent by the indicators of number of academic staff and number of design programmes.

Numbers on the engagement of design talent in the market allow us to examine the overall profile of the manpower landscape of the design industry *(Info box G)*. Some statistics could be valuable evidence of total employment of personnel in the design industry; they are useful in indicating the broad segments of people engaged in the industry. Standard indicators are developed along these lines of thoughts, although individual studies vary in scope and definition of design. For instance, advertising in some countries is regarded as an expanding branch of design *(Info Box A)*. In our study, it is an independent segment, offering support services and is closely related to the design industry, although both can be included under the umbrella of culturally-creative industries. The classification issue of the design industry and the dubious nature of employment numbers involve complicated arguments that we will revert to later in this section. We focus on *employment of human capital* and try to demonstrate the "usefulness" and "limitation" of available data compiled in the Index Framework.

A broad scan of employment numbers in the past few years shows a steady increase in the number of workers engaged in core segments of the design industry (major design disciplines). The increase is significant with average annual growth of employment in the industry being 6.7% during 2006-09, whereas supportive industries recorded growth of 0.7% during the same period. The increasing trend also indicates recent growth in the labor market in the industry, perhaps for two reasons: Domestic growth in some segments (property market, in particular) creates more employment opportunities for people engaged in architectural and interior design services. Second, the scope of services of design companies expands to other business sectors such as banking and finance, retail, business marketing and online businesses. Retail business, in particular, creates substantial demand in marketing, branding, exhibition and installation designs, thus supporting a robust employment market.

Info Box F : Qualitative Assessment of Curriculum Changes

It may be useful for the Index Framework to include some descriptive analysis on the changing structure of design education as well as the curriculum trend in local design education. Inquiries could be made on design courses offered in other academic departments/divisions (such as business schools, engineering schools, etc.) to reflect the expanding territory of design knowledge in other educational fields. Furthermore, experts/industry practitioners drawn from academic disciplines other than from design and/or from business communities in design education programmes reflect the changing skill-sets and knowledge development in the design field.

Magnitude of Design Education

No. of design academic staff		
Full time teaching staff/researchers	**Total**	**189**
No. of design programmes		
Accredited programs in design and related programs	**Total**	**116**
	Sub-degree	52
	Degree	25
	Postgraduate Degree	39

Info Box G : Limitation of Existing Employment Figures

Practitioners in the field would sometimes complain regarding the inaccuracy of government statistics. People engaged in the design industry and covered by official statistics are not all designers; official numbers include all employees from design workers to administrative and logistics staff. Thus, there is no reasonable estimate of the total number of designers.

The conventional definition of the design industry (see notes below) is narrowly defined and suffers from two serious pitfalls: 1) it is not inclusive and emerging or expanding fields of design such as environmental, service design, communicative design, for instance, are probably excluded; 2) designers employed (in-house design) in other businesses and manufacturing sectors are not covered. For instance, design personnel working in IT companies and retail businesses, whose occupational work is design specific, would be out of the picture under the conventional definition.

Therefore, the employment numbers shown in the table seriously under-estimate the total design workforce in Hong Kong.

Employment in Design Industry and Supportive Industries

Indicators	2006	2007	2008	2009
No. of persons engaged in design industry				
* Major design disciplines	13,090	14,610	15,790	15,920
No. of persons engaged in design industry				
# Design supportive disciplines	30,350	31,230	31,350	30,990
No. of design job vacancies				
* Major design disciplines	300	470	440	310
No. of design job vacancies				
# Design supportive disciplines	910	960	850	580
Breakdown of Employment Figures				
Architectural design services	4,020	4,320	4,680	4,570
Town planning and urban design activities	40	20	30	40
Interior and furniture design services	3,900	4,170	4,380	4,830
Multi-media, visual and graphic design activities	2,980	3,570	3,640	3,720
Fashion design services (incl. accessories)	400	550	640	690
Industrial design services	980	1,170	1,380	1,200
Specialized design activities n.e.c.	770	810	1,040	870
Total no. of persons engaged	**13,090**	**14,610**	**15,790**	**15,920**

* The industry classification system adopted by C&SD defines major design disciplines and covers the following segments: architectural design services; town planning and urban design activities; interior and furniture design services; multi-media, visual and graphic design activities; fashion design services (incl. accessories); 'Industrial design services' and 'Specialized design activities n.e.c. The classification system has been recently revised in the HSIC v2.0 but no historical data before 2006 is available. The breakdown numbers come from the latest classification (HKSIC v2.0)

Supportive disciplines include: development of computer games; development of other software and programming activities; advertising companies and agencies; advertising services n.e.c.; photographic production services; and performing arts activities.

Existing employment numbers do have a value to measure the *overall employment* generated by the industry. It is important to note that designers do not alone. Within the design industry, different tiers of the workforce, from administrators and designers to supporting staff, contribute to the industry as a whole. For this reason, we believe that the official statistics presented in above table should be seen as a measurement for mapping the general landscape of employment in the design industry. Despite the limitations already stated, a closer examination of the numbers offers some insights into the dynamics of the sector. For instance, steady growth in employment of some sub-segments confirms the observation that the design industry has resurrected in recent years. Another surprising finding from the statistics is an increase in the so-called "industrial design services", which largely comprise product design. Contrary to the misconception that home-grown manufacturing has faded out the data shows a gradual growth in the employment market. This perhaps indicates the prospects of high value-added manufacturing in Hong Kong's versatile labour environment.

However, *existing numbers do not tell us the gross number of designers engaged in and outside the industry*. Moreover, the pitfalls of the statistics highlight the imperative need to conduct a *dedicated survey of design workforce* (designers) across different sectors. The workforce study should cover not only designers employed in the narrowly defined segments of design industry, but also the equivalent personnel in non-design industries such as business and manufacturing sectors *(Info Box H)*.

Info Box H : Alternative Measures of Design Employment

So far, there is no serious study on the mapping of design workforce in Hong Kong barring a manpower study several years ago. This study had provided some qualitative and quantitative findings on employers' perceptions of the skill and knowledge of local designers as well as aspirations of designers for professional training. Yet, the multiple facets of design workforce remain a topic not adequately studied. There are three aspects of information particularly lacking:

1) There is no survey by far on the number of design workers within the design industry. The employment numbers covered by official statistics can only offer a gross picture of how many people are engaged in the design industry. There is no serious attempt to ascertain the number of designers working in the field, not to mention that the scope included by conventional definition of design industry should be expanded.

2) As far as practitioners are concerned, it is an obvious fact that design workers spread over business and manufacturing sectors ranging from advertising companies, publishing houses, IT companies, chain-stores, and retail and entertainment businesses. Communicative, graphic, web, multimedia, fashion, architectural and stage designs apply in these businesses and are in strong demand. For instance, there is no lack of cases such as Sanhuang Company Limited, a conglomerate fashion manufacturer, presenting a picture that large companies in the manufacturing industry set up their own design teams whereas smaller companies acquire development services from independent fashion designers. The pattern of employment is similar in other business sectors, as seen in the case of advertising companies; in-house designers are employed for providing art-direction and engaged in different sorts of graphic designs. The same situation prevails from one sector to another and the fragmented existence of designers justifies the imperative need to survey the number of design workers engaged in other business and manufacturing sectors.

3) Freelance design workers are usually missed out in the overall picture of design industry, but their economic vitality is substantial. There are no formal statistics about project-based/freelance jobs; nevertheless, according to the observation of the Hong Kong Design Community, thousands of design workers are estimated to be employed for a short-term or work on a project part-time. These workers are young (usually below 30) and do not have their own company although some of them have a formal degree, diploma and certificate in design. Such a phenomenon reveals that vibrant, informal, and short-term employment prevails in the sector.

In addition to a more comprehensive mapping of design workers, the proposed workforce survey may also gauge a set of important issues on which currently available statistics on the supply of talent and employment fail to answer. Central to these issues is the footprint of design workforce in a broad range of economic sectors that are hardly charted — *demographic and economic profile of design workers, mobility, aspirations and needs for career development, learning and training*, supply of and demand for design manpower resources as well as skill matching and evaluation in the design industry in Hong Kong. The recent study by the Hong Kong Polytechnic University addressing the last two major concerns and indeed fills some gaps in the spectrum.[4] Drawing its findings largely from focused group sessions, the study provides insights into employers' and designers' views on manpower mismatches in the design industry and their evaluation of designers' skills, knowledge, capabilities and attitudes. The study does not aim at an overall mapping of the status of designers across different sectors. Nor does it provide a demographic, social and economic profile of design workers in Hong Kong. Hence, there is still considerable room for further research. For instance, considering the breakdown of employment statistics, it would be interesting to inquire how many design talent workers are there, and what the existing and potential demand for designing skills and knowledge is within and outside Hong Kong. Answers to these questions could be more insightful in revealing the broad trend of design workforce than focusing only on the issue of mismatch.

"We focus on employment of human capital and try to demonstrate the "usefulness" and "limitation" of available data compiled in the Index Framework."

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[4] Department of Management & Marketing and The School of Design (HKPU), *Matching the Skills, Knowledge and Capabilities of Designers to the Expectations and Requirements of Employers*, Final Report, 2008.

3.3
Investment

In the Index Framework, we take a view that a social environment that values the importance of innovation, research and development activities in design field is essential to develop a knowledge base and enhance competitiveness of the design industry. R&D activities in the design sector vary in contexts and across different disciplines. They could be in terms of prototype research, basic research, process innovation, investment in marketing and communicative strategies, or research in applied technologies and engineering knowledge. On the other hand, the public sector (government in particular) does have a role to play in promoting a favorable social environment for investment. In other developed countries, policy programmes would be designed for encouraging innovation and R&D activities in certain fields of design, and/or funding and tax rebate policies for encouraging private sector investment in R&D activities.

In case of Hong Kong, R&D activities in the design sector are seldom reported in official or industry statistics. Current official statistics *(Info Box I)*, nevertheless, reveal slow progress of R&D investment over the years between 2005 and 2008 and are not specific to the design sector. If there is any use of them in the Index Framework, these official statistics only tell us a generic trend of R&D activities in society at large. Questions such as how much the private sector values R&D in design and how much private companies are spending on design items remain unanswered.

Further, from the numbers, we can see that public investment in design-related projects increased from HK$ 22.8 million $ in 2005 to 39.8 million in 2009. The substantial increase reflects growing attention of the government sector toward the design field. The DesignSmart Initiative was launched in 2004. It includes a Design Support Programme (DSP), which finances projects in: design and branding research; design/business collaborations; design professional continuing education; and general support activities from international conferences to exhibitions, and professional courses to research. In addition, the CreateSmart Initiative (CSI) was established by the Government in June 2009. The CSI aims to provide financial support to projects conducive to development of creative industries of which the design sector is an essential part.

These funding programmes are vital in supporting the design industry. Nevertheless, their effectiveness from an investment perspective remains debatable. By far, little information is available on the priority of funding and focus on strategic areas of design. The public and practitioners in the field seldom know about the outcome and impact of different types of funding schemes and public support. To ascertain the effectiveness of public investment, it is essential to measure the performance and outcome of funding programmes. This information should be compiled for developing a set of key performance indicators of the public policies in promoting design.

Info Box I : Current Official Statistics of R&D and Design Investment

(in million HK$)	2005	2006	2007	2008	2009
Total amount of R&D Expenditure (All Sectors)					
	10,921.8	11,946.9	12,407.3	12,293.2	-
R&D Expenditure by Source of Funds					
Business sector	5,786.7	6,304.1	6,256.6	5,525.8	-
Government sector	4,816.7	5,151.4	5,528.7	5,941.2	-
Higher education sector & Others	49.2	27.6	57.3	25.2	-
Total amount of government fund granted to design-related projects					
DesignSmart Initiatives (DSI)	22.3	18.5	34.3	32.4	19.5
CreateSmart Initiative (CSI)	-	-	-	-	20.3
Professional Services Development Assistance Scheme	0.5	1.6	1.9	1.8	-
Total	**22.8**	**20.1**	**36.2**	**34.2**	**39.8**

Another missing gap in current statistics would be lack of aggregate information about public investment in design education and professional training. One can secure scrappy information from difference sources on funding to the design education in tertiary institutions, or research funding and professional training supported by government schemes. However, this information is dispersed, not widely accessible, and not collected consistently, making it difficult to get an overall picture of government commitment to the development of design professionals and design education. In our view, this information gap should be addressed in future so that policy-makers and educators are informed of the resource allocation in design education, and how educational needs can be met in response to the growing body of design knowledge.

3.4
Industry Structure

Design is a central element in the cultural and creative economy and is one of the potential economic growth areas in Hong Kong. With continued growth of the city's service economy that competes in knowledge, development, and innovation, design plays a central role by rationalizing production methods, transforming business strategies, and generally speaking, creating new value to business processes, products, and services. While the relationship between design and business justifies a separate serious study, the Index Study relates to the economic landscape and performance of the local design industry. This helps in examining the current status of the economic segment, which fuels the design-driven economy, its scope of business, economic contribution, and the dynamics within the segment that may highlight its potential strength and development.

Available industry statistics do not entirely and satisfactorily answer the above questions, but they do give a general contour of the design industry in a limited way. Gradual growth of the number of design companies in all sub-sectors is generally observed even though the classification of the industry has a lot of deficiency. Moreover, within the cultural-creative industries sector as well as in the local domestic economy the share is shifting from architectural design to design services. However, little information is available about the business profile of the broad spectrum of design industry (incl. size, business nature, turnover, and footprint in local and regional markets). Lack of such information leads to insufficient understanding of the dynamic nature of the design industry and makes it difficult to prepare tailor-made policy prescriptions for promotion of the industry. Besides, in-depth industry study or case study should be conducted to reveal inter-disciplinary/cross-fertilization collaborations within and outside the industry to obtain a picture of dynamic and expanding services of the sector.

Existing official statistics are so fragile that they cannot support a robust analysis of the design industry. Nevertheless, the stated missing gaps *(Info Box J)* can be filled up through further research with inputs from the Government. The Census and Statistics Department has collected information about the size of design companies. According to its findings, small and medium enterprises comprised more than 99% of business establishments in the industry and they contributed 76% of value added in the design industry in 2004.[5] Furthermore, the various aspects of business profile of the design industry can be captured and analyzed by a biennial business survey conducted by the government statistical unit or by industry associations in the design sector. To illustrate the rich information to be obtained through a business survey, this study encloses a prototype survey on design industry in *(Annex 2)* for reference.

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[5] Commission on Strategic Development Committee on Economic Development and Economic Cooperation with the Mainland, "Recent performance and development prospects of selected creative industries in Hong Kong", Paper Ref: CSD/EDC/4/2006, June 2006.

Existing industry statistics can only provide very limited information about the total size of employment in the design industry, and to certain extent the economic contribution to society in terms of value added. Yet, this piece of information is far from enough to reveal the economic effects and the development trend of the industry. In particular, there are some aspects important for the understanding of the industry but they are now missing the picture:

- *Length of service* of design companies in the market
- *Scope of business*
- *Size of the companies*
- *Business turnover* and share of receipts from different scopes of business
- *Local, regional and international profile* of the companies in terms of presence of branch office in overseas countries/cities, exports of service, etc.
- *Internal design investment* in terms of R&D activities
- *Staff training and manpower demand*
- *Business outlook/forecast*

Economic Landscape of Design Industry

No. of establishments (Major design disciplines)				
	2006	**2007**	**2008**	**2009**
Architectural design services	320	340	360	360
Town planning and urban design activities	-	-	-	-
Interior and furniture design services	1,110	1,130	1,180	1,350
Multimedia, visual and graphic design activities	1,240	1,240	1,340	1,480
Fashion design services (incl. accessories)	190	210	240	280
Industrial design services	290	370	430	480
Specialized design activities n.e.c.	240	260	270	280
Total no. of establishments	**3,390**	**3,550**	**3,820**	**4,230**
Value Added of Design Industry (HK$ million)	**10,077**	**11,508**	**15,572**	**-**
% share of Design Industry to creative industries	18.9	19.18	25.8	-
% share of Design Industry to Local GDP	0.71	0.77	0.99	-

"An in-depth industry study or case study should be conducted to reveal inter-disciplinary/cross-fertilization collaborations within and outside the industry to obtain a picture of dynamic and expanding services of the sector."

3.5
Market Demand

The vibrancy of the design industry is affected by many factors. To explain the rise and fall of the design industry in a particular year by highlighting just a few factors seems an unrealistic task. The Index Study is of course not an economic forecast. However, it is still possible for the Index Framework to reveal the *fundamental conditions* that shape the economic environment of design economy in the long run. In our study, we identify three types of indicators that serve as a precursor of the change of market environment:

- *International trade on design goods*
- *Household consumption of design goods*
- *Design investment by private companies*

Trade figures offer a base for evidence on the market environment in the global creative economy. Design, for instance, was found to be the leading sub-group in the world market for creative goods. According to UNCTAD's latest report, world exports of design goods nearly doubled from US$ 115 billion in 2002 to US$ 242 billion in 2008 at a compounded annual growth rate (CAGR) of 12.5%. In 2008, among the top ten exporters of design goods in developing economies, China ranked the first and the total value of its exports stood at US$ 58,848 million; Hong Kong was the second-largest exporter of design goods in the developing economies and its value amounted to US$ 23,874 million.[6] Despite the relative importance of Hong Kong's trade position, its export numbers *in no way* reflect that the traded design goods are originally created by Hong Kong; nor do they reveal the substantive efforts made by Hong Kong workers in the creation and production process. In fact, a large amount of design goods are exported from China via the free port of Hong Kong. Nevertheless, the number inverts the prospective trend of trade on design goods in the global markets and more importantly, the vital ability and efficiency of Hong Kong in dealing with the trade. As general precursors reflecting the trading scene of one branch of the creative economy, such

indicators as the value of Hong Kong's exports, imports and re-exports of design goods should be included in the Index Framework to monitor the changing market environment.[7]

Household consumption of design goods is a challenging research topic. Existing statistics of household consumption by Census and Statistics Department cover broad categories from food, housing, transport, durable goods to miscellaneous services. However, there is little information on the nature of goods and whether the goods and services consumed by household population are culture and design intensive. In the European context, average annual cultural expenditure per household in the 15-member states in European Union was 4.5% of total household expenditure (equivalent to 1,076⬜) at the end of 1990s. Activities related to cultural expenditure were divided between: *printed matter* (books, newspapers, periodicals and graphic arts goods); *picture, sound and computer use* (picture, sound and computer equipment); attending cultural events (cinema, theatre, concerts, museums, galleries and others); and *amateur activities* (photography, music, etc).[8] Insofar as design adds value to these products and services, the EU figure of cultural expenditure should not directly reflect on the consumption of design goods/ services. Although the EU's method in defining cultural expenditure is not without limitations, for emulating this method, one may argue that higher consumption level of cultural expenditure *indirectly* shows the *pervasiveness of design* in creative production across a wide range of goods and services. For this reason, the Index Framework may include the value of household consumption on cultural goods/services as an *indirect measure* of the domestic demand condition for design.

Design investment in the business sector will be the direct measurement on use of or demand for design in private companies. This indicator is entirely new, and by far there is no serious research to estimate the business expenditure in design. This is an important area worth further studying, and its findings would tell us not only the current status of companies' investment in design, but also the extent to which companies value design investment as

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[6] United Nations Conference on Trade and Development (UNCTAD) (2010). *The Creative Economy Report 2010.* United Nations, 157-158.

[7] Definition of design goods shall follow the categorization of UNCTAD's report, which is based on the international Harmonized System and select five categories of design goods, including architecture (such as original drawings for architectural plans); fashion; interior; toys; jewellery; and glassware.

[8] European Commission (2007). *Cultural Statistics.* Luxembourg: Office for Official Publications of the European Communities, 124-125.

well as the longitudinal trend of investment in the business sector. For companies engaging in productive activities, any acts of design strategies, development, styling, packaging and marketing that take place prior to production, implementation of products and/or delivery of services should be in the scope of design investment. To gauge the expenditure in these processes in business sector, we suggest two types of measurements:

- *Number of design personnel employed internally in the companies and their associated expenditure* (e.g. value of staff salaries paid to design professionals working with design, and its share of total expenditure in a company)
- *Investments in design by companies allocated to external purchases in the form of consultancy services from design companies* (e.g. fees paid to advertising companies, external professionals working with design, workers/designers who provide independent services)

The sum of these expenditure items in companies across different segments of industries constitutes design investments in the business sector. The high value of the amount would reveal prospective demand for design from the perspective of employment and acquisition of design services. Since there is no available data supporting the above indicators, we recommend an independent research at the next stage of the Design Index to assess the economic effects of design investments in the business sector. Take a step further, the assessment study may also compare different scales of design investments among companies in the same industry segment to ascertain whether companies with high design investments will outperform companies with low investments in terms of business receipts and annual turnover.

3.6
Social and Cultural Environment

Great cities with prominent design culture grow from fertile social and cultural soil. Without exception, New York, Los Angeles, London, Barcelona, Tokyo or Seoul are reputed design cities. This is because of the presence of a robust design industry in these cities. More important it also because of a dynamic environment that embraces diverse values, a free culture that accommodates interactions of people and exchanges of information in a vibrant and perpetual way for generating new ideas and innovations that create a conducive atmosphere for design culture to thrive. These intangible assets of design cities are difficult to measure and the socio-cultural ecology too rich to be over-simplified. With this understanding, the Index Framework does not attempt to offer a comprehensive mapping of the social and cultural environments, but it focuses on a handy set of indicators that reveal some aspects of the ecology. In particular, we focus on three areas:

- *Information exchanges* in the form of web, media channels and other cultural means and activities that help promoting design culture
- *Public and business attitudes to intellectual property rights* (IPR)
- *Public perceptions of and attitudes to design*

Some information is available from time to time through social surveys by public, non-government and private organizations. For instance, the Hong Kong Visual Arts Yearbook takes stock of visual arts exhibitions every year, among which a section is on design-related exhibitions. According to the Yearbook, there were 22 exhibitions in 2009 versus 33 in 2008.[9] A preliminary scan of design/art museums, design libraries, local design competitions/awards and design magazines can be conducted, making use of the data available in the sources of Hong Kong Design Centre and other design associations in Hong Kong. Its preliminary findings are shown below *(Info Box K)*, and we can arrive at a brief picture of accessible channels/platforms for disseminating design culture in Hong Kong. However, this should not be the end to our

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[9] Chan Yuk-keung, Mok Kar Leung Harold (2009). Hong Kong Visual Arts Yearbook. Hong Kong: Chinese University of Hong Kong.

discussion, but the starting point for engaging in a far more important public agenda regarding the promotion of design culture in the local community.

Intellectual Property Rights (IPR) in trademark, patent, registered design and copyright are one sort of manifestation of creative activities and they are the core asset of a creative economy. As for design, it is an industry working closely with IPR for nearly all productive. Creative activities in design process could generate IPRs in one form or another. Measuring the status of IPR environment therefore constitutes an important dimension of the Index Framework (see next section in this Chapter). Put in social and cultural context, attitudes toward IPR should reflect the social value placed on design, in addition to the respect given to creative activities. Relatively speaking, data on IPR is more comprehensive than other social and cultural indicators covered in the Index Framework. Thanks to the works by Intellectual Property Department of the HKSAR Government, the *Survey on Public awareness of Intellectual Property Right Protection* and the *Survey on Business Attitudes to Intellectual Property* provide

longitudinal data on the public awareness of IPR and business sector's attitudes towards IPR. The two series should be an important source consolidating IPR indicators in the Framework.

Next to public and business attitudes to IPR, public perceptions of and attitudes to design is an unexplored area for which we suggest a public survey should plug the gap. The proposed research will be of great value in setting a baseline for measuring: progressive *knowledge and understanding of design* among general public; for revealing *people's value placed on design*; for monitoring *accessibility of design information* as well as *frequency of people's participation in different activities related to design*. The proposed survey should also be the means to inquire into public perceptions of the *role and performance of public, private and educational sectors* in promoting design culture. This information should be useful for filling in some gaps in the social and cultural indicators on design. It would also be valuable for providing a reference for policy planning and for the evaluation of design ecology as a whole.

Info Box K : Breadth and Depth of Social and Cultural Indicators on Design

Data contained in the table is limited to quantitative measurement; thus it only enables us to know: how much of the information exchanges or platforms are available for dissemination of design culture; how effective they are in bringing design to the general public; and what their impacts are for the audiences, visitors or users who are assumed to consult these sources of information. Existing data is weak in answering these questions. This means that in future the scope of coverage may be extended or other alternative means to convey design culture (such as design programmes developed for schools) could be used to collect data. If further evidence base has to be made for the assessment of social and cultural environments for design, a wide range of *qualitative issues* such as the reception of information about design, the general knowledge about design among local communities, appreciation of the value of design, educational and learning experiences after visiting design libraries, exhibitions and/or reflections about the participating experience in design activities/competitions should be examined by means of *users or visitors surveys*.

We also envision that the broad range of issues above cannot be addressed by research once and for all; continuous and collaborative efforts are needed through partnership among public, intermediary and educational organizations that are the stakeholders in promoting design culture in Hong Kong.

Indicators	2009
No. of available design magazines in Hong Kong	20
No. of design/art museums	12
No. of design libraries	4
No. of local design competitions/awards	38
No. of design exhibitions	22
No. of design database or portal website	-
No. of hours of design TV programmes broadcasted	-

List of Social and Cultural Indicators on Design

3.7
Intellectual Property Rights (IPR) and General Business Environments

In the last section of this Chapter, we would like to address two general environments for development of the design sector – the IPR and business environments. In general, a robust industry environment facilitates stable development of any industry. Intellectual Property Rights are critical in the design industry as they are one of the *quantifiable outputs*. Trademark, designs and patents involve the process of design. In this category, elements and complementary services (such as availability of legal expertise in the field of IP) contributing to the effective use or enforcement of IPR will also be considered. On the other hand, business conditions such as ease for doing business, time required to start a business, or cost of business start-up procedures, etc. are essential elements of business efficiency, which not only favors starting a business in design industry but also the whole business sector as well.

Dataset in the World Development Indicators and official data of the HKSAR Government are the most important source of information for this. They provide us with convenient tools to consolidate the indicators covered in the Index Framework. The data shown in *(Info Box L)* presents a general picture of IPR and business environment in Hong Kong:

Describing IPR and business environments by using internationally comparable data enables us to secure a general trend of Hong Kong's economic environment and competitiveness in world economy. Data is not specific to the design industry, despite its close relevance. Therefore, in business operations, practitioners in the design field may have diverse practices in dealing with existing intellectual property and business environments. For instance, practitioners engaging in lifestyle design products would not waste time for registering their designs or protecting their works by lodging legal complaints. Legal cases take long time; however, individual practitioners prefer generating more new design works to keep the product cycle shorter, thus minimizing losses due to infringement. In some other cases, infringement happens in other regional economies including the mainland China. Individual designers have modest resources to protect their works unless there are substantial legal and resource aids from the public sector.

As for the business environment, Hong Kong is generally "business-friendly" in terms of ease for setting up a business. However, low entry barrier to business is just one secondary factor to consider when individual designers would like to establish their own brands. Supportive services to encourage new entrepreneurship, opportunities for developing a business portfolio, and aspirations for developing their own career path would be some other important issues for design professionals to address. Regarding this, there is little information on entrepreneurship formation in design workforce. Therefore, no indicator could be developed at this stage for measuring the vibrancy of design entrepreneurship. We suggest the missing gap shall be narrowed by incorporating an inquiry into the proposed design workforce survey so that researchers could gather new information on people's aspiration for setting up their own business and on the needs and aspirations for supportive measures in promoting entrepreneurship.

Info Box L : Statistics on IPR and General Business Environments

Indicators	Unit of Measure	2008	2009
Total trademark registered	No.	18,408	22,500
Total designs registered	No.	5,153	3,850
Total standard patents granted	No.	4,001	5,625
Process time of trademark, design, patent registrations	Time	-	2-6 months
Cases under copyright ordinance	No.	7,679	6,371
Ease for doing business index	Rank	3	3
Time required to start a business	Days	11	6
Cost of business start-up procedure	% of gross national income (GNI) per capita	2.0	1.8
Start-up procedures to register a business	No.	5	3

Analyses developed in this Chapter describe the constituent of Design Index and its composing indicators in greater details. We aim to present the theoretical framework with substantial details and rationale so that indicators included in the Index Framework will found on well-grounded analyses. To illuminate the outlook of a complete Index Framework and demonstrate how it works, sample data is collected for individual indicators under the seven dimensions of the Framework. The data and the Framework, however, are not without limitations. For many reasons, due to deficiency of available data or inadequate research support on specific topics of concern, there will be gaps and questions not fully understood or satisfactorily answered. Working with all these constraints, the Study highlights what we can learn from the imperfect data, and what aspects of reality in design sector can be reflected. In the meanwhile, it reminds readers of the limitations in interpreting the indicators; more importantly, it tells us which areas of research or what kinds of new indicators should be developed to improve the integrity of the Index Framework. The present study pays due diligence to construct a meaningful framework for mapping Hong Kong's design sector and we hope that the present work lays the ground for continuous development of quantitative research on design.

"For many reasons, due to deficiency of available data or inadequate research support on specific topics of concern, there will be gaps and questions not fully understood or satisfactorily answered. Working with all these constraints, the Study highlights what we can learn from the imperfect data, and what aspects of reality in design sector can be reflected."

4

FURTHER DEVELOPMENT OF DESIGN INDEX

"A Study on Hong Kong Design Index is for the first time to begin a conversation about design and its value to communities. It examines the method to construct a quantitative framework for measuring the design sector and suggests a way for more people to talk about the vitality and development of the sector. The Study aims at engaging in a dialogue in an informed manner with stakeholders, policy-makers and the public about what the current landscape of design sector is, what change is occurring, where things are going, and to what extent the sector remains competitive."

4.1
Starting Point and Stages of Research

The current Design Index is a methodological exploration for constructing a design index system specific to Hong Kong. After a year-long research, the Study came up with a preliminary framework open for discussion. Its Framework maps several key aspects of primary concerns — from landscape of *design talent/ workforce, investment in design, industry structure* and *market demand, social and cultural ecology* to *intellectual property* and general *business environments*. It delineates the scope and breadth for quantitative measures of the design sector. The Index Framework comprises at least 38 confirmed indicators that are obtained from multiple sources of available information. Meanwhile, additional 13 indicators are suggested to the Framework in future, subject to new data mining process and research inputs that bridge the gaps of information deficiency.

As a methodological research, the Study holds a critical view of the interpretation of the indicators. It explores the weakness and pitfalls of the indicators and their data samples; it points out the inadequate depth of existing indicators; and it highlights which areas about the design sector are misinformed, and where the improvement should be made in future both for the integrity of data quality and for enhancing the analytical power of the Framework. Taking the viewpoint that the Study should be the starting point for a meaningful debate on the subject, any constructive discourses on the limitations of the Index Framework will lead us to a more comprehensive index system in the long run.

We also see that the present stage of research should lead to further study on the subject; particularly for data collection, the new studies should be conducted to narrow existing information gaps on stock-taking of design workers, business profile of the design industry and some other topics of high priority in our research agenda. We expect that continuous efforts in building the index system will generate new findings and expand the scope and depth of the Index Framework. We believe that a more comprehensive structure based on robust data will emerge in the implementation stage of the Design Index.

Study on HK Design Index

1st phase
• Methodological research
• Framework building

Data Mining

2nd phase
• Data collection and improving data quality
• Conduct surveys

Implementation

3rd phase
• Consolidation of data sources
• Full set of index released

Aug 2009 to Dec 2010

4.2
Design Index in Comparative Context

The proposed Design Index strikes a balance between revealing the design landscape specific to local context and at the same time, puts Hong Kong in the regional and international context of index research. The research should collect data that can be used for comparison although international studies on the design sector vary in methodologies and conceptual framework. Guided by this principle, the present Index Framework contains a large group of indicators comparable to international measures of design sector. In two examples cited below, our proposed indicators can be used in other studies such as the *Seoul Design Survey and the UK's International Design Scoreboard*.

No.	Indicators item*	Indicators in Seoul Design Survey	Indicators in Design Scoreboard	Indicators in Hong Kong Design Index
1	Design related policies	√		
2	Definition of design	√		√
3	Definition of each design sector	√		√
4	Introduction of Representative design organizations	√		
5	Design related professional institutes, organizations, and associations	√		√
6	Number of design specializing companies	√	√	√
7	Revenue status of design specializing companies	√	√	√
8	Number of designers	√	√	√
9	Number of design related patents registered/design and trademark registrations	√	√	√
10	Number of design education institutes	√		√
11	Number of professors in design majors	√		
12	Number of students in design education institutes	√	√	√
13	Number of graduates with design major	√	√	√
14	Design museums/galleries	√		√
15	Design libraries/data centers	√		√
16	Design magazines	√		√
17	Design online portal websites	√		√
18	Design TV programs	√		√
19	Design competitions	√		√
20	Design events	√		√
21	Total public investment in design promotion and support		√	√

* The table lists all indicators common to the three studies. As for Hong Kong Design Index, it includes both confirmed and suggested indicators to make a total of 51 indicators.

4.3
Concluding Remarks

The rise of a creative economy in recent decades offers enormous economic opportunities. With the advent of transformation in emerging economies, it is understandable that attention is invariably shifting to the economic performance of creative industries. But except for some research on the extent that creative industries as a whole contribute to our society, we found little theoretical or empirical research that speaks about how the design sector contributes to social and economic dynamics. Moreover, there is little attention to how the rising creative economy poses challenges to the understanding of industry landscape in general and to the design sector in specific. In short, we have little knowledge of the new economy. The conventional categorization of industries and official data collection practices are limited and do not reflect changes in society and economy, from where new sectors and occupational divisions are emerging and how the economy is increasingly becoming culture intensive, inter-disciplinary, and fluidly bounded.

Although formal and official data reveal considerable information about employment, the number of industry establishments, their economic contribution, these are based on narrow definitions; they miss the specific details on individual social and economic sectors such as design that have gone through significant transformation. Turning to the development of the design sector, it is largely least understood although the sector has a long history working with manufacturing and service industries. For the first time, the present Study begins a conversation on design and its value to communities. It examines the method to construct a quantitative framework for the measure of design sector and suggests ways for more people to talk about the vitality and development of the sector. It aims to engage in a dialogue in an informed manner with stakeholders, policy-makers and the public about what the current landscape of design sector is, what changes occurring are, where things are heading, and to what extent the sector would remain competitive.

The proposed Index Framework serves the above objective, offering a well-grounded foundation for understanding the ecology of the design sector. It is clear to us the framework has a number of limitations and it should be improved in both theoretical development and data collection. In particular, we identify four areas of improvement, and make recommendations on:

Definition Issues

- In the course of the research, we found the conventional definition of design is too narrow to encompass the dynamic changes of the design sector. Revised definitions and defined terms of design industry and respective sub-segments should be developed in the Index Framework to reflect the expanding scope and boundary of the sector. In particular, in visual communication, some branches of advertising, craft/artisan-based design, emerging forms of design should fall within the scope of design sector.

- Defined terms such as designers, design workforce, design competitions, exhibitions, etc. in the proposed framework should be standardized. Cross-references should be made to relevant international studies and other usage of terms and terminologies by different stakeholder fields.

Research Agenda

- Given the limitations of official statistics, there is strong demand for further studies on topics which are not well known. In particular, high priority of quantitative research should be given to:
a) *design workforce study* that examines the status of design workers (formal and informal) across manufacturing and service industries;
b) *business survey of design industry* that reveals the economic profile and development of design companies *(for a template of business survey, see Annex 2)*;
c) *use of design in business sectors* that studies design investment within and outside design industry; and
d) *public survey on perceptions of design*; such studies would reveal understanding of and value placed on design among the general public. These studies, if implemented, will help researchers narrow existing information gaps to gauge the status, needs and aspirations of design workers, the current landscape, business development and opportunities of design companies and use of and demand for design services in business sectors.

- Moreover, qualitative researches on curriculum development, new trends of design education and case study on inter-disciplinary developments among design and business sectors should be undertaken to monitor the changing educational environment and the dynamics of industry development in future.

Collaboration

- Official statistics about design sector should be one of the important sources consulted by the Index Framework. With Incremental improvement in existing data, official statistics will offer invaluable information to the Design Index. It is recommended that relevant departments or statistical units of the Government should conduct regular review of statistical definitions and data collection with inputs from stakeholders and data suppliers from the design sector. This will help the Government consolidate data sources, improve data quality and publicize information about the design industry on a regular basis.

- Regular exchanges among different segments of the design industry should be encouraged for collecting updated information and data of various disciplines within the industry. For instance, design associations/communities can feed regular reports on the status of respective branches of design industries. Case studies on outstanding trends of design development may also bring insights to the theoretical development of the Design Index. To facilitate exchanges, support should be provided to industry organizations in the design sector to encourage investment in data/information management.

- The Index Study should be placed in the context of regional and international comparison. Findings of the study should make comparable with international measurements; and regular exchanges of data and information with overseas organizations and common interest in index-building should be encouraged. Moreover, the rapid development of the design industry in the neighbouring region such as the Pearl River Delta, South Korea, Taiwan and Singapore spurs growing demand for collecting strategic and updated information on the design sectors in the Asia-Pacific region. A preliminary scan of recent developments in these regions and countries will provide a valuable reference for enhancing the Index Framework for regional comparison.

Role of Intermediary Organizations

- An intermediary organization should adopt the design observatory function in partnership with relevant industry associations and local universities. We believe this be essential to index building and data management. It is essential that we have an organization for pioneering new research, identifying information gaps, and promoting collaboration among various stakeholders and data suppliers. This is vital to support better use of information from conceptualization, selection, compilation to management and evaluation for promoting understanding of the design sector.

"Given the limitations of official statistics, there is strong demand for further studies such as design workforce study, business survey of design industry, use of design in business sectors and public survey on perceptions of design."

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Annex 1
Technical Information About Design Indicators

Note: The section contains information about the specification for data collection of the established indicators in the Design Index. Indicators suggested in the table of Chapter Two and to be developed in the Design index will not appear in this section. Specific information such as definition of the indicator, time frame covered by sources, methodology in collecting data and data source of the indicator will be found. In some cases, indicators are described in a single group for they are derived from or as variant of a primary indicator. In a few cases, limitation of data source and/or the method of data collection will be mentioned.

Indicator I-1
No. of design students

Definition

No. of design students represents the talent pool in the design education system, and therefore measured by number of full time students enrolling in a design programme. This may not reflect the number of student entering the industry after graduation but a vital statistic in the field.

- Design and design-related programmes are included
- Potential pool of talent of the design industry is reflected
- Input of human capital into the education system is measured

Time frame

Annual; 3 academic years from 2006 to 2009

Methodology

Design-related programmes were selected in University Grant Council and Qualifications Registered. Higher diploma or above (equivalent to QR Level 4 or above): It was based on requirement of most design jobs with education attainment of higher diploma or above.

Design and design-related courses were extracted from Qualifications Register for our index. Qualifications Register, under the Qualifications Framework, is a cross-sectoral hierarchy covering both academic and vocational qualifications required by various industries, courses are accredited by either the Accreditation Authority or self-accrediting institutions.

Data Collection from each education institute: There are 20 institutions in total, which all of them provide one or more design-related programme(s) that were accredited with Level 4 or above in Qualifications Framework. 12 of them replied with the designated data.

Source

Qualifications Register

Indicator I-2
No. of design graduates

Definition
No. of design graduates reflects the output of design education system and the potential talent pool to be entered into the industry.

Time frame
Annual; 3 academic years from 2006 to 2009

Methodology
Design-related programmes were selected in University Grant Council and Qualifications Registered. The Register is the best standard in calculating design courses under our index, under the Qualifications Framework which is a cross-sectoral hierarchy covering both academic and vocational qualifications required by various industries, courses are accredited by either the Accreditation Authority or self-accrediting institutions. Former discussions have suggested using design course list in CEF as the standard, but since not all accredited courses have applied the CEF, using CEF course list is not an ideal standard. Programmes of higher diploma or above (equivalent to QR Level 4 or above) were selected.

Data Collection from each education institute: We have mapped 20 institutions in total, which all of them provide one or more design-related programme(s) that were accredited with Level 4 or above in Qualifications Framework. 12 of them replied with the designated data.

Source
Primary data collection from education institutions

Indicator I-3
No. of design academic staff

Definition
The number of full time teaching staff/researchers at institutions providing design-related programmes. Measures the total number of staff dedicated to knowledge transfer in the field of design. Design academic staff is a mean in representing a more effective transfer of knowledge and increase the talent pool.

Time frame
Annual; 2010

Methodology
Similar to the above indicators, surveys on no. of academic staff on selected design-related programmes were sent to respective institutions.

Source
Primary data collection from education institutions

Indicator I-4
No. of design programmes

Definition
Number of design or design-related programmes in Hong Kong.

Time frame
Annual; Programmes were selected in March 2010

Methodology
Design-related programmes were selected in University Grant Council and Qualifications Registered in March 2010. Qualifications Register (QR) is the best standard in calculating design courses under our index, under the Qualifications Framework which is a cross-sectoral hierarchy covering both academic and vocational qualifications required by various industries, courses are accredited by either the Accreditation Authority or self-accrediting institutions.

Programmes equivalent to QR Level 4 or above were selected. These include:

- Higher Diploma
- Associate degree
- Bachelor degree
- Postgraduate Certificate
- Postgraduate Diploma
- Master Degree
- Doctor Degree

Source
Qualifications Register and University Grant Council

Notes
Current curriculum of education has included design courses, e.g. engineering or communications, etc. It is difficult to define the border line of whether a programme should be considered as design-related programme. In the current classification of programmes, design and design-related courses are often fall into the group of Art, Design and Performing Arts.

Indicator I-5
No. of persons engaged in the design industry (Tier 1: Major design disciplines)

Indicator I-6
No. of persons engaged in the design industry (Tier 2: Supportive industries)

Definition
Design practitioners are vital part of the workforce in the creative process and production of design works. These indicators measure the design professionals and associate professionals engaged in conventional design disciplines. In reflecting a basic pool of talent and skills for the industry, an attempt was made to measure design practitioners. However various other roles are also critical in the process of design and hence their importance in contribution cannot be excluded. In our Design Index, measurement of both conventional and supportive industries is taken to accommodate the expanding definition of the design industry. Indicator I-6 was developed to accommodate the expanding definition of the design industry as it merges with other industries and disciplines and provide a more accurate representation of the industry talent pool.

Time frame
Annual; 2006-2009

Methodology
Design disciplines are selected from Hong Kong Standard Industrial Classification (HSIC) 2.0 in order to increase the ease of data collection from Census and Statistics Department. Conventional design disciplines (see Chapter 1) were selected from Hong Kong Standard Industrial Classification (HSIC) 2.0 of the industry class of design specialized activities. Apart from conventional design disciplines, we have also selected supportive industries (see Chapter 1) with design activities as one of their primary outputs.

Source
Hong Kong Standard Industrial Classification (HSIC) Version 2.0, from Census and Statistics Department, HKSAR; Number of establishments, persons engaged and vacancies analyzed by industry sub-class, from Census and Statistics Department, HKSAR

Notes
In the current business registration system, when a company is registered under Design as their primary source in business nature, all persons engaged are counted (including non-designers). While for company registered with business nature other than Design (e.g. manufacturing), in-house designers are missed out in our study.

Indicator I-7
No. of design job vacancies
(Tier 1: Major design disciplines)

Indicator I-8
No. of design job vacancies
(Tier 2: Supportive industries)

Definition
Number of design job vacancies reflects the demand and career opportunity for design professionals.

Time frame
Annual; 2006-2009

Methodology
Design disciplines are selected from Hong Kong Standard Industrial Classification (HSIC) 2.0 in order to increase the ease of data collection from Census and Statistics Department. Conventional design disciplines were selected from Hong Kong Standard Industrial Classification (HSIC) 2.0 of the industry class of design specialized activities. Apart from conventional design disciplines, we have selected industry subclasses with design activities as one of their primary outputs.

Source
Hong Kong Standard Industrial Classification (HSIC) Version 2.0 – Census and Statistics Department, HKSAR; *Number of establishments, persons engaged and vacancies analysed by industry sub-class* – Census and Statistics Department, HKSAR.

Indicator II-1
Total amount of Research and Development (R&D) expenditure
(in million HK$)

Indicator II-2
R&D expenditure by source of funds (in million HK$)

Definition
Amount of R&D expenditure measures the expenses by business sector, the government and higher education on any creative work undertaken on a systematic basis in order to increase the stock of knowledge and make use of this knowledge to devise new products, services, applications and to institute improvements of existing products, services and applications. Since there is no data of R&D expenditure in design sector, we use the total amount of R&D to illustrate the importance of R&D. The amount represents how a city values research and innovation, which can be regarded as a catalyst towards industry development and an indirect mean towards creativity.

Time frame
Annual; 2002-2008

Methodology
Data obtained from Hong Kong Annual Digest of Statistics 2009 Edition, Census and Statistics Department.

Source
Hong Kong Annual Digest of Statistics 2009 Edition- Census and Statistics Department.

Indicator II-3
Total amount of government funds granted to design-related projects

Indicator II-4
Number of approved applications from government funding

Definition

Indicator II-3 measures total amount of funds committed by the HKSAR to the design sector. It represents the availability of potential public funds for design research, promotion and business development of design industry. Indicator II-4 measures the number of approved applications from government funding schemes related to design, which provides indirect measure of the dedicated use of public funds for design.

Time frame

Annual; 2002-2009 (8 years)

Methodology

Primary data collection from Secretariat of DesignSmart Initiatives, CreateSmart Initiatives and Professional Services Development Assistance Scheme

Source

Commerce and Economic Development Bureau, HKSAR Government.

Indicator III-1
Number of establishments
(Tier 1: Major design disciplines)

Indicator III-2
Number of establishments
(Tier 2: design supportive disciplines)

Definition

Defined by official statistics, an establishment is an economic unit engages in one or predominantly one kind of economic activity at a single location. These two indicators measure the number of companies engaged in major design disciplines and design supportive disciplines.

Time frame

Annual; 2006-2009 (4 years)

Methodology

Design disciplines are selected from Hong Kong Standard Industrial Classification (HSIC) 2.0 in order to increase the ease of data collection from Census and Statistics Department. Conventional design disciplines were selected from Hong Kong Standard Industrial Classification (HSIC) 2.0 of the industry class of design specialized activities. Apart from conventional design disciplines, we have also selected industry subclasses with design activities as one of their primary outputs.

Source

Hong Kong Standard Industrial Classification (HSIC) Version 2.0, – Census and Statistics Department, HKSAR.

Indicator III-3
Amount of value added of design industry (in million HK$)

Indicator III-4
Percentage share of design industry to local GDP (in %)

Definition
Defined by official statistics, value added means the value of gross output less the value of intermediate consumption (the value of goods and services used up in the course of production). In the context of Design Index, this indicator measures the value contributed by the design industry as a whole. For the percentage indicator, it shows the relative importance of design industry to local economy measured in terms of gross domestic production (GDP).

Time frame
Annual; 2006-2008

Source
Data collection from Census and Statistics Department, HKSAR.

Indicator III-5
Number of design professional associations

Definition
It identifies industry bodies which represent, promote or support the design sector. These organizations represent the bonding between designers and design companies; such connection can enhance the knowledge flow within the industry and facilitate industry development.

Time frame
2010

Methodology
In-house research conducted by the research team based on information from Hong Kong Design Centre and other industry associations in the field.

Source
Primary data collection by Hong Kong Design Centre.

Indicator IV-1
Value of import design goods (in million HK$)

Indicator IV-2
Value of export design goods (in million HK$)

Indicator IV-3
Value of design goods re-exported to value of design goods exported (in million HK$)

Definition
The international trade of design goods can be measured by the flow of design goods. The imports and exports of design goods through Hong Kong demonstrate the strategic value of Hong Kong as an important node in the regional and global trade of design goods. We use the first two indicators to reflect the capabilities of Hong Kong in the international trade of design goods. Re-export of design goods can in turn reflect the intermediary role of Hong Kong in the trade of design goods with mainland China.

Time frame
Annual; 2005-2009 (5 years)

Methodology
With reference to Creative Economy Report 2008 by United Nations Conference on Trade and Development (UNCTAD), the research team selected design goods from the Hong Kong Imports and Exports Classification List (Harmonized System) 2007 Edition, i.e. a classification used in Hong Kong trading system. Trade values were then obtained from Census and Statistics Department

Source
Data collection from Census and Statistics Department, HKSAR Government

Note
Business demand is assumed by Hong Kong's capability to trade design goods. However, the data does not reflect the original creation of goods made by Hong Kong. Definition of design goods is based on the report of UNCTAD, but it is not inclusive to cover all design products. Besides, the trade figure does not include trade of services (of design).

Indicator V-1
Number of design database or portal website

Definition
The indicator is defined as electronic online databases, and/or electronic media platforms on the Internet that disseminate information and news of design industry, trends of design and information services enhancing the transfer of design knowledge to the general public or to the industry.

Time frame
2010

Methodology
In-house research conducted by the research team based on information from Hong Kong Design Centre and other industry associations in the field.

Source
Primary data collection by Hong Kong Design Centre.

Indicator V-2
Number of hours of design TV programs broadcasted

Definition
The indicator is defined as number of hours of TV programs on design related content. The programs serve as medium to transfer design knowledge to the public, and they can be locally produced and/or imported from overseas.

Time Frame
2009

Methodology
In-house research conducted by the research team based on information from TVB, ATV, RTHK and Cable TV.

Source
Primary information obtained from local television stations.

Indicator V-3
Number of available design magazines in Hong Kong

Definition
Number of design magazines available in retail vendors (such as bookstores, newspaper stands, etc.). Design magazines include local and international publications. As information medium, design magazines provide stimulus, source of information and inspiration to industry professionals and serve as channels of knowledge for both industry and the public. Also, they are an output of the design process. The scope of indicator includes fashion design, interior, graphic, digital media, industrial, architectural design, industry and trade publications.

Time Frame
2009

Methodology
In-house research conducted by the research team.

Source
Primary information obtained from magazine store

Indicator V-4
Number of design or art museums

Indicator V-5
Number of design libraries

Definition
The indicators are defined as physical location open to the public that offers a dedicated space for the depository, preservation, exhibition of design works; and/or physical location open to the public that serves as dedicated information container for the depository, storage, retrieval, display and dissemination of information in forms of books or any printed/electronic media about design.

Time Frame
2009

Methodology
In-house research conducted by the research team.

Source
Primary information obtained from Hong Kong Design Centre; *Hong Kong Libraries Gateway* – Hong Kong Library Association

Indicator V-6
Number of local design competitions or awards

Definition
The indicator is defined as local competitions and awards dedicated for promoting original, creative, excellent works of design as well as design works with special qualities and meanings. Recognitions granted can simultaneously raise the profile and public awareness of the design industry.

Time Frame
2009

Methodology
In-house research conducted by the research team based on information from Hong Kong Design Centre and design associations.

Source
Primary information obtained from Hong Kong Design Centre and relevant design associations; *Hong Kong Visual Arts Yearbook* – Department of Fine Arts, Chinese University of Hong Kong.

Indicator V-7
Number of design exhibitions

Definition
Number of design exhibitions or events held in Hong Kong annually.

Time Frame
Annual; 2008-2009

Methodology
In-house research conducted by the research team.

Source
Primary information obtained from Hong Kong Design Centre, design associations; *Hong Kong Visual Arts Yearbook* – Department of Fine Arts, Chinese University of Hong Kong.

Indicator V-8
Royalty fees paid to copyright fees collecting agents per population

Definition
Gross income from different sources of copyright royalties (including media, public performance, mechanical rights) collected by the Composers and Authors Society of Hong Kong Ltd. This indicator serves as indirect measure reflecting the value placed on IPRs.

Time Frame
Annual; 2007-2009

Methodology
In-house research conducted by the research team.

Source
Primary information obtained from the Composers and Authors Society of Hong Kong Ltd.

Indicator V-9
Public awareness of Intellectual Property Right Protection: behaviour of involving in infringement of copyright

Indicator V-10
Business Attitudes to Intellectual Property in trademark, patent and design registration in Hong Kong as well as IP compliance in prohibition from using pirated computer software

Definition
In public survey, public awareness of intellectual property right protection will be measured against respondents' involvement in activities of visiting newsgroup, unauthorized websites, and download music/movies/games/e-books. As for measuring business attitudes to IP, the rate of business establishments in registering any trademark, patent or design in Hong Kong will be taken into consideration.

The two measures reflect the awareness and attitudes towards IPR protection among general public and the business sector.

Methodology
In-house research conducted by the research team.

Time Frame
Occasional; 2004, 2005, 2008/09

Source
Survey on Public Awareness of Intellectual Property Right Protection and Survey on Business Attitudes to Intellectual Property - Intellectual Property Department, HKSAR

Indicator VI-1
Number of trademarks, designs and patents registered

Indicator VI-2
Number of cases under copyright ordinance

Indicator VI-3
Number of law firms which areas of practice include intellectual properties

Indicator VI-4
Ranking of Intellectual Property Rights Protection

Definition
The no. of trademarks, designs and patents registered offer indirect measurement of the outputs of design industry, apart from revenue generated by design companies. To reflect the enforcement status of copyright protection, cases reported under copyright ordinance serve as one important indicator. The number of law firms which areas of practice include intellectual properties measures the availability of legal services on IPRs for design industry. Regarding the fourth indicator, the ranking of intellectual property rights protection, it reflects Hong Kong's international ranking on its system in protecting IP.

Methodology
Primary data is provided by government departments including Intellectual Property Department and Customs and Excise Department. Information about law firms with areas of practice including IP and the international ranking of Hong Kong's IPR protection is collected by the research team.

Time Frame
Annual; various years

Source
Data comes from multiple sources, including Intellectual Property Department's surveys; in-house data provided by Customs and Excise Department, HKSAR Government; online law firm directory by the Law Society of Hong Kong; the *Global Competitiveness Report* 2006-2010 by World Economic Forum.

Indicator VII-1
Ease for doing a business index

Indicator VII-2
Time required to start a business

Indicator VII-3
Cost of business start-up procedures

Indicator VII-4
Number of start-up procedures to register a business

Definition

The four indicators adopted in this section come from the World Bank collection of development indicators. They offer international comparable data across countries. Ease of doing business index ranks economies from 1 to 183 (including Hong Kong), with first place being the best. A high ranking means that the regulatory environment is conducive to business operation. Time required to start a business is the number of calendar days needed to complete the procedures to legally operate a business. Cost to register a business is normalized by presenting it as a percentage of gross national income (GNI) per capita. Start-up procedures are those required to start a business, including interactions to obtain necessary permits and licenses and to complete all inscriptions, verifications, and notifications to start operations.

Methodology

Data collection and data processing are developed by the World Bank.

Time Frame

Annual; various years

Source

World Development Indicators – the World Bank.

Template of Business Survey of Design Industry

Note: The questionnaire is designed for collecting information about the status of design companies in Hong Kong. It should be completed by the Owner/Chief Operator of the company. This template includes 7 sections to reflect the scope of the survey.

For companies across industries, which use design or acquire design services from external parties, should be covered by another research. But some questions could be used in the two surveys subject to refinement and specific context.

Section 1
Respondent details

Section 2
Demographic Information about the Company

Section 3
Scope of Business

Section 4
Business and Industry development

Section 5
Business Outlook

Section 6
Recruitment Questionnaire

Section 7
Design Investment and R&D

Annex 3
List of Participants in Workshops and Interviews

Mr. Benny AU
Design Director
Amazing Angle Design Consultants Limited

Mr. Leo CHAN
Practising Artist and Creative Director
On Your Mark Design Laboratory

Ms. Teresa CHAN
Project Manager
Amazing Angle Design Consultants Limited

Ms. Meiyi CHENG
Executive Committee
Hong Kong Fashion Designers Association

Mr. Justin CHEUNG
Visual Gram Limited

Ms. Vivian CHENG
International Liaison Manager
Hong Kong Design Institute

Mr. Dewitt CHIK
President (2009-2010)
Industrial Designers Society of Hong Kong

Dr. Roy CHUNG
Chairman
Design Council of Hong Kong

Mr. Alex FUNG
Vice-Principal
Hong Kong Design Institute (IVE)

Prof. Lorraine JUSTICE
Director
School of Design
The Hong Kong Polytechnic University
Swire Chair Professor of Design

Ms. Grace KAO
Head of Planning Team
Hong Kong Design Institute (IVE)

Mr. Gary LAM
Head, Faculty of Design
Caritas Bianchi College of Careers

Prof. Yanta LAM
Professor
School of Design
The Hong Kong Polytechnic University

Dr. Sophia LAW
Assistant Professor
Department of Visual Studies
Lingnan University

Ms. Grace LAU
Hong Kong Designers Association

Mr. LEE Chi Wing
Director
Milk Design

Mr. Woody LEE
Lecturer
Hong Kong Community College

Mr. Iceman LEUNG
Chairman
Hong Kong Design Community

Ms. Leslie LU
Head of Design Department
Hong Kong Design Institute

Ms. Prudence MAK
Founder
Chocolate Rain Jewelry and Design

Mr. Chris NG
Director
Fadtronics Innovation Limited

Mr. Horace PAN
Vice-Chairman (2011-2012)
Interior Design Association of Hong Kong

Mr. Winnif PANG
Chairman (2008-2010)
Hong Kong Designers Association

Mr. Bernard SUEN
Project Director
Center for Entrepreneurship
The Chinese University of Hong Kong

Mr. Kelly SZE
Chairman
Hong Kong Designers Association

Prof. Xiao-ming TAO
Head and Chair Professor
Institute of Textiles and Clothing
The Hong Kong Polytechnic University

Ms. Elizabeth WONG
Veteran Journalist

Mr. Hilson YAN
Senior Manager
Hong Kong Brand Development Council

Mr. Dennis YAU
Director-General
Federation of Hong Kong Industries

Mr. Kevin YEUNG
Chairman
Hong Kong Fashion Designers Association

Mr. Douglas YOUNG
Founder and Chief Executive Officer
G.O.D. Ltd.

Annex 4
Summary of Opinions Expressed in Interviews

The Interviews

To garner more ideas over the development of Hong Kong design industry, the research has released invitations to design association representatives, design practitioners and the academia for an in-depth interview. From 27 July to 27 August 2010, the research team has conducted 7 interviews in total, including 2 group interviews and 5 individual interviews. Most of the interviews lasted approximately one to two hours.

The Opinions

Opinions expressed in the interviews digested, integrated and reorganized in the following tables, and they were not in their original wordings. Those opinions not necessarily reflect the opinions of the consultant. Since some of them may involve subjective judgment, some facts quoted might not be accepted by all as totally correct. These tables are designed to give a summary of the points and opinions in reader-friendly way:

Human Capital

On curriculum reform/trend in design education

- Nowadays students in general need a broad knowledge base in order to contribute to the development of Hong Kong's economy. They must understand branding, design management, design strategy and maintain expertise in design and manufacturing development. Moreover, there needs to be an increase to the number of design researchers and strategists.

- Design practices taught in Hong Kong design schools are set in such a way that it is applicable to any market, including the industry in China. In the schools' philosophy, they look at aesthetics, functionality, production, sustainability, ecology, and ergonomics to help students decide on what and how to design.

- There is an increasing overlap of the values of marketing, advertising and design in Hong Kong. Working alongside this trend, different divisions within the school of design have a multidisciplinary approach. For instance, advertising and visual communication students have to familiarize themselves with digital media. In sum, cross disciplinary education is the trend. The next step to curriculum development is having engineering, business and design students to work together.

- Design schools have to assist students in becoming entrepreneurs. They need to continuously provide them with updated, sustainable information, and teach them about social media and service design. Moreover, they have to consider more advanced technologies.

- It is also believed that adding an entrepreneurship element into the curriculum is very important since designers cannot rely on large multinational corporations to employ them. Besides, some of them would like to run their own business, though it may not be mainstream.

- To encourage students to start up their own business, there are specific school programmes which students' projects are chosen by their professors, manufactured in small quantities and retailed in local shops.

- Through a collaboration programme, students and teachers of one of the design schools in Hong Kong work with minority villages in China by incorporating their crafts and skills together to design new products, helping villager improve their livelihood. The programme also involves social workers , the Party secretary and provincial officials.

- Programme curriculum should allow students to explore design possibilities and do more ''experiments''. In general, European and American education systems place a high preference on design.

On collaborations between companies and other design schools

- More collaborative works between design schools and companies have been taking place. For instance, one design school has a work integration programme that provides its students with internship and work experience opportunities. Companies from different industries, including advertising, digital media, visual communication, environment and interior design, approach the school to seek new ideas. The trend is getting more popular. Moreover, the school also partners with other design schools worldwide to assist in their design/reform of programme curriculum.

On faculty

- An international faculty would help broaden students' learning horizons and enhance interactions between different cultural and academic backgrounds.

- According to a number of interviewees in this research, there is a lack of teachers in teaching practical industry knowledge concerning construction.

- The attributes and knowledge that the teachers bring to the class matter. High quality teachers with aspirations tend to think outside the box and thus inspire students in many different ways; Creativity and values are closely related.

On admission

- With respect to the number of sub-degree, degree and postgraduate degree design students, a relatively large proportion of design students in post-secondary/higher education are comprised of sub-degree design students.

- It is suggested that there should be a 'quality and quantity control' in all design programmes. Employers within the industry may not always be able to differentiate between job applicants' qualifications. During the recruitment process, they may not know how to assess portfolios and look for certain qualities, in order to choose the right candidate.

- There is a concern that the number of design graduates (supply of design manpower) may exceed the number of actual job openings (demand for design manpower) in the industry. However, there has been a large increase in the number of design graduates and design companies (quite a number of them are SOHOs) over the past few years. The entrance barriers have been lowered.

On quality

- The academic standard of design students has decreased. They possess broad knowledge but less in-depth in narrow specialties. Hence, design graduates should be given the time and opportunity, such as on-the-job training, to learn more once they enter the workforce. Despite the fact that their sense of place and aesthetic ability are decent, there is still room for improvement regarding students' Chinese and English language skills.

- Some design students lack vision and the ability to perceive from a macro perspective. More educational exchange programmes are suggested to enlighten their thoughts.

- Admission standards of design students should be raised and the number of students admitted should be reduced, such that in the long run, academic level and quality of design students could be increased.

- The quality of one's design may be enhanced if one has studied other disciplines such as literature, history and sociology.

On suggesting an alternative indicator measuring the maturity and quality of design students

- To the least, students should be able to develop basic skills in drawing and computing, and acquire knowledge in design trends. They should also be able to explain the pros and cons of their design, to design products that fit the brand, to help their employers think about the next steps to develop the business, and to understand the marketing background of the design firm.

On postgraduate programmes

- The Government only supports certain types of postgraduate education, mainly research at certain universities, and predominantly to certain disciplines such as engineering and science. It is hoped that the Government would allocate funding for graduate design education, which indirectly helps local design companies.

- Hong Kong ought to form a continuing education unit to encourage practising designers to pursue higher education and offer supplementary courses. This could be initiated by design associations in collaboration with educational institutions, and hopefully prompt the Government to follow up/promote continuing education in the long run.

On graduates

- Currently, most design graduates from Hong Kong either remain locally to work in advertising agencies or multimedia companies, start up their own businesses as entrepreneurs, or work in international companies based in places such as Beijing, Shanghai, New York, Europe and the United Kingdom.

- Industry practitioners commented that graduates should know more design-related computer programs. In response, educators indicated that schools cannot teach them everything, but can offer them insights into the process and the tools. As a result, on job learning is very important.

On Practitioners

- It is uncommon for practicing designers to pursue higher education.

- Practitioners in Hong Kong have better work ethics.

- To measure a designer's capability, evaluating all of his/her portfolio is far more important than assessing his/her winning entry/entries.

On Employers

- Employers look for potential employees who are open-minded and independent thinkers, preferably with their own unique qualities.

- They also look for like-minded employees who are passionate about design and can communicate well within the design team. Academic background in design is sometimes not a must. Some employers believe the most important quality of their designers should possess is a sense of humour.

- Many interviewees of this research prefer hiring fresh graduates or young designers as they are easier to be trained and are more creative.

- It is quite difficult to measure a designer's capability; Measuring by a licensing system or by level of education may subject to constraints.

Investment

- As Hong Kong ought to transform itself into a creative economy, the Government should carry out policies and provide a platform for the development of Hong Kong's design industry.

- It is hoped that the Government can offer business management education to up-and-coming designers in order for them to advance their career/business development.

- Not enough funding is a major barrier for design companies to enter the Mainland market.

- It is commented that the two year business start up support programme is too short for design entrepreneurs to secure their business operations. The Government should consider the sustainability of enterprise development while providing support to the design enterprises.

- The reimbursement procedures of the Government's business subsidizing programmes, such as DesignSmart Initiatives, are not user-friendly. Instead of providing subsidies to design enterprises, it is suggested to organize more business plan competitions, to offer business loans or cash prizes for the winners to operate their businesses, and to provide more free intellectual property rights consultation services, which would be more effective in helping the enterprises. Alternatively, helping designers to promote their brands overseas would also be useful.

- It is rare for designers in Hong Kong to conduct researches on the fusion of Hong Kong's and China's cultural elements. However, more young people are engaging in this kind of attempt.

- At times, it is difficult to measure the amount of time and effort spent on research and development since some 'researches' are conducted unintentionally.

The Government's role

- Although the Government has been trying to make attempts to support the design industry, its work is sometimes limited to raising public awareness and public relations campaigns.

- It is suggested the Government can promote Hong Kong's animation industry to the world by advertising Hong Kong with high quality talents in animation, with exceptional working efficiency and inexpensive service fee; not only to attract business but job opportunities for practitioners.

Intellectual Property Rights Environment

- To design entrepreneurs, intellectual property rights infringement is the biggest problem in business start-up process.

- Interviewees from this research pointed out that they cannot resolve infringement issues by themselves. When an infringement is discovered, only a warning can be given to the manufacturer or buyer. Infringement warnings are not effective and legal action is rarely taken.

- Besides, to some design practitioners, it is not important to register a patent or design for products which vary with different styling. As styling changes frequently, registering a design and recovering infringement is costly to them.

Industry Structure

On Fashion Design

- Most practitioners in Hong Kong's clothing industry are Original Design Manufacturers (ODMs). Competition among ODMs is increasing as some foreign designers can feel the business pressure from competing.

- The clothing industry has transferred itself from the mode of 'made in Hong Kong' to 'designed in Hong Kong'. Manufacturers now set up internal design services to cater their clients' needs in order to sustain their business.

- In the early 1990s, Hong Kong design graduates or newly established small design companies could satisfy customers' need in the Mainland market. As China's clothing industry has been blooming rapidly over the past decade, customers now demand high-quality designs. Today, they can afford to hire experienced designers from overseas. Hence, Hong Kong designers' current competitors in the Mainland market are designers from all over the world.

On Interior Design

- The development of interior design industry is entirely determined by the local economy.

- Mainland China has become a vital market for Hong Kong's interior design industry. Companies that do not undertake Mainland projects might have disadvantage in profit making.

- Every discipline in the design industry has its own business operation model. The current market of interior design in Hong Kong is no longer confined to the Pearl River Delta, but the entire China.

- A big difference between interior design project management in Hong Kong and in the Mainland is in terms of their building and fire safety regulations, presenting difficulty for Hong Kong practitioners to supervise projects in the Mainland.

Suggestions on Future Development of Design Industry

- Hong Kong should further develop total solution services in design, it has relative advantage in location.

- There is great potential in developing both visual merchandising and multimedia design in Hong Kong and the Mainland. The future trend of Hong Kong's interior design development is shifting to the Mainland.

- Hong Kong should also walk in alliance with the Mainland to organize expos to attract more international clients.

- The Government should provide more expo opprtunities for new designers and design companies who need intermediary platforms for business development, showcasing their products/portfolios to potential clients. For instance, the South Korean government provided a Korean Design Pavillion at the Tokyo Design Expo for the country's designers to promote their own brands. The designers do not have to pay for joining the expo except their own air tickets.

- The Government should help designers in terms of providing assistance in expo application, workshops on intellectual property rights infringement recovery, etc.

- It is hoped that the Government could promote design industries in a more creative way, such as promoting tourism and design industry together.

Roles of Design Associations

- Design associations can improve the quality of Hong Kong's design manpower through organizing an array of activities, providing more resources and scholarships for designers.

- Design associations hopes the Government could terminate the practice of free pitching, as it has been causing harm to the entire industry's development over the years. They hope that our design industry can conduct more projects to specialize education, experience and regulations of the interior design industry with Government support.

On Product Design

- Between 4 and 6 design practitioners, in average, are employed in a design company in Hong Kong.

- Large scale projects for large enterprises, designing for high value-added products and services are essential to better growth of product design industry in Hong Kong.

Changes in Industry Structure

- As their clients' business has shifted to China, creative companies are moving their offices to the Mainland. As a result, most large scale projects are now located in China, particularly in Shanghai.

- Since 2000, the Mainland design companies and manufacturers have treated their counterparts in Hong Kong as their key competitors.

- There has been a change in designers' role in clients' mind. Nowadays, designers can participate in planning brand strategies and business sales campaigns for clients.

- International corporations supply large-scale projects to designers and design companies. Large-scale projects provide valuable design experiences for designers. As these corporations are moving their offices from Hong Kong to the Mainland, design companies in Hong Kong have to seek business opportunities in the Mainland.

Market Demand

- There is huge demand for market research from designers, which can assist them in how to break into a new market, design for different market segments, test audiences and come up with attractive and functional products. As some Hong Kong companies do not know how to break into the China market and their counterparts do not know how to break into the world market.

Rise of Design Development Service

- Since the late 1990s, Hong Kong's fashion design industry has gradually lost its edge in production due to an increase in production costs over the years. Meanwhile, its competitiveness in design development has increased.

- Demand for design development service within Hong Kong is on the rise since it is less costly for clients to hire local designers than bringing in designers from overseas.

- Owing to the lack of fashion design services and related supportive services in its neighbouring countries, Hong Kong has a competitive edge in design services in the Asian region.

- There has been a demand for design service and branding in the Mainland since the 1990s. Collaborations between Hong Kong designers/companies and Mainland manufacturers have taken place since the late 1990s. Since then, many Hong Kong manufacturing companies have moved their production base to the Mainland. Subsequently, some apparel brands moved their design offices to the Mainland, enabling designers to communicate conveniently with their Mainland clients.

Increasing Demand for Interior Design in China/Development of Interior Design

- There is a large demand for interior design in cities all over China. Hong Kong's interior designers are getting more popular in the Mainland and are being admired on their professional skills. Hence, it is beneficial for designers to familiarize themselves with local culture and language before entering the market.

- Interior design is directly related to the needs/custom/culture of the local people. Hence, Hong Kong designers should familiarize themselves with different places and cultures when conducting design projects.

- There is immense potential for development of interior design if Hong Kong citizens have a proper understanding of the industry.

Household Product Design

- A lot of household goods and small electronic products designed by Hong Kong designers are selling overseas.

- The market demand for Hong Kong's household design product is from Europe (including northern and southern Europe), Japan and the United States.

Design Service Development and Branding

- Hong Kong designers' services must meet international standards if they want to serve OBM clients and enter the Mainland market.

- In the past, overseas clients hired Hong Kong designers for their expertise for tapping into the Mainland and Asia markets, as Hong Kong designers possess good interpersonal networks in the Mainland. Thus, they are able to find factories providing production at lower cost. They are also more familiar with the Mainland culture and can act as a communication bridge between overseas clients and the Mainland market. In recent years, businesses from overseas clients have decreased, while demands from Hong Kong's clients who are planning to enter the market in China have increased. As Hong Kong's clients are very concerned with brand building, they hire Hong Kong designers with overseas clients' servicing experiences to help them tap into China, Asia and international markets.

Change in Clients' Budget/Spending

- Nowadays, clients tend to minimize budget and cost of production, while maximizing outputs.

- Due to budget constraints and selection criteria of clients' companies, many clients tend to choose design companies that charge the lowest design fee.

Social and Cultural Environment

Art and Cultural Atmosphere

- The society needs more art and design activities, performing arts, and related events. Hopefully, the West Kowloon Cultural District will meet such needs and cultivate greater interest among Hong Kong citizens.

- The public has a poor understanding of design; clients do not know the nature or purpose of design, nor do they know how to appreciate design. As a result, they do not value design.

- It is observed that the business sector does not really know the full scope of what the design field offers. Their appreciation of design or the use of design is still comparatively low.

- There is a notion among Hong Kong citizens that products of foreign brands are always better. As a result, Hong Kong designers, artists and brands receive limited local support.

- There is a market demand for products and services featuring Hong Kong's style, though it has not become popular yet.

- During the 1990s, many corporations valued their brand image heavily and were willing to spend money on branding campaigns.
- Companies that expand their business to the Chinese market may find it difficult to employ people with the same goal and conduct for quality control.
- There is a cultural difference between design industries in Hong Kong and the Mainland. For instance, practitioners in the Mainland value the number of projects, given their access to more spacious land. There is a cultural difference between Hong Kong and China in terms of doing business and design. For instance, connections/relationships is very important in doing business in China, discouraging some Hong Kong designers from entering the market, as they do not agree with this practice.
- Comments, whether positive or negative, from designers of high rank, are influential.
- Many people perceive studying design as a way out for students with poor academic results. They think it is easier to study design in comparison to other disciplines.
- More professional design awards such as HKDA Asia Design Awards, HKDC Design for Asia Award should be established to raise Hong Kong design standard and create a good atmosphere for creating designs.
- The Government has been putting stronger effort in organizing more cultural and arts activities. As a result, the city's cultural atmosphere has improved. It is seen that more young people are participating in these activities.
- Since the handover in 1997, there has been a tendency towards the reminiscence of the old days in Hong Kong society. Hong Kong lacks a common cultural identity which is important to the entire society. The Government should commission a data collection and research project on this issue. There is a need for the Government to play a leading role in creating a common Hong Kong identity for its society.

Public Aesthetic Education
- The Government should promote the values of aesthetics to the public, and enhance their awareness/understanding of design. Moreover, the practice of free pitching for Government projects should also be abolished; the concept of copyright/intellectual property rights should be promoted.

Showcase Platforms for Designers
- There should be more opportunities for Hong Kong and overseas designers to share their expertise and experiences with each other.
- To establish the image of Hong Kong's design industry, designers should participate actively and frequently in international design trade shows.
- Besides on-the-job training, new designers can also learn and be inspired by observing users' behaviour by going to museums and exhibitions, etc. In fact, what matters is not the numbers of activities provided in town, but their motivation to participate in these activities or degree of participation.
- To promote Hong Kong's design industry, the Government or design associations should be aware of the industry's current situation before setting Hong Kong's design at a higher position.

Professional Standards of Hong Kong designers
- Young people in Hong Kong are more willing to accept local culture than elders. They are aware of the importance of self identity. One interviewee believed that it would help to enhance young people's sense of belonging to Hong Kong if local designers create designs and set their standards comparable with that of their foreign counterparts.
- Nowadays, Hong Kong society cares about environmental protection and conservation. It is not enough to merely protect the environment. Instead, the key to success is to inject new elements into old ideas or concepts.
- According to Copenhagen's case, factors that stimulate and cultivate a creative environment or design culture include public awareness of the value of design, and the appreciation and demand of good designs. Values affect choices, thereby affecting the quality of a city.
- Besides educating citizens, exposure to a wide range of opportunities and high participation in cultural activities are also important factors.
- Designers in Shenzhen criticize and support each other's work to improve design quality.

Conditions of Increasing Creativity/Creative Thinking in Hong Kong
- A good education system and rich culture can help to increase the creativity of its people. Reading is an important practice as it is the source of creativity.
- Our perceptions, habits and custom are greatly affected by the amount of leisure time we have. More free time would encourage people to think and engage in creative activities.
- We can evaluate how people utilize their free time by listening to their discussion topics in social gatherings and observing people's daily schedule.

- The ability to think outside-the-box would help one's designs/products stand out and be unique. As Hong Kong is a highly competitive commercial city, people have to nurture the ability to think creatively.

- Imagination is needed when creating new things or ideas. Hong Kong citizens lack imagination. If more organizations and companies offer young people the opportunity to design, it could help to stimulate and cultivate a creative environment. Therefore, trust in young people is a pre-requisite.

- If the social status of teachers is high in a city, there is the potential that more competent citizens are willing to be teachers. Design clients need to be educated in a progressive way as the fact proves that they gradually place their trust in the designers.

- The largest client of a city is its Government. It is commented that the Hong Kong Government lacks aesthetic sense for choosing art pieces; Good projects and designs only exist when there are good clients.

The General Public's Value on Design

- The general audience is more attracted to the design of TV programmes with specific topics that are related to their daily lives, while the academia and designers obtain inspirations from programmes with conceptual contents.

- The general public in Hong Kong thinks that design equals to attractiveness, and they would not consider whether it is user-friendly or applicable to their daily lives.

- An 'Ideal occupation' survey could reflect people's values and their views on different occupations. It is assumed that if the rating of arts-related jobs in the survey is higher, it would suggest that there is a change in people's values on design.

- There is something wrong with our values. Parents are pushing their children too hard. Children are arranged to participate in different kinds of extra-curricular activities to which they are not interested. Children are seldom pre-occupied to engage in creative work, or they are not interested in creative activities.

- Many parents in Hong Kong would like their children to be doctors, lawyers, bankers (recognized as 'Professionals' by the general society) that allow them to have higher income in the future. Parents have to understand that children can actually establish a career in the creative field.

- Despite the fact that the financial disparity in Hong Kong affects the whole society, a lot of wealthy parents send their children overseas for education if they want to study design. Hong Kong now has one of the top 30 international design schools in Hong Kong, this may encourage local parents and students to appreciate schooling in Hong Kong.

Design Users/Use of Design

- If the Government does not improve its use of design, second-rate designs will always exist among its communication materials. The clients' open-mindedness and trust on their designers are important in the development of design industry.

Measuring Design Companies' Reputations

- The most common way to measure a company's reputation is by looking at the awards they receive at the local and international levels, as well as their designers' status. However, there are limitations: Companies with a good portfolio may not proactively participate in design competitions. One may overlook these companies if this is the only measurement tool; therefore, recognition of the awards should also be considered. For instance, 'Design for Asia Award' organized by Hong Kong Design Centre, and 'HKDA Asia Design Awards' by Hong Kong Designers Association are highly regarded in the industry. In addition, it is not justifiable if a company's reputation is measured solely by the amount of profit generated.

General Conditions for Business Environment

- Design companies in Hong Kong are close to their production base in the Mainland, which eases the process of executing designs. There is freedom in Hong Kong to be open-minded in developing culture or promoting cultural values, thereby engaging in a free flow of information. This helps with design- thinking and trend-searching.

- As the Internet has become more popular in recent years, opportunities for designing original products have increased, enhancing Hong Kong designers' ability in providing total solution services. A lot of expo operators now value Mainland manufacturers as important customers and thus reserve better booth locations for them. Interviewees felt that the expo operators ignored Hong Kong designers' needs.

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