

# CEA OUTLOOK

CREATIVE ECONOMY PROSPECTS | JANUARY - JUNE 2020

03

## CREATIVITY INDEX

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## About CEA

In accordance with a Royal Decree effective as of 14 August 2018, Thailand Creative and Design Center (TCDC) has been reestablished as the Creative Economy Agency (Public Organization) under the Office of the Prime Minister of Thailand. The Creative Economy Agency (CEA) is tasked with engaging with entrepreneurs whose businesses leverage innovation and creativity tools to offer products and services that enhance the prominence and competitiveness of Thailand's intellectual property on the global market.

To that end, the CEA uses a variety of approaches to help make creative and digital economy development a pillar of our national future. Through the provision of timely and useful data, the CEA assists in the formulation of policy whilst also establishing creative districts where the government's agenda can be put into action. The CEA also offers training and support to aspiring creatives in conjunction with educational institutions and private sector entities at TCDC branded business incubation centers, where future luminaries of the Thai creative economy can make a start for themselves.

Additionally, the CEA also serves as a repository of statistics and information that can be leveraged by domestic and international stakeholders seeking to help make Thailand a leader of creative economy in the twenty-first century.





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# PREFACE

Individuals engaged in creative endeavors frequently contemplate the nature of their work. Creativity is often considered the embodiment of the imagination and passion readily apparent in our favorite works of art, music, and literature. Creative works can entertain and even challenge both those who produce and encounter them. However, these products of the imaginative mind also constitute an important part of the commercial realm. The question thus arises: how do we measure their contributions in economic terms?

A number of different indexes are currently employed to examine and compare discrete elements of economies. Some of the more prominent examples include the World Economic Forum's Global Competitiveness Index, the International Institute for Management Development's World Competitiveness Yearbook, the World Bank's Ease of Doing Business Index, and the United Nations Development Programme's Human Development Index. A given country can be evaluated based on its placement in these indexes in ways that can influence the actions of trade partners and impact foreign investor confidence, driving policies and relevant regulations in a given country aimed at improving its rank.

As creativity has become an increasing source of competitiveness and comparative advantage for economies around the world, various tools have



been developed to benchmark its economic contribution in terms of individuals, organizations, and states. The first effort to analyze what is now referred to as the “creative economy” was made by Professor Richard Florida in 2002, with his development of the “Creativity Index.” Many institutions and organizations have since adopted this tool and expanded it to include new elements, such as the ability to create, innovate, and build an ecosystem for creativity.

In this edition of the CEA OUTLOOK, we consider several indexes related to the creative economy in terms of their objectives and the concepts upon which they are based. Our intention to that end is to contribute ideas as to how Thailand could create its own creativity index. We further seek to demonstrate that creativity can be tangible. To compare Thailand’s creative capability with the rest of the world, we suggest the commencement of an effort to collect statistical data and build a “Thailand Creativity Index.” Such a tool would empower policymakers by helping them to more readily assess the current capabilities of the domestic creative economy so that they might help to take actions that will drive growth, inspire hope, and give rise to an even brighter future.

***Apisit Laistrooglai***

***Executive Director, Creative Economy Agency (Public Organization)***



# Creativity Index



Creative economy drives an economy by relying on artistic, cultural, knowledge, creativity, to create value for products or service. Many countries have used the creative economy as a tool to boost the economy and generate revenue for people of their country. The creative economy development in each country is different, depending on their cultural assets, methodologies, or ecosystems. The result reflected through unique products or services in each country or each area that has adopted a creative economic development model. For example, Japan has developed a creative industry, such as games, comics, movies, or media, and used these products as a tool to add value

to the economy by combining with other industries. The way Japan has developed is internationally recognized.

From the creative economy development approach, many countries and agencies realize the importance of the creative economy and applied it to their countries. Many studies have compared the key success factors of the development and conducted creativity indexes. All the indexes vary in terms of categories, prioritization, and details based on the objectives and contexts which the agencies operate. The creativity index is divided into two types, which are:



### **1) High-level Creativity Index:**

This index is designed for an international creativity level comparison and measurement. The preliminary studies have found three sets of the index as follows:

- Global Creativity Index by Martin Prosperity Institute
- Creative Productivity Index by The Economist Intelligence Unit for Asian Development Bank (ADB)
- Global Innovation Index by Cornell University, INSEAD Business school and World Intellectual Property Organization (WIPO)



## 2) Activity-level Creativity Index:

This type of index is developed by creativity-related agencies of each country to monitor and evaluate the creative economy status in that country. The data from this index will be used to formulate policies and provide appropriate guidelines that align with an economic context, society, and culture. Examples of the indexes are:

- Creative City Index (CCI) by The ARC Centre of Excellence for Creative Industries and Innovation (CCI), Australia

- Hong Kong Creativity Index (HKCI) by The Center for Cultural Policy Research, The University of Hong Kong, Hong Kong Special Administrative Region of the People's Republic of China

All these indexes have different highlight, focus, and key points of assessment. The details of the five indexes are as follows:



# 1

## **Global Creativity Index (GCI) by Martin Prosperity Institute**





The creative index was introduced in 2002 by Professor Richard Florida, an expert on urban development through the theory of economics and sociology perspective. He presented the concept of "Creative Class" stating that "to develop sustainable economic and cities, policymaker should focus on people climate development rather than developing business climate." It is because the creative class could bring out the underlying creativity and applied it into the economic development. The more creative people city can attract, the more opportunities for economic growth in that city.

The factors that can attract creative class are Talent, Technology, and Tolerance, collectively referred to as "3T." The 3T concept has been developed as Global Creativity Index (GCI), which is the most simple and straightforward index. The measurement is about the 3T topics with only 2 indicators in each topic.



**1) Global Talent:** the ability of human resources in each country based on the following 2 data:

- **A number of country's labor force from the creative class**, including key professions such as science, social science, liberal arts, and management
- **Educational Attainment**, based on population participation in tertiary education

**2) Global Technology:** the development in research, artifacts, or innovation based on the following 2 data:

- **R&D Investment**, measured by the R&D investment, as a percentage of the nation's GDP. R&D investment includes R&D expenditures for basic research, applied research, and experimental development
- **Innovation**, based on patent applications per 1 million population





**3) Global Tolerance:** considered by attitudes, acceptance of diversity of people, which are the factors that encourage creativity. This index is measured through the surveys in 2 sets as follows

- Ethnic Racial and Minorities
- Gay and Lesbian Tolerance

As detailed above, GCI is the simplest index for creativity evaluation. Therefore, GCI has the highest sampling from 139 countries around the world. In 2015, the latest data, Thailand, is in 81st place.



# 2

## **Creative Productivity Index (CPI) by The Economist Intelligence Unit for Asian Development Bank (ADB)**



The purpose of CPI is to encourage all sectors to gain a greater understanding of the creative industry and be able to use creativity as an important factor in innovative-based economy development. CPI framework is set on new economic growth theory, focusing on the creativity and sustainability of economic growth factors.

The conceptual framework CPI has two objectives: first, to measure factors input, which identifies creative productivity, and efficiency. Second, to measure innovation or outputs, the creativity of economies, defined as the ability to innovate and generate new ideas. The factors in CPI are 44 indicators, 25 quantitative and 19 qualitative, as the following details:

**INNOVATION (OUTPUTS)** 

Total 8 indicators

<b>Conventional indicators</b>	<b>#4</b>	<b>Relevant to emerging economies</b>	<b>#4</b>
• Micro – level	2	• Agricultural Sector	2
• Macro – level	2	• Creative Industry	2

**CREATIVE INPUTS** 

Total 36 indicators

<b>Knowledge–skills base</b>	<b>#17</b>	<b>Creative destruction</b>	<b>#10</b>	<b>Appropriate institutions</b>	<b>#9</b>
• Human capital	8	• Competition	8	• Institutions	5
• Infrastructure	9	• Firm dynamics	2	• Governance	4

Source: Creative Productivity Index: Analysing Creativity and Innovation in Asia and Consultants Analysis

## Creative inputs

Creative inputs are comprised of 36 indicators, grouped in 3 categories: knowledge-skill base, creative destruction, and appropriate institutional as follows:

**1) Knowledge–skills base:** the most important factor of economic growth. This is reflected by the numbers of 17 indicators in 2 topics: human capital and infrastructure.

**Human capital** is determined as a capacity of an economy to innovate. Therefore, CPI pays attention to education by considering a number of universities, graduates, average years in education, and collaboration

between education and industrial sectors. There is a total of 8 indicators in this group.

**Infrastructure** is a critical input that determines as a capacity to innovate as same as the human capital. The leading economy countries can provide universal coverage to their population to provide a strong knowledge-skill base development. There are 9 infrastructure-related indicators, for example, internet users, mobile phones subscription, quality, and quantity of infrastructures such as roads, airports, ports, as well as government expenditure in research and development.



**2) Creative destruction:** a philosophy of incentives to innovate, including 10 indicators in 2 topics: competition and firm dynamics:

**Competition** is considered from the performance of the business sector, either high competition or limited resources in business that induces to creative destruction. There are total 8 competition indicators such as starting business, trade intensity both domestically and internationally,

freedom to compete, employing workers. These are constraints which encourage business to plan and create for business survival.

**Firm dynamics** is the flexibility and vitality of the labor market and workforce, based on only two indicators: net migrant inflow/outflow and ease of labor turnover.



**3) Appropriate institutions:** this refers to financial institutions and both public and private agencies. These are important sectors in supporting the creative environment. There are 9 indicators in this category, divided into 2 topics.

**Financial institution** is an essential external factor supporting businesses in new investment or development. There are 5 financial indicators based on financial support ratios such as microfinance, ease of getting credit, average credit percentage of GDP.

**Governance** is used to represent transparency and fairness in competition, for new businesses to compete in the market. This governance topic has 4 indicators, focusing on the fairness protection in terms of intellectual property, investment, law enforcement, as well as corruption and bureaucracy that may cause a monopoly, which is likely to have a low variety of products or services in the country.



## Outputs

Outputs are comprised of 8 indicators. The indicators are the economic results of creativity development, both in general measurement and particularly relevant to Asia, divided into 2 categories as follows

**1) Conventional indicators,** there are four indicators of an economic result, which in both micro-level and macro-level, such as the number of patents per capita, the number of scientific publications in academic journals per capita.

**2) Indicators relevant to emerging economies** are the indicators that are adjusted for the Asian economic and social contexts, the agricultural sector, and the entertainment sector, which are large industries in Asia. For the agricultural sector, agricultural productivity is measured by the yield per hectare and the agricultural value-added per worker. The entertainment sector has measured the production of intangible outputs using films and books published per capita.







In conclusion, this CPI mainly focuses on inputs, especially human capital and other supporting factors that can generate economic value for each country. In addition, the outputs of creative ideas can be applied to economic value. Although the outputs cannot show all the creative industries, at least it is the initiative for Asian countries to be more active about the importance of the creative economy.

From the latest CPI data collected in 2014, Thailand ranked 15th from 24 countries in Asian, including US and Finland (for comparison of creative competency level)

# 3

**Global Innovation Index  
(GII) by Cornell University,  
INSEAD Business School  
and The World Intellectual  
Property Organization  
(WIPO)**





Creative economy development is not only achieved by handmade products or service design but also technology and innovation. Therefore, GII is selected as one of the tools used in this study.

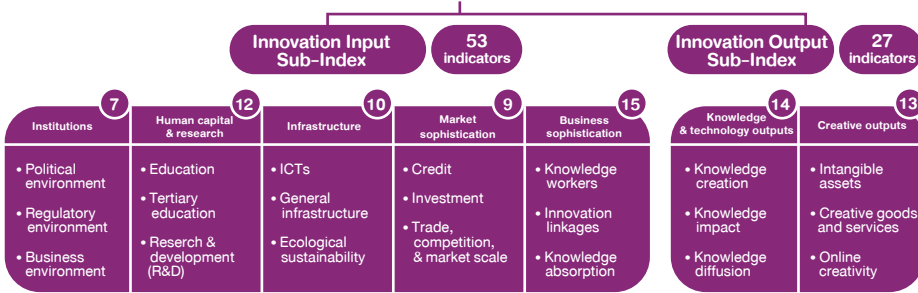
The objective of the GII is to compare the innovation capabilities of each country. This GII has been reported in the Global Innovation situation since

2007. With the report contents, policymakers, and institutes response by consolidating the key points into their innovation development framework.

GII is comprised of 2 groups of indicators: innovation input sub-index and innovation output sub-index with a total of 80 indicators.



**Global Innovation Index**



Source: The Global Innovation Index 2019 Creating healthy Lives and Advisory Analysis

The innovation input index is important fundamental factors, consists of 5 key factors as the following details:

**1) Institutional factors** are determined by the political environment, regulatory environment, and business environment. The key topics of the 7 indicators are political stability and overall safety, quality of regulatory governance, and ease of starting business.

**2) Human capital and research** is an important starting factor in creativity which the GII mainly focuses on innovation-related human capital development. The key areas are education, tertiary education, and

research and development, with a total of 12 indicators. First, education is all about the cost and quality of education. Second, tertiary education is described by enrollment, graduates in science and engineering, and inbound mobility. The last one, research and development is determined by researchers, expenditures, and university ranking

**3) Infrastructure** includes information and communication technologies (ICTs), general infrastructure, ecological sustainability, with a total of 10 indicators. The key areas are accessibility and usage of technology, electricity, and logistics, as well as environmentally friendly operations.



**4) Market sophistication** is considered from a big picture of market competition, financial support, investment, which are the supporting factors of innovation and creativity. There are 9 market sophistication indicators, for example, ease of getting credit, ease of protecting minority investors, applied tariff rate, domestic market scale, etc.

**5) Business sophistication** is a group of labor, innovation, and knowledge attraction topics, which are core resources that support business in competition. There are 15 indicators, focusing on improving the skills of workers, research and development investments, collaborating with related agencies in goods or services development, intellectual property payments, and high-tech imports





## Innovation Output

On the other side, innovation output is the result of innovative activities within the economy, consisted of 2 key factors:

**1) Knowledge and technology outputs** include knowledge creation, knowledge impact, and knowledge diffusion, which comprise 14 indicators. The key topics are patent-related, technology articles, new businesses, and technologies, as well as intellectual property income and high-tech exports, which are the result consistent with the business sophistication factors.

**2) Creative outputs** are based on intangible assets, creative products and services, and online creativity.

The total indicators are 13, such as trademarks, new business models, cultural and creative services exports, national feature films produced, top-level domain, Wikipedia yearly edits, etc.

In conclusion, GII data is another set of indicators related to creativity in the innovation and technology aspects. It includes all important input and output factors.

According to the GII latest data in the year 2019, Thailand ranked 43rd from 127 countries around the world, the 10th in East Asia, Southeast Asia, and Oceania.



# 4

**Creative City Index (CCI)  
by The ARC Centre of  
Excellence for Creative  
Industries and Innovation  
(CCI), Australia**



Creative City Index (CCI) is another aspect of creative capability measurement. The CCI was first developed by The Fukuoka Benchmarking Consortium, Japan, in 2008, called J-CCI. Later, Professor Charles Landry, who invented the creative city concept, has adopted the CCI concept and developed The Landry's Creative City Index (L-CCI). Landy had a concept that "a good city for creativity must have a strong cultural asset, as well as attitudes and perspectives that are open to creativity. In addition, climate

and environment can also support the city's creativities, including educational quality, research expenditure, appropriate rules and regulations, and incentives."

The ARC Centre of Excellence for Creative Industries and Innovation (CCI) has developed a further creative index with the CCI concept, so-called CCI-CCI. The CCI-CCI consists of 75 indicators, grouped into 8 topics. The topics related to creative city development factors are as follows:



**Creative City Index (Australia)**

5	16	17	3	1	10	10	13
Creative industries scale & scope	Micro productivity	Attractions & economy of attention	Participation & expenditure	Public support	Human capital and research	Global integration	Openness, Tolerance & Diversity
<ul style="list-style-type: none"> <li>• Creative Industries Scale</li> <li>• Creative Industries Scope</li> <li>• Creative Industries Employment</li> </ul>	<ul style="list-style-type: none"> <li>• Population-wide Microproduction</li> <li>• Virtual Connectivity</li> <li>• Local Networks and Interaction</li> </ul>	<ul style="list-style-type: none"> <li>• Creative Attractions</li> <li>• Economy of Attention</li> </ul>	<ul style="list-style-type: none"> <li>• Attendance</li> <li>• Expenditure</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural and arts funding person by level of government</li> </ul>	<ul style="list-style-type: none"> <li>• Employment</li> <li>• Education</li> <li>• Research and Development</li> </ul>	<ul style="list-style-type: none"> <li>• International Airport Traffic</li> <li>• Flows of People</li> <li>• Globalization</li> </ul>	<ul style="list-style-type: none"> <li>• Openness and Tolerance</li> <li>• Diversity and Demographics</li> <li>• Civic Engagement</li> </ul>

Source: CCI-CCI Creative City Index 2012 by The ARC Centre of Excellence for Creative Industries and Innovation

**1) Creative industries scale and scope**

The first topic is a comprehensive measurement of creative industries and services. The details of creative industries on size and scope include 5 indicators in 3 areas that are creative industries scale, creative industries scope, and creative industries employment.

**2) Microproductivity**

The data to assess creativity at the micro-level are individual capabilities, professional network, engagement in offline, or online activities. There are 16 indicators in 3 topics, population-wide micro-production, virtual connectivity, and local networks and interaction. The samples of the indicators are the number of videos uploaded to YouTube, several social networking users, a number of festivals, etc.

**3) Attractions and economy of attention**

Any people, business or activities inbound to a city allow populations in the city to learn about different cultures, patterns, or activities. All the inbound people and movements play an important role in increasing the creative level of the city population. Therefore, the assessment of attracting infrastructure is one of the topics in the CCI. There are 17 indicators in 2 groups, creative attractions, and the economy of attention.

The creative attractions are about tourism and activities that attract people to visit—for example, Lonely Planet's "All Things to Do," a number of hotels, museums. For the economy of attention, it is about city visibility and cultural advantage, such as Google Trends index score, number of items in the Amazon catalog.



#### 4) Participation and expenditure

This topic is about citizen support in the creative industries and culture in the form of attendance and expenditure. There are three indicators in 2 groups: attendance and expenditure. The focus of expenditure is only for arts and culture.

#### 5) Public support

This topic targets on government expenditure in cultural and creative activities at all levels: national, regional, provincial. The only index in this topic is cultural and arts funding per person sorted by the level of government agencies.

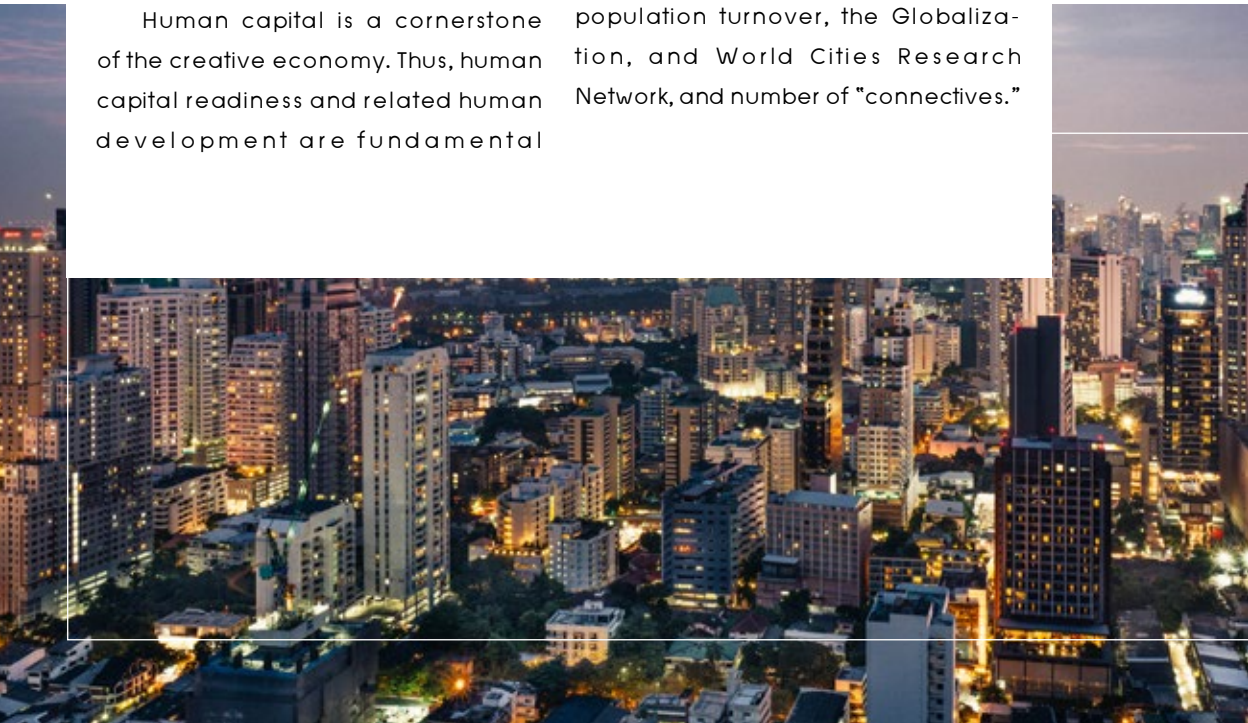
#### 6) Human capital

Human capital is a cornerstone of the creative economy. Thus, human capital readiness and related human development are fundamental

measurements. The sub-topics of human capital are employment, education, and research and development, which has a total of 10 indicators. For example, employment in research and development as a percentage of total employment, as well as numerous sites of cultural higher education.

#### 7) Global integration

The shift towards globalization needs a dynamic view of great cities to international economies and social linkage. The indicators are in 3 groups, international airport traffic, flows of people, and globalization. There are 10 indicators such as travel time between inner city and airport, population turnover, the Globalization, and World Cities Research Network, and number of “connectives.”



## 8) Openness, tolerance and diversity

The important characteristics of a creative society are openness and acceptance of people's differences in society. Therefore, the 3 sub-topics about openness, tolerance and diversity are as follows: openness and tolerance, diversity and demo-graphics, and civic engagement. The total indicators are 13 used to measure how open society is, with respect to either outsider or dissenting opinions and practices, such as censorship/freedom of the press, number of same-sex marriage,

number of people in the population with no religion, income inequality or Gini coefficient, voter participation at last nation-wide election, etc.

All indicators in the 8 topics of CCI are the factors to foster the creative ecosystem. It comes from the CCI concept, that creative areas and ecosystems are the key factors to stimulate citizens in the area to become more creative, and creativity would generate economic value in the long term.









# 5

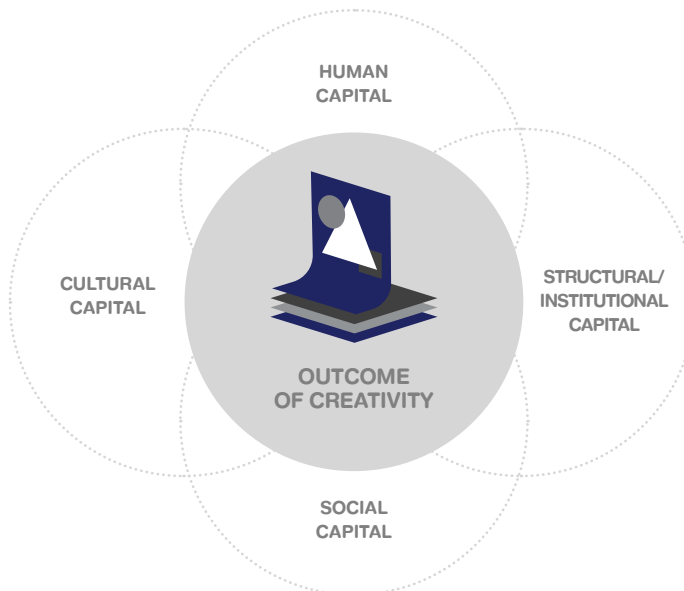
**Hong Kong Creativity Index (HKCI) by The Center for Cultural Policy Research, The University of Hong Kong, Hong Kong Special Administrative Region of the People's Republic of China**



The objective of the HKCI, conducted by the University of Hong Kong, is to assess the creativity level and related factors of the creative economy in Hong Kong. The guidelines of the creativity index do evaluate not only the results of creative activities, but also the degree of operations and supporting factors of creative economy development.

The HKCI framework describes that the creative economy requires 4

capitals: social capital, cultural capital, human capital, and structural/institutional capital capitals, to achieve creative products and services. The accumulated effects of the interplay of these capitals are the manifestations of creativity in terms of outcomes or outputs. Therefore, the HKCI focuses on evaluating the factors mentioned above, collectively mentioned as 5Cs—outcomes of creativity and 4 capitals, which have a total number of 88 indicators.



Hong Kong Creativity Index

Human Capital <sup>11</sup>	Structural Institutional Capital <sup>23</sup>	Social Capital <sup>21</sup>	Cultural Capital <sup>16</sup>	Outcomes of Creativity Index <sup>17</sup>
<ul style="list-style-type: none"> <li>• R&amp;D expenditure &amp; educational expenditure</li> <li>• Population of knowledge workers</li> <li>• Transience/mobility of human capital</li> </ul>	<ul style="list-style-type: none"> <li>• Independence of the legal system</li> <li>• Corruption perceptions</li> <li>• Freedom of expression</li> <li>• Infrastructural conditions of ICT</li> <li>• Robustness of social and cultural infrastructure</li> <li>• Availability of community facilities</li> <li>• Financial infrastructure</li> <li>• Robustness of entrepreneurship</li> </ul>	<ul style="list-style-type: none"> <li>• Development of social capital</li> <li>• Network quality: norms &amp; values from World Value Survey</li> <li>• Network quality: social participation from World Value Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural expenditure</li> <li>• Network quality: norms &amp; values</li> <li>• Network quality: cultural participation</li> </ul>	<ul style="list-style-type: none"> <li>• Economic contribution of creativity</li> <li>• Inventive activity of economic sector</li> <li>• Other outcomes of creative activity</li> </ul>

Source: A Study on Creativity Index by Home Affairs Bureau, The Hong Kong Special Administrative Region Government

1) Human Capital Index (HCI)

As per the previous indicators, the main factor of creative economy development is human capital. The human capital factor is comprised of educational development and research and development. The total 11 indicators are grouped into 3 topics: R&D expenditure and government expenditure on education, R&D expenditure, and government expenditure on education, transience/mobility of human capital. The first 2 topics are as same as the other indicators such as R&D expenditure, public expenditure on

education, the population aged fifteen and above with educational attainment at the tertiary level, and research and development personnel.

For the third topic, the University of Hong Kong has taken transience/mobility of human capital topics into account. The reason is that the mobility provides data, knowledge, and cultural transfer that also contributes to human capital development.







## 2) Structural/Institutional Capital Index (SICI)

Community and national contexts are developed from social structure. Creative activities in a community also require structural and institutional support. Thus, there are 23 indicators, in 8 groups that have to be considered about structural/ institutional capital. The 8 groups are independence of the legal system, corruption perceptions, freedom of expression, infrastructural conditions of ICT, the robustness of social and cultural infrastructure, availability of community facilities, financial infrastructure, and robustness of entrepreneurship.

The examples of the structural and institutional capital indicators are the data enumerated by independence of the legal system, freedom of press, number of NGOs, number of civic centers, number of seats in all government cultural services' performance venues, as well as number of listed companies and share of Small-and-medium Enterprises (SMEs) to total number of establishments. The last 2 indicators mentioned above are fundamental in the business sector to drive the creative economy.





### 3) Social Capital Index (SCI)

Referring to the third “T” in GCI, Tolerance is the crucial aspect in assessing the creative edge. The HKCI expands the GCI tolerance aspect through donations in various ways, trustworthiness, and social participation. They are all about values and norms held by the population. There are total 21 indicators in this topic, divided in 3 groups: development of social capital, network quality, norms and values from World Value Survey, and network quality, social participation from World Value Survey. For example, the amount of approved charitable donations allowed under salaries tax (in local currency) as a percentage of GDP, indicators on generalized trust, attitude towards the rights and wrongs of foreign immigrants, the rights and wrongs of foreign immigrants, participation in social organization, and social contact with the community.



**4) Cultural Capital Index (CCI)**

Social milieu is a part of a cultural capital that leads to creativity. So, the indicators in the cultural capital are considered on people's engagement and value in their culture, without considering economic value. There are 16 indicators in 3 groups: expenditure on cultural products and services, network quality, measured by norms and values, and network quality, measured by cultural participation such as the government's expenditure on the arts and culture, valuing of creative activities, community leader's role in advocating and advancing the arts and culture of community, number of visits of government cultural museums per population, etc. Social milieu is a

part of a cultural capital that leads to creativity. So, the indicators in the cultural capital are considered on people's engagement and value in their culture, without considering economic value. There are 16 indicators in 3 groups: expenditure on cultural products and services, network quality, measured by norms and values, and network quality, measured by cultural participation such as the government's expenditure on the arts and culture, valuing of creative activities, community leader's role in advocating and advancing the arts and culture of community, number of visits of government cultural museums per population, etc.







## 5) Outcomes of Creativity Index (OCI)

The outcomes of creativity measurements are in economic, social, and cultural aspects. The total number of indicators is 17, divided in 3 groups: economic contribution of creativity, inventive activity of commercial sector, and other outcomes of creative activity. All the indexes include employment, creative goods import-export, the ability of local enterprises to sell branded products, and acquire technology, also the number of print media, music, film, and performing arts.

The strength of HKCI is the total number of 88 indicators, and the details reveal that HKCI is a thorough index that covers all the key factors of creative economy development. On the other side, a lot of indicators and various aspects of HKCI affect data collection and analysis. The issue of the numbers and variety cause some obstacles during HKCI process.



## Summary of creativity indexes comparison

According to the comparison of the 5 creative indexes, obviously, there are issues that all indexes differently focus, depending on objectives, classification, and priorities of factors. However, the study found that all the indexes have the same concept of creating an ecosystem for encouraging the population to be more creative. The factors include in the creative ecosystem can be summarized as the 4 following factors:

- 1) **Human Resource Factors**
- 2) **Infrastructure Factors**
- 3) **Institutional and Fairness Factors**
- 4) **Creative Results**

In addition, social capital and business competition are also interesting factors. The widening tolerance of social capital and acceptance of differences are the intangible factors that play a crucial role in the creative economy. If a business could apply creativity as an important factor, it will create value for the business and economic value for the country in the long term.



## Guidelines for applying creativity index in Thailand

For Thailand, Creative Economy Agency (Public Organization) or CEA which is directly responsible for promoting and developing the creative economy, can consider the indexes in this study with the creative economic strategy of Thailand. Initially, CEA can select only the 4 key factors for the initial stage. It is straightforward to encourage people, business sectors, and related agencies to collaborate in creative elements developments. After the initial phase of data collection, and baseline monitor, CEA could slightly add other factors to sustainably drive Thailand's creative economy in the long term and be comparable internationally.

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