

Challenges Encountered in Developing New Area of Official Statistics in Hong Kong

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Abstracts

The last decade has seen some structural changes in the economic, social and political environment of Hong Kong. These changes have resulted in greater demand for more official statistics to support an evidence-based approach for decision-making in the formulation of social and economic policies.

To adapt to the local situations, there is a need to develop supplementary statistical framework within the broader framework laid down by international standards. Moreover, active engagement with stakeholders is essential to establish trust and confidence in official statistics which are commonly applied to various policy areas. Against this background, the Census and Statistics Department encountered a number of challenges in launching new areas of statistical developments in recent years. Drawing on the experience in developing new statistics for supporting the development of strategic industries in Hong Kong, this paper discusses the challenges encountered by the department, the solutions developed and the experiences gained from the process.

Keywords: evidence-based approach, active engagement with stakeholders

1. Introduction

In Hong Kong, official statistics play a pivotal role in formulating government policies and in drawing up strategic plans for business decisions. As the Central Statistical Office of Hong Kong, Census and Statistics Department (C&SD) is committed to providing adequate, relevant, reliable and timely statistics to facilitate research, discussion, planning and decision-making within the Government and in the community. Official statistics compiled by C&SD, including statistics on population, labour, trade, national accounts, prices, etc., are widely used by the Government, business and academic sectors and the general public.

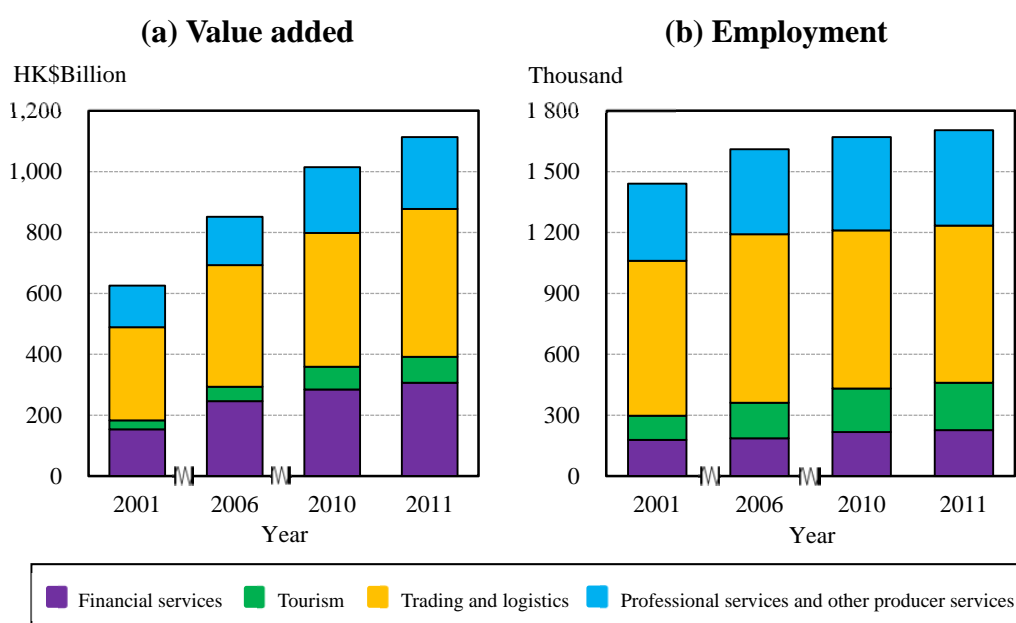
As a vibrant economy, Hong Kong has witnessed some structural changes in the economic, social and political environment over the last decade. At the same time, there has been continuous expansion and progress in official statistics work in Hong Kong to meet the ever-changing demand. In developing new area of statistics, it is normally necessary to develop supplementary and tailor-made statistical framework within the broader framework laid down by international organisations. A case in point is the development of the statistical framework for measuring the economic and employment contribution in respect of strategic industries in Hong Kong. Drawing on the experience in developing new statistics on these industries, the paper discusses the challenges encountered by the Department, the solutions developed and the experiences gained from the process.

2. Strategic industries in Hong Kong

Hong Kong is a service-oriented economy. Services sector accounts for over 90% of

Hong Kong's Gross Domestic Product (GDP). The Hong Kong Special Administrative Region Government (HKSARG) has long recognised the importance of services sector in maintaining Hong Kong's competitiveness. In particular, four traditional pillar industries have been identified by the Administration as strategic industries for further development. These industries include (a) financial services, (b) trading and logistics, (c) tourism and (d) producer and professional services. Altogether they accounted for around 58.5% of GDP and employed 1 703 600 persons, or 47.6% of total employment in Hong Kong in 2011 (Chart 1). In addition to being the engines powering Hong Kong's economic growth for years, they serve as drivers of growth for other economic sectors and the job market as well.

Chart 1: Value added and employment in respect of the Four Traditional Pillar Industries in 2001, 2006, 2010 and 2011



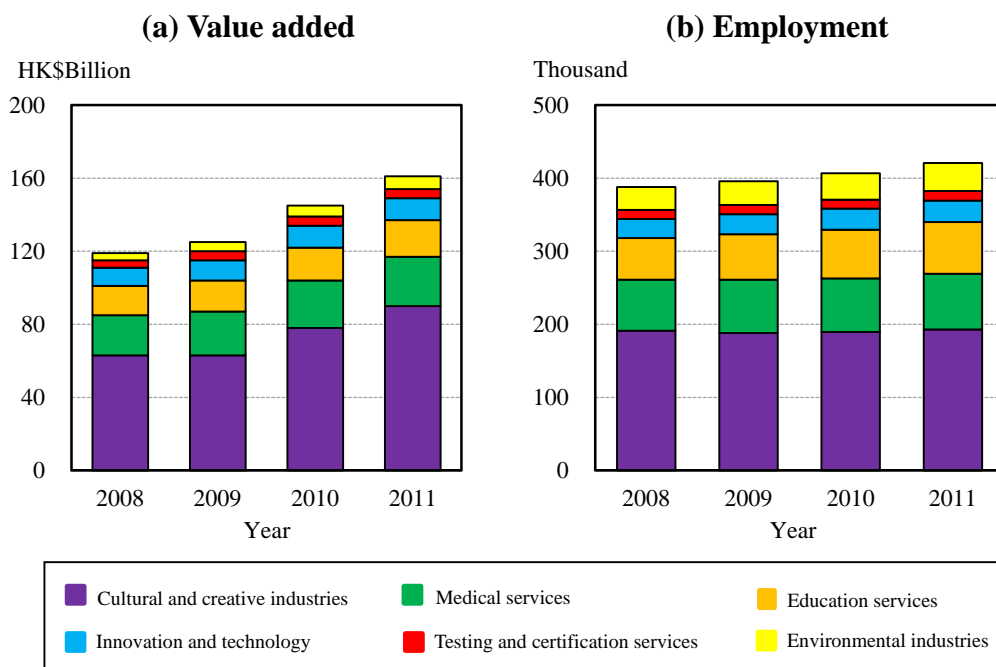
Apart from traditional pillar industries, the HKSARG also accords high priority to the building of a more diversified economy, so that Hong Kong can better respond to the world's ever-changing economic environment. Against this background, six emerging industries where Hong Kong enjoys competitive advantages have been identified for further strategic promotion. These industries, being innovation-based and knowledge-based, include (a) cultural and creative industries, (b) medical services, (c) education services, (d) innovation and technology, (e) testing and certification services, and (f) environmental industries. Taken together, these industries employed 420 680 persons, or 11.8% of the total workforce, and contributed 8.5% to GDP of Hong Kong in 2011 (Chart 2). Supporting policy measures have been drawn up by the Government to promote long-term growth of these emerging industries.

3. Major challenges encountered

To support the Government and the general public in measuring the progress of traditional pillar industries and emerging industries, statistics on the economic contribution (in terms of value added of GDP) and employment are required. Yet, developing statistics in these areas posed challenges. Two specific challenges include: (a) lack of defined coverage in the traditional industrial classification and (b)

lack of relevant international standards and recommendations on the concepts, definitions and methods.

Chart 2: Value added and employment in respect of emerging industries in 2008-2011



Lack of defined coverage in the traditional industrial classification

In Hong Kong, for statistical purpose industries are classified according to the Hong Kong Standard Industrial Classification (HSIC) version 2.0, which adopts the basic framework and principles, as well as the conceptual and structural changes, of the International Standard Industrial Classification (ISIC) Revision 4 released officially by the United Nations Statistics Division.

For strategic industries, many of them are not defined in the HSIC nor the ISIC, because they are not exactly “industries” in a conventional sense. For example, producer services, testing and certification services are not distinct industries based on the HSIC or the ISIC. Also, innovation and technology activities can exist in any organisations and industries. C&SD needs to develop tailor-made coverage and definition to address the data requirements in order to adapt to the local situation.

Lack of relevant international standards and recommendations

Besides the lack of defined coverage in traditional industrial classification, for some strategic industries there is a lack of international standards and recommendations on the concepts, definitions and methods. Even if international standards and recommendations are available, there is still a need to make relevant adjustments so that the statistics compiled would adequately reflect the economic potentials and strengths of these industries and their relationships to the policy foci of the Hong Kong economy.

Take environmental industries as an example. Review on international literature showed that the environmental sector usually comprises goods, technology and

services in the area of pollution management and management of resources such as renewable energy and sustainable agriculture. However, the industry coverage varies among economies, and economies tend to cover in their environmental industries a number of activities for manufacturing and installation of machinery and equipment which are relatively less significant in Hong Kong. Instead, trading of waste and scrap is one of the major industries of waste management in Hong Kong, and hence is included in the coverage of environmental industries.

4. Strategies adopted

C&SD strived to overcome all these challenges and produce statistics of traditional pillar industries and emerging industries to cater for the need of data users while ensuring the data quality of the estimates. Two of the main strategies adopted, including (a) developing tailor-made framework on coverage, definitions and methods and (b) conducting extensive consultation with major stakeholders, are presented below.

Develop tailor-made framework on coverage, definitions and methods

For industries which are not defined in conventional industrial classification, there is a need to develop tailor-made framework. In the process, various methods and skills are applied, which are best illustrated using producer services and innovation and technology industry as examples.

Producer services refer to services for use by other companies in the local economy, as well as exports of services to companies and individuals. These services can be supplied by any service industries in traditional industrial classification. Given the special nature of producer services, statistics cannot be readily compiled from the existing statistical methods because the classification of a service as producer services or other services is determined not by the nature of services but by the nature of the entities consuming the services. Therefore, a special method is adopted, by making use of proxy indicators and assumptions for estimating the proportion of services that is attributable to producer services for each of the service industries concerned.

For innovation and technology industry, the measurement of its output involved some conceptual and practical difficulties. Firstly, as mentioned above, innovation and technology can exist in any organisations and in any industries. Besides, innovation activities give rise to new knowledge and ideas which may lead to new or significantly improved products and processes as outputs, and these activities tend to be internal to the business firms in most cases. Unlike a final product, there are no observable prices for the output of innovation activities undertaken on their own account.

To address the above difficulties, a special approach is applied by estimating the output of such activities mainly as the total production costs incurred on innovation and technology activities in different industries. This approach follows the latest international guidelines for GDP, the 2008 Edition of the United Nations' System of National Accounts, for measuring the output of research and development activities.

Extensive consultation with major stakeholders

In developing the statistical framework for traditional pillar industries and emerging industries, C&SD is particularly mindful of the needs and opinions of stakeholders. Before each stage of data dissemination, consultation has been conducted with users both within and outside the Government.

Particular difficulty was encountered for testing and certification services because no international recommendations can be found. Therefore, discussion with relevant users and market information from the industries are most crucial in defining the statistical coverage for these services. To obtain more industry information, C&SD conducted extensive consultation with relevant government departments and agencies, as well as prominent firms that are engaged in providing testing and certification services.

The benefits of extensive consultation are multifold. Firstly, valuable market information is obtained regarding the nature of different businesses in testing, inspection and certification, industry strengths and advantages as well as market potential and performances. In particular, after extensive consultation, it is understood that medical and X-ray laboratories are an important component of the testing and certification services in Hong Kong, hence these laboratories are included in the coverage.

Secondly, consultation enables statistical agencies to better understand the data needs of users and enhance the relevancy of the statistics produced. For testing and certification services, the statistics not only pertain to business establishments engaged in technical testing and analysis; cargo inspection, sampling and weighting; and medical and X-ray laboratories as their major economic activities, but also cover some large manufacturers and exporters which carry out in-house testing and certification services for supporting their core businesses. The latter is introduced in response to the great demand expressed by stakeholders for understanding the manpower requirement (in terms of number of persons engaged and job vacancies) of testing and certification services.

Lastly, consultation facilitates dialogue with the industries and helps secure rapport from survey respondents in providing additional data. In order to meet the special data demand related to testing and certification services, C&SD launched an ad hoc survey to collect relevant information for 2008 and 2009, and enhanced the Annual Survey of Economic Activities starting from the reference year of 2009 to replace the ad hoc survey for producing these additional statistics on an ongoing basis. With support from survey respondents who are players in the testing and certification services, raw data can be collected in a timely and efficient manner.

5. Outcome and experiences gained

In sum, to overcome the challenges, C&SD has devised tailor-made methodology for statistical measurement and filled up the data gaps in the existing data collection programme. In the process, C&SD is mindful of the need to ensure the statistics so developed are conceptually consistent with those compiled based on the conventional methodologies and international guidelines, and at the same time has paid attention to policy objectives and feedback from stakeholders.

The outcome of C&SD's endeavours is encouraging. Relevant, useful statistics on the economic and employment contribution in respect of strategic industries are compiled with sound methods that facilitate applications in various sectors. The data facilitates the Government in monitoring the development of the Hong Kong economy and formulating relevant policies. Academics use the data for economic analysis and evaluating the effectiveness of the policies. The business sectors also make reference to the data in gaining a better understanding of the respective industries and developing business strategies.

In addition to the extensive usage and acceptance of the statistics, communication with

data users and respondents is enhanced through extensive consultation. This facilitates the implementation of appropriate measures such as collecting additional data through statistical surveys.

Our experiences indicate that a user-centric approach with particular attention to the engagement of stakeholders, including data users and suppliers, is of crucial importance. Admittedly, the process of lobbying is time-consuming and this also has added additional workload to the system. However, user involvement is the key to success in ensuring respondent cooperation and acceptance of statistics compiled.

The development of new statistical products also helps enhance the capability and skill sets of professional staff of C&SD. Through liaising with stakeholders and fostering collaboration, professional colleagues are able to polish influencing and negotiation skills, and enhance communication skills by presenting statistical findings and issues in an easy-to-understand manner. By establishing contacts and networks with stakeholders, the Department also benefits from expanded knowledge base and support groups.

Last but not least, when colleagues at different levels work together to overcome the challenges of developing new statistical products, an open and “be ready to adapt” mindset can be cultivated. This is vital in this fast-changing and highly competitive environment of the 21st century.

6. Concluding remarks

The development of statistics on traditional pillar industries and emerging industries demonstrates C&SD’s commitment in developing high quality and tailor-made statistics in response to the rapidly evolving social and economic environment of Hong Kong. By following international standards where appropriate, developing supplementary framework to adapt to local needs, and advocating the support of stakeholders, C&SD has overcome the challenges during the process of developing new statistics. We will continue to keep abreast of the emerging data needs, stay open-minded and be ready to adapt, and strive to enhance our statistical capability to cater for the ever-changing needs of the society.

Reference

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