# Consultants

7 September 2021 *Design: Dr. Samson Ma, Editing: Prof. Alfred Ho* Summer 2021 Volume 2 Issue 2

**Institute of Management Consultants Hong Kong (IMCHK) - Newsletter**


## Inside This Issue



## About IMCHK

The Institute of Management Consultants Hong Kong (IMCHK) is the professional chapter and qualifying body for management consultants in Hong Kong. IMCHK was established in 2000, aiming at setting and maintaining high standards of quality, independence, objectivity, and integrity for Certified Management Consultants (CMC) originating in Hong Kong and Macau. IMCHK is representative of Hong Kong in the International Council of Management Consulting Institutes (ICMCI). ICMCI has over 60,000 CMC members worldwide.


## President's Message

Summer is always a season for outdoor and vibrant activities!

While we are unable to run in-person activities during the current COVID-19 pandemic period, we have maintained the vibrancy of IMCHK by organizing mentorship program, ISO20700:2017 training and CPD events via virtual channels. These activities not only strengthen the membership base; but also keep us staying connected with our IMCHK community.

Since the introduction of ISO20700:2017 by IMCHK in late 2019, we have trained up more than 50 Certified Management Consultants in Hong Kong to use the Self-declaration Checklist. To further promote and encourage the adoption of ISO 20700:2017 Guidelines for Management Consultancy Services in Hong Kong and the Greater Bay Area, we are working with potential donors to set up a fund which would allow us, on an annual basis, to award those management consulting practitioners for the best adoption of ISO 20700:2017 Guidelines. All nominations will be administered and governed by an Award Committee and the details of which will be announced in due course.

In this issue, we are pleased to have one of our CMC members sharing a Consulting Case Study on Traveler Flows Analysis of the Boundary Crossing Facility at the Hong Kong Zhuhai Macao Bridge Hong Kong Port. For the benefit of IMCHK community, all our CMC members are welcome to use the Quarterly Newsletter as a platform to share the knowledge and experience from your expertise areas.

We hope you enjoy this issue!

Daniel Chan, CMC
President, IMCHK

## ICMCI - Certified Management Consultant

The Certified Management Consultant designation is the preeminent professional designation for management consulting with a variety of sub-specialty areas. It is similar in scope and reliability to Chartered Professional Accountants, Professional Engineers, etc.

**Post-nominal initials**

Consultants who have been awarded the CMC can put these initials after their name. In some countries, the CMC-Global member Institute may use the designations FIMC to signify a Fellow of that Institute of Management Consultants – someone who has made a significant contribution to the profession of management consulting. The initials FCMC therefore designate a Certified Management Consultant who is also a Fellow of his or her institute.

# IMCHK News & Activities

## The 1st Certified Management Consultants (CMC) Mentorship Program in 2021

IMCHK partnered with Happeace to promote its CMC Mentorship Program and the program was conducted on 15 and 16 May 2021 via Zoom. Day 1 - (6 hours) Training on management consulting, Day 2 - (3 hours) Case presentation and sharing. Total 14 Professionals completed the CMC Mentorship Program and successfully earned the CMC qualification and joined IMCHK membership.

## ISO 20700:2017 Guidelines for Management Consultancy Services Training for IMCHK CMC Members

This half-day training on ISO 20700:2017, Guidelines for Management Consultancy Services, is specially organized by IMCHK for Certified Management Consultants (CMC). It was conducted on 26 June 2021 Saturday 9:00am – 1:00pm (via ZOOM). The training program included (1) Introduction to Self-Declaration Checklist, (2) Application of the Self-Declaration Check List, (3) Practices in Contracting, (4) Practices in Execution, (5) Practices in Closure, (6) Practices in Policies, (7) Pre-class case study. Total 12 CMCs joined and completed the training.

## International Management Consultants Day 2021

Greetings to my management consulting colleagues around the world !

This is an amazing event. On the first Thursday of June each year ICMCI celebrates the global profession of management consulting. It is an opportunity for all of us as management consultants from around the world to celebrate our global network through ICMCI and the profession of management consulting.

International Consultants Day is celebrated on the first Thursday of June each year – in 2021 this is Thursday, June 03. It is a time for us to celebrate!

We are a global profession, some 60,000 strong, with over 8,000 of us accredited as Certified Management Consultants – the global standard in management consulting that shows our dedication to consulting as a profession.

With 50 Institutes covering over 60 countries, and our Global Institute ICMCI providing virtual services everywhere else in the world, this is truly a global profession.

With our Common Body of Knowledge, and our Code of Conduct and Ethics, we have reciprocity of our CMC certification everywhere in the world. That alone is something to celebrate.

In addition, we have breakthrough programs, such as our Global Directory for CMCs, the global rollout of ISO 20700:2017, and a range of professional development programs for management consultants at all levels of experience together with collaboration programs that link all of our Institutes to each other. These are the hallmarks of a thriving profession.

We are pleased to launch the update of the National Consulting Index the NCI, 2021, which is looking at the Consulting profession globally. Through this amazing tool we can understand when the country is at a threshold to support consulting as a profession, so we can start recruiting management consultants to join our Global Network through CMC Global Institute, and eventually to support the establishment of an Institute.

Secondly, we are increasing our focus on the Future of Consulting. This is something that has been of great interest to us as a profession – as it is to any profession – in terms of thinking about how we as a will evolve and ensure that we are meeting the continuing needs of Management Consultants and our client organizations.

This past year of 2020 was quite a blow to our client organizations, and Consultants around the world, because of its unexpectedness, and because of the degree of change that resulted. So it is very reinforcing for us as Management Consultants to think about the future of the profession.

And to think about how we can serve our clients even better in the face of the increasing pace change, the resulting turbulence, and the disruption we know is coming.

The third great initiative I want to mention is that the ICMCI Professional Standards Committee has been working diligently on our competency framework for the management consulting profession.

We expect this will be approved at our annual meeting in October 2021, which will enhance the standard for management consulting around the world to ensure that we continue to be best practices. The competency framework also lays the groundwork for the CMC certification - the only recognized Global certification of Management Consultants. So I'm really excited to see and hear about this Improvement which we hope will be approved at the 2021 Annual Meeting in October.

“ICMCI and its member Institutes are the leaders in the development of management consulting as a profession that drives social and economic success – congratulations! And let’s take a moment to celebrate our profession and the work that we do.”

Dwight W Mihalicz, CMC Chair, ICMCI

## Consulting Case Study on Traveler Flows Analysis of Boundary Crossing Facility

A boundary crossing facility (BCF) is an important land infrastructure where people from different places of an administrative region congregate for the purpose of having cross border clearance processed before leaving the region and for people from different places to enter into the region.

To facilitate an efficient clearance process and handle the large and fluctuating volume of traveler flows within a reasonably economical size of a BCF, management of the BCF in a proficient manner is essential. I was an internal consultant having the chance to study the round-the-clock operation of the Hong Kong Zhuhai Macao Bridge Hong Kong Port (HZMB HKP) during the initial years after its commissioning in October 2018. Fig. 1 and 2 show respectively the general layout of the HZMB HKP and the extent of the study area.

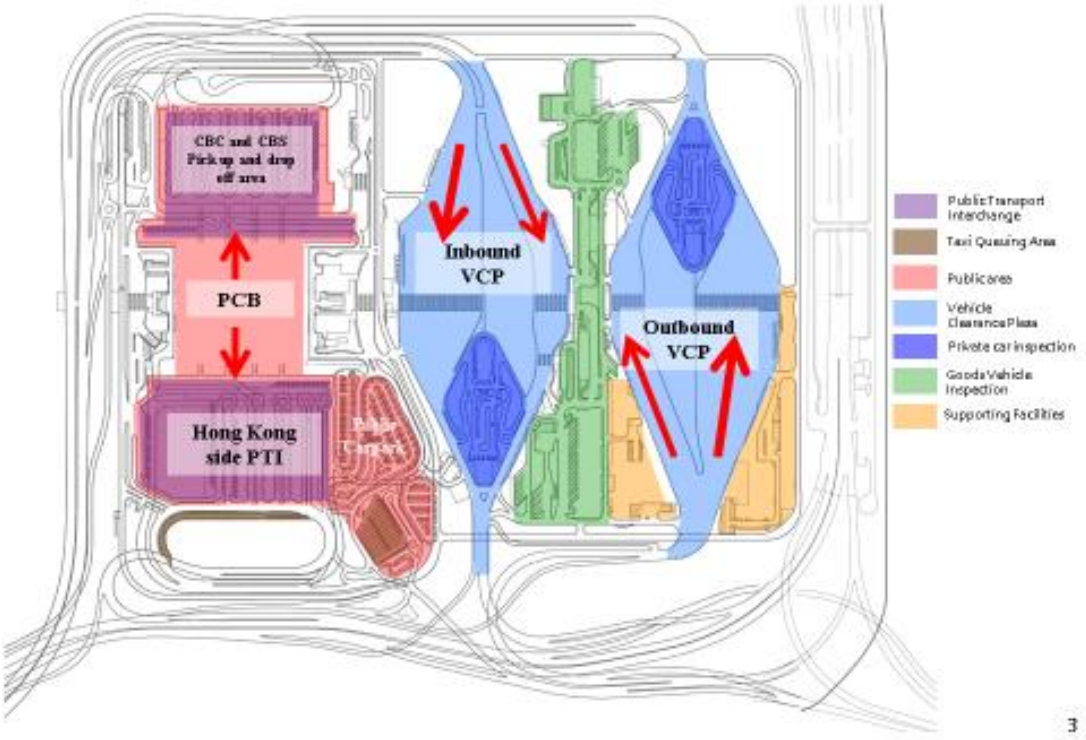



**Fig. 1 - General layout of the HZMB HKP**

*Note: Vehicle Clearance Plaza (VCP), Public Transport Interchange (PTI), Cross Boundary Coach (CBC), Cross Boundary Shuttle (CBS), Passenger Clearance Building (PCB)*

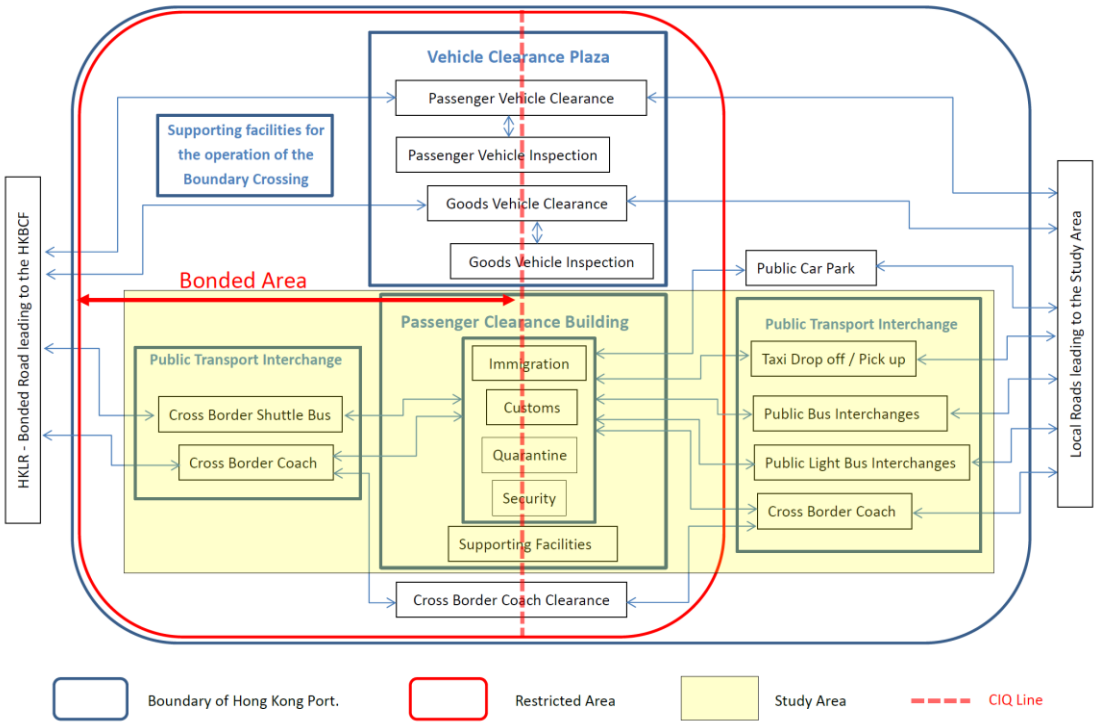



**Fig. 2 - Extent of the Study**

The logical layout of the different services and clear designated routing for travelers to flow through the BCF are the key subjects to be carefully studied, analyzed and reviewed. Fig. 3 and 4 show respectively the movement paths of the Inbound and Outbound travelers within the Passenger Clearance Building (PCB) of the HZMB HKP. Resources planning to cope with the un-steady demands for the cross border services throughout the day and over the year would need to be optimized.

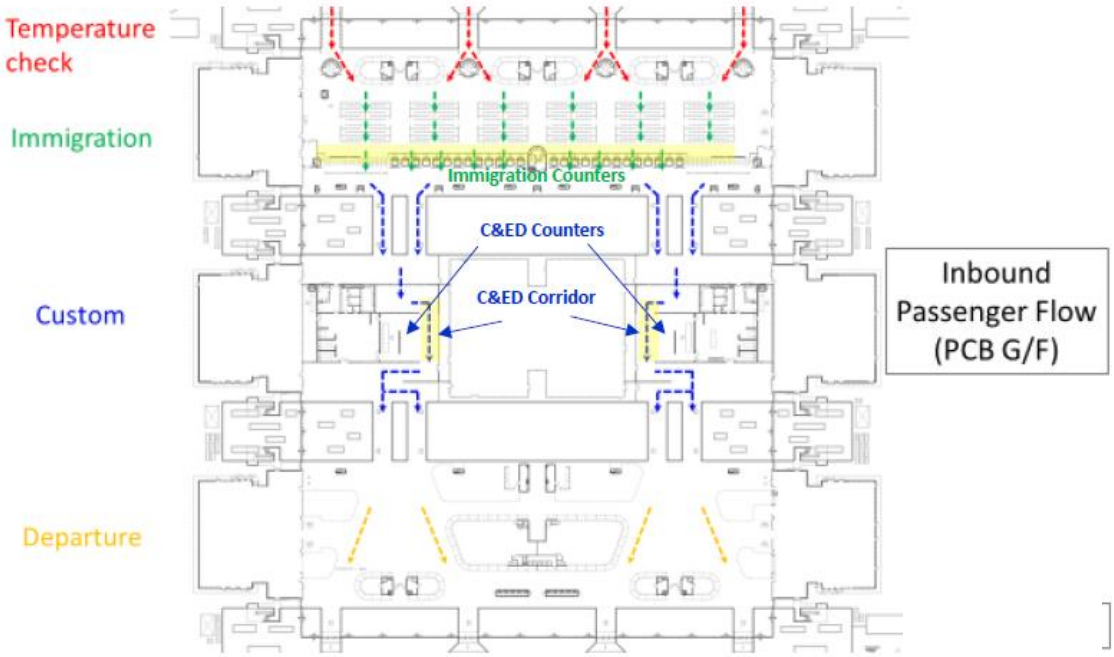



**Fig. 3 Inbound traveler movements inside the PCB (G/F)**

*Note: Customs, Immigration and Quarantine (CIQ), Customs and Excise Department (C&ED)*

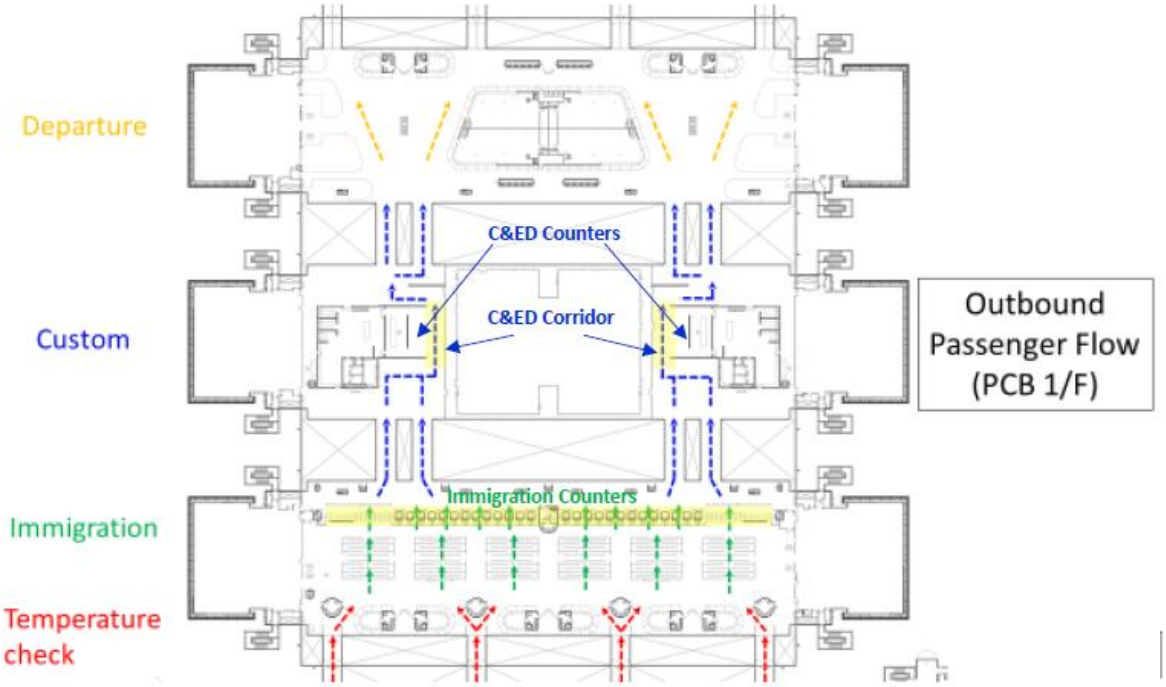


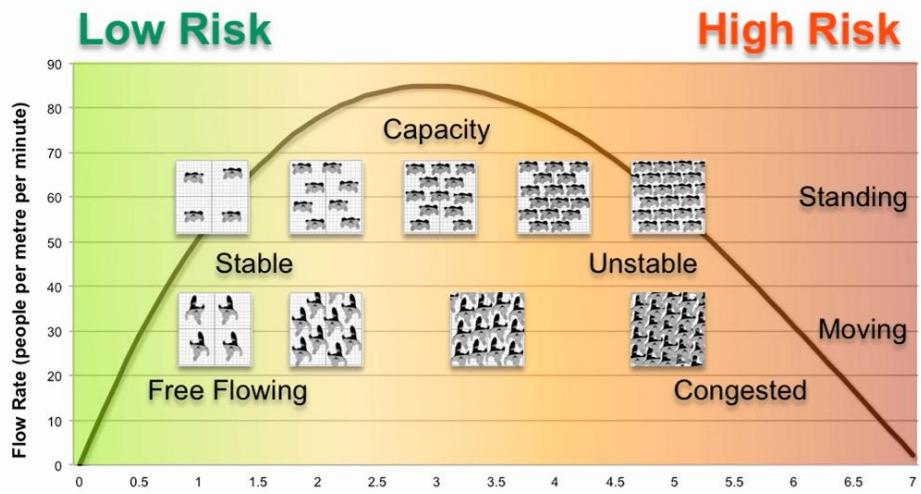

**Fig. 4 Outbound traveler movements inside the PCB (1/F)**

Cross Border traffic in Hong Kong has been continuously in very high volume. According to the Planning Department, the total figures of immigration clearance in 2019 was 301 million people which involved 112 million visitors (37%) and 189 million non-visitors (63%), indicating a high proportion of domestic and business travel across the borders. Of this 301 million, 236 million (78.4%), was through land transport via the nine existing land crossings, namely: Lo Wu, Man Kam To, Sha Tau Kok, Lok Ma Chau (Huanggang), Hung Hom Railway Terminal, Lok Ma Chau Railway Spur Line, Shenzhen Bay Port and West Kowloon High Speed Rail Terminal between Hong Kong and Shenzhen, and the HZMB HKP between Hong Kong, Zhuhai and Macao, all together with an average of over 640,000 passenger trips per day. This high volume of land traffic created a big demand of services on the different BCFs. The effective and efficient use of the BCFs is very essential to the economic development of Hong Kong. Unlike the air and sea transport where travelers approaching the clearance facilities are known beforehand as governed by the flight and voyage schedules, land transport is more vigorous as it involves many modes of transport to bring in travelers, thus more difficult and requires more prevalent efforts to predict, plan, and control.

## Crowd Science

In the study of crowd science, the behavior and psychology of crowd would need to be looked into. According to G. Keith, crowds have certain interactions which are part fluid, part granular and part psychological reaction. Crowd will form above the critical density of people of more than one person/$m^2$. Travelers in a campus will look for unimpeded speed with the least effort on focal routes. Movements would be influenced by multiple paths interference such as cross flow, counter flow, and convergence of people. Crowd speed/density is not a constant value over a campus, but a function of the local geometry and the interactions with other groups/crowd. Crowd in a campus would not normally be in a homogenous manner like the marching armies but in heterogeneous way which produces indecisive and wandering movements around. This would influence the smooth traveling and space utilization.

To understand the relationship between crowd density and crowd flow rate, G. Keith plotted the relationship betweenthem as follows.




**Crowd Density (People/m$^2$)**

**Fig. 5 Crowd Density vs Crowd Flow Rate**

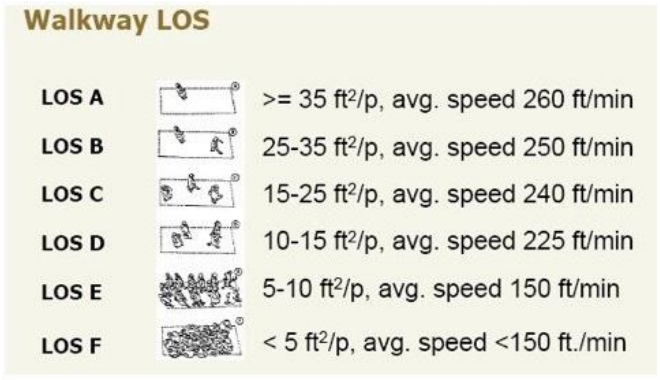
As shown in Fig. 5, crowd movement would have reached to a capacity when crowd density has reached to 3 people/m$^2$ with a flow rate reaching about 85 people per metre per minute. Crowd flow rate will drop when crowd density is higher than 3 people/m$^2$. When crowd density has reached to about 5 people/m$^2$, standing crowd would become unstable while moving crowd will experience congestion. G. Keith defined the safety limit for crowd density as 4 people/m$^2$ for a moving crowd and 4.7 people/m$^2$ for standing areas. Above these figures, the situation would be classified as unstable for standing crowd and congested for moving crowd.

Some general characteristics of crowd are as follow:

1. Crowds consist of many individuals each exploiting short cuts
2. Crowds find their own ways
3. Crowds cluster
4. Crowds have no collective intelligence
5. Crowds are influenced by geometry
6. Crowds self-organize at high density

The above have given the insight that the estimation and measurement of the minimum distance is a reasonable assessment on what the travelers would encounter in the PCB. Of course there will be other times spent such as going to toilet, shopping and other procurement of services which are varied. The acquiring of these services would be affected by the contemporary situation of the venue at a particular moment. For instance, if the venue is already overcrowded, travelers would tempt not to stay long but to go on with their journey as soon as they can. Whether the individuals could exploit the short cuts would depend on the knowledge and experience of the individual on the venue. For instance, regular users would easily and quickly get their ways to pass through the facilities.

John J. Fruin mentioned about Level of Service (LOS) A to F that crowd density (people per square meter) and crowd flow (people per meter per minute) are related (Fig. 6). Table 1 shows the description of the different LOS.




>=3.25sqm/p; 1.32m/s
2.32-3.25sqm/p; 1.27m/s
1.39-2.32sqm/p; 1.22m/s
0.93-1.39sqm/p; 1.14m/s
0.46-0.93sqm/p; 0.76m/s
<0.46sqm/p; <0.76m/s

**Fig. 6 Walkway Level of Service**

| LOS | Description for queuing areas, walkways and stairways |
|---|---|
| A | Free Circulation. |
| B | Uni-directional flows and free circulation. Reverse and cross-flows with only minor conflicts. |
| C | Slightly restricted circulation due to difficulty in passing others. Reverse and cross-flows with difficulty. |
| D | Restricted circulation for most pedestrians. Significant difficulty for reverse and cross-flows. |
| E | Restricted circulation for all pedestrians. Intermittent stoppages and serious difficulties for reverse and cross-flows. |
| F | Complete breakdown in traffic flow with many stoppages. |

**Table 1 - Description of LOS**

According to the Hong Kong Planning Standards and Guidelines Chapter 8 (Planning Department, 2019), a through zone is the key space available for through movement which should be free of obstructions and dedicated exclusively to pedestrian movement and should be of sufficient width to cater for pedestrian flow at a satisfactory level of LOS so that pedestrians can enjoy a comfortable walking environment. The Highway Capacity Manual of the Transportation Research Board can be referred to for details and LOS C is considered as an optimal level of service. At LOS C, space is sufficient for normal walking speeds, and for bypassing other pedestrians in primarily unidirectional streams. Reverse-direction or crossing movements can cause minor conflicts, and speeds and flow rate are somewhat lowered.

| Focal routes within the study area | Walking Distance (m) | | Undisturbed time required to traverse (min.) | | | |
|---|---|---|---|---|---|---|
| | | | LOS C: 1.22m/s | | LOS E&F: 0.76m/s | |
| 1/F | Min. | Max. | Min. | Max. | Min. | Max. |
| South Drop-off Deck | 7 | 167 | 0.10 | 2.28 | 0.15 | 3.66 |
| Entrance Bridge | 25 | 25 | 0.34 | 0.34 | 0.55 | 0.55 |
| Inside PCB | 182 | 718 | 2.49 | 9.81 | 3.99 | 15.75 |
| Exit Bridge | 60 | 60 | 0.82 | 0.82 | 1.32 | 1.32 |
| North PTI | 65 | 157 | 0.89 | 2.14 | 1.43 | 3.44 |
| Total when both C&ED Corridors are open | 339 | 1,127 | 4.63 | 15.40 | 7.43 | 24.71 |
| Total when only one C&ED Corridor is open | 374 | 1,207 | 5.11 | 16.49 | 8.20 | 26.47 |
| G/F | Min. | Max. | Min. | Max. | Min. | Max. |
| North Drop-off Point | 20 | 100 | 0.27 | 1.37 | 0.44 | 2.19 |
| Inside PCB | 182 | 718 | 2.49 | 9.81 | 3.99 | 15.75 |
| South PTI | 60 | 260 | 0.82 | 3.55 | 1.32 | 5.70 |
| Total when both C&ED Corridors are open | 262 | 1,078 | 3.58 | 14.73 | 5.75 | 23.64 |
| Total when only one C&ED Corridor is open | 297 | 1,158 | 4.06 | 15.82 | 6.51 | 25.39 |

**Table 2 - Measured Walking Distance and Time on Focal Routes**

As can be seen from Table 2, most of the walking and time consumed by the travelers are within the PCB which constituted 64% to 69% of the total. With the closure of one channel (corridor) of the Custom channel, an additional maximum distance of 80m (travel time of max 2 min) would be involved. The walking distance of the travelers in the outbound direction (1/F) would involve about 50m more than the inbound direction (G/F) because of the NPTI is located on a large earth platform further north outside the PCB.

These figures would be useful reference in studying how people are involved in passing the PCB. In the study of crowd management and risk perceived by a given society or individuals are not objective but subjective as highlighted by Mick Upton. In crowd arrival and queuing, crowd will always act rationally. Queue management needs to consider how the psychology of people queuing might affect risk assessment. Mick mentioned that the current guidance for a safe density for standing audience as 2 persons/$m^2$.

The five considerations that would have to be taken in planning on crowd arrival and queuing are:

1. Pedestrian approach to a queue
2. Standing space within a queue
3. Unrestricted forward movement
4. Passing through an ingress system
5. Dispersal

Where arrangements should be made appropriately to the needs of the queue, queue management needs to consider how the psychology of people queuing might affect risk assessment.

Crowd movement speed is dominated by two factors: (1) the front–back inter-person effect and (2) the individual's self-driving motivation, which is driven by people trying to divorce themselves from the control of the crowd movement. This can be observed at the HZMB HKP when travelers are trying not to follow the queue lines to fast track to get to the

immigration counters.

Crowds have collective reason but they do not have collective behavior as pointed out by Kirstie Pelling. Unlike in a shopping mall, the collective reason for the users of a BCF is simple - in general just to pass through the facilities to continue with their journey as fast as possible. Design, information delivery and management would have to be focused on how to facilitate the smooth flow of travelers from the ingress, circulation, to the egress of the venue.

Dirk Helbing mentioned that the non-linear interactions of pedestrians would lead to various complex, spatial temporal pattern formation phenomena. The emergence of lanes in uniform walking direction, oscillations of the pedestrian flow at bottlenecks and the formation of stripes in two intersecting flows may create unexpected obstruction to the flow situation. This kind of self-organized patterns of motion demonstrates that an efficient "intelligent" collective dynamics would be based on simple and local interactions. However under extreme conditions, coordination may break down, giving rise to critical crowd conditions. Examples are freezing-by-heating where increasing the erratic motions of interacting entities can lead to the breakdown of an efficient pattern of interactions and finally produce a lasting deadlock and faster-is-slower effects when crowded people push each other harder to escape through an exit during an emergency situation for instance. A statistical slowing down in the evacuation time would be resulted and also the transition from streamline to turbulent crowd dynamics.

Crowd management practices are mostly collaborative efforts including effective handling, sharing and communication of information. Crowd management can be divided into two parts: the planning of the situation that takes up to around 90% of the efforts, and the execution of the plan that takes up about the remaining 10% of the efforts. Thus, the study on the planning is more valuable than just the review of the operation.

It was also discovered that participant experience was often not considered systematically during planning and that comfort and satisfaction in crowds were often overlooked with resulting experiences often poor. Human encounters crowd situations on a daily basis, resulting in both negative and positive experiences. Understanding how to optimize the participant experience of crowds is important. Influences on participant experience in crowds identified by the focus groups and observations in this study included: physical design of space for crowd and facilities such as layout and queuing strategies; monitoring of crowd movements covering capacity and flow; communication and information including signage and way finding; observing comfort and welfare such as provision and quality of facilities; ensuring environmental comfort; and maintaining public order and safety.

The study of crowd science would help understand how crowds form and move, how crowd understand and interpret information system, and how management system would affect crowd behavior. These had been put in assessing whether the current set up of the HKBCF, such as provision of queuing zones, waiting areas and deployment plans are effective to cater for the volume of travelers at times of high concentration and fluctuation to facilitate urgent resources deployment plan formulation, improvement measures design and future planning.

**Channeling of travelers**

It is found that a large part of crowd control is about making sure everyone knows where one should be going. While regular attendees of the premise might know where to go automatically and naturally, the more we could reduce having people pounding around looking for facilities like the toilets or other services in particular to the new visitors the better. Sufficient and clear enough signage in the venue are important to the travelers and they also boost the operating staff to provide clear direction and indication to travelers to where they need to go to. The adequate provisions would also promote a clear flow visualization to the people in and around the venue. Coupling to the adequate signage within the venue, an experienced and well trained security team can derive the most logical way with their site-specific customized knowledge and wisdom to manage as well as providing timely barriers and other means to channel people going in the right direction and avoiding chaotic situations to occur.

For the case of the HKP, apart from the already designed and provided fix signage within the main corridor inside the PCB, there were needs to provide sufficient additional signage and message boards to implement special arrangements dynamically at times of different situations. Provision of these additional facilities would have to be timely, flexible, responsive and preferably well planned in advance. For instance, at the initial peak periods, additional signs and message boards had to be erected at the exit points of the PCB to the PTIs to facilitate travelers to find ways to their target transport means. At the North Departure Hall, because of the peaks of tour groups at different times to Zhuhai and Macao, temporary queuing and waiting zones had to be assigned dynamically at the North Departure Hall with travelers to be led to the designated parking bays or specially assigned chambers for boarding.

**Queue Management**

Queuing is an inevitable part of any big venue and depending on the nature of the situation and the frustration tolerance level of the attendees, queue management can be a breeze or a complete headache. Queuing can be a very stressful situation for people just like the case of the HKBCF when there were very long queues meddling around the public transport interchange where travelers had to wait for the Cross Boundary Shuttle service for hours at the worst situation in particular occurring late in the evening and in bad weather. It is important to have sufficient crowd control staff, the required resources and strategies beforehand to be deployed in place to manage this kind of situations.

**Smart Queue Management approach**

A properly managed queue will facilitate customer flow, maximize service resources allocation, cut down customer disorder. With the latest technology available, queue management is becoming more powerful, intelligent and easier to realize.

In order to manage queue in a better manner, we may need to understand the types and styles of our customers, how they would prefer to interact with the services being provided, their tolerance and expectations for waiting. With more and more knowledge and experience built up through rounds of review using the developed model in this research, the better management approach could be generated with the information on estimation of time needed to pass the facilities either as advance information to remind travelers the best time to arrive at the BCF through media and reminder to the travelers when they are on the spot through messaging such as through their mobile phones, conversation of the staff on the spot, text-based message signs, digital signage at appropriate locations and the PA System.

Staff and equipment to facilitate traveler hailing or re-queuing would improve the crowd movements. An example is the provision of staff resources to timely adjust the tensile barriers within a queuing zone so that the travelers could always be provided the shortest path from time to time depending on the crowd density to avoid unnecessary walking within the queue zone. Without such arrangement we would see people trying to trespass through the queue lines to overtake others.

Queuing formations (multiple or single-line queuing) would also need to be considered carefully to cope with the different crowd situations. In the event of large crowd waiting for service, single-line queuing would inherently reduce average waiting time. This can avoid travelers shifting from one queue to another trying to get the better performed queue.

While queue adjustments can make a line move faster, the psychological side of the users' perception is more on how long they will have to wait. Helps with distractions such as digital screens displaying videos, promotions, demonstrations or in-queue displays for merchandising can be considered to ease people feeling in the queue. However, doing too much in a public service may need to be considered carefully.

To be proactive in monitoring queue would be very useful in helping the management of the premise. Solutions like people-counting, wait-time monitoring, real-time queue analytics could provide useful statistics and could help catch problems earlier before they occur and become out of control through anticipating heavy traffic flow to the queue, timely deployment of staff resources and broadcasting estimated wait time to customers. With the use of data analytics, intelligent queue management system can be developed to help address difference scenarios to optimize best practices. Intelligent information ranging from basic people counting data to sophisticated predictive analytics could be established. Many different technologies such as using Bluetooth/WiFi, Camera-base, Thermal/Heat Mapping, Infra-red Dual Beam-Break are available in the market. Analysis like wait times, arrival rates, service rates, open service points and empty queues could be kept track of easily.

*Remarks:*
*G. Keith is the world's leading expert in crowd science*
*John J. Fruin is an engineer, urban planner, and author known for his work in the field of crowd science*
*Mick Upton is an expert in crowd safety management*
*Kirstie Pelling is a writer and journalist*
*Dirk Helbing is professor of computational social science*

Ir. Dr. Kin Yee Yung
CMC, CEng, PhD, DBA, MSc, B.Eng

## Understanding ICMCI National Consulting Index (NCI)

Management consulting services need general conditions that allow professional delivery of the services. These conditions vary from country to country. ICMCI as the leading global body of Management Consultants has defined a set of parameters that describes the environment for the management consulting industry and publishes these parameters in the National Consulting Index (NCI).

The ICMCI National Consulting Index is also a method of estimating the size ($ value) of the management consulting (MC) sector in any country in the world. The NCI is founded on an ICMCI research workstream which started in 2018, the Consulting Readiness Index project.

The aim of the NCI project was to be able to identify factors that seem to account for variances in the strength of national MC sectors and then, by creating the NCI for each country, estimating the value of any country's MC market.

The five NCI factors combine elements of societal individualism, the ability to trade openly/freely, the degree to which public services (hence society) embraces the digital agenda, ingredients around human creativity and the quality of human capital, societal tolerance and the absence or otherwise of corruption.

The five NCI factors included:

**(1) Hofstede: Individualism-Collectivism (IDV)** - This is a culture measure. It highlights the degree to which people in a society are integrated into groups (Hofstede, G., 2011).

**(2) Index of Economic Freedom (IEF)** (The Heritage Foundation, 2018) - The Index of Economic Freedom was created in 1995 by The Heritage Foundation and The Wall Street Journal.

**(3) e-Government Development Index (EGDI)** (United Nations, 2018) - This index is a United Nations creation and has its roots in the UN General Assembly Resolution 66/288 'The Future We Want'. This strand of the resolution takes an information and communication technology focus and looks at the flow of information between governments and the public and recognizes the power of communication technologies to promote knowledge exchange, technical cooperation and capacity building for sustainable development.

**(4) Global Creativity Index (GCI)** (Florida, R., Mellander, C., King, K.M., 2015) - This is a four-dimensional ranking of countries. It combines individually ranked countries based on creativity, technology, talent and tolerance in the overall score.

**(5) Corruption Perceptions Index (CPI)** (Transparency International, 2018) - This index has been published annually since 1995 by Transparency International.

The relation of NCI with factors may be presented as: NCI = $f$(IDV, IEF, EGDI, GCI, CPI). After testing, the NCI equation was set to : NCI = 0.9785 (MC market x 100)/GDP or MC market = (GDP x NCI) / 97.85. The equation for determining the value of a country's MC market is MC market = GDP x {(IDV/100) x (IEF/100) x EGDI x GCI x (CPI/100)} / 97.85, where MC and GDP is in $m.

**Results & Conclusions:**

The NCI of Countries for ICMCI members were calculated, but NCI factors were not available in all cases and some Index could not be calculated. However, grouping the countries for which calculations have been made, ICMCI obtain the following results:

Hong Kong was missing EGDI eGovernment index and no NCI could be calculated.

eGovernment Index Report 2018/ UN:
https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2018

| No | Country | Hofstede IDV (individualism-collectivism) | IEF Index of Economic Freedom 2018 (Heritage Foundation) | | EGDI eGovernment index (United Nations) 2018 DATA | | GCI Global Creativity Index - 2015 DATA | | CPI Corruptions Perception Index 2018 (Transparency International) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rank | #s | Rank | #s | Rank | #s | Rank | #s |
| | | https://www.hofstede-insights.com/product/compare-countries/ | https://www.heritage.org/index/ | | | | | | https://www.transparency.org/cpi2018 | |
| 1 | Algeria | - | 14 | 44.7 | 133 | 0.4227 | 102 | 0.279 | 105 | 35 |
| 2 | Armenia | - | 20 | 68.7 | 87 | 0.5944 | 103 | 0.269 | 105 | 35 |
| 3 | Australia | 90 | 4 | 80.9 | 2 | 0.9053 | 1 | 0.97 | 13 | 77 |
| 4 | Austria | 55 | 17 | 71.8 | 20 | 0.8301 | 20 | 0.788 | 14 | 76 |
| 5 | Bangladesh | 20 | 29 | 55.1 | 115 | 0.4862 | 95 | 0.316 | 149 | 26 |
| 6 | Brazil | 38 | 27 | 51.4 | 44 | 0.7327 | 29 | 0.667 | 105 | 35 |
| 7 | Bulgaria | 30 | 47 | 68.3 | 47 | 0.7177 | 48 | 0.505 | 77 | 42 |
| 8 | Canada | 80 | 1 | 77.7 | 23 | 0.8258 | 4 | 0.92 | 9 | 81 |
| | Caribbean* | | | | | | | | | |
| 9 | Dominican* Republic | 30 | 18 | 61.6 | 95 | 0.5726 | 78 | 0.38 | 129 | 30 |
| 10 | Jamaica* | 39 | 5 | 69.1 | 118 | 0.4697 | 50 | 0.502 | 70 | 44 |
| 11 | Trinidad and* Tobago | 16 | 22 | 57.7 | 78 | 0.644 | 67 | 0.433 | 78 | 41 |
| 12 | China | 20 | 24 | 57.8 | 65 | 0.6811 | 62 | 0.462 | 87 | 39 |
| 13 | Chinese Taipei (Taiwan) | 17 | 5 | 76.6 | NA | NA | | | 31 | 63 |
| 14 | Croatia | 33 | 39 | 61 | 55 | 0.7018 | 58 | 0.481 | 60 | 48 |
| 15 | Cyprus | - | 24 | 67.8 | 46 | 0.8202 | 66 | 0.446 | 38 | 59 |
| 16 | Finland | 63 | 15 | 74.1 | 1 | 1 | 5 | 0.917 | 3 | 85 |
| 17 | Germany | 67 | 14 | 74.2 | 23 | 0.9213 | 14 | 0.837 | 11 | 80 |
| 18 | Hong Kong | 25 | 1 | 90.2 | NA | NA | 21 | 0.715 | 14 | 76 |
| 19 | Hungary | 80 | 26 | 66.7 | 45 | 0.7265 | 28 | 0.673 | 64 | 46 |
| 20 | India | 48 | 30 | 54.5 | 96 | 0.5669 | 99 | 0.292 | 78 | 41 |
| 21 | Iran | 41 | 13 | 50.9 | 86 | 0.6083 | 57 | 0.481 | 138 | 28 |
| 22 | Ireland | 70 | 2 | 80.4 | 22 | 0.8287 | 13 | 0.845 | 18 | 73 |
| 23 | Israel | 54 | 3 | 72.2 | 31 | 0.7998 | 30 | 0.665 | 34 | 61 |
| 24 | Italy | 76 | 36 | 62.5 | 24 | 0.8209 | 21 | 0.715 | 53 | 52 |
| 25 | Japan | 46 | 8 | 72.3 | 10 | 0.8783 | 24 | 0.708 | 18 | 73 |
| 26 | Jordan | 30 | 5 | 64.9 | 98 | 0.5575 | 78 | 0.38 | 58 | 49 |
| 27 | Kazakhstan | 69 | 11 | 69.1 | 39 | 0.7597 | 84 | 0.357 | 124 | 31 |
| 28 | South Korea | 18 | 27 | 73.8 | 3 | 0.901 | 31 | 0.66 | 45 | 57 |
| 29 | Kosovo | - | 27 | 66.6 | NA | NA | NA | NA | 93 | 37 |
| 30 | Lebanon | 40 | 12 | 53.2 | 99 | 0.553 | 94 | 0.317 | 138 | 28 |
| 31 | Lithuania | 60 | 11 | 75.3 | 40 | 0.7534 | 51 | 0.49 | 38 | 59 |
| 32 | North Macedonia | - | 18 | 71.3 | 79 | 0.6312 | 74 | 0.391 | 93 | 37 |
| 33 | Mongolia | 71 | 27 | 55.7 | 92 | 0.5824 | 81 | 0.37 | 93 | 37 |
| 34 | Netherlands | 80 | 10 | 76.2 | 4 | 0.9888 | 10 | 0.889 | 8 | 82 |
| 35 | New Zealand | 79 | 3 | 84.2 | 5 | 0.9831 | 3 | 0.949 | 2 | 87 |
| 36 | Nigeria | 30 | 12 | 58.5 | 117 | 0.4831 | NA | NA | 144 | 27 |
| 37 | Philippines | 32 | 13 | 65 | 75 | 0.6461 | 52 | 0.487 | 99 | 36 |

| NCI | Average NCI | GDP - Mil $ | Population | Average per capita GDP US$/ capita |
|---|---|---|---|---|
| 0.3-0.55 | 0.45 | 33,151,059 | 585,157,597 | 56,653 |
| 0.1-0.3 | 0.16 | 8,785,588 | 225,595,522 | 38,944 |
| <0.1 | 0.03 | 23,471,279 | 3,739,882,445 | 6,276 |

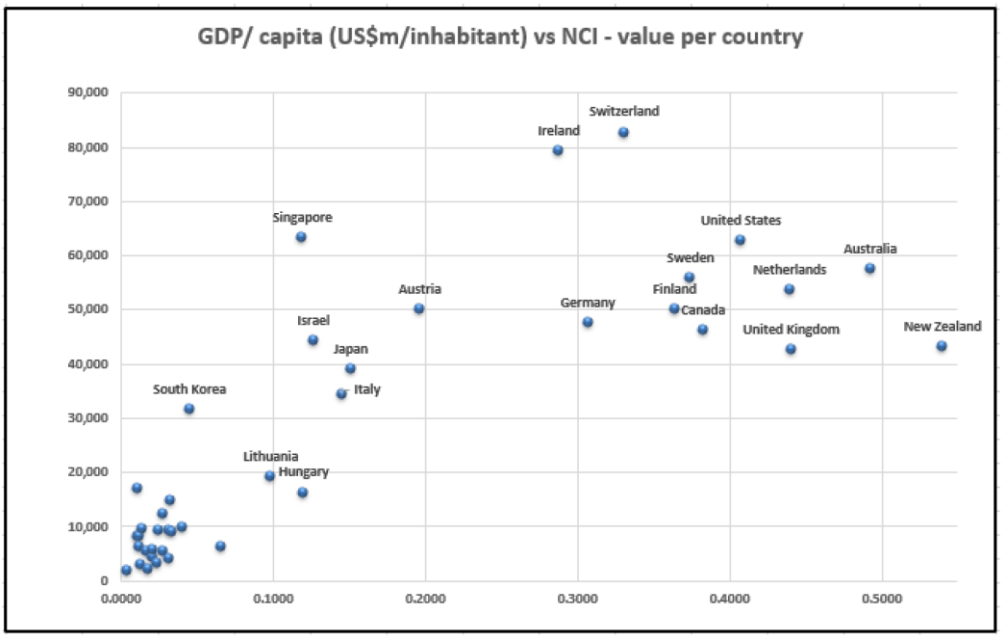
It is obvious that the level of the index is influenced by a number of factors which are not related to the size of the economy or country, such as politics, culture, historical heritage, but it is obvious that an index higher than 0.1 may be a good target to follow and our vision, as ICMCI, to be a leader in the development of management consulting as a global profession that drives social and economic success, is looking in the same direction.

**List of countries in GDP, Population, and NCI**

| No | Country | GDP (2018) US $m | Population (m) 2018 | National Consulting Index |
|---|---|---|---|---|
| 28 | South Korea | 1,619,424 | 51,171,706 | 0.0450 |
| 29 | Kosovo | 7,939 | 1,845,000 | |
| 30 | Lebanon | 56,639 | 6,859,408 | 0.0104 |
| 31 | Lithuania | 53,429 | 2,801,264 | 0.0984 |
| 32 | North Macedonia | 12,672 | 2,082,957 | |
| 33 | Mongolia | 13,067 | 3,170,216 | 0.0315 |
| 34 | Netherlands | 913,658 | 17,059,560 | 0.4394 |
| 35 | New Zealand | 204,924 | 4,743,131 | 0.5399 |
| 36 | Nigeria | 397,270 | 195,874,683 | |
| 37 | Philippines | 330,910 | 106,651,394 | 0.0236 |
| 38 | Romania | 239,553 | 19,506,114 | 0.0277 |
| 39 | Russia | 1,657,555 | 145,734,038 | |
| 40 | Serbia | 50,597 | 6,957,754 | 0.0211 |
| 41 | Singapore | 364,157 | 5,757,499 | 0.1192 |
| 42 | South Africa | 368,289 | 57,792,518 | 0.0657 |
| 43 | Sweden | 556,086 | 9,971,638 | 0.3742 |
| 44 | Switzerland | 705,140 | 8,525,611 | 0.3307 |
| 45 | Thailand | 504,993 | 81,800,188 | 0.0115 |
| 46 | Turkey | 771,350 | 82,340,088 | 0.0246 |
| 47 | Ukraine | 130,832 | 44,246,156 | 0.0133 |
| 48 | United Kingdom | 2,855,297 | 67,141,684 | 0.4403 |
| 49 | United States | 20,544,343 | 327,096,265 | 0.4074 |
| 50 | Zimbabwe | 31,001 | 14,438,802 | |

| No | Country | GDP (2018) US $m | Population (m) 2018 | National Consulting Index |
|---|---|---|---|---|
| | | https://data.worldbank.org/indicator/NY.GDP.MKTP.CD | https://en.wikipedia.org/wiki/List_of_countries_by_population_(United_Nations) | |
| 1 | Algeria | 173,758 | 42,228,408 | |
| 2 | Armenia | 12,433 | 2,951,745 | |
| 3 | Australia | 1,433,904 | 24,898,152 | 0.4923 |
| 4 | Austria | 455,286 | 9,100,835 | 0.1963 |
| 5 | Bangladesh | 274,025 | 161,376,708 | 0.0044 |
| 6 | Brazil | 1,868,626 | 209,469,323 | 0.0334 |
| 7 | Bulgaria | 65,133 | 7,051,608 | 0.0312 |
| 8 | Canada | 1,713,342 | 37,074,562 | 0.3825 |
| | Caribbean* | | | |
| 9 | Dominican Republic | 85,555 | 10,627,141 | 0.0121 |
| 10 | Jamaica | 15,714 | 2,934,847 | 0.0280 |
| 11 | Trinidad and Tobago | 23,808 | 1,389,843 | 0.0106 |
| 12 | China | 13,608,152 | 1,427,647,786 | 0.0142 |
| 13 | Chinese Taipei (Taiwan) | | 23,726,460 | |
| 14 | Croatia | 60,972 | 4,156,405 | 0.0326 |
| 15 | Cyprus | 24,962 | 1,170,125 | |
| 16 | Finland | 276,743 | 5,522,576 | 0.3639 |
| 17 | Germany | 3,947,620 | 83,124,418 | 0.3067 |
| 18 | Hong Kong | 362,682 | 7,371,730 | |
| 19 | Hungary | 157,883 | 9,707,499 | 0.1200 |
| 20 | India | 2,718,732 | 1,352,642,280 | 0.0178 |
| 21 | Iran | 454,013 | 81,800,188 | 0.0171 |
| 22 | Ireland | 382,487 | 4,818,690 | 0.2877 |
| 23 | Israel | 370,588 | 8,381,516 | 0.1265 |
| 24 | Italy | 2,083,864 | 60,627,291 | 0.1450 |
| 25 | Japan | 4,971,323 | 127,202,192 | 0.1510 |
| 26 | Jordan | 42,231 | 9,965,318 | 0.0202 |
| 27 | Kazakhstan | 179,340 | 18,319,618 | 0.0401 |

**The NCI and GDP/capita index distribution for countries:**




Now it is the role for each national institute to understand and use the NCI tool, in relationship with the business environment, policy makers and general users, in order to support further development of our profession for the full benefit of economy and society.

https://www.cmc-global.org/content/nci-data-reports

**ICMCI**

**The International Council of Management Consulting Institutes** (ICMCI) has since 1987 been the professional body worldwide for management consultants. ICMCI since 2013 is called **CMC-Global.**

CMC-Global (ICMCI) is the international Management Consulting professional body, comprised of individual country-based, member, Institutes of Management Consulting (IMCs). ICMCI works with many industry leaders, with academia, with consulting firms of all shapes and sizes, and have built a common standard for the individual certification of professional management consultants.

When you join a member IMC, you are also joining a global community of trusted, ethical, and committed colleagues. When you become a "Certified Management Consultant" (CMC) through IMCHK, you have shown that you have the knowledge, competence, commitment and peer acceptance, that you are a true professional.

# The CMC Designation (Worldwide Recognition)

CMC CERTIFIED MANAGEMENT CONSULTANT

The Certified Management Consultant (CMC) designation is the consulting profession's preeminent certification, recognized internationally in over 49 countries. It represents a commitment to the highest standards of consulting and adherence to the Profession's ethical guidelines.

## CMC Areas of Competency

Each CMC must learn and demonstrate competency across a broad professional body of knowledge, including:

- Six functional areas of organizational management: Human Resources, Strategic Planning, Finance, Operations, Information Technology, and Marketing;
- The management consulting process;
- Leading and supporting change;
- Ethical consulting practices;
- Project management and client communications; and
- Professional and interpersonal skills.

A CMC must also demonstrate commitment to, experience in, and compliance with the Uniform Code of Professional Conduct, including:

- Legal, representational, and public protection practice;
- Knowledge and expertise advancement, self discipline, and professionalism;
- Responsibility to and for others;
- Image and compliance; and
- Responsibilities to the client, such as business development, competence, informed client guidelines, fee arrangements, conflict resolution, confidentiality, and objectivity.

The CMC designation and its related standards have been developed over many years, with revision occurring in 2013 to: (i) bring order to a range of material; (ii) ensure that the scope and wording were consistent with current international standards, where applicable; and (iii) add materials to assist institutes in maintaining standards. This revision process was conducted by expert consultants and reviewed by both the Professional Standards and Quality Assurance committees of CMC-Global. Additional information is available on the CMC-Global website.

## CMC Qualification Process

The Certified Management Consultant qualification process rigorously assesses candidates to meet standards in various areas, including:

- **Knowledge**: of business organization, functional specialization, market sectors, and the broader environment;
- **Skills**: including interpersonal, management, and analytical abilities;
- **Competence**: in terms of providing a complete and appropriately delivered consulting process; and
- **Integrity**: adherence to a defined code of conduct and professional ethics.

No other qualification encompasses this broad range of skills and experience for management consultants. A copy of the CMC competence framework can be found in CMC-Global or IMCHK Website.

As a competence-based designation, all CMC's are required to undertake a program of continuing professional development or education activities.

**IMCHK Council Members** (2021 ~ 2022)

**President:**
Mr. Daniel Chan

**Vice President:**
Mr. Philip Wai

**Honorary Secretary:**
Dr. Samson Ma

**Honorary Treasurer:**
Ms. Ridy Suen

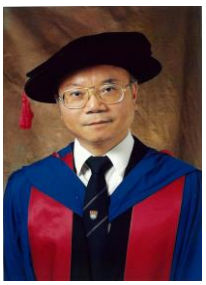
**Council Members:**
Mr. Alvin Wong
Mr. Antony Yip,
Mr. Share Tai Ki
Mr. Amana Wong
Mr. John Lai
Ms. Ada Wong

## Coming CPD Training

### Management Consultancy & Further Development in Higher Education (Zoom)

9 Oct 2021 9:30-11:30 (Series of CPD Training on CMC Qualification Enrichment)


To become a professional management consultant, six areas have to be developed and assessed: Professional Certification (CMC), Professional Conducts, Consulting Knowledge & Skills, Consulting Study Methodologies, Consulting Competence & Experience as well as Education & Professional Qualification. Holding a bachelor degree is the basic requirement of Certified Management Consultant (CMC), but holding a higher degree in education is very important for further developing their career in management consulting. IMCHK is the Hong Kong Chapter of CMC-Global and has the role to encourage IMCHK members to further develop their education and career of management consulting. As senior members and IMCHK Fellows, Dr. Wong and Dr. Ma would like to share their experiences and suggestions on the study of higher degrees for management consulting. *e.g. How to plan and prepare higher degrees study such as MSc, MBA, PhD and DBA in the career development of management consulting.* A two-hour sharing session (via Zoom) is planned for 9 Oct 2021 (9:30 ~ 11:30 a.m.)



Speaker: Dr. C Y Wong

Guest: Dr. Samson C W Ma

**Institute of Management Consultants Hong Kong**
**Visit to IMCHK's website at** www.imchk.com.hk