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Hong Kong Public Administration Association

E-mail fongpeter@netvigator.com

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Introduction

Public Administration and Policy (PAP) – An Asia-Pacific Journal has progressed smoothly from printed version to e-version over the past seven years. In 2018, *PAP* makes a significant step forward to be published online on the Emerald Insight Platform with open access and global dissemination. We hope this will widen the journal's readership and citations of our authors' articles. During this seven-year period, we have published articles on various aspects of public administration and management as well as special issues on "health policies" and "tertiary education" (Fong, 2017). We plan to publish some more special issues in the next two years.

Public sector reforms and new public management triggered widespread changes in many public organisations as well as narrowed the gap in management practices between the public and private sectors in the last three decades. Organisational change is a fundamental theme in many public sector workplaces (Brunetto and Teo, 2018). However, implementing effective change is by no means easy. A lot of public sector organisations have experienced more failure than success.

Researchers have debated the dilemma of top-down/bottom-up approaches of change management for years. There is a need for better understanding of the depth and breadth of successful organisational change (Saetren, 2014). There are many complicated problems that require government actions and greater public and private sector collaborations. There is also a need to change governments focus on organisational structure and function to enhance employee motivations and provide incentives for public service delivery. Under these circumstances, it might be useful to widen the learning and borrow successful experiences from private sector organisations. In this issue, we include two case studies from the private sector, particularly, the successful change of culture in the Hong Kong Broadband Network. It is hoped that their experiences in overcoming resistance to change and achieve corporate strategic goals can shed some lights for managing change in public sector organisations.

This issue begins with Raymond Saner, Lichia Yiu and Laurel Rush's article on the measuring and monitoring of human trafficking. Franky Choi then discusses how to establish a good government. The third article is by Yee-man Tsui and Ben Fong on waiting time in public hospitals in Hong Kong. The last two papers are on the private organisations. Adrian Low and Rollin McCraty present their research results on the dynamics of workplace stress of employees in a large organisation in Hong Kong. The final paper by Earnest Li is a case study of the critical success factors for organisational change of the Hong Kong Broadband Network. The following is a brief highlight of the papers in this issue.

Summary of articles

The first article is "The measuring and monitoring of human trafficking" by Raymond Saner, Lichia Yiu and Laurel Rush. This article discusses the difficulty of measuring and monitoring of human trafficking within the context of the 2030 Agenda and its Sustainable Development Goals (SDGs). The challenges that come with monitoring an invisible crime



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such as human trafficking within the SDG context are due to the fact that the indicators pertaining to human trafficking fall into the category of “difficult to define and collect” type of data. The paper sheds light on these measuring difficulties and makes recommendations on how to overcome them. It brings to the attention of the international community that the current SDG indicators are inadequate for measuring human trafficking and need to be urgently improved. The study of human trafficking is put in the context of the SDGs and proposes seven action points to create inter-sectoral linkages and better data collection to gain a fuller picture on human trafficking.

The second article is “How to establish a good government? Lessons from Lee Kuan Yew in Singapore and Deng Xiaoping in China” by Franky Choi. He explains how to establish a good but authoritarian government in the East. Dr Choi argues that it requires more than the western-style democracy and adopting universal suffrage to reach the ultimate goal of good governance in the East. Promoting socio-economic renovation can be seen as a prerequisite to have further meaningful political advancement in an Asian polity. He found that both Lee Kuan Yew and Deng Xiaoping have contributed significantly to the success of the governance of Singapore and China. Authoritarianism to them was quite positive to help legitimise their governance.

The third article is “Waiting time in public hospitals: case study of total joint replacement (TJR) in Hong Kong” by Yee-man Tsui and Ben Fong. The authors review the causes of long waiting time in Hong Kong public hospitals and suggest solutions in the service, organisation, systems, financial and policy perspectives to solve the problem. They found that the average waiting time of semi-urgent and non-urgent patients in the accident and emergency departments of public hospitals is 2 hours, and that of specialist outpatient clinics is from 1 to 144 weeks. However, for TJR, it is much longer from 36 to 110 months. They recommend measures like government subsidisation programme for the replacement surgery and employing adequate physiotherapists, Chinese Medicine practitioners, clinical psychologists and nurses to reduce the waiting time. The over-reliance of public services has resulted in long waiting time in public hospitals in Hong Kong, particularly in the emergency services and specialist outpatient clinics. However, the consequences of long waiting period for surgical operations, though much less discussed by the media and public, can be potentially detrimental to the patients and families, and may result in more burdens to the already stretched public hospitals.

The fourth article is “Emerging dynamics of workplace stress of employees in a large organization in Hong Kong” by Adrian Low and Rollin McCraty. They found that research on workplace stress measurements varied without much accuracy and effectiveness. In their study, they introduced a new quantitative assessment tool emWave Pro Plus and compared the heart rate variability (HRV) results with the personal and organisational quality assessment and the perceived stress scale. Their study found significant positive correlations between emotional stress and HRV and between intention to quit and HRV. They have to make sense of the following surprising findings: the higher the emotional stress an employee faces, the healthier they are; healthier employees may have higher intentions of quitting their jobs. These results may be attributed to personality, culture, emotional regulation and age among others. This research validates quantifiable stress measurements especially in a corporate environment. The research also shows promising results and future studies should continue to tap into HRV as an objective measure of mental health and workplace stress in both private and public organisations.

The final article is “A case study of the critical success factors for organisational change of a public listed corporation: Hong Kong Broadband Network (HKBN)” by Earnest Li. He explains how an organisation can achieve successful change implementation with Kotter’s eight-step organisational change model and 3-H (heart-head-hand) theory. To create a talent culture, HKBN implemented two policies including mini-CEO

management and talent engagement department). The former is a vertical management model to empower and enable department heads. The latter is a way to change the role of human resources department from passive to proactive. The implications of this case study are to encourage public and private organisations to rethink the factors including talent development and empowerment that can have positive impact on innovative work behaviour. Moreover, organisations can rediscover the value of a “unique” talent culture as a sustainable competitive advantage.

I wish to thank the authors for contributing their papers to this issue and the reviewers for their critical but constructive comments in helping authors to improve their papers. Finally, I thank Emerald and our editorial team as well as the international advisors for making this issue of *PAP* published on time with high quality. I welcome all academic scholars and students, public administration practitioners, business executives and professionals to contribute papers to this journal.

Peter K.W. Fong

Editor-in-Chief, PAP Journal

President, Hong Kong Public Administration Association

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About the Editor

Peter K.W. Fong, PhD (New York University), is the President of Hong Kong Public Administration Association and Editor-in-Chief of *Public Administration and Policy – An Asia-Pacific Journal*; Managing Director of Peter Fong & Associates Ltd and Director of Go Fun Card Ltd He also holds advisory and visiting Professorships in several Mainland China universities, namely Tsinghua, Renmin, Tongji, and Tianjin Universities. He is Registered Professional Planner in Hong Kong and Australia. He was formerly Fellow of Judge Business School, University of Cambridge; Director of EMBA and Executive Programmes, HKU Business School; Associate Professor, Department of Urban Planning and Urban Design, HKU; Professor, Hong Kong Chu Hai College; Executive Vice President and Professor of City University of Macau (formerly AIOU); Studies Director of the Civil Service Training & Development Institute of the HKSAR Government; Visiting Scholar at MIT; and Consultant of the World Bank and Delta Asia Bank and Financial Group. Peter K.W. Fong can be contacted at: fongpeter@netvigator.com

The measuring and monitoring of human trafficking

Raymond Saner, Lichia Yiu and Laurel Rush
CSEND, Geneva, Switzerland

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Abstract

Purpose – The purpose of this paper is to discuss the difficulty of measuring and monitoring of human trafficking within the context of the 2030 Agenda and its Sustainable Development Goals (SDGs). The challenges that come with monitoring an invisible crime such as human trafficking within the SDG context are due to the fact that the indicators pertaining to human trafficking fall into the category of “difficult to define and collect” type of data. This paper sheds light on these measuring difficulties and makes recommendations how to overcome them.

Design/methodology/approach – The methodology used is a policy analysis drawing on secondary literature and surveys and interviews with victims of human trafficking reported in publicly available documents. Comparative analysis also draws on laws and institutional agreements and treaties on human trafficking developed by governments, international organizations and regional organizations.

Findings – The different ways that have been proposed to collect and analyze data on trafficking victims highlight the complications of monitoring trafficking in both national and global contexts in situations where human rights violation and crime are situated at the nexus of the poverty, injustice, development and weak institutions. The paper brings to the attention of the international community that the current SDG indicators are inadequate for measuring human trafficking and need to be urgently improved.

Originality/value – This paper makes new contributions to the study of human trafficking in the context of the SDGs and proposes seven points of future action in order to create intersectoral linkages and better data collection in order to gain a fuller picture on human trafficking.

Keywords Measurement, Regulations, Human trafficking, Monitoring, SDGs, SDG indicators

Paper type Research paper

The context – SDGs and its transformative agenda

In September 2015, as a follow-up to its Millennium Development Goals (2000), the United Nations General Assembly adopted Resolution 70/1, titled “Transforming our world: the 2030 Agenda for Sustainable Development.” Resolution 70/1 introduced the 17 Sustainable Development Goals (SDGs), created with the aim to “end poverty, protect the planet, and ensure prosperity for all” (Sustainable development goals – United Nations, 2017). The 17 goals encompass all aspects of sustainable development, including ending poverty and hunger, ensuring quality education and gender equality, reducing inequalities and ensuring sustainable business practices and taking care of the environment (Yiu and Saner, 2014).

In particular, the 2015 Resolution 70/1 clearly stated in paragraph 27 that:

We will eradicate forced labour and *human trafficking* and end child labour in all its forms. (p. 8, italic added)

This determination was subsequently translated into SDG Target 8.7, i.e., “Take immediate and effective measures to eradicate forced labour, end modern slavery and *human trafficking* and secure the prohibition and elimination of the worst forms of child labour,



including recruitment and use of child soldiers, and by 2025 end child labour in all its forms” (p. 20, *italic added*).

To measure progress in implementation toward achieving the 2030 Agenda, a global indicator framework was developed by the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs). As a practical starting point, this global indicator framework was subsequently agreed by members at the 47th session of the UN Statistical Commission held in March 2016. The 2016 Report of the Commission, which included the global indicator framework, was then taken note of by ECOSOC at its 70th session in June 2016.

A total number of 230 indicators were identified by the IAEG-SDGs and formed an integral part of the SDGs for monitoring purpose. Referring to the prior experience of MDGs (2000-1015), this global framework of indicators could be used to accelerate the transformation process of the 2030 Agenda at the global, national and community levels. A review of the SDGs would shed light on where and how to kick off the change intervention.

Human trafficking and its place in the SDGs and its Genesis

Defining human trafficking (also known as trafficking in persons (TIP)) has been a legally complex task, and in most circles, multiple definitions and conceptions exist. For the purpose of this paper, we will be using the general definition provided by the United Nations Office of Drugs and Crime in its 2016 Global Report on Trafficking in Persons, which is adapted from the United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children and outlines three components (United Nations Office on Drugs and Crime, 2016, p. 14):

- (1) the ACT of recruiting, transporting, transferring, harboring or receiving a person;
- (2) by MEANS of, e.g., coercion, deception or abuse of vulnerability; and
- (3) for the PURPOSE of exploitation.

Human trafficking therefore includes, but is not limited to: forced labor, forced marriage and forced begging; the removal of organs; child soldiers; the selling of children; and sexual exploitation. Though these practices generally have their own national and international legal definitions, the definition for trafficking is generally broader and can be applied in more circumstances. For example, while forced labor requires coercion or threat of punishment, victims can be considered to have been trafficked through the use of other means, such as abuse of power or position of vulnerability (United Nations Office on Drugs and Crime, 2016, p. 16). In addition, due to the UN Trafficking in Persons Protocol, States parties have other obligations to victims of trafficking, such as providing for their physical safety and privacy, and giving access to remedies (UNODC, 2000: Articles 6–8). Thus, TIP will be used in this broader context to assure victims of all its variant forms are adequately represented.

It is important to note that while the definition of trafficking does not require moving victims out of the country; however, most detected cases involve more than one country, and 57 percent of the detected victims reported to the UNODC from 2012 to 2014 crossed at least one international border (United Nations Office on Drugs and Crime, 2016, p. 41). A clear link can be observed between illegal migrations and trafficking. In these times of increased mobility and global connectivity, we must keep in mind the systemic vulnerabilities and risks. Human trafficking has always existed, but now well-established illegal migration flows and routes, as well as the vulnerable situations of most migrants, make trafficking and exploitation more widespread. From 2012 to 2014, UNODC reports that 63,251 victims were detected in 106 countries (United Nations Office on Drugs and Crime, 2016, p. 23). However, many countries declined to report data, some of which, like the Gulf States, are known to have high levels of human trafficking. This report also only covers detected victims.

The ILO's Global Estimates of Modern Slavery report estimates that there are currently 25m victims of forced labor (including sexual exploitation) and 15m victims of forced marriage worldwide (International Labour Organization, 2017a, p. 5).

As observed above, TIP is not a new phenomenon, but it is a new crime, in the sense that it has only gained global attention in the past 20–30 years, and in many places, it has only recently been legislated against. UNODC notes that in 2003 only 33 countries had national legislation concerning trafficking, while in 2016 that number had risen to 158 (United Nations Office on Drugs and Crime, 2016, p. 12). The most important international development on the legal status of human trafficking came in 2000 when the United Nations General Assembly adopted the “Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children” (also often referred to as the Palermo Protocol). The protocol created the international legal definition of TIP and outlines provisions for the protection of victims and the prosecution of perpetrators, as well as the obligation of States parties to introduce national trafficking legislation. The protocol entered into effect in December 2003 after receiving the required 40 ratifications, and to date, 192 countries are parties to the protocol.

The main mechanism for enforcing the protocol would be through the International Court of Justice for states to bring claims against other states. There could also be a possibility for individuals to bring claims against states in regional human rights courts, but there is no legal basis for that in the protocol itself, meaning that the most vulnerable parties in the case of TIP often do not have a legal vehicle to enforce the protocol in cases in which the state is responsible for trafficking. In addition, many countries have made reservations on paragraph 2 of Article 15 of the protocol by exercising the flexibility provided by paragraph 3. They are as follows:

Any dispute between two or more States Parties concerning the interpretation or application of this Protocol that cannot be settled through negotiation within a reasonable time shall, at the request of one of those States Parties, be submitted to arbitration. If, six months after the date of the request for arbitration, those States Parties are unable to agree on the organization of the arbitration, any one of those States Parties may refer the dispute to the International Court of Justice by request in accordance with the Statute of the Court. (Paragraph 2, Article 15, Palermo Protocol, 2000, p. 7)

Each State Party may, at the time of signature, ratification, acceptance or approval of or accession to this Protocol, declare that it does not consider itself bound by paragraph 2 of this article. The other States Parties shall not be bound by paragraph 2 of this article with respect to any State Party that has made such a reservation. (Paragraph 3, Article 15, Palermo Protocol, 2000, p. 8)

This opt-out clause provided the leeway for the states to abdicate their responsibility in remedying this severe human rights violation and thus reduce the enforceability of this protocol and create loopholes in eradicating this crime. Some of the major sending and receiving countries of human trafficking registered their reservations on the potential censure of an international judiciary body.

In addition to being a significant issue in the field of human rights, human trafficking also has major implications in the realm of development. While many developed countries have large populations of trafficked persons, the majority of victims come from developing or least developed countries. Poverty and lack of opportunity in their places of origin are key “push factors” that motivate migration and leave people vulnerable to exploitation. The protocol recognizes the connection between vulnerability and TIP and encourages states to reduce these “push factors” that can lead to exploitation (Challenges in Protecting Vulnerable Populations, 2016). Human trafficking and the vulnerability of populations to exploitation could thus be considered as symptoms of underdevelopment.

This was recognized by the United Nations in drafting the SDGs. Human trafficking is mentioned in the targets for Goal 5, Gender Equality; Goal 8, Decent Work and Economic Growth; and Goal 16, Peace, Justice and Strong Institutions.

However, despite that place of prominence, there is only one indicator to measure progress on human trafficking in the context of sustainable development. Indicator 16.2.2 reads:

The number of victims of *human trafficking* per 100,000 population, by sex, age and form of exploitation. (Italic added)

Indicator 16.2.2 is classified as a tier II indicator by the United Nations (Tier Classification for Global SDG Indicators, 2017). The clear emphasis on providing disaggregated data for the indicator is promising, and this is one of many indicators that can be more easily translated to the monitoring process, but it is disappointing that despite being specifically mentioned in the targets for three of the SDGs, human trafficking (Table I) only has one indicator dedicated to tracking its progress. In addition, the complex and highly international nature of the crime makes it very difficult to collect accurate data for the above-mentioned indicator.

Challenges involved in monitoring human tracking and its indicator

Inadequate data

The difficulty in collecting data on human trafficking was recognized in the metadata description of indicator 16.2.2. It states that the “numerator of this indicator is composed of two parts: detected and undetected victims of trafficking in persons” (Metadata 16.2.2, 2017). Currently, the data on detected victims are reported by countries to the UNODC through an annual questionnaire submitted to the agency in Vienna (United Nations Office on Drugs and Crime, 2017, Annex I). However, the data for many countries are incomplete: for example, some of the countries that are not party to the trafficking protocol do not report victims of all the types of trafficking that the protocol defines. Additionally, in the annexes of UNODC’s Global Report for 2016, the organization notes that many countries did not submit completely disaggregated data, often not including any other information besides age and sex – and sometimes not even those (United Nations Office on Drugs and Crime, 2017, Annex I).

What is sound about indicator 16.2.2 is that it basically requires “continuous data collection,” and at the minimum of “up-to-date record-keeping.” However, by far the most challenging aspect of monitoring data on human trafficking is the number of undetected victims. Currently, the metadata for indicator 16.2.2 notes that “methodology to estimate the number of undetected victims is currently underdevelopment: some methods have been identified, but further testing is needed to produce a consolidated and agreed

Goal	Target	Indicator
5: Gender Equality	5.2: “Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation”	None specified for the portion related to trafficking
8: Decent Work and Economic Growth	8.7: “Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2,025 end child labour in all its forms”	None specified for the portion related to trafficking
16: Peace, Justice, and Strong Institutions	16.2: “End abuse, exploitation, trafficking and all forms of violence against and torture of children”	16.2.2: “The number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation”

Table I.
Current noteworthy
monitoring practices

upon approach” (SDG Indicators – SDG Indicators Metadata, 2017). Extrapolating from existing data about detected victims is not statistically valid for a number of reasons. First, detection is not dependent upon the number of victims, i.e., there is no direct relationship between existence and detection; just because there is a larger number of victims does not mean there will be a larger number of detected victims – the same is also true for the reverse. Detection levels could vary due to increased or decreased law enforcement capacity or changes in legislation. Second, law enforcement could have a greater capacity to detect victims of a certain type of exploitation; that does not mean that there are more of those types of victims, just that it is easier to detect them. Trying to interpret wider trends from a limited set of data with the number of composite factors that human trafficking has is problematic.

No established or universally accepted methodology

However, it is more problematic that there is no recognized method to estimate the number of undetected victims of trafficking. More than two years into the SDGs agenda, there should be established methods of collecting data for indicators at this point in time if we are serious about achieving the goals. This is an issue across all of the SDGs and their indicators, as evidenced by the tier classification system and the prevalence of tier III indicators. In an ideal world, we would have gone into the 2030 Agenda without any tier III indicators, or indicators with difficult to execute or nonexistent measuring mechanisms. The time taken to develop the indicators means we are losing years of data that could have been used to monitor implementation over a longer period of time. This is especially true for trafficking.

There have been a number of proposed methods to collect data on the undetected victims of TIP (Table II). The International Labour Organization (ILO) report Global Estimates of Modern Slavery, which estimates global levels of forced labor (including sexual exploitation) and forced marriage, details one such method. In compiling the report, they designed 54 surveys and interviewed more than 71,000 people in 48 countries about their and their families’ immediate experiences with forced labor and forced marriage (International Labour Organization, 2017a, p. 11). It also used IOM data to aid in its estimate of trafficking for the purposes of sexual exploitation. As detailed in their methodology report, the subjects were selected to be a representation of the civilian, non-institutionalized population over 15 years old. The ILO noted that they interviewed people across the geographic area of the country, in rural and urban situations (International Labour Organization, 2017b, p. 49).

The survey method of the ILO does its job in allowing for a widespread coverage of the world and estimating a general figure. Its emphasis on disaggregated data (it includes age and sex, as well as whether those exploited were in forced labor or forced marriages) is important and a good example to follow when monitoring human trafficking in the future.

Table II.
Current methods of collecting data on victims of trafficking and related offenses

Organization/state	Method	Which data?
International Labour Organization (ILO)	National representative surveys of over 71,000 people	Forced labor and forced marriage, extrapolated based on representative data and disaggregated based on age and sex
United Nations Office on Drugs and Crime (UNODC)	National Reporting	Trafficking, detected victims only
Cruyff, van Dijk and van der Heijden using the Netherlands as example	Multiple Systems Estimation	Capture-recapture to estimate undetected victims of trafficking

However, the method has a number of limitations, some of which are acknowledged by the organization. First, the organization states that it had limited access to the Arab States, where it is believed that there are large amounts of trafficking and forced labor (International Labour Organization, 2017b, p. 79). Thus, it provides an incomplete picture and likely underestimates the final amounts. It also notes that the report is only an estimate of two forms of TIP (International Labour Organization, 2017b, p. 84).

However, the biggest problem for using this survey method to track the implementation of SDG 16.2 through its indicator 16.2.2 is the amount of time and investment required to provide a strong, reasonably accurate estimate. The ILO has only released two other Global Estimates reports, in 2005 and 2012. The data for the 2017 report were collected from 2012 to 2015, and it then took two additional years to process. The SDGs do not have this luxury of time, so we must find an alternative method that allows for reasonably accurate estimates in shorter periods of time, though this could be a possibility for a globally scaled review every five years.

Another method that is currently under consideration is multiple systems estimation (MSE). The idea for this mechanism comes from the classic capture-recapture method, which was developed by biologists to measure animal populations in specific areas. As Cruyff, van Dijk and van der Heijden note, the “quintessential concept” for estimating animal populations is credited to Danish Biologist Johannes Petersen. Petersen used a net to catch 100 fish in a lake and then tagged and released them back into the lake. Sometime later, he came back to the lake and used the net to catch another 100 fish. The number of fish that appeared in both samples gives a way to estimate the total number of fish in the lake. If there was a lot of overlap, then there are not much more than 100 fish in the lake. If there are 20 tagged fish in the second net, then one could estimate that there are about 500 fish in the lake, because each fish would have about a one in five chances of being caught (Cruyff *et al.*, 2017).

Since then, this method has been used to estimate the size of hidden human populations by using two different recording systems or lists, such as police records or assistance organizations, to calculate overlap in prostitutes in Oslo, or drug addicts in Scotland (Cruyff *et al.*, 2017). However, this can be problematic because often these lists are not completely independent. The solution proposed is to use multiple lists and recording systems instead of just two to eliminate this error. For example, countries could use data from local law enforcement, border police, NGOs and federal authorities to calculate overlap and from that estimate the number of undetected victims of human trafficking. This is MSE.

The obvious limitation of MSE is that it requires countries to have the capacity to detect and keep reliable records of victims of human trafficking. Many countries do not have one reliable such system of records, let alone multiple. As human trafficking is often a symptom of underdevelopment, it is the countries with the most victims that generally have the least capacity to conduct MSEs. However, for those countries that do keep reliable records across systems, MSE can be an invaluable tool for providing reasonably accurate, disaggregated data (as victims could be sorted by type of exploitation and average age) in a less intensive process.

Corruption and human trafficking

Political leaders may make pronouncements but in reality little is done to measure trafficking and to take enforcement action against those engaged in it. The parallel is corruption when leaders openly make commitments to root it out but little is done, especially when those engaged in corruption are connected to the political leadership.

Corruption should be considered a big obstacle to gaining information as officials responsible for gathering information (and possibly enforcement) may be easily bribed by those responsible for trafficking. Scholars have researched corruption and its links to weak

governance system and detrimental impact on society in general and on human trafficking in particular as analyzed and discussed by Jon Quah (2007, 2013, 2015) a leading expert on corruption and ways to combat corruption.

Focusing on corruption and human trafficking in the employment chains, Barnett (2017) listed the following opportunities of government involvement in the trafficking process, namely:

- bribes to reveal or sell information on victims;
- provision of forged documentation on labor brokers (identity papers, visas and work permits);
- bribes to accept forged documentation or documentation purchased from the black market; and
- bribes to border-crossing officials during transportation.

Research results on corruption and human trafficking have been made available by Transparency International and OECD. The publication by Transparency International (2011) is entitled “Breaking the Chain: Corruption and Human Trafficking” discusses the main forms of human trafficking ranging from prostitution, debt bondage, forced or bonded labor and contractual servitude while the OECD (2016) publication titled “Trafficking in Persons and Corruption: Breaking the Chain” offers a set of guiding principles on how to combat corruption related to TIP.

Governments are also making important efforts to detect and deter traffickers. For instance, the Singaporean Government created a taskforce which aims to develop a holistic perspective on the TIP situation and implements Whole-of-Government strategies to combat TIP (2012).

In regard to measuring corruption and human trafficking, the US Department of State’s Office monitors and combats TIP and publishes regional maps using a tier system to rank countries according to their actions against human trafficking. Countries are evaluated according to a tiers system consisting of the following criteria.

Tier 1. Countries whose governments fully meet the Trafficking Victims Protection Act’s (TVPA) minimum standards.

Tier 2. Countries whose governments do not fully meet the TVPA’s minimum standards, but are making significant efforts to bring themselves into compliance with those standards.

Tier 2 Watch List. Countries whose governments do not fully meet the TVPA’s minimum standards, but are making significant efforts to bring themselves into compliance with those standards and:

- (1) the absolute number of victims of severe forms of trafficking is very significant or is significantly increasing;
- (2) there is a failure to provide evidence of increasing efforts to combat severe forms of TIP from the previous year; and
- (3) the determination that a country is making significant efforts to bring itself into compliance with minimum standards was based on commitments by the country to take additional future steps over the next year.

Tier 3. Countries whose governments do not fully meet the minimum standards and are not making significant efforts to do so.

Some countries have taken a further step and created convention to regulate TIP at a regional level such as the Association of Southeast Asian Nations (ASEAN, 2015).

Participation in combatting TIP also includes private sector organizations such as banks and commercial associations. A very innovative and meaningful example originated in the Netherlands.

Maria van Dijk, Head of Environmental, Social and Ethical Risk and Policy at ABN AMRO bank in the Netherlands, has also devised an innovative way for banks and the financial sector to participate in the detection of victims and the eradication of trafficking. She notes that “The truth of the matter, though, is that human trafficking is all about making lots and lots of money. And that’s where banks come in. Once this money finally filters through into the economy, an opportunity exists to identify the traffickers” (van Dijk, 2016). In a blog post for the bank, she identified three major challenges for banks in tracking down human traffickers by following the money: the level of traceability of the funds, online anonymity and banks’ obligation to respect clients’ right to privacy (van Dijk, 2016).

However, she believes that it will take engagement from stakeholders in many key areas to tackle the problem of trafficking. The bank works with agencies like the Dutch Border Police to better understand “which routes are used to reintroduce dirty money into the economy, in which sectors human trafficking is most prevalent and what financial behaviour is commonly associated with it” (van Dijk, 2016). The exchange of information between banks and law enforcement agencies (to the extent it is legal under existing privacy laws) allows for better and faster investigations. In addition, van Dijk (2016) emphasized in her blog post that as they learn more about patterns of money transfer that are typically associated with trafficking, such as “rapid succession of small cash deposits which add up to a large amount,” they can begin to better identify potential traffickers. Adriaan van Dorp, ABN AMRO’s Director of Security and Intelligence Management, noted in the bank’s 2016 Human Rights Report:

Our contribution to the fight against human trafficking includes: (1) raising awareness so our relationship managers and clients can recognize the warning signs and red flags of human trafficking, (2) conducting (supply chain) research together with our sector bankers, external stakeholders and experts to identify misconduct, and (3) improving intelligence sharing based on data analysis and expertise. This does not mean that we simply report an increasing number of suspicious transactions to the authorities. Instead, we use a holistic and targeted approach that has real impact (p. 13).

Integrating many sectors into the fight against human trafficking, particularly sectors that have the power and influence that many banks possess, is critical to raise awareness for the problem and gain a better understanding of the “overall picture of abuses across entire chains” (van Dijk, 2016). At the end of her blog post, van Dijk (2016) correctly highlights that “this is a joint problem, one for which we have a shared responsibility.” Recognizing this is critical to moving forward.

Ways forward

As previously observed, most states do not have the capacity to collect data on all of the SDG indicators at this time. In a world in which states may have to prioritize the targets and indicators they monitor, why should the issue of human trafficking be one of the priorities to place emphasis on? This question is of particular poignancy when one takes into consideration the competing claims on the limited domestic resources and when human trafficking is not heavily focused on throughout the SDGs.

The importance of monitoring TIP is precisely because it receives so little focus, both in the SDGs and in general law enforcement practices. Human trafficking is an “invisible crime” – it is not like homicide or robbery in that it is relatively easy to know when it has occurred. There is no true way to definitively say how many victims of human trafficking there are per 100,000 (as defined in SDG indicator 16.6.2) unless it will be possible to identify sufficient numbers of individual victims to make an informed estimate. It is because of this intangibility that human trafficking deserves much greater attention and calls for innovative ways in monitoring and measuring the occurrences.

Public awareness education and/or campaign

One way to improve the situation is to raise public awareness. Doing so could help law enforcement officers and regular people to understand the wide reach that trafficking has attained and enable the general public and “designated agents” to take better steps in identifying and assisting victims and consequently in preventing it from happening.

Eradicating poverty and underdevelopment for all

In addition, as human trafficking is often a symptom of underdevelopment due to factors that push people to migrate and fall prey to the traffickers, it could work as an important proxy indicator to assess how the unintended impact of underdevelopment affects individuals and their choices. Although it would be hard to make a direct causal link between developments, migration and trafficking based on hard evidence, still this particular malaise reveals the unfinished business of inclusiveness where individuals could thrive in different forms without resorting to exploitation or “slavery.”

Keeping human trafficking on the policy radar requires both political intention and hard evidence. Often this is a major issue confronting the developing countries. Lacking of resources and channels to effectively collect data of the “traditional” Tier 1 indicators is already a challenge, weak institutional capacity would prevent countries to venture into Tier 2 or Tier 3 data collection, human trafficking included. Therefore, new ways of doing things or institutional innovation is imperative in getting actionable information based on sound data for all tiers.

Possible actions proposed

- (1) Making the reporting to UNODC a mandatory exercise.

While MSE could be incredibly useful, contextualization and deployment of this methodology to capture the fuller extent of human trafficking might be out of reach for quite a few countries. However, this is not an excuse for countries to neglect their duty in reporting data on detected victims. In order to facilitate monitoring and bring about a “whole” system solution, countries should be obliged and encouraged to report their disaggregated data on detected victims to UNODC on a monthly basis so the organization can gain continuous insights on the implementation of target 16.2. Countries who do have the necessary capacity to perform MSE or even dual systems estimation should also report that data on a yearly basis (so as to eliminate the possibility for error that comes with shorter time periods):

- (2) Capacity building to enable the states to better integrate dispersed and disconnected data from a multi-sector perspective (nexus approach).

This would require the strengthening of local and federal law enforcement institutions in line with goal 16 in general, through the provision of seminars to help officers to better identify victims of trafficking, and implementing technologies that could be used to create more efficient and accurate records:

- (3) Capacity building to enable citizen engagement in the detecting and reporting of human trafficking victims. Such reporting could be based on the use of traditional methods as well as methods making use of social media and information technology.

It would also necessitate measures to increase awareness of the issue in local populations so states can have greater civil society and NGO interest in trafficking. NGOs will then be able to collect their own data that can be compared to law enforcement data to conduct MSEs. While this capacity building is taking place, there should be a sort of “indicator for the indicator,” or a special indicator adjusted for the practice of monitoring, that details the number of countries that can provide disaggregated data (age, sex and form of exploitation)

and estimations for both detected and undetected victims of trafficking. This also serves as a way to measure how well-equipped states are to identify and assist victims – also another possible indicator for monitoring:

- (4) Deployment of mobile and social technology for data collection and connectivity.

In addition, perhaps the prominence of smartphones even in developing and least developed countries calls for a self-reporting mobile application. Though there would be problems of connectivity, especially if victims cross international borders, it could be a method of calculating state-sponsored or corporate-sponsored victims of human trafficking that usually go unreported. An accessible mobile app would encourage state and corporate responsibility and give victims a way to identify themselves using disaggregated data like age, sex and location. Such an application could take a form similar to that of MicroBenefits' "Company HQ" application, a mobile grievance reporting mechanism that allows employees to report human rights violations in supply chains (Worker Voice – Company IQ, 2017). For any system that is decided upon, it is important that it be accessible to anyone with one click, data on the SDGs are a public good and should be treated as such. We need to go beyond the work that National Statistical Offices do to provide data for citizens that is transparent and easy to understand:

- (5) Institutionalizing a global review mechanism focusing on human trafficking.

In parallel to these processes, there should be a review system similar to the Human Rights Council's Universal Periodic Review in place for states to go into greater detail about their efforts to recognize and reduce human trafficking within and around their borders. The UN SDG High-Level Political Forum and countries' Voluntary National Reviews are not sufficient for two main reasons: the HLPF focuses on only a few of the SDGs each year; and the Voluntary National Reviews are, as the name implies, voluntary. While it is important for countries to actively choose to engage in the Sustainable Development Agenda and it is a good thing that so many countries have chosen to submit VNRs in the past two years, it is equally important that all countries be subject to the same measures, as we need all countries to cooperate in order to achieve the SDGs.

This review mechanism would be an instrument for states to discuss the measures they have taken to combat human trafficking, improve identification capacities and improve capacities for data collection and analysis on national and local levels. Its more detailed nature would allow for other states to ask questions and for states to exchange best practices about how to implement target 16.2. It would also allow for countries that have not yet been able to implement MSEs or that have poor record and data collection systems to elaborate on their progress and the perceived human trafficking situation in their countries. It is important that we do not neglect the review component – we should strengthen it and make it more interactive by also providing opportunities for multi-stakeholder engagement in the issue:

- (6) Creating a one click knowledge platform that gathers all existing databases and knowledge on human trafficking. Such a platform could offer links and be interactive when feasible and appropriate with other institutions such as UNODC, US Government Office to Monitor and Combat Trafficking in Persons, the Singaporean inter-agency taskforce against TIP, the OECD and Transparency International as well as other organizations combatting TIP.
- (7) Engaging non-traditional actors in this space such as the financial and banking sector who indirectly implicated in the money transfer and laundry schemes of the traffickers. A pioneering example involving Dutch private sector banks and financial institutions is described above.
- (8) Through the work of the IAEG-SDGs, it will be also important to make sure indicators associated with the relevant SDG Goals and Targets, e.g., 5.2 and 8.7, are connected to

ensure cross-sector and cross-agency coordination and coherence. Mechanisms such as cross-sector taskforce on human trafficking could mitigate the risk of “falling between gaps” and the silo thinking of respective custodian of each SDG.

- (9) In order to enforce laws and treaties countering human trafficking, it would be very useful and timely to create a specialized anti-human trafficking agency with multi-stakeholder membership consisting for instance of governments demonstrating positive track record of fighting TIP as well as NGOs working in this field. It would be useful to give such an agency an autonomous status to limit blocking or negative interference by governments who are not willing to effectively combat TIP in their countries.

Conclusion

Review is a useful practice because it often allows for deeper engagement, but only if it is transparent, inclusive and participatory. We can use monitoring as a springboard for these characteristics to improve the review practices for the SDGs in general and for human trafficking in particular. Though the SDGs are interrelated, it is not unreasonable to suggest that each goal or target might need its own specific form of monitoring and/or review, beyond what is outlined in Resolution 70/1. This would most likely mean more work for the international community, but the SDGs were not meant to be easy, otherwise, we would have accomplished them already.

Though human trafficking is an invisible crime, it is important that we find ways to monitor it in order to achieve the SDGs. As it is often a symptom of a broader problem of underdevelopment, trafficking levels could be an indication of many other issues related to the SDGs. The importance of collecting accurate and comprehensive data on victims of trafficking must be stressed upon states in order for to achieve meaningful progress on its eradication. A method for estimating the number of undetected victims must also be established and standardized across states and regions to allow for comparison and analysis. This paper suggests that the MSE mechanism would be the most useful and efficient way of doing so, despite its unique requirement for many organizations to keep records of detected trafficking victims.

For those countries that do not have the capacity to conduct these estimations, the international community must engage in capacity building activities to raise awareness of the issue on the regional, national and local levels. Law enforcement officers should be better educated on how to identify and deal with the problem, and local organizations to aid victims should also be established. These efforts will eventually enable states to be able to conduct MSEs. The joint review and reporting process currently being used in the Paris Climate Accord Transparency Framework could also work as a method for the implementation of SDG target 16.2. States, in addition to reporting data and estimations about detected and undetected victims should be subject to review where they can explain and be questioned upon both the data submitted and the practices being undertaken to combat trafficking. In addition, we must continue to push for more comprehensive indicators that are easily measured, particularly for SDG 5 and 8, which both have eliminating trafficking in their targets but have no indicator in place to track its progress.

The first step to tackling trafficking is defining the extent of the problem. In order to address the needs of victims and combat trafficking across the globe, it is imperative to know the facts. Thus, monitoring should be the next step taken toward the implementation of SDG target 16.2 in association with Targets 5.2 and 8.7 in order to facilitate discussion on practices to improve the situation and see the continuous progress of efforts to fight trafficking. Only then will the international community be able to truly address this issue.

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About the authors

Raymond Saner, PhD, is Titular Professor at Basle University (Trade and Development) and teaches at Sciences Po, Paris (Public Affairs) and University of Luneburg, Germany (Environmental Science) and is Reviewer of Research Projects and Partner of Research Consortia. Raymond Saner was member of Expert Groups which drafted scientific contributions to the Sustainable Development Goals (SDGs), moderated a SDG HLPF session under the auspices of ECOSOC, was member of Editing Teams that drafted the Global Sustainable Development Report and acted as Reviewer and Discussant of Public Private Partnership agreements. He is Reviewer of management journals, author of books and scientific journals and served as Officer in professional organizations such as the Academy of Management (Board member of ODC division), Chair of the AoM Advisory Council to Board of Governors and is member of the International Institute of Administrative Sciences in Brussels. Raymond Saner is the corresponding author and can be contacted at: saner@csend.org

Lichia Yiu, EdD (Indiana University), is President of the Centre for Socio-Eco-Nomic Development (CSEND) in Geneva, Switzerland, an NGO with ECOSOC accreditation and special consultative status. She specializes in transformative technology and institutional development and has designed institutional development instruments to enable public administrative reforms in China, Slovenia, Russia and Bolivia. She developed a Learning & Development (L&D) quality management system based on the ISO 10015 Quality Standard for Training and acted as Auditor for the system review in organizations and governments. She was member of the Executive Board of the Management Education and Development Division of the Academy of Management for many years and is Reviewer for the *Journal of Managerial Psychology*. She has published extensively in the academic and professional journals and taught as Visiting Professor at different universities in Taiwan, Switzerland and the USA. More recently, she is working on Sustainable Cities (SDG 11).

Laurel Rush has recently graduated from Boston University where she earned her Bachelor's Degree in International Relations with a minor in French at BU's Pardee School of Global Studies. She is passionate about human rights and international politics, and in her spare time she enjoys learning new languages. She has interned at the US District Court, Prométhée Humanitaire in Paris and most recently at CSEND in Geneva. She is pursuing her Master's Degree in Human Rights and Humanitarian Action at Sciences Po in Paris since Fall 2018.

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How to establish a good government? Lessons from Lee Kuan Yew in Singapore and Deng Xiaoping in China

Franky K.H. Choi

Department of History, The Chinese University of Hong Kong

How to
establish
a good
government?

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Abstract

Purpose – Outside the US and Europe, to establish a good government requires more than Western-style democracy. Adopting universal suffrage fully from the Western model is no longer a panacea to reach the ultimate goal of good governance in the East, i.e., to keep promoting socio-economic renovation can be noted as a prerequisite to have further meaningful political advancement in an Asian polity. The purpose of this paper is to explain how to establish a good but authoritarian government in the East.

Design/methodology/approach – Given the good of comparative historical analysis, Lee Kuan Yew in Singapore and Deng Xiaoping in China are selected as both cases for “method of agreement.” Further including “argument based on the contrary” to form a context for macro-historical analysis, this paper outlines two characteristics of the duo’s authoritarian leadership, namely, Ideologies and Policy-making; and Political Modernization, and hence provides a more balanced reevaluation of their governance.

Findings – Apart from noting how these two Asian giants more or less contributed to their good but authoritarian governments for long in the twentieth century, such a word of authoritarianism to the duo was quite positive to help legitimize their governance, which was far different from many negative views of the Western world.

Originality/value – As theories put forward by Western academics could not entirely justify modernization among Asian societies in the twentieth century, this paper attempts to answer one question: Does the meaning of authoritarianism remain unchanged in the discourse of the East and the West?

Keywords Authoritarianism, China, Governance, Singapore, Political leadership, Ideology, Lee Kuan Yew, Deng Xiaoping, Policy-making, Political modernization

Paper type Research paper

Introduction

From the twentieth century, Asians have increasingly noted that a good government should be better established based on Western-style democracy. To establish a good government in the East, however, requires more than implementing a full version of Western-style democracy. In particular, overemphasizing the usefulness of universal suffrage to help establish a good government in Asia hence should be avoided. Francis Fukuyama (1989), instead of still sticking with his former stance made in *The end of history?* (p. 1), recently adjusted his view and therefore kept explaining that “the existing measures of state quality or capacity have a number of limitations [...] As the concept of good governance is not well-established, different experts may intend different things when responding to the same

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survey questions” (Fukuyama, 2013, p. 349). As political figures embodying the merits of authoritarian leadership, Lee Kuan Yew, the founder of an independent Singapore and Deng Xiaoping, the General Architect of Economic Reform and Open-door Policy in post-Mao China were never recognized as democratic statesmen by Western liberal standards. There is no denying these two political strongmen to be illustrated in this paper were more or less capable, during their tenures to establish good governments considering: policy-outcome benefits; administrative efficiency; and socio-economic advancement as the top priority, instead of heavily stressing an absolute advantage of having check-and-balance inside a government as in the Western world.

Almost no one would question the duo to be prestigious but controversial Asian leaders after the Second World War. As time flies, is not it still necessary to adversely regard authoritarianism following such an Eurocentric definition to be coined in the last century? For instance, Andrew Nathan (1990), a leading scholar in the West, made a negative comment that China under an authoritarian leadership seemed trapped by their own historical root in the 1980s (p. 126). Being the latest and counter response to this, Kishore Mahbubani (2010) praised “the importance of good, strong governance has come back with a vengeance” (p. 208) in the twenty-first century’s Asia. In this, I similarly believe, history would reserve room to let human beings positively ponder authoritarian leadership. Notwithstanding the fact there were some flaws and negative impacts of authoritarian governance, the duo as illustrated in this paper were without questioning considered as exceptional cases of good governance engendered by semi- or non-Western-style democracy. For example, Jon Quah aptly summarized Lee Kuan Yew’s “commitment to the four principles of meritocracy, incorruptibility, rewarding the talented and rule of law is grounded in his belief in the importance of good leadership.” He kept explaining once “applying Richard Samuel’s concept of political leadership, Lee Kuan Yew and his colleagues succeeded in stretching the constraints facing them and transformed Singapore from a Third World Country to First World status by 2000” (Quah, 2015, pp. 386-387). Such an affirmative comment on authoritarian leadership proved that the goal of good governance could still be achieved in Asian nations despite their thoughts and practices of semi- or even non-Western-style democracy; and here is my first reason to write for this topic, i.e., to make a kind of more balanced reevaluation of having authoritarian governance in a polity.

Since the duo have become historical figures from one to another, it is timely to reascertain their achievements, i.e., the room of establishing a good government under authoritarian leadership in the East, but not just focusing on their controversies and errors as overemphasized in the past. This is the second reason to keep motivating me in conducting comparative historical analysis in order to illustrate how and why these two political strongmen and their corresponding historical contexts, as well as their consequent decisions that manifested such a political wisdom of their authoritarian governance, were “politically-incorrect” as usually judged in the Western world. Only after deeper discussion and analysis is conducted by different angles, such as in this paper, the wherefores of both becoming successful authoritarian Asian giants can be better comprehended. Whenever possible, the author hopes to explore possibilities of further engaging socio-economic renovation under a more political enlightening mode of authoritarian governance, i.e., to establish a good government in the East without initiating an overall Westernization, which was long ignored by quite a great number of Western scholars in the twentieth century.

Outlines and contents

Each historical scene is extraordinary and so was every nation. Nonetheless, each political leader shared resemblances with others and so did every political system. In light of this, one, to conduct a comparison in this paper, must accept a supposition: Lee Kuan Yew and

Deng Xiaoping had their distinctive features; yet, there were still similarities between them. Certainly, not all aspects between them can be compared. Given the good of conducting comparative historical analysis (Skocpol, 1979, pp. 33-40) as the research methodology, i.e., to include “method of agreement” for direct comparison of both cases (Lee Kuan Yew in Singapore and Deng Xiaoping in China) in addition to *argumentum a contrario* (“argument based on the contrary”) for macro-historical analysis, the author picks art of authoritarian governance as the central issue and its related two key issues for comparison: Ideologies and Policy-making; and Political Modernization, for the purpose of helping secure power of both authoritarian leaders (Figure 1).

To help better ponder both the historical background and the casual relationship among the above-mentioned central issue and also two key issues to the formation of such a successful authoritarian governance, the rundown of this paper is to combine long-term, together with short-term, historical factors that simultaneously affected the duo’s political behavior, in the purpose of formulating their “die-hard” beliefs on the good of authoritarianism to be an unshakable art of governance while setting up their good governments as time goes by (Figure 2). In terms of long-term historical factors, they could be related to how the research subjects (Lee Kuan Yew and Deng Xiaoping) in specific timeframe (after the Second World War) and specific space (Asia). Long-term historical factors include political, economic and social institutions, which have lasted for hundreds or even thousands of years. Needless to say, long-term historical factors would inevitably affect individuals’ situation, i.e., short term historical factors, and stimulate the unique situational-condition in Singapore and China, which differed from Democracies in the West. By the end of this paper, the author hopes to explore if there is room to practically establish a good but authoritarian government in the East.

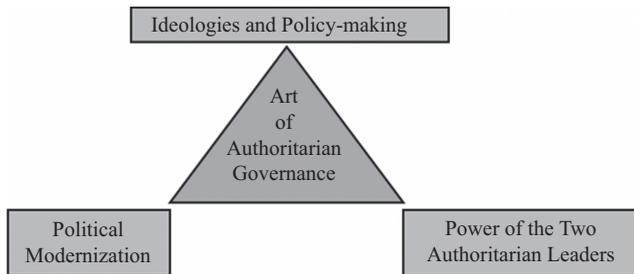


Figure 1.
Interlocking
relationship of the
three main
components as Lee
Kuan Yew's and Deng
Xiaoping's
authoritarian
governance

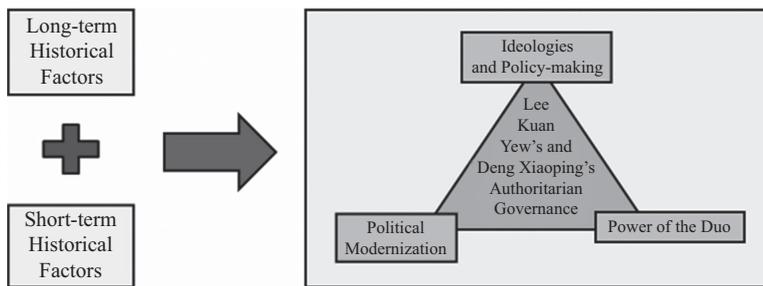


Figure 2.
Establishment of Lee
Kuan Yew's and Deng
Xiaoping's good but
authoritarian
governments in the
context of
comparative historical
analysis

Ideologies and Policy-making*Their adaptations of ideologies in policy-making*

Eurocentrists heavily emphasized Singapore's Lee Kuan Yew and China's Deng Xiaoping regarding the big contrast between their authoritarian governance and that in Western Democracies. However, history proved that this statement was not fully true. Being influential political figures, to maintain power as usual was their ultimate goals when they were top leaders in authoritarian states, but ideologies and policy-making at the same time played a critical role in one-party hegemony or even one-party rule. In particular after the Second World War, the role of ideologies among quite a number of Asian authoritarian states endowed their political leaders with the execution of their ideal political behaviors and hence allowed political elites to implement confidently (Mullins, 1972, p. 509). That is to point out that ideologies initially endow statesmen with the legitimate function; as a result, their policy-making can be supported by ideologies in order to allow both to confidently implement and, once being required, clear political obstacles. Generally, power, ideologies and policy-making to form their authoritarian governance should be always in an interactive relationship.

With an ideological support, both statesmen were capable to introduce policies to strengthen their power, including their legitimacy. However, it is critical to note their ideologies adopted were highly flexible as time goes by, i.e., a series of changes were signifying a departure from the past, while others were just minor changes such as in wordings without alternation of substance. To Lee Kuan Yew, this political leader kept adjusting definitions and interpretations towards the ideologies of the People's Action Party. This was true he had aimed at democratic socialism as his ultimate goal before coming into power. Yet, that kind of a pledge gradually became a blank cheque after being the Prime Minister of Singapore with significant public support since 1959. As a pragmatist, he, under one-party hegemony, had implemented a series of policies against democratic politics, and Singapore was criticized and finally being kicked out by the Socialist International in 1976 (Chen, 1982, pp. 160-161). As for Chua Beng Huat's classification, ideological transformation of this Asian giant could be divided into: ideological leadership in decolonization; elaboration of a "national interest"; on survival and pragmatism; Confucianism; and Communitarianism/Shared Values (Asian Values). This was praised that his successful authoritarian leadership continuously laid on "acceptability to or at least toleration by the population through the presence of an ideological hegemony or consensus" (Chua, 1995, pp. 10-37). In light of this, this paternalistic leader openly permitted, "we did not believe in theories as such. A theory is an attractive proposition intellectually. What we faced was a real problem of human beings looking for work, to be paid, to buy their food, their clothes, their homes and to bring their children up [...] If a thing works, let's work it, and that eventually evolved into the kind of economy that we have today" (Kwang *et al.*, 1998, p. 109). Clearly, his vision on Singapore's economic development should not be bounded by dogmatic ideologies either under the Cold War's mentality or the negative attachment with Foreign Direct Investment, such as many theories about the exploitation of natural and human resources originated from the West. In other words, this political strongman created an idea known as "politics of survival" (Chan, 1971, p. 11), in which both the economic and the political survival were indispensable, while other second-tier considerations such as ideologies came after.

Not surprisingly, such a similar political wisdom was still capable to be exercised well by Deng Xiaoping. Differing from Mao Zedong, socialism as an ideology to this post-Mao leader needed to be better reinterpreted to help consolidate his perceptual reform's basis since the Third Plenum of the 11th Central Committee. As this "big parent" explained, "when everything has to be done by the book, when thinking turns rigid and blind faith is the fashion, it is impossible for a party or a nation to make progress.

Its life will cease and that party or nation will perish [...] In this sense, the debate about the criterion for testing truth is really a debate about ideological line, about politics, about the future and the destiny of our Party and country” (Deng, 1994, p. 143). In particular, from the viewpoint that Open-door Policy initially took in the remote areas, it could be noted Deng Xiaoping was wary of opening up to the outside world. From 1979 to 1984, cadres in Guangdong and Fujian always struggled to strike the ambivalent balance between what was needed to attract Foreign Direct Investment and what was required to avoid being accused of selling out to those imperialists of the West (Vogel, 2011, p. 411). Fairly, “there is no Deng Xiaoping’s vision (ideology) of the economy or the economic system. Thus, while he has intervened repeatedly and forcefully to keep the Economic Reform process moving forward, these interventions have always been precisely calculated for political effect, and extremely vague on economic content” (Naughton, 1993, p. 491). Apparently, the *de facto* importance of class struggle as specifically reflected in his policy-making sharply declined. In a speech of 1979, this General Architect still insisted class struggle would exist for a long time to come. Yet, it was just noted as “a special form of class struggle” (Chen, 1988a, p. 111). No need to mention that such “a special form of class struggle” was difficult to define and hence to be put into practice, for the purpose of “liberating productive force” in the banner of Economic Reform and Open-door Policy. To be further in line with his policies made during the early 1980s, the term “the acuteness of class struggle” never appeared in 1982’s State constitution, but that kind of old-fashioned ideology remained static in the Party constitution of the 12th Party Congress (Chen, 1988a, p. 114), in order to help minimize an intra-party divergence in the debates or even conflicts while stepping forward in Economic Reform and Open-door Policy. That is to say, followed by his “leading from behind the scenes” (Goodman, 1994, p. 91), ideologies include but not limited to Seeking Truth from Facts (1978) and Four Cardinal Principles (1979) were considered as means instead of ends to help him speed up the implementation of his policy-making in full swing and, without doubt, once again strengthen his power (personal authority) and legitimacy of the Chinese Communist Party in governance.

Lessons from their pragmatism to the contribution of domestic politics and international relations

Instead of governing their regimes as an iron plate, both authoritarian leaders had their strong adaptations of ideologies in policy-making based on temporal situations. Not as similar as many Democracies in the West, there were two important rationales behind their ideological construction at distinctive timings: collective (state) good outweighing individual interests; and disbelief of Eurocentric universal values. In this, the duo strongly believed their policy-making better with regard to the “special national conditions”: national interests as utmost concern; strong leadership of having a perennial ruling party; and economic development prior to the political democratization (Choi, 2017, p. 116). In their tenures, they did not fully work based on Western conventions; rather, they adopted flexible ideologies rewarding their nations in the policy-making as time goes by. History told us their authoritarian governance and most related outcome(s) were phenomenal. With their paramount leadership, good governments of Singapore and China were hence established, in particular, both could mostly work under economic miracle in the twentieth century.

Although the duo never regard ideologies as the fundamental guiding principle in policy-making, they tended to reposition ideologies as positive justifications in the later process of their policy-making. To two leaders, this consideration was especially significant to draw our attention, i.e., their usage of the dual roles of ideologies to the contribution of domestic politics and international relations. On the one hand, they did not fully give up the usage of ideologies under their authoritarian governance, simply because ideologies could be treated as the substitution of Eurocentric universal values (e.g., Asian Values as

Lee Kuan Yew's diplomatic tool to increase Singapore's value by projecting its soft power, i.e., building up his good reputation on the behalf of Singapore in Asia-Pacific region and on global scale) (Leifer, 2000, pp. 8, 25-27), and as the solution to help end up intra-party debates during the policy-making (e.g., Seeking Truth from Facts and Four Cardinal Principles giving socialist Deng Xiaoping's room by further acquiring capital and technology from the capitalist global economy to his Four Modernizations; Pearson, 1999, p. 174). On the other hand, to reposition ideologies as positive justifications in the later process of their policy-making, both kept revising ideologies in line with policy-making based on distinctive pragmatic concerns as time flies. In this, instead of being bounded by the former dogmatic ideologies to hinder national development of their homelands, putting ideologies as the second-tier status after the policy-making could more or less help them unify reinterpreted ideologies, for the purpose of giving them higher flexibilities in policy-making, in particular to adapt the rapid-changing Cold War's context. Apparently, even without initiating an overall Westernization, both authoritarian leaders still had sufficient time in addition to ample resources in establishing their good governments in an incremental way.

Political Modernization

Quest for legitimacy in Asian democracy

Legitimacy is understood as a prerequisite for power and a moral foundation of authority (Guo, 2010, p. 6). Although most agree that democracy is good for the legitimation of a political leader, the understanding of this critical concept can be diverse regarding the connotation and its practice. Westerners believe their understanding of democracy is the only truth, and also a representation of cultural hegemony (Wang, 2016, p. 230). Yet, to both authoritarian leaders, their keys in working out political modernization would not be merely picking up representatives through the regularly-held universal suffrage, but working out based on the representation of the people's essential needs. Just as the meaning noted by Hanna Pitkin (1967), people hoped to be governed by their representatives because the meaning of representation was able to comply with their best interests, but "representation need not mean representative government (the one under both the thought and practice of Western-style democracy)" (pp. 2-3). In other words, Western-style democracy was not a panacea to their governance. To Lee Kuan Yew, he claimed that an absolute Western-style democracy without adjustment according to the "special national condition" did not work in Singapore's multi-cultural context. He therefore cited Samuel Huntington's words, "some cultures do not receive democracy well [...] We have built up a democratic system which suits us. In a liberal (Western-style) democracy, a man, once elected, is free from all party discipline. You have that in Singapore, you have unstable government. So we did not say you cannot change sides. You can. But to join the other side you vacate the seat, and face a by-election. That prevents these musical chairs" (Kwang *et al.*, 2011, pp. 53-54). Such a strong disagreement about Western-style democracy would, in the meantime, be Deng Xiaoping's concern. He openly praised, "the greatest advantage of the socialist system (over Western-style democracy) is that when the central leadership makes a decision it is promptly implemented without interference from any other quarters [...] We don't have to go through a lot of repetitive discussions and consultations with one branch of the government holding up another and decisions being made. From this point of view, our system is very efficient." To be obvious, his authoritarian governance was mostly with reference to social order and administrative efficiency (Goodman, 1994, p. 101), but not considering from the needs of holding competitive elections. The aforementioned speeches indicated the duo actualized their authoritarian governance with regard to the political development of their states, and both high-handed political leaders largely hindered the rise of civil society in order to maintain political stability on the national level. Thus, concerning the duo's relevant thought and practice in electoral reform or Political System Reform, their

coordinated political modernization would still be fine to different extents, even not followed by an absolute road of Westernization.

Regarding the effort paid by Lee Kuan Yew in political modernization, one of his attempts without fully following Western-style democracy was continuously reflected in Singapore's electoral reforms from the early 1980s, including, but not limited to the introduction of Group Representation Constituencies since 1988. To be influenced by the parliamentary electoral setback in 1984, the then People's Action Party failed to capture all parliamentary seats, something that had been long done by Single Member Constituencies from 1968 to 1980, which alarmed Lee Kuan Yew. Besides, there was a 12.6 percent sharp drop in its share of electoral support. Facing such an adverse scenario, this paternalistic leader openly expressed his fear that might enable oppositions made up by a series of low-caliber and non-credible candidates to capture the majority of parliamentary seats. What is more, he deeply noted Singapore's success that was based not only in accordance with six guiding principles of establishing a good government, but also on "tolerance and understanding among the different races (ethnic groups), which provides the vital foundation for the implementation of these principles" (Quah, 1988, p. 128). Multi-ethnicism was hence embodied in political modernization, such as in the introduction of Group Representation Constituencies.

Of four suggested measures, this political strongman preferred Group Representation Constituencies to others, for example, proportional representation, although the latter was repeatedly mentioned in public consultations. He kept explaining, "first, it would result in the emergence of ethnic, linguistic and religious political parties. The election activities during the election period may call for the emotional extremism and chauvinism. Second, in accordance with the experiences of proportional representation adopted in Western Democracies, proportional representation almost resulted in a weak government, and made the popularity of coalition governments a common practice" (ed. Xinjiapo Lianhe Zaobao, 1994, p. 195). That is, to this authoritarian leader, having Group Representation Constituencies but without abandoning Single Member Constituencies from 1988 was in fact regarded as a modified electoral system that could help prevent most, if not all, potential difficulties brought by political modernization. Chan (1986) in this regard praised, "in a polity (Singapore) where immediate economic and social problems are regarded as under control, [...] it is inevitable that long term planning and concern for the long term scenario become the focus of attention" (p. 176). Needless to say, followed by an instrumental consideration, this paternalistic leader utilized the advantages enjoyed by a ruling party to control the rules and reform of electoral system in order to prolong the status of his ruling party. Thanks for Group Representation Constituencies to be effective from 1988, although the People's Action Party received less than 65 percent of votes from all qualified voters in that year, this ruling party could still be able to monopolize more than 90 percent of parliamentary seats (Chen, 1988b, p. 8). Particularly as for its nature of disproportional representation, all oppositions remained unchanged in an unfavorable condition under that kind of electoral reform not entirely working out with reference to Western-style democracy. In addition, for the design of all election groups under Group Representation Constituencies, the People's Action Party was meanwhile very successful in incorporating with ethnic minorities' representatives into the Parliament to further help enhance its legitimate ruling status.

For Deng Xiaoping, his continuous efforts paid for political modernization not with regard to an overall Westernized model which was initially with good intention, but finally, with limited success in practice while comparing with Lee Kuan Yew's one. On the one hand, for the effectiveness of the reform measures, Deng Xiaoping's Political System Reform could be better characterized as an administrative reform. As Zhao Ziyang pointed out, "the contents of Deng Xiaoping's speech could easily have caused people to believe that Deng Xiaoping was prepared to proceed with political modernization and democratization and to

change the fundamentals of the political system. But it isn't like that" (Zhao, 2009, p. 248). As for the aforementioned scenario, Separation of Party and Government was prioritized to this paramount leader in post-Mao China, and it aimed to enhance the working efficiency, optimize Party leadership, as well as assist Economic Reform and Open-door Policy. In other words, Separation of Party and Government, dealing with how the Party coped with leadership, and how to lead well, was placed as the top. What came next was to decentralize authority to lower administrative levels, tackling the relationship between the central and the provincial governments, and the issue of provincial governments handing power down to various local levels. The last was to reduce the size of the administration. Another point was to improve efficiency (Zhao, 2009, p. 249). Yet, with regard to other democratic rights, as heavily emphasized by Western-style democracy, for example, organizing associations, assemblies and protests, they were taboos of Political System Reform, thus failing to entirely remedy the preexisting malpractices of the political institution. Just as rationales behind Four Cardinal Principles, this "big parent" would never allow China to adopt multi-party system as in the West; as a result, power was still highly centralized in a few political elites. In this, he clearly pointed out, "we shall develop Socialist Democracy, but it would be no good for us to act in haste. Also, it would be even worse for us to adopt Western-style democracy. If we conducted multi-party elections among one billion people, the country would be thrown into the chaos of an all-out civil war during the Cultural Revolution. A civil war does not necessarily require rifles and artillery; people can wage fierce battles only with fists and clubs. Democracy is our goal, but we must keep the country stable" (Deng, 1993, p. 285). Then, if we treat his reflection on misbehavior in politics as a benchmark to evaluate effectiveness of promoting such reform measures, most malpractices were still existent even after his several calling for Political System Reform from the early 1980s.

Although the problematic situation led by the life tenure in leadership posts was greatly improved through the newly-established tenure system in government organs, a series of negative influences brought by bureaucratism and paternalism remained serious as in Mao's China. On the other hand, as for the sustainability to keep promoting Political System Reform, its measures was just put into practice from 1987 to 1989 due to several instructions and speeches given by Deng Xiaoping. So his contribution to Political System Reform, such as enhancing the support from citizenry, was limited. Respecting Zhao Ziyang, who had been "elected" as the General Secretary in 1987, he decided to delegate power since the 13th Party Congress, for example, restricting the Secretariat of the Central Committee's authority. In addition, the number of Secretary posts was reduced more than a half to further help improve administrative efficiency when being compared with that of the 12th Party Congress (eds. Feng *et al.*, 1991, p. 62). Needless to mention, reducing Secretary posts indicated the good intention and practice of this "big parent" on preventing overconcentration of power by practicing Political System Reform. Nonetheless, because of quite a great number of cadres' opposition, further removal of party organs advocated since the 13th Party Congress could not be fully materialized, and the significance of party organs was again revitalized after 1989 (Chen, 1990, p. 114). That phenomenon clearly revealed the cumulated malpractices in political system, and worse still, along with the adverse effects to the sustainability of further deepening Political System Reform in a long run. In the 14th Party Congress, Jiang Zemin being the new figurehead appointed by Deng Xiaoping announced a more cautious approach to promote Political System Reform, i.e., to rename Separation of Party and Government as Separation of Government and Enterprises (Wong, 2005, p. 99), with an ultimate aim of not overweakening the leading role of the Chinese Communist Party (Wong, 2005, p. 219), especially in the contexts of avoiding the threats brought by the dismemberment of the Soviet Union, i.e., Peaceful Evolution, and helping further deepen Deng Xiaoping's economically-oriented reform measures in the name of Socialist Market Economy.

Lessons from their counter proposals to Western-style democracy

In the process of political modernization, a host of political issues would emerge, and unavoidably challenge the existing political system. History let us understand that there were different forms of political modernization: one of them was representative democracy originated from the West; and another was representational democracy (Wang, 2016, p. 234). King Yeo Chi put a further remark on the latter such as his coined term called “administrative absorption of politics” (King, 1981, pp. 127-146). To be deeply affected by Confucianism and newly-established states in a bi-polar world, Singapore, led by Lee Kuan Yew, and China, guided by Deng Xiaoping, demonstrated disparities and complexity in politics, in particular, the development of representative democracy throughout their tenures was full of uncertainties.

In an environment of having an authoritarian leadership, there had not been other effective political institutions as a kind of substitution in a polity. Thus, it is supposed representational democracy (e.g., “administrative absorption of politics” as coined by King Yeo Chi) might be noted as the only feasible political mechanism, especially for the better democratic transition. As Kishore Mahbubani (2014) justified, Asian nations “do not go straight from a soft authoritarian system (‘hard government, soft economy’) to a normal democracy (Western-style democracy). There is a transitional process. An interesting question that we should consider today is how this process began and why it began” (p. 18). In light of this, representational democracy in quite a number of situations can be regarded as a soft landing model’s political modernization among certain Asian nations if their populations tend to smoothly transit to that under representative democracy as in the West. In the presence of such a feasible political mechanism, the recognition for political order is expected to be obtained by meeting the demand of elites. This kind of authoritarian governance is indeed a discreet way to attain Pareto improvement in political modernization not entirely following an overall Westernization. Considering the limited suitability of “administrative absorption of politics,” it is just considered as a product used in the democratic transition. As King Yeo Chi asserted, “a low degree of politicization in society (in particular many Third World polities, for example, an independent Singapore and post-Mao China) is mostly essential to the legitimacy of such a government supported by the elite class. The extent of politicization will be further enlarged in the event of both the urbanization and the upward social mobility. Consequently, people in the very beginning excluded from the political arena can thus participate, enfeebling the elite class. In such a circumstance, the elite class should collaborate with the *hoi polloi* to sustain a more stable political system.” (King, 2013, p. 252) With this holistic system to be implemented in full swing, “administrative absorption of politics” will therefore be effective as an expected political outcome.

To be clear, not only is that scenario a provisional means, but also a special political arrangement tailor-made for the establishment of a good government in the process of democratic transition. Prior to 1997, to be regarded as another evidence of “method of agreement” apart from the direct comparison of the duo within such temporal-spatial conditions, the historical case of colonial Hong Kong meanwhile showed a similar political system that was credited for its higher flexibility in governance. To satisfy the simultaneous needs of both the elites and the mass, such a system could continuously sustain itself. More significantly, that political pattern was able to attain more balance of interests among economic prosperity, social liberty as well as political authoritarianism (Kang, 2005, p. 84). Clearly, in the presence of “administrative absorption of politics,” which is, in fact, an instance of representational democracy, an Asian polity without the full adoption of Western-style democracy can still safeguard benefits of distinctive stakeholders in its democratic transition.

In contrast to Deng Xiaoping, it is fair to comment that Lee Kuan Yew was more skillful to maintain order and stability for long in his homeland (Choi, 2017, p. 330). As a pragmatist,

Deng Xiaoping appreciated and tended to project Singapore as his ideal governance model to China, which that kind of unique and yet successful Southeast Asian political modernization can effectively help sustain his East Asian homeland's economic growth while guaranteeing political stability by one-party rule. Borrowing the words from Stephan Ortmann and Mark Thompson, "China sees what it wants to see in Singapore, making the 'lessons' learned more caricature than reality. The key to Singapore's success as a society is that both modern and authoritarian are not simply its carefully calibrated repressiveness, but also its ability to promote meritocracy and allow a limited degree of political openness and organized political opposition in a multi-cultural society" (Ortmann and Thompson, 2016, p. 40). Thus, to Deng Xiaoping, the attractiveness of Singaporean model laid in the establishment of a good government under its authoritarian governance but as a sustainable economic powerhouse with reference to its "special national condition." These were without doubt compatible with each other. Yet, this view is sometimes with a characteristic of misunderstanding: many considered that the Singaporean political system to be static and mature, so they argued that it could be noted as the finalized model. The fact was, with regard to the parliamentary election held in 1968, initially based on universal suffrage. However, Lee Kuan Yew repeatedly introduced electoral reforms since the 1980s, such as how regular Members of Parliament could be as many as elected by Group Representation Constituencies from 1988 (Milne and Mauzy, 1990, pp. 95-96), in order to keep empowering the Cabinet's influence in post-Lee era. In the same year, just two years prior to his stepping down from Prime Minister, this political strongman meanwhile proposed the constitutional amendment, bringing about significant impacts to the President starting from the early 1990s. First, the President has been selected through direct election instead of appointment; and second, the President has been given the final decision-making power to veto Cabinet's personnel appointments and even its financial spending (Thio, 1997, pp. 113-114). A series of action indicated Lee Kuan Yew's political modernization that was incomplete and ongoing even during his last day in office. Thus to have the quality-assured political modernization, other Asian authoritarian leaders are expected to focus on "moderation principle," i.e., as much as to satisfy the simultaneous needs of both the elites and the mass of their polities, but not just repeating ideas of the Singaporean political system coordinated by Lee Kuan Yew that were not static and mature enough.

Conclusion

As most theories from the Western academic circle cannot wholly justify and/or explain distinctive modernization models initiated by leaders among Asian states after the Second World War, the author attempts to answer one question: Does the meaning of authoritarianism remain unchanged in the discourse of the East and the West? Concerning Lee Kuan Yew's Singapore and also Deng Xiaoping's China, their views on this political term were far different from those in the Western world. Apparently, authoritarianism includes multiple meanings: positive, neutral or negative meaning as shown in distinctive cases of our real world. Most critically, its semantic extension can be further likened to a panacea; such a word is inclusive of some other Eurocentric universal values, and it eventually helps legitimize a specific leader in governance. Especially for the positive meaning, as least likely recognized by Western scholars in the twentieth century and, meanwhile, being one of the significances of this study, the duo's authoritarian governance further compiling with their "special national conditions" as initiated by either the partial adoption of parliamentary democracy (the case of Lee Kuan Yew) or capitalism originated in the West (the case of Deng Xiaoping) seemed to be effective options. In terms of carrying on some but not all Eurocentric universal values in their authoritarian governance, the two political strongmen, on the one hand, could avoid chaos and instability without shaking crucial conventions; on the other hand, largely got rid of the potential ideological

conflicts with the West, enabling an independent Singapore and post-Mao China to earn more time and opportunities to establish their good governments despite adverse conditions (e.g., geopolitical constraints; Cold War's influences). Borrowing the very similar view from Huang Biao, to establish "a good government outweighs any other values" (Huang, 2014, p. 156). In other words, a good government is better to come prior to Western-style democracy, and the practice of Western-style democracy sometimes should not be noted as the best solution to nations outside the US and Europe. As seen from the duo's tenures, it is fair to sum up their good but authoritarian governments that could effectively help boost economy, which, as a result fostered social stability for decades. Differing from Asian polities fully practicing Western-style democracy, this is undeniable that the duo as highlighted in this paper always regarded establishing a good government as their same and yet ultimate modernization goal. Not surprisingly, the good progress to gradually achieve such an elegant goal did enhance legitimacy of their authoritarian leadership.

Socialism pursues equality in theory, but leads to poverty and red tape in practice; capitalism embraces work efficiency in theory, but results in wasting of resources, and social inequality in practice. Of all three merits to establish a good government under authoritarian leadership in the East not wholly following the underlying principles of Western-style democracy: policy-outcome benefits; administrative efficiency; and socio-economic advancement, Lee Kuan Yew and also Deng Xiaoping to be seen as "positive" cases of such an Asian authoritarian governance under "method of agreement" did not struggle with a series of former dogmatic ideologies; instead, their pragmatic beliefs to lower governance costs mostly resulted in the implementation of "moderation principle" throughout their policy-making (Choi, 2017, pp. 332-333). Take Political Modernization as a particular example to be discussed and analyzed in this paper, their art of authoritarian governance would be more or less able to help speed up the Pareto improvement among Party, state and society, by having most, if not all, stakeholders as winners in such way of modernization not fully based on Eurocentric universal values. In an Asian society with a lower degree of politicization, so that once being required to choose from either Western-style democracy or authoritarianism, the model of having such way of modernization in the lead of a "clever" authoritarian leader seems to be advantageous because of its lower cost in governance. Apparently, history already showed there were always spaces for political exploration, and hardly did unfounded forecasts or predictions have any pragmatic values.

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About the author

Franky K.H. Choi, PhD in History, received MSocSc in General Education (Academic Distinction; and Dean's List) from The Chinese University of Hong Kong. His recent research focuses on domestic politics and political histories of Asian polities. From 2008 to 2016, he served as College Lecturer at HKU SPACE Community College (Arts and Humanities; and Division of Social Sciences). Meanwhile, he was appointed as Course Coordinator of *Hong Kong and Chinese Societies in Transition*. In 2018, Hong Kong Chinese Culture Development Association invites him as a guest on Metro Radio FM 99.7, to provide an opportunity for audiences understanding the history of Hong Kong and Singapore, particularly in a comparative approach. He is currently writing a book entitled *Authoritarian Leadership and Good Governance in the Twentieth Century's China and Singapore: A Comparative Study of Deng Xiaoping and Lee Kuan Yew*. Franky K.H. Choi can be contacted at: franky.choi@link.cuhk.edu.hk

Waiting time in public hospitals: case study of total joint replacement in Hong Kong

Yee-man Tsui and Ben Y.F. Fong

*School of Professional Education and Executive Development,
The Hong Kong Polytechnic University*

Abstract

Purpose – The purpose of this paper is to review the causes of long waiting time in Hong Kong public hospitals and to suggest solutions in the service, organisational, systems, financial and policy perspectives.

Design/methodology/approach – The paper is a review of waiting time of public hospital services. Total joint replacement, which is one of the elective surgeries in public hospitals, is presented as a case study.

Findings – The average waiting time of semi-urgent and non-urgent patients in the accident and emergency departments of public hospitals is two hours, and that of specialist outpatient (SOP) clinics is from 1 to 144 weeks. For total joint replacement, it is from 36 to 110 months. Measures like Government subsidisation programme for the replacement surgery and employing adequate physiotherapists, Chinese medicine practitioners, clinical psychologists and nurses to reduce the waiting time are suggested. Issues concerning the healthcare system of Hong Kong, such as structural reform, service delivery model, primary care, quality and process management, and policy reviews, are also discussed.

Originality/value – The over-reliance of public services has resulted in long waiting time in public hospitals in Hong Kong, particularly in the emergency services and SOP clinics. However, the consequences of long waiting period for surgical operations, though much less discussed by the media and public, can be potentially detrimental to the patients and families, and may result in more burdens to the already stretched public hospitals.

Keywords Primary care, Waiting time, Total joint replacement, Post-operative care, Avoidable hospitalization, Policy reviews

Paper type Research paper

Introduction

The Hong Kong healthcare system is a dual track system, providing comprehensive medical and health services to the residents by both the public and private sectors. The two sections are complementary in their roles and this structure is a major strength of the local health system. The two sectors share the service loads consistently and “satisfactorily” for decades. The public services, which are heavily subsidised by the Government via taxation, provide nearly 90 per cent of the high cost inpatient services in public hospitals managed by the Hospital Authority (HA). The private sector, operating in a free market model, caters for 70 per cent of outpatient service in 3,500 clinics and medical centres (Chan, 2001; Lee and Gillett, 2010). These sharing of clinical works are known as the two pillars, public and private, of the local healthcare system, which is unique. The two subsystems are working really well for the residents of Hong Kong, where the life expectancy of women and men is on top of the world.

In terms of resources input, only 5.5 per cent of the Gross Domestic Product (GDP) is spent on healthcare, equally born by both the public, i.e. the Government, and the private,

HKPAA



i.e. out-of-pocket expenses by the users, sectors. This is relatively low compared to other developed and developing countries (Food and Health Bureau, 2016). The Food and Health Bureau (the Bureau), headed by the Secretary for Food and Health, sets the policy and allocates resources. The Department of Health (DH) is the Government's health adviser, and the regulatory and licensing authority. DH also provides a series of disease prevention, health protection, treatment and rehabilitation services as well as health education, publicity and specific public health programmes to the community. The HA is a statutory body responsible for the management of all public hospitals. HA provides clinical and rehabilitation services to patients through hospitals, specialist and general clinics, and outreach services.

The public is over-relying on public medical care for obvious reasons of financial consideration. The charges for operations can be enormous in the private sector. The differential is too large for the ordinary people and families. Urgent and serious surgical conditions get immediate attention and are managed and operated on without delay in public hospitals at nominal charges of HK\$180 a day with everything included. The heavily subsidised services have become a structural problem of public hospitals for being seriously overloaded. As a result, there are many problems in the system, including high occupancy rate of beds, long waiting time, patient complaints, exodus and stress of staff, medical incidents, etc. These problems are perpetuated year after year and are becoming "common" news headlines. Solutions do not seem to be in the pipeline.

Waiting time in public hospitals

A long waiting time implies there is an imbalance between the supply and demand. It may prolong the patient suffering from diseases and disabilities (Viberg *et al.*, 2013). Long waiting time in the accident and emergency (A&E) departments of public hospital is now a routine phenomenon, day in, day out. Fortunately, critical, emergency and urgent cases are attended with top priority. The average waiting time for semi-urgent and non-urgent patients in 2014–2016 were around 2 h, and the latest A&E waiting time of Prince of Wales Hospital at mid-night is over 8 h (Hospital Authority, 2018a). This reflects that some public hospitals are seriously operating beyond their capacity, leading to long waiting time for non-emergency patients, which constitutes over half of the A&E attendance. Long waiting time in A&E departments should not have occurred if only A&E cases are entertained, as in the case of specialist services where eye clinics do not see chest problems and so on.

Waiting time of specialist outpatient (SOP) clinic appointments for newly referred cases is also generally very long. The median waiting time varies from 1 to 144 weeks. However, HA has put in place a triage system for new patients at its SOP clinics on the basis of the urgency of the clinical conditions at the time of referral, with reference to the patients' clinical history, the presenting symptoms, the findings from physical examination and investigations, as well as information provided in the referral letter (Legislative Council, 2012). It is a common phenomenon that less serious cases, which have a long waiting period, will seek private care. Often these patients continue to consult the private doctors until the appointment at SOP.

For elective surgery, the waiting time ranges from 1 to 2.85 months in most Western countries as found in an international study (Viberg *et al.*, 2013). However, the waiting time in Hong Kong can be quite long. For example, waiting time for total joint replacement ranges from 36 months, or 3 years, to 110 months, over 9 years. For cataract surgery, it ranges from 9 to 30 months, significantly longer than the 1–4 month in the above-mentioned study. The rationale provided by the HA is that prioritisation of services according to the patients' condition is necessary as the demand from the ageing population exceeds the healthcare services that the public system can supply (Hospital Authority, 2018b). This is not convincing and is not a fair reason because we cannot blame

the elderly for all the service demands. After all, the Government, together with HA, should be responsive to the ever-changing environment and demography in the planning and provision of services.

A long waiting time is often attributed to staff shortage arising from the high turnover rate of frontline healthcare staff in public hospital, due to heavy workload and low incentive to work. Low job satisfaction leads to a low incentive to work, and this is particularly a common phenomenon among nurses in public hospitals, being affected by factors related social support, work demands and work environment. The situation is compounded by other external factors from private hospitals, including attractive remuneration packages and greater opportunities for clinical development (Chan *et al.*, 2013).

Another contributing factor is the uneven distribution of manpower between the public and private sectors, but the public and the media often think there are not enough doctors in the public hospitals. Since its establishment in 1991, HA has increased the doctor population by more than two times. Overall, 60 per cent of the total number of doctors are employed in the public healthcare system to serve 90 per cent of the patient care in hospital care, while 40 per cent of those in private practice only serve the remaining 10 per cent. Increasing intake in the two local medical schools will not address the intrinsic problem in the long run. This is because of the historical structural “division of labour” between the two sectors, reflected by the respective expenditure on health. Over the last few decades, the total expenditure on health in Hong Kong has always been around 5.7 per cent of the GDP, and has been more or less equally contributed or shared by the public and private sectors (Hong Kong Government, 2017). This phenomenon, or “division of labour”, of equal sharing of resources has been very consistent, indicating the “rather constant” distribution of doctors in the two sectors.

On the other hand, the lack of resources is often perceived as a cause of the long waiting time. In fact, public expenditure on healthcare has been increased significantly in the past two decades, from 11 to 17 per cent of the total annual recurrent budget during this period. This is translated to five times increase at market prices. However, the provision of publicly funded healthcare services is still insufficient as the cost of healthcare and technology has escalated and the population is ageing. Uneven distribution of resources among the various clusters in HA is often cited an indirect factor for long waiting time because the “underfunded” hospitals are not able to improve services in response to the increased demands of the local communities. Fortunately, HA has pledged to ensure patients in serious conditions receiving timely treatment (Legislative Council, 2012).

Case study: total joint replacement

Unlike the waiting for the A&E and SOP services, long waiting time of elective surgery for patients can be problematic clinically, psychologically, socially and financially. The case study is chosen for this review because cataract surgery and total joint replacement (TJR) are the two elective surgeries given special attention by the Hospital Authority (2018c) in the official website. There are over 2,000 total knee replacements (TKRs) every year in Hong Kong (Lee *et al.*, 2016). Although HA has already developed five joint replacement centres, the waiting time of TJR in public hospitals is still very long, from 36 to 110 months (Hospital Authority, 2018d). However, the waiting time of total hip replacement (THR) in other developed countries is not more than a year (Viberg *et al.*, 2013).

In the HA Annual Plan 2018–2019, one more joint replacement centre will be established at Tseung Kwan O Hospital to provide 150 additional TJR surgeries in the first quarter of 2019 (Hospital Authority, 2018a). More importantly, the long waiting time may increase the risk of surgery and other health problems while waiting for TJR, particularly for elderly patients. Therefore, reducing the waiting time of TJR is not only to fulfil the demand, but also to reduce the risk and complications.

History of total joint replacement

TJR has over 100 years of history. With the advancement in the materials used and the technologies in surgery, TJR carries fewer complications and is more flexible, as well as more acceptable, to the patients. In the first half of the twentieth century, surgeons tried to use glass as the implant material, but it failed because it could not support the body weight. Then stainless steel was used (Knight *et al.*, 2011).

There are now over 150 models of implants. Each type has a different design regarding whether to keep the ligaments or not (Manner, 2016). The implant materials are metal-on-polyethylene, ceramic-on-ceramic and ceramic/metal mixtures (Knight *et al.*, 2011). Titanium and cobalt-chromium are used as metal parts of the implant since these materials are biocompatible and can last for a long period of time (Manner, 2016). The advancement of techniques has helped the patients to reduce suffering and to avoid the chance of revision TJR.

Indications for total joint replacement

Injuries to the joints, mostly from arthritis, is the common indication for total joint replacement. There are three types of arthritis: osteoarthritis (OA), rheumatoid arthritis (RA) and post-traumatic arthritis (PTA). All are causing chronic joint pain (Foran, 2015). OA is one of the common chronic diseases linked with aging. Lifestyle, weight and repetitive movements also lead to OA (Arthritis Foundation, n.d.a). The cartilage is broken down, resulting in rubbing between the bones. Moreover, severe injuries will also cause damage to the joints. Then symptoms of pain, stiffness and swelling occur (Arthritis Foundation, n.d.b). According to Kaplan *et al.* (2013), 10–15 per cent of people who are aged over 60 may have OA. In a Mainland study of residents aged over 60 in Beijing, there are 42.8 per cent of females and 21.5 per cent of males having radiographic OA of the knees (Zhang *et al.*, 2001). When OA becomes worse, TJR is used to relieve the pain and to enhance the ability of movement. TJR may also improve the ability of the sufferers to continue their works and to carry out self-management after the artificial joint has replaced the damaged joint (Foran, 2015).

Factors leading to long waiting time

Factors leading to long waiting time include the disease pattern, patients' decision, the length of hospital stay (LOS), resources and healthcare manpower. Yan *et al.* (2011) have studied the change of TKR pattern for primary knee OA in Hong Kong. The number of TKRs is increasing from 721 to 1,229 during 2000–2009, but the mean age of patients in each gender are similar. The high-risk group is still the people who are older than 60 years old. With the increasing life expectancy, the number of TKRs for patients over 80 years old is significantly increased.

In the traditional Chinese thinking, people should avoid harming the body received from parents, and this belief might have deterred the elderly patients to have TJR in the past. Currently, people are more open-minded, and fewer people would refuse TJR. Also, the acceptance of surgery in the community is increased as people become more attentive to health. Therefore, the demand of TKR is increasing. The waiting time of TKR in 2000 was 1 to 2 years and was increased to 3 to 4 years in 2011 (Yan *et al.*, 2011). To compare with Canada, the waiting time of TJR over there has remained constant from 2012 to 2017 at an average of 182 days only, although the demand of TJR increases in these years (Canadian Institute for Health Information, 2017). It appears that the waiting time can be “controlled” while the demand is continuously increasing.

LOS is counted from the day of surgery to the day of discharge. It can affect the turnover rate of hospital beds. Shortening LOS helps to increase the number of TJR, and it can reduce the cost per case. Lo *et al.* (2017) reviewed all primary TKR operated at Yan Chai Hospital

Total Joint Replacement Centre from October 2011 to October 2015 with the aim to find out the factors influencing LOS after primary TKR. The results are highly skewed. The mean of LOS is 6.8 days and the median is 6 days, with the range from 3 to 46 days, apparently longer than the 3.1 and 4.4 days, respectively, in countries like the USA and Canada (Hart *et al.*, 2015). However, the LOS is difficult to predict. It is noted that age, bilateral TKR, American Society of Anesthesiologists class 3, complications and the need for blood transfusion, intensive care unit care and urinary catheterization are the factors leading to longer LOS.

The care after surgery, such as bedside nursing, physiotherapy, Chinese medicine, acupuncture and psychological supports, is important in reducing the LOS. A study has found improving wound care, careful implant insertion and adherence to the strict guidelines of anticoagulation can help to avoid complications and delayed discharge. Moreover, the study has also found that LOS of bilateral TKR is only 1.37 days longer than that of unilateral TKR. This practice can significantly reduce the total LOS and the cost of operations (Lo *et al.*, 2017). The support of physiotherapy is also an important factor in LOS. The shortage of physiotherapists is significant, and the manpower gap increases from 12.4 to 21.6 per cent since there is only one University Grants Committee-funded institution providing the physiotherapist programme in Hong Kong (Food and Health Bureau, 2017).

Resources are also key to long waiting time. Some members of the Legislative Council Panel on Health Services think that lack of financial incentive for hospitals is the factor leading to long waiting time for all public hospitals' services (Legislative Council, 2018). When the resources are limited, it is difficult to increase the quota for TJR significantly to fulfil the needs. However, only allocating more resources to TJR alone may not be enough to reduce the waiting time. The healthcare system should be viewed as a whole, particularly with attention to the operations of HA. There is an apparent imbalance among the hospital clusters in the allocation of resources. Under the HA's internal resource allocation system, the underfunded clusters appear to continue to have the problem of shortage of resources (Legislative Council, 2018). It seems that the long waiting time cannot be unsolved. On the other hand, the patients are also responsible in terms of resources. Non-attendance is a known factor of prolonged waiting time of TJR. It is a major problem in health services and often reduces the productivity and efficiency. Such patient behaviour also increases the cost of healthcare service indirectly and is, at the same time, wasting the "limited" public resources (Johnston *et al.*, 2007).

The shortage of manpower in the healthcare sector is the widely known and, at times, burning issue. According to the report of Strategic Review on Healthcare Manpower Planning and Professional Development, published by Food and Health Bureau (2017), shortage of healthcare manpower is present because of the ageing population and the increasing provision of services. Although there is an increasing number in all types of healthcare professionals, with the exception of midwives and listed Chinese medicine practitioners (CMPs), the overall manpower is expected to be insufficient in the medium to long term. Such shortage will prolong the waiting time in most, if not all, clinical services in the public hospitals, and perhaps in the private sector as well.

Consequences of long waiting time

Delay in TJR may affect the patients' physical, social and mental conditions (Yuen, 2014). Long waiting time will increase the burden of health condition. According to Ackerman *et al.* (2011), Health-Related Quality of Life would be worsened during waiting. Over 70 per cent of patients may result in deterioration of pain and fatigue. The patients will suffer from disability for a longer period of time. More than half of participants become less confident in managing their own health. These negative impacts

may not only affect the patients, but their families as well. A local study has shown that 44 per cent of participants with OA agree that OA may affect the family and the close relationships. For the severe conditions, patients will employ domestic helpers and take more days off work, leading to social impacts (Woo *et al.*, 2003). Since OA is an irreversible and degeneration disease, the longer the waiting time, the worse the condition will be, and social impact may be aggravated.

The long waiting time also increases the costs of maintaining the ability of movement and reduction of the suffering (Fielden *et al.*, 2005). Furthermore, the outcome of TJR may also be affected. Hajat *et al.* (2002) found that there is the relationship between the waiting time and the outcome of THR. Patients who receive THR after longer waiting time may have worse Oxford Hip Score before and after the operation. Patients who have lower sociability, which is affected by mental health status, may also result in the worse score (Hajat *et al.*, 2002; Breedveld, 2004). Therefore, reducing the waiting time can lead to a better outcome of TJR and can lessen the burden of patients in the physical, mental, social and financial aspects.

Reducing waiting time for TJR

Subsidisation of total joint replacement – a systems approach

The quality of healthcare service in public and private sectors in Hong Kong is generally similar, but the out-of-pocket fee is highly different (Johnston *et al.*, 2007). Perhaps, the subsidisation of TJR at private hospitals may be a solution to reduce the waiting time of TJR.

The waiting time of TJR in private hospitals is extremely different to that in public hospitals. Telephone interviews were made to private hospitals on 6 February 2018 by one of the authors. Hong Kong Adventist Hospital – Tsuen Wan, Canossa Hospital and Union Hospital answered that after the diagnosis and consultations, it only needed to wait for approximately few days to few weeks for the patient to receive the TJR, depending on the doctor's schedule and the arrangement of operating theatres. In another words, TJR can be performed by quick appointment. Although the waiting time of TJR is short, the operating fee in private hospitals is much higher than that in public hospitals, from about HK \$130,000 to HK\$200,000 (Gleneagles Hong Kong Hospital, 2017; St Paul's Hospital, 2015; Canossa Hospital (Caritas) n.d.; Union Hospital, 2017). However, the long waiting time does not drive people to choose the other expensive options of the healthcare service. People who are on the waiting list of TJR may not have the strong financial potential or desire to transfer from the public to private queue just to have TJR earlier. They tend to stay on the waiting list in public hospitals.

There is a public-private partnership (PPP) initiative called Cataract Surgeries Programme (CSP) for cataract surgery. Patients who are having the longest waiting time on the cataract surgery waiting lists under HA can join CSP to receive the cataract surgery in the private sector. The patients receive the fixed amount of HK\$5,000 of subsidisation and pay no more than HK\$8,000 for the surgery (Hospital Authority, 2018d). As a result, it significantly reduces the waiting time of cataract surgery. In 2008, at the beginning of the CSP, the overall waiting time was 37 months (Hospital Authority, 2013). The current overall waiting time is 17 months (Hospital Authority, 2018d).

As in the CSP, subsidisation of TJR can potentially help to reduce the waiting time of TJR. The selection criteria of target population can be the same as in CSP. The amount of subsidisation can be evaluated from the package charges in private hospitals and the cost of TJR. TJR is classified as ultra-major I by the insurance industry (AXA General Insurance Hong Kong Limited, 2012). The charge of operation for ultra-major I in public hospitals for private cases is between HK\$72,050 and HK\$88,300 (Leong, 2017). Therefore, the charges of TJR package in private hospitals are reasonable.

The Government can consider a subsidy of HK\$90,000 to “eligible” patients from public hospitals for their TJR operations to be carried out in private hospitals. HK\$90,000 is the around 60 per cent of the average charge of TJR package, in line with CSP that subsidies 60 per cent of the total charges of cataract surgery. These patients will pay the shortfall, which is approximately HK\$60,000, depending on the private hospital chosen. However, such amount may still be a substantial financial burden to many public patients. Ancillary measures can be introduced to assist them. Hopefully, the waiting time of TJR in public hospitals can be reduced.

Shortening the length of stay – clinical issues

Physiotherapy. Physiotherapy is essential and is very important after TJR. It is required for every post-operative day to ensure the patients have the ability to walk before discharge (Lo *et al.*, 2017). The demand of physiotherapy is increased due to the large number of patients who need rehabilitation after TJR. It is also related to LOS because it can maximise the functional ability and reduce the complications like hip dislocation and wound infection (Health Quality Ontario, 2005). A systematic review has found that physiotherapy begins within 24 h of surgery can effectively improve the range of motion and reduce LOS at the same time (Henderson *et al.*, 2018). Once the LOS is shortened, the hospital bed is available for other patients to receive TJR, resulting in the reduction of the waiting time. On the contrary, when there is a shortage of physiotherapists, LOS may be prolonged, affecting the waiting time. HA should ensure the patients to begin the physiotherapy on time by increasing the number of physiotherapy sessions as the highest priority.

On the other hand, the long waiting time also requires the support of the physiotherapy to relieve the pain suffered by the patients. The President of Hong Kong Physiotherapy Association has mentioned that physiotherapists are having a heavy workload and the predicted shortage of physiotherapists is over 900 in 2030 (Poon, 2017). As a result, patients with OA may have limited sessions of physiotherapy. Extra private sessions will not be considered by most patients because of the financial and personal issues. For those patients who cannot afford private physiotherapy, the symptoms of degeneration will become more severe. Their ability of self-management is reduced and thus more pressing of receiving TJR. Hence, the authority must investigate the issue of the shortage of physiotherapists and the impacts thus arisen from it. A long-term strategy on the future supports of physiotherapy, particularly in conditions related to TJR, must be formulated, involving stake holders like the Government, the profession, education and training institutions, and all healthcare sectors.

Chinese medicine. Chinese medicine, especially acupuncture, is effective to relieve pain and reduce the dysfunction among patients suffering from OA (Selfe and Taylor, 2008). The Government can subsidise a part of Chinese medicine service, so that the patients can afford the treatments in the private sector. For patients, after TJR, acupuncture can be provided as complementary or integrative medicine. It can effectively reduce pain and improve the ability to receive physiotherapy during the initial post-operative period. It also reduces opioids usage, which has the positive relationship with LOS and may prolong the waiting time (Crespin *et al.*, 2015). Therefore, acupuncture is a good non-medicinal adjunct to reduce the pain and hence the waiting time.

Furthermore, there is the Integrated Chinese-Western Medicine Pilot Programme in HA. It provides the Chinese medicine services to the in-patients who have stroke, cancer or acute low back pain (Hospital Authority, 2014). It is feasible and practical to extend the coverage to patients after TJR. A study has found Chinese medicine, as the recovery treatment after TKR, is effective to improve the recovery rate. There are significant results in relieving pain and reducing the flexion contractures (Yang *et al.*, 2013). Thus, Chinese medicine can help to reduce the LOS, which can be prolonged as a result of the shortage of physiotherapy

services in public hospitals. It can also indirectly reduce the waiting time for TJR. However, most CMPs are working in the private sector (Food and Health Bureau, 2007). HA should employ more CMPs to work in public hospitals.

Psychological support. There is negative impact of mental health arising long waiting time. Furthermore, some of the patients may become depressed and anxious after TJR as in most major operations. The mental wellness affects the recovery rate. Therefore, psychological support is needed before and after TJR. Clinical psychologists can find out about the patients' psychological changes and understands more about the patients' concern. They will help the patients to overcome the hardship and psychological reactions. Thus, it is recommended that clinical Pathway should include psychosocial condition review, particularly during the post-operative period. More psychological support sessions should be provided.

Psychological support is not a routine clinical practice in the local hospitals. An Italian study has shown better mental well-being in patients who have received psychological support. These patients have achieved the physiotherapy objective earlier than those in the control group, and thus reducing the LOS (Tristaino *et al.*, 2015). It is suggested that psychological support should focus on the stress and emotional changes associated with postoperative recovery. Clinical psychologists can help the patients to build up the confidence in rehabilitation and to improve their quality of life. Effectively, the rehabilitative process becomes much more smooth, and thus the psychological support by clinical psychologists will indirectly reduce the LOS.

Reducing waiting time in public hospitals

Improving manpower in public hospitals – organisational consideration

In addition to the measures proposed to reduce waiting time for TJR, there are other commonly discussed suggestions for improving waiting time in public hospitals. The heavy workload in the public hospitals and the attractive remuneration of the private hospitals have resulted in the exodus of and thus high turnover rate of nurses and doctors, leading to a continuing manpower shortage in the public hospitals.

Although there are recommended nurse-to-patient ratios in HA, these standards are often not adhered to and, to some extent, appeared to be “ignored”. There have been recommendations to make the ratios mandatory by legislation. However, such measures may not ease the problems arising from manpower shortage in public hospitals because there are not enough professional staff to be appointed in order to comply with the required staffing ratio.

The vast gap in the charge differential for medical services between the public and private sectors, especially in severe and complicated cases and in chronic conditions requiring long-term care, and the over-reliance on the public health services have continuously imposed a great stress and burden on the public hospitals. More doctors, nurses and other professional and supporting staff are needed to meet the demand. In the private sector, there appears to be a “surplus” of doctors because many of them do not have their time fully utilised. There is an untapped capacity which amounts to a waste of valuable social resources. Continuing efforts and appeals by the Government and HA in promoting PPP have not cultivated much effects to change the situation. Perhaps all the stake holders, including the Government, HA, health professions, academics and the public should jointly work out some practical, sustainable, innovative and integrated service models of care while, at the same time, improving the manpower levels.

Appropriate utilisation of healthcare resources – financial and systems aspects

Reasons of hospitalisation usually fall into five categories: system-related, e.g. unavailability of ambulatory services; medical-related, e.g. medication side effects; physician-related,

e.g. suboptimal monitoring); social-related, e.g. lack of social or home support; and patient-related, e.g. delayed help-seeking (Freund *et al.*, 2013). The bed occupancy rate is high in local public hospitals. The appropriate use of acute hospital beds is a major concern for policy makers and hospital practitioners because hospital care is costly, making up a significant share of the budget in the healthcare system. More importantly, admitting patients to hospitals unnecessarily will subject them to potential harm and affects their daily life. The reported prevalence of inappropriate admissions ranges from 4.7 to 10.7 per cent, and a local pilot study has found a rate of 29 per cent (Leung *et al.*, 2011).

An interview study has found that over 40 per cent of doctors believe that ambulatory service-sensitive hospitalisations can be potentially avoidable. The strategies of stopping such hospitalisations include optimal use of ambulatory services, enhancing the patients' awareness of medication adherence, improving patients' willingness and ability to seek timely help, strengthening the monitoring of high-risk patients and provision of after-hours care (Freund *et al.*, 2013). A multi-centre study has shown that there is a significant inverse association between the rates of avoidable hospitalisation and the accessibility to primary care (Rosano *et al.*, 2013). It is suggested that an increase in accessibility and quality of primary healthcare can effectively reduce hospitalisation.

Appropriate utilisation of the valuable and "scarce" public healthcare resources, and thus reducing avoidable hospitalisation is desirable, particularly in maintaining a sustainable healthcare system (Purdy, 2010). Any misuse of the resources will compromise the effectiveness and quality of the healthcare system. The public should be educated about the correct manner in using subsidised health services and be a responsible citizen, not to abuse the eligible rights. A&E departments are not the suitable place to seek medical attention for general and common ailments. Family doctors and clinics should be appropriately consulted (The Hong Kong Medical Association, 1999).

To reduce the burden of acute hospitals and hence waiting time, it is recommended to make good use of convalescent hospitals, which are much less costly to maintain and are less risky to patients because of the absence of acute and serious cases. In addition, transitional care management within step-down wards, or transitional care units (TCUs), should be introduced in public hospitals in Hong Kong. TCUs provide short-term care beds in the hospital and the duration of stay is set at five days to a maximum of 21 days. TCUs are mainly focussed on the patients of 65 years or above with acute diagnosis and are not suitable to be sent home. In USA, the benefits of TCUs in reducing hospitalisations and readmission rates have been recognised (Care Solutions Group, 2016; Crotty *et al.*, 2005).

Primary care and community medical centres can reduce the burden and relieve resources constraints of public hospitals. Family doctors provide holistic and comprehensive primary care to the community. They are trained and have sufficient knowledge to manage a wide range of general medical problems. They refer patients to specialists when necessary. It has been a world-wide trend to focus on primary and community care, not only to save the public health dollars, but to allow for the appropriate care in the appropriate hands and suitable venue for the right conditions. This is definitely not a movement to demote the role and importance of hospitals. As a matter of fact, 50 per cent of acute surgeries are performed out of hospitals in day surgery centres in Australia (Australian Day Hospital Association, 2016). Somehow, it is disquieting to note that Hong Kong has a high number of beds per capita of 5.2 per 1,000 populations, and this is about 50 per cent higher than most developed countries like Singapore, UK and Australia.

What more can be done?

Medical and health services in Hong Kong are of high standard among the developed societies. However, the public healthcare system is apparently not able to meet the

increasing demand and is always over-stretched, with high bed occupancy rate and long waiting time, despite the fact that the provision of hospital beds is much more than countries of similar economic background.

The Government has been trying to solve the problem in the care delivery system and related issues such as health financing. Unfortunately, there appears to be more discussions than actions. This amounts to a *Laissez-Faire* approach. Often, crisis management with remedial measures is the standard working philosophy. At times, a public apology will have “settled” mistakes like medical incidents in public hospitals. Public consultations are also a means to keep everyone “busy” with health issues, without solutions or implementation plan at the end of the tunnel. Since 1985, there have been at least 11 consultation papers in health reform and related topics.

The famous 1985 Scott Report on the delivery of medical services in hospitals had led to the establishment of the HA with the objectives to solve the overcrowded wards and to better manage the public hospitals (WD Scott & Co., 1985). It appears that the core problems have not been tackled effectively. A review report of HA (the Report) in 2015 recommended delineating the role of individual hospitals within a cluster so as to ensure the coordinated and planned development of all hospitals (Food and Health Bureau, 2015). Delineation was on the agenda in the early history of HA (Gauld, 1998). Moreover, despite the accreditation of HA hospitals by the Australian Council of Healthcare Standards, the services do not seem to have improved.

The report also suggested to implement a comprehensive plan to shorten waiting time for SOP clinics and A&E services with a view to enabling timely access to medical services and minimising cross-cluster variance in waiting time. This reflects that the management of HA has not been taking a proactive approach. They need to be “told”, by the report, what needs to be done to solve problems, many of which are burning issues and are of long-term implications.

Some major forward-thinking recommendations were rightly made by the report for HA to enhance step-down care, to strengthen ambulatory services, to enhance partnership with non-governmental organisations and the private sector, to enhance its service capacity and to review its service delivery model, with the aims of not only to make better use of the resources but also to provide better care for patients. All these measures will result directly or indirectly in the shortening of waiting time in public hospitals, but there is doubt about the timing of the implementation of the recommendations.

In terms of service planning and improvement to avoid or reduce untoward medical incidents, HA should create an organisation-wide culture of quality and safety. All hospitals should adopt the process management approach and the Donabedian model of structure, process and outcome measures. When services are managed with quality, safety, efficiency and effectiveness, the throughput of HA will be increased without additional resources or manpower, resulting in lower bed occupancy rate, shortened length of stay and thus improving waiting time.

The Hong Kong healthcare system overemphasises the treatment of diseases and hospital services, where nearly 90 per cent of public resources are consumed. Primary care has been on the agenda since 1990 by the release of the Report of the Working Party on Primary Health Care. Many procedures and clinical processes, particularly pre-operative tests and post-operative care, can be performed outside the hospitals in the primary care setting. Such arrangements will not only help to reduce the health dollars, but will lessen the burden of public hospitals, resulting in shorter waiting time. However, the development of primary healthcare is really taking its time. After the strategy document on primary care development from the Bureau in 2010, the Steering Committee on Primary Healthcare Development was eventually established by the Government in November 2017 to develop a blueprint for the sustainable development of primary healthcare services.

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About the authors

Yee-man Tsui holds a Bachelor of Science Degree in Applied Sciences (Health Studies) from the School of Professional Education and Executive Development, The Hong Kong Polytechnic University. She is interested in the healthcare industry and has worked for the pharmaceutical companies as the medical representative, and the sales and marketing assistant. Yee-man Tsui is the corresponding author and can be contacted at: yeeekaren@yahoo.com.hk

Ben Y.F. Fong is Family Doctor and Specialist in Community Medicine, currently Senior Lecturer, Award Leader in Health Studies and Scheme Leader of Applied Sciences in HK PolyU SPEED. Fong had his medical training at the Royal Prince Alfred Hospital of The University of Sydney, Australia, where he was also awarded the Master of Public Health degree. He has post-graduate qualifications in medical administration, community medicine, family medicine and occupational medicine. In over 30 years of his professional career, he has served in public, private and university healthcare facilities, both in Hong Kong and Sydney. He has commissioned and managed two local hospitals. He has served as Director of University Health Service of a local university and as Deputy Medical Superintendent of Prince Henry Hospital, a teaching hospital of the University of New South Wales, Australia. Academically, Fong has taught medical and Chinese medicine students, and supervised postgraduate candidates in public health and family medicine for years. He has contributed to publications, books, public talks and is a reviewer of local and international journals.

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Emerging dynamics of workplace stress of employees in a large organization in Hong Kong

Adrian Low
Hong Kong Association of Psychology, and
Rollin McCraty
Institute of HeartMath, Boulder Creek, California, USA

Abstract

Purpose – Research on workplace stress measurements varied without much accuracy and effectiveness. The purpose of this paper is to introduce a new quantitative assessment tool emWave Pro Plus (Institute of HeartMath) and compare heart rate variability (HRV) results with the Personal and Organizational Quality Assessment (POQA) and the Perceived Stress Scale (PSS).

Design/methodology/approach – This research opted for a correlational study which involves 85 full-time employees who were working at least 40 h per week in a large corporation participated in this study. The POQA and PSS were used to correlate with HRV.

Findings – Astonishing findings emerged in this study. Significant positive correlations were found between emotional stress and HRV, and between intention to quit and HRV. In other words, the researchers have to make sense the following surprising findings: the higher the emotional stress an employee faces, the healthier they are. Healthier employees may have higher intentions of quitting their jobs. The surprising results may be attributed to personality, culture, emotional regulation and age among others.

Originality/value – This research fulfills an identified need to validate quantifiable stress measurements especially in a corporate environment. The research also shows promising results, and future studies should continue to tap into HRV as an objective measure of mental health and workplace stress.

Keywords Mental health, Job stress, Heart rate variability (HRV), Workplace stress, Objective stress measure, Hong Kong employees

Paper type Research paper

Introduction

The National Institute for Occupational Safety and Health (NIOSH) defined workplace stress as “the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or [the] needs of the worker” (NIOSH, 1999, p. 7). A stress study over a period of five years was conducted (American Psychological Association, 2011) and researchers reported that 70 percent of Americans pointed out that work was a contributing factor to stress. Moreover, a study conducted by NIOSH (1999) revealed that 40 percent of employees indicated that their jobs were very or extremely stressful. This shows that workplace stress happens not just in Hong Kong, but also globally.



Global problem

Besides Hong Kong and the USA, other developed countries are experiencing workplace stress as an emerging global problem. Canada and the UK report that workplace stress contributes to diseases, depression, injury and a decrease in organizational productivity



(Price, 2004; Ryan and Watson, 2004). In an environment where there is workplace stress, employees inculcate a negative attitude toward their work with a consequent drop in motivation, performance and efficiency. Moreover, workplace stress triggers three kinds of employee reactions: first, there may be physical ailments such as high blood pressure, heart disease and elevated cortisol levels; second, psychological effects such as escalated conflict and depression may be triggered; and third, unhealthy coping habits such as excessive consumption of alcoholic beverages may be displayed. Employees exhibit early signs of workplace stress such as a headache, insomnia, difficulty in concentrating, short temper and upset stomach. On the same side of the coin, organizational productivity drops as absenteeism, presenteeism, turnover and sick leave increase.

Financial impact

Workplace stress also impacts businesses financially on a global basis. It is estimated to cost organizations in the USA more than \$300bn annually in productivity loss, absenteeism, turnover, medical, legal and insurance costs (Rosch, 2001). In Canada, workplace stress costs 6bn Canadian dollars annually (Price, 2004). Interestingly, UK reported not in terms of a financial trade-off, but an estimated annual loss of 200m working days due to illnesses triggered by workplace stress (Ryan and Watson, 2004). Other financial losses include employee lawsuits with monetary compensations (Rosch, 2001), an increase in employees' compensation and disability claims (NIOSH, 1999). Hence, these reports indicate that workplace stress is an emergent global prevalence. From the 1970s, NIOSH started epidemiological research works on the outcomes of work-related factors in organizations. Research works from NIOSH revealed workplace stress as a workplace safety and health risk. They further reported that all workplace employees will experience workplace stress at some point in time, both in and beyond the workplace. Interestingly, employees react to workplace stress differently. Most employees go to work but do not work at their best, while others resign when overstressed (Willingham, 2008). Similarly, the American Psychological Association (2007) states that "fifty-two percent of employees report that they have considered or made a decision about their career such as looking for a new job, declining a promotion or leaving a job based on workplace stress" (p. 11). Moreover, stressed employees eradicate themselves from working for someone else by starting their own businesses (Hewlett and Buck Luce, 2006).

Stress assessments

The validity of obsolete tools being used to evaluate workplace stress is questionable as some questionnaires and survey questions contain outdated questions and unrepresented data that cannot accurately reflect today's population of workplace employees. The irony is that in assessing workplace stress, many researchers, business executives and organizational development consultants have been consistently using questionnaires, surveys and clinical instruments that were created and validated more than 25 years ago (Centre for Studies on Human Stress, 2012). Moreover, there are also some questionnaires still in use that were developed over 30 years ago via funding given by the National Institutes of Health and NIOSH.

Purpose of the research

Stress is associated with negative outcomes and we all make effort to avoid it. Workplace stress is associated with poor performance and organizations desire optimal performance from employees (McVicar *et al.*, 2013). In an effort to gain more insight into workplace stress, this research studied workplace stress as experienced by full-time employees in an actual large corporation in Hong Kong. The original purpose of this research was to introduce a new quantitative measurement tool such as emWave Pro Plus in the workplace and

compare HRV results with two other sets of quantitative self-reported measurements of stress. Mauss *et al.* (2016) report that heart rate variability (HRV) is an important biomarker (primary mediator of neurophysiologic pathway), one of the variables in the Allostatic Load Index that is easily assessable and accessible to measure workplace stress. Hence, the following four research questions were examined:

RQ1. In what way can HRV be used to accurately measure long-term effects of workplace stress in Hong Kong?

RQ2. What are the effects of workplace stress in Hong Kong on HRV?

RQ3. In what way does HRV compare with self-reports of stress in Hong Kong?

RQ4. What is the overall level of comfort a typical Hong Kong employee experiences?

Research method

The correlational research study explored the effects of workplace stress on HRV (HRV), which utilized the power spectral components and key time domain measures of HRV to analyze heart rate data after the employee had self-reported his or her level of stress over two scales: one was the Personal and Organizational Quality Assessment from the Institute of Heartmath and the other was the perceived stress scale (PSS) (Cohen *et al.*, 1983). After these assessments were completed, HRV, quantified by the four variables (SDNN, RMSSD, MHRR and normalized coherence) was correlated with the perceived stress quantified by the POQA-R4 rating scale as well as the PSS.

Participants

The chosen study population was made up of full-time employees in a large corporation of over 500 employees (hereinafter referred to as “Company X”). All employees of the company were welcomed to participate. The full-time participants were working at least 40 per week. Company X operates out of different locations in Hong Kong. The research was conducted in an air-conditioned room on the 19th floor within the temperature between 22 and 26°C in one of the locations in which Company X operates in Hong Kong. The building is unobstructed by the external traffic within a large urban area that has a population density of 639,900.

Study sample

Inclusion/exclusion criteria

Eligible employees were: full-time employees working at least 40 h per week for Company X; male or female; at least 18 years of age; and able to read, write and understand English. However, employees who had taken any kind of medication that might influence the results or caffeinated/alcohol beverages within 2 h prior to the session were excluded from the study.

Sampling procedures

After the participating employees of Company X signed the informed consent forms, they accessed the online POQA questionnaire as well as filling up the PSS questionnaire. Once the questionnaires were filled up, the researcher performed biometric tests on the employee using the emWave Pro Plus.

Instruments

Two scales were used to collect data on the dependent variables PSS as well as POQA. These scales represented operationalization of the dependent variables in the conceptual framework, and both of them had sound psychometric properties.

POQA-Revised 4 Model

The POQA-R4 is an instrument developed by researchers at the Institute of HeartMath. It contains 49 questions on four major scales of workplace quality directly related to health and workplace performance. The instrument gathers self-reported information on socio-demographic and key psychological and workplace elements associated with the overall quality and effectiveness of the individual and the organization. The instrument uses eight items of socio-demographic information about the respondents' characteristics which include gender, age, marital status, employment status, level of education, the number of hours worked per week, the number of years in the company and the number of years in the current role (Barrios-Choplin and Atkinson, 2000). The 49 items are divided into four factors which measure emotional vitality, emotional stress, organizational stress and physical symptoms of stress. They have been empirically validated and found to be reliable based on a measurement study conducted on the existing POQA-R database of 2,540 employed adult respondents (Barrios-Choplin and Atkinson, 2000).

Perceived stress scale

The instrument used in this research to measure perceived stress was the PSS by Cohen and Williamson (1988); therefore, the operation definition of perceived stress is the score on the PSS. The PSS is a ten-item questionnaire that measures situations in the employee's life that are deemed stressful. This Likert-type instrument has each item scored 0 (never), 1 (almost never), 2 (sometimes), 3 (fairly often), and 4 (very often). An example question on the PSS is: in the past month, how often have you felt nervous and "stressed"? The total score possibility of the PSS is 56, with the higher the number, the greater the perceived stress. Scores near 13 are considered average, with scores greater than 20 indicating high stress. The Cronbach's α internal reliability of the PSS ranges from 0.84 to 0.86 (Cohen and Williamson, 1988).

emWave Pro Plus®

The emWave Pro Plus, designed by the Institute of HeartMath (2016), is a computer software program that collects pulse data through a pulse sensor that can be plugged to a computer (See Figure 1).

The pulse sensor can be placed on the participant's earlobe or fingertip. The software then translates the information from the participant's heart rhythms into user-friendly graphics displayed on the computer monitor, which allows the researcher to watch in real-time how thoughts and emotions are affecting the participant's heart rhythms. The emWave Pro Plus uses photoplethysmography technology which is a reliable and valid method of capturing and quantifying real-time HRV data, both resting HRV and deep breathing tests based on the ability of hemoglobin to absorb light. As the amount of hemoglobin passes through the blood vessels changes due to the pulsatile nature of blood transportation, the amount of absorbed light also changes (Russoniello *et al.*, 2013). For this research, HRV was measured by various parameters: SDNN, RMSSD, MHRR and normalized coherence. SDNN is the standard deviation of all mean normal-to-normal intervals measured in milliseconds. The measure reflects the ebb and the flow of all the factors that contribute to HRV and the heart's ability to respond to hormonal changes (McCraty and Watkins, 1996; Task force of the European Society of Cardiology and the North American Association of Pacing and Electrophysiology, 1996). The RMSSD is the root mean square of successive differences between the normal heartbeats reflecting the short-term variance in heart rate. This value provides an estimate of the parasympathetic regulation of the heart (McCraty and Watkins, 1996; Task force of the European Society of Cardiology and the North American Association of Pacing and Electrophysiology, 1996). MHRR is the mean heart rate range (MHRR), which is the difference between the maximum and the minimum heart rate during each breathing cycle. The result is then expressed in beats per minute, as the mean of these

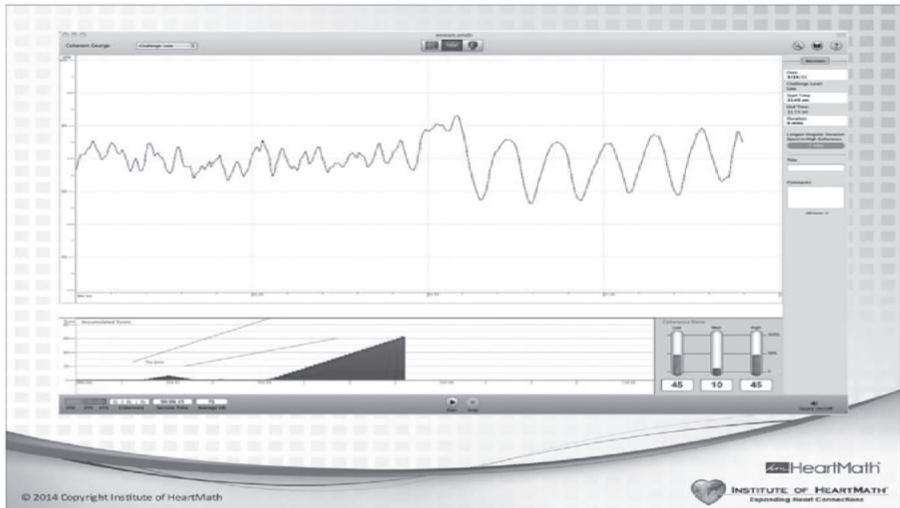


Figure 1.
EmWave Pro Plus
Computer Hardware
and HRV Monitor
Reading

Source: Institute of HeartMath (2016)

heart rate differences for each measured cycle (McCarty and Watkins, 1996; Task force of the European Society of Cardiology and the North American Association of Pacing and Electrophysiology, 1996). Finally, normalized coherence is a frequency domain measure of coherence where power in the coherence peak of the power spectrum density is divided by total power. This measure represents the ratio of coherence relative to total power and ranges from 0 to 100 (McCarty and Watkins, 1996). Moreover, a coherent heart rhythm is visualized as a harmonic sine-wave-like signal with a narrow, high-amplitude peak in the low frequency (0.04–0.26 Hz) region of the HRV spectrum. Coherence is evaluated by detecting the maximum (coherence) peak in the 0.04–0.26 Hz range, calculating the integral in a window 0.030 Hz wide, centered on the highest peak in that region, and then calculating the total power of the entire spectrum (Shaffer *et al.*, 2014). The emWave Pro Plus is based on decades of research, incorporating the patented HRV measurement and has been used by tens of thousands of people in over 85 countries (Institute of HeartMath, 2016).

Data collection

The data collection schedule was from July 7, 2017 to September 30, 2017.

Recruitment processes

Employees of Company X were invited to participate in this study. A recruitment e-mail was sent to employees of Company X a week before the start of the research study. The recruitment e-mail briefly described the study, the inclusion/exclusion criteria, as well as the compensation (incentive) for the participants if they chose to participate and complete the research study requirements. The exclusion criteria was listed to inform the potential participants the reasons why they would not qualify for this research study so that they did not need to attend the researcher's visit, thus further protecting their privacy.

Informed consent

At the visit by the researcher at one of the meeting rooms in the official premises of Company X, the participants who chose to participate completed the informed consent process before the data collection began. To fully complete this process, each participant read the informed consent form and was allowed to ask any additional questions regarding the study before signing and dating the informed consent form. Finally, the participant received a personal copy of his or her informed consent form. The researcher determined if the participant was eligible for the research study by asking the participant whether he or she had consumed any caffeinated/alcohol beverages within 2 h prior to the session.

During data collection

After the participant had signed the informed consent form, the research study data were collected in three sets: online survey – POQA, filled by the participants; pen-filling survey – PSS, filled by the participants; and objective measurements (HRV) collected by the researcher.

For HRV measurements, each participant was recorded individually in a quiet room, in a seated position. The participants received instructions for the test and the emWave Pro Plus pulse sensor was placed on their earlobes. Participants were instructed to remain seated, to stay relaxed and to refrain from making any significant or rapid body movements. Each session started with the five-minute resting state HRV assessment where the participant was told to breathe normally. Once the five minutes were up, participants were instructed to breathe according to the six-breath protocol. This breathing method provided a physiological challenge to assess the maximum HRV range (amplitude) during a one-minute period through deep breathing at the specific rate of five seconds of inhalation and five seconds of exhalation. Once achieved, there were six complete breath cycles over the course of one minute. The emWave Pro Plus software uses a breath-pacer to facilitate the regularity of the breathing. The entire minute has to be artifact-free so that the six cycles of the minimum and the maximum can be determined. Participants' compliance has to be closely monitored as insufficient deep breathing or poor synchronization with the breath pacer may result in lower test results. The average duration for each HRV testing session is 7 min. The researcher who administered the HRV test was a HeartMath certified practitioner.

Data analysis

Descriptive characteristics and Pearson correlation analysis between HRV measures (IBI, SDNN, RMSSD, MHRR, normalized coherence, total power, very low frequency, low frequency and high frequency power along with the low frequency/high frequency ratio), POQA and PSS scales were performed using the SPSS Version 22.0 (IBM Corp, 2013). The significance level for correlations was set at α of 0.05. To correct for skewness, HRV frequency domain measures and RMSSD were natural log transformed prior to performing the correlation analysis.

Demographic characteristics

A total of 87 people signed the consent forms to participate, of which two were excluded due to technical artifacts in the data set related to the one-minute of six deep-breath cycles protocol. This resulted in 85 participants who completed the HRV measurements, POQA and PSS questionnaires. The majority of the subjects were female (61.1 percent) and 38.8 percent were male. Most of the subjects were within the age 31–40 (47 percent). In total, 43.5 percent were within the age 21–30, and 8.2 percent were within the age 41–50. Only one subject was more than 50 years old and no subjects were under age 21 (See Figure 2).

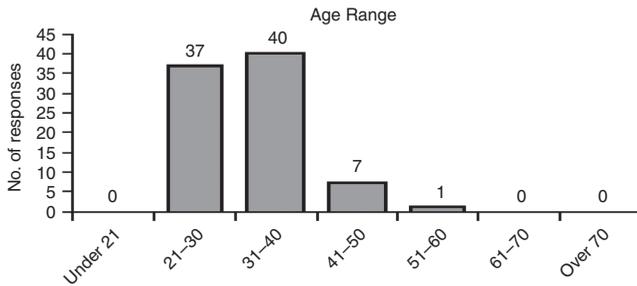
The majority of participants reported working between 41 and 50 hours per week (47 percent); 21 percent of participants reported working between 36 and 40 hours per week; 17.6 percent working 51–59 hours per week and 14 percent reported working more than 60 hours (See Figure 3).

The rest of the frequency tables for the demographic characteristics are presented in Figures 4–8.

Quantitative data results

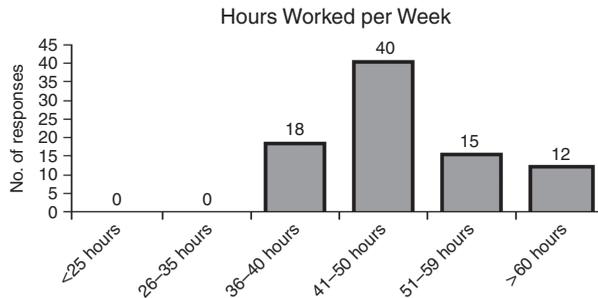
HRV and subjective stress

Three significant negative correlations were found between subjective stress and HRV measures: perceived stress and five-minute mean inter-beat-interval (IBI), $r = -0.217$, $p < 0.05$; perceived stress and five-minute SDNN, $r = -0.255$, $p < 0.05$, and perceived stress and Ln five-minute RMSSD, $r = -0.282$, $p < 0.01$.



Source: By authors

Figure 2.
Age range
of participants
as reported from
POQA-R4

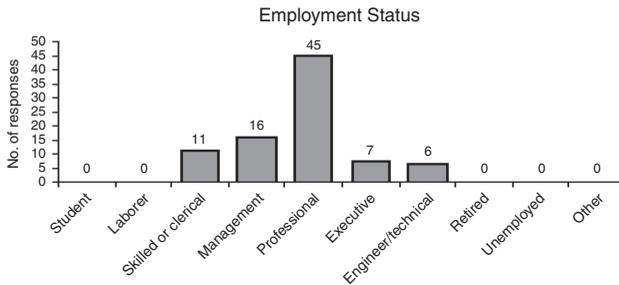


Source: By authors

Figure 3.
Hours worked per
week of participants
as reported from
POQA-R4

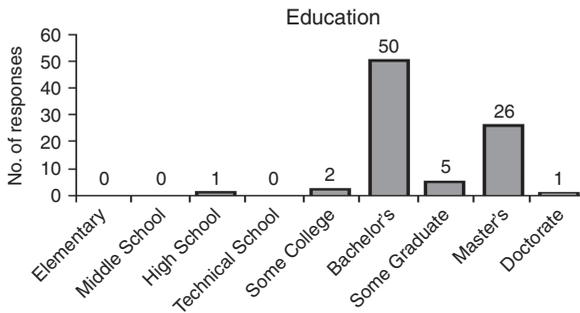
HRV and age

Significant negative correlations were found between age and the HRV measures; one-minute SDNN ($r = -0.235, p < 0.01$), five-minute SDNN ($r = -0.290, p < 0.01$), five-minute RMSSD ($r = -0.395, p < 0.01$), total power ($r = -0.272, p < 0.05$), very low frequency ($r = -0.215, p < 0.05$) and high frequency ($r = -0.402, p < 0.01$). There are more significant relationships between the HRV measurements during the five-minute resting period than with the one-minute deep breathing assessment.



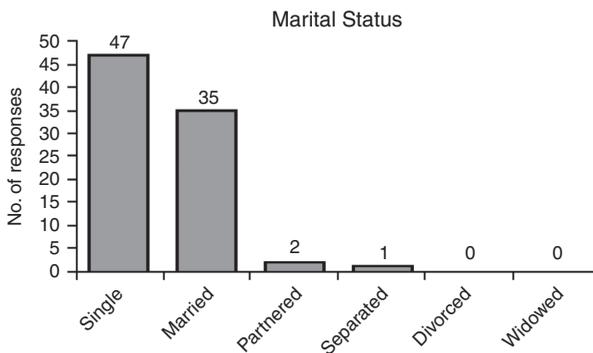
Source: By authors

Figure 4.
Employment status
of participants
as reported from
POQA-R4



Source: By authors

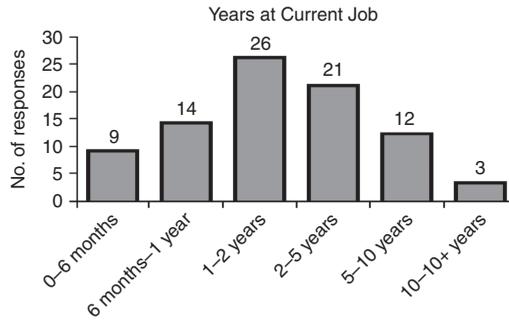
Figure 5.
Education levels
of participants
as reported from
POQA-R4



Source: By authors

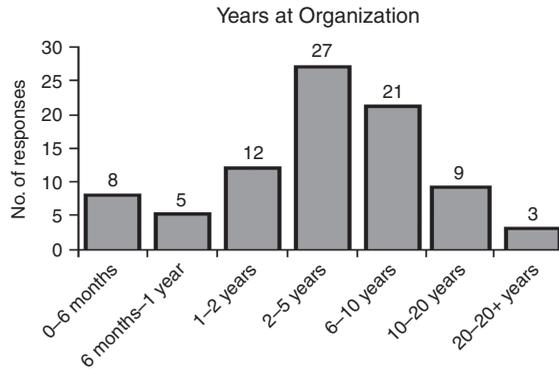
Figure 6.
Marital status
of participants
as reported from
POQA-R4

Figure 7.
Years at current
job of participants
as reported from
POQA-R4



Source: By authors

Figure 8.
Years at organization
of participants
as reported from
POQA-R4



Source: By authors

HRV and emotional stress

First of all, a significant positive correlation was found between emotional stress and the MHRR, $r = 0.216$, $p < 0.05$.

HRV and relational tension

A significant negative correlation was found between normalized coherence and relational tension ($r = -0.222$, $p < 0.05$).

Very low frequency (VLF) and intention to quit

A significant positive correlation was found between intention to quit and five-minute Ln VLF, $r = 0.234$, $p < 0.05$.

PSS and POQA-R4

The PSS and POQA-R4 were strongly correlated, except for relational tension.

A summary of results

This chapter presented descriptive statistics and quantitative correlational results between HRV (objective stress), PSS and POQA-R4 (subjective self-reported stress) that attempted to answer the following research questions:

RQ1. In what way can HRV be used to accurately measure the effects of workplace stress in Hong Kong?

H_0 . There is no (statistically significant) relationship between HRV and workplace subjective stress ($H_0: r = 0$).

H_1 . There is a (statistically significant) relationship between HRV and workplace subjective stress ($H_1: r < > 0$).

Since there were three significant negative relationships between PSS (short term stress) and HRV; perceived stress and five-minute IBI, $r = -0.217, p < 0.05$, perceived stress and five-minute SDNN, $r = -0.255, p < 0.05$ and perceived stress Ln five-minute RMSSD, $r = -0.282, p < 0.01$, H_0 would be rejected. This indicates that overall HRV is significantly correlated with short-term perceived workplace stress:

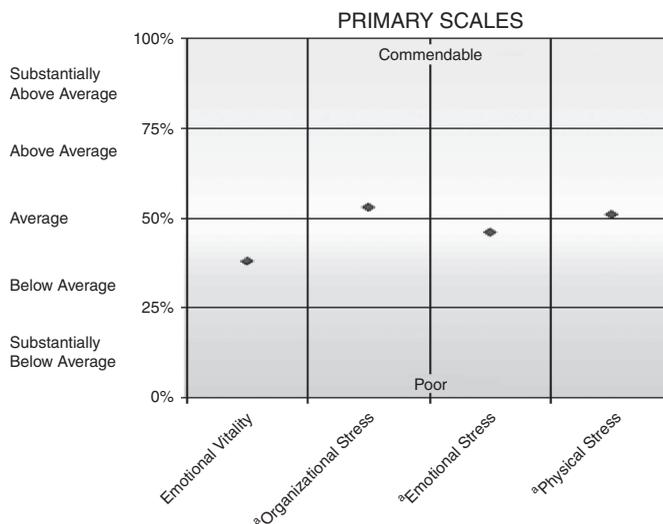
RQ2. What are the effects of workplace stress in Hong Kong on HRV?

A negative relationship between short-term perceived stress and HRV means that the lower the short term perceived stress, the higher the overall HRV the person is capable of producing. Moreover, a significant positive correlation was found between emotional stress and the MHRR, $r = 0.216, p < 0.05$, which indicates that the higher the emotional stress an employee faces, the higher his or her HRV:

RQ3. In what way does HRV compare with self-reports of stress in Hong Kong?

The participants self-report results on the POQA revealed the stressors and after effects of employee stress. Comparing the four primary scales of the organizational scores to norms from a large convenience sample of 5,971 working adults, Figure 9 shows that out of the four primary scales: emotional vitality, organizational stress, emotional stress and physical stress, with emotional vitality and emotional stress within the Below Average range.

From the correlational analysis, it was reported that a significant positive correlation was found between emotional stress and the MHRR, $r = 0.216, p < 0.05$, which indicates that the higher the emotional stress an employee faces, the higher his or her HRV. Moreover, from the associated subscales in Figure 10, out of the nine subscales, emotional



Note: ^aReverse coded to show the degree of improvement over time

Source: By authors

Figure 9. Organizational scores as compared to norms from a large sample of 5,971 employees as reported from the POQA-R4

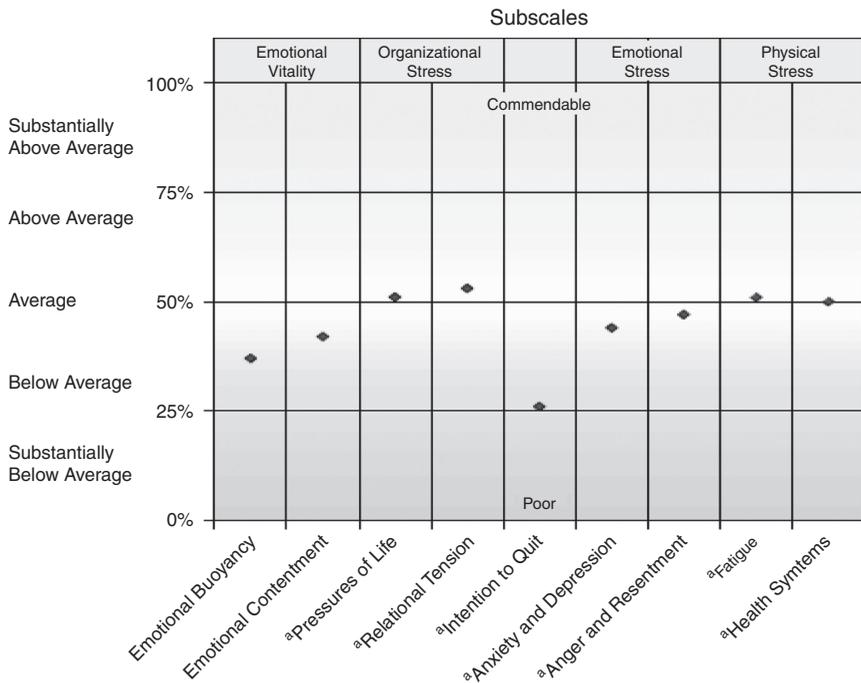


Figure 10. Associated subscales as reported from the POQA-R4

Note: ^aReverse coded to show the degree of improvement over time
Source: By authors

buoyancy, emotional contentment, intention to quit, anxiety & depression, and anger and resentment were within the below average range.

A significant positive correlation was found between intention to quit and five-minute Ln VLF, $r = 0.234$, $p < 0.05$, which indicates that healthier employees may have higher intentions of quitting their jobs:

RQ4. What is the overall level of comfort a typical Hong Kong employee experiences?

A significant negative correlation was found between age and the HRV measures; one-minute SDNN ($r = -0.235$, $p < 0.01$), five-minute SDNN ($r = -0.290$, $p < 0.01$), five-minute RMSSD ($r = -0.395$, $p < 0.01$), total power ($r = -0.272$, $p < 0.05$), VLF ($r = -0.215$, $p < 0.05$) and high frequency ($r = -0.402$, $p < 0.01$). This indicates that the older the employee, the lesser his or her overall HRV. A significant negative correlation was also found between relational tension and normalized coherence ($r = -0.222$, $p < 0.05$), which may indicate that the healthier an employee, the lesser the relational tension. The mean PSS score is 17.69 where 13 is considered average while 20 or above is considered high stress. On the other hand, the mean overall stress score in the POQA is 8.4 where 0 is the lowest (most calm) and 14 is the highest (most stressed).

A discussion on the findings

RQ1

In this study, it was hypothesized that POQA and PSS would have a negative correlation with HRV. In line with the findings of previous studies, there were more significant

relationships between the HRV measures and PSS than with the POQA. Most historical workplace stress research that correlates HRV with workplace stress shows a negative correlation between the variables. For instance, the results are consistent with those of Da Silva *et al.* (2015) when they assessed the correlation between PSS and HRV parameters and reported that the increase in perceived stress is correlated to a lower HRV in healthy young subjects. Moreover, Da Silva *et al.* analyzed data from 35 healthy young volunteers and found a significant correlation between perceived stress and low frequency (ms²) by frequency domain HRV analysis. Probably due to the smaller number of subjects, other global variables such as total power and SSNN had also negative coefficients, but did not have any significant correlation with PSS-14, yet this study contributed to the literature three additional significant negative correlations between PSS and HRV, with perceived stress and five-minute mean IBI; perceived stress and five-minute SSNN, and perceived stress and Ln five-minute RMSSD.

Similarly, Föhr *et al.* (2015) found that subjective self-reported stress has been associated with the objective physiological stress which is consistent with the result of this research. Hence, Föhr *et al.* suggested that the objective stress assessment such as HRV provides an additional aspect to the evaluation of stress.

RQ2

It was surprising to see a significant positive correlation between emotional stress and the MHRR, which indicates that the higher the emotional stress an employee faces, the higher his or her HRV. At first glance, it seems counterintuitive; however, the researcher offers four perspectives to explain this surprising finding.

Personality. According to Turiano *et al.* (2013), it appears that an employee can be a “healthy neurotic.” Turiano and his team concluded that the health anxiety that employees who are high in neuroticism or emotional stress may feel adaptive when it is accompanied by high conscientiousness. In other words, neuroticism or emotional stress may lead the person to worry but conscientiousness leads the person to be self-disciplined and to take action when one’s behavior veers into the unhealthy range. The unhealthy neurotics are the ones whose low conscientiousness means that they have fewer healthy coping mechanisms. Turiano *et al.* further pointed out that when employees were stressed and unhappy, they might turn to overeating, drinking, and smoking. Nevertheless, they said that it was possible that other known health culprits could play a role such as lack of sleep or even a relationship conflict.

Asian culture. Numerous research studies have established that using emotion suppression, whether routinely or experimentally induced, is associated with the unhealthy well-being (Tsai, 2016). Moreover, emotion suppression eliminates the experience of positive emotions while enhancing the experience of negative emotions. Contrary to western cultures, the Asian culture tends to mask negative emotions which are deemed as signs of maturity and awareness. In addition, their reluctance to express negative emotions has potential negative relational concerns which threaten group harmony. This may provide insights to the current research which holds the view that unhealthy Asian employees tend to suppress their emotions and that the suppressed emotions are not regulated successfully.

Emotion regulation. Emotion regulation involves the process by which people manage both negative and positive emotions. Furthermore, successful emotion regulation, by either reappraisal or suppression, has been shown to lead to increased vagally mediated HRV (Fujimura and Okanoya, 2012). Fujimura and Okanoya therefore suggest that healthier employees (in this research study) are able to better regulate their emotional stress as compared to the unhealthier ones because participants with a high baseline of vagally mediated HRV may be spontaneously using emotion regulation strategies more often during an emotional conversation than participants with a low baseline of vagally mediated HRV.

Age factor. As the majority of the participants in this research were between the age of 21 and 40 (considered as a young population group), according to R. McCraty, these participants are possibly still physiologically resilient and as the amount of HRV reflects long-term processes, emotional stress traits would not show up until later in life, reflecting a depletion of the wear and tear on the ANS (personal communication, October 10, 2017).

RQ3

From the POQA, the low score of emotional vitality indicates low scores on both emotional buoyancy and emotional contentment subscales. A low score on the emotional buoyancy subscale indicates that it is likely that the employees feel that they have low levels of emotional energy available for investment in their work and personal lives. A low score on the emotional contentment subscale suggests that the employees may be feeling only low levels of contentment and inner peace with their lives, both at work and off the job.

On the same side of the coin, the low score of emotional stress as shown in Figure 9 indicates low scores on both the anxiety/depression and the anger/resentment subscale in Figure 10. When looking at the normative summary scales which are reverse coded, low scores on the anxiety/depression subscale indicate that a notable proportion of employees may be experiencing high levels of anxiety, unhappiness, sadness and/or depression. Low scores on the anger/resentment subscale indicate that a notable proportion of employees may be experiencing high levels of anger and resentment and may experience difficulty in controlling their feelings and emotions. Hence, from the correlational analysis, it was reported that a significant positive correlation was found between Emotional Stress and MHRR, which indicates that the higher the emotional stress an employee faces, the higher his or her HRV. Discussions on this were noted in RQ2.

Intention to quit. The poor score on this subscale in the POQA indicates that there is an increased likelihood of a notable proportion of employees who are feeling sufficiently dissatisfied with their work environment and that they are thinking about leaving the organization (i.e. quitting their jobs). Yet another surprising finding from the research is that a significant positive correlation between intention to quit and five-minute Ln VLF which indicates that healthier employees may have higher intentions of quitting their jobs. From the literature review, a VLF peak, ranging between 0.0033 and 0.04 Hz, is associated with an increased risk of adverse effects, and the VLF has stronger correlations with “all-cause mortality” than HF and LF power. According to McCraty and Shaffer (2015), a lower VLF is the most predictive of future health problems, since a low VLF power is associated with arrhythmic death and posttraumatic stress disorder. Furthermore, the low power in VLF is associated with high inflammation and has been correlated with low levels of testosterone (McCraty and Shaffer, 2015).

Trying to make sense that healthier employees have an intention to quit, according to Porges (2017), from a polyvagal perspective, when an employee is in a situation that resembles a life-threatening situation, he or she may be unable to utilize mobilization strategies (quitting their jobs) or use social engagement strategies (relating to other colleagues) to get out of the situation. Additionally, the “neuroception” features of that challenge may cause that employee to experience a shutdown condition, which is characterized by the old unmyelinated vagus and coupled with reduced blood flow, especially blood flow to the brain and exhibiting dissociative features. Porges further stated that the greater issue is not the traumatic experience at the workplace, but the making sense of the physiological response that the traumatic event has triggered. In other words, it is not just about the bad event but the consequences of that event on the employees’ physiology and on their nervous systems that is profoundly changing their ability to adapt in the workplace. This may well explain why employees who are not having intentions to quit are what Porges has coined as “immobilized with (or without) fear.”

RQ4

In line with previous research findings, significant findings between age and the HRV measures indicate that the older the employee, the lesser his or her overall HRV (Russoniello *et al.*, 2013). It is surprising, however, that the MHRR in the one-minute deep breathing assessment was not as significantly related to age, especially as age was highly correlated with the SDNN and RMSSD in the five-minute resting HRV assessment. A possible explanation for this is that the one-minute deep breathing assessment is a challenge test that is getting at how much overall HRV the participants' system is capable of producing at that time. Having that in mind, the majority of the participants in this research were between the age of 21 and 40 (considered as a young population group), which possibly explains why the age correlations in the one-minute assessments were not stronger if the age range was not wide enough (R. McCraty, personal communication, September 22, 2017).

Relational tension. A significant negative correlation was also found between relational tension and normalized coherence, which may indicate that the healthier an employee, the lesser the relational tension. According to R. McCraty, relational tension is clearly a source of stress, and he suggests that it is one of the most harmful types of stress. When there is a lower coherence in the one-minute test, especially if the amount of HRV is within the normal range (MHHR and SDNN), he suspects that it indicates an issue with the coupling of the respiratory and the cardiovascular systems within the brainstem. He postulates that this will eventually be shown to be an early warning indicator and is associated with future health challenges (personal communication, September 26, 2017). Furthermore, McCraty (2017) states that relational tension due to lack of coupling and alignment with others may be reflected in lower coupling of the respiratory and cardiovascular systems. He describes how HRV synchronization between mothers and young children nourishes a biological synchronized rhythm which provides the foundation for a social rhythm for the child. Hence, the development of one's internal biological oscillators is critical to future social connection and self-regulation.

Where relational tension is concerned, Porges (2017) suggests that "toxic load" should be understood from the psychological and physiological standpoint such as bodily cues. A healthy employee needs to feel "safe" not just physically but "as an emotion, mood or affective state" as well. Porges postulates that physiologically, it is of paramount importance to feel safety such as how the employee's nervous system desires to feel safe. A decrease in relational tension can be seen as having "effective social interactions" among colleagues, superiors and subordinates which "may actively dampen defense systems and, when defense is down-regulated [...] [employee's] physiological state provides neural opportunities for [one] to learn and to form strong social bonds while simultaneously supporting health, growth and restoration," thus healthier employees (Porges, 2017, p. 115). Porges instigates the significance of social interactions in enabling employees to feel safe because an absence of compassionate face-to-face interactions among colleagues which include bodily cues and vocal cues with warm controlled voices triggers bodily state shifts which fuels the internal defenses and foster miscommunication and misunderstandings amongst colleagues such as "task instructions." Moreover, the researcher has observed how the increased use of technology in the workplace such as online chats dampens face-to-face interactions. Porges further describes how the social engagement system activates the Vagus nerve where for instance, having calm conversations will not only enhance connection with other colleagues but it triggers neural circuits in our bodies that calm the heart, relax the gut and turns off the fear response. The Vagus nerve is further described as having the ability to transmit messages quickly from the brain stem to the heart, lungs and intestines. Moreover, the Vagus nerve regulates some facial muscles, including the ear, and can enhance our ability to give others appropriate facial cues and even hear others better. Hence, the Vagus nerve influences the employee's heart rate and breathing, and is involved in how an employee perceives, reacts and recovers from stress. When an employee feels confident in a

social context, his or her heart rate and breathing slows down, the blood pressure drops with stress responses switching off. The body enters a state of physical calmness. Hence, an employee feels safe to move closer to another colleague, making intimacy possible. Therefore, social engagement can enhance our sense of safety, creating a positive feedback loop which leads to further calming. On the other hand, if the body detects that he or she (an employee) is in “danger,” it switches to the fight/flight response, driven by the body’s hypothalamic–pituitary–adrenal axis, which changes into symptoms of anxiety in the workplace context.

Mean score. The mean PSS score is 17.69 where 13 is considered average while 20 or above is considered high stress. On the other hand, the mean overall stress score in the POQA is 8.4 where 0 is the lowest (most calm) and 14 is the highest (most stressed). In this study, the correlational analysis between PSS and POQA are significantly correlated, therefore, this suggests that the overall level of comfort an employee experiences is a level close to high stress. Moreover, from the discussions in RQ3, out of the four primary scales: emotional vitality, organizational stress, emotional stress and physical stress, both emotional vitality and emotional stress are within the below average range, while the rest of the scales are in the average range. The poor score on the intention to quit subscale of POQA is the most surprising finding and is considered a red flag to management as it indicates that a notable proportion of employees are feeling sufficiently dissatisfied with their work environment that they are thinking about quitting their jobs.

Limitations and delimitations

A limitation of measurement bias might have occurred since the survey data were self-reported, results depended on the effort and honesty of each participant. Participants in the study might have been reluctant to give socially unacceptable answers in the questionnaires, for fear of being judged or are not self-aware enough to provide accurate responses. This might skew the results and caused errors in the correlational analysis. Since the research was on workplace stress, another limitation of surrogate information error might have occurred because the stress the employees experienced might have been non-workplace related such as family bereavement and loss, relationship breakdown, financial problems, family illnesses, commuting pressures, etc. It was also observed that the age range of the participants seemed to have skewed toward the younger population group of 21–40 and this might have led to a design bias limitation. Furthermore, participants that came from four lines of services within the corporation were not equally distributed – Department A (57.6 percent), Department B (11.7 percent), Department C (22.3 percent) and Department D (8.2 percent), which might have delineated a narrow demographic range of the corporation known as a measurement bias (Shuttleworth, 2009).

According to an article search, this was the first research conducted on the relationship between HRV, POQA and PSS in Hong Kong and using HRV as a potential physiological objective measurement for workplace stress. The sample size ($n = 85$) of HRV measures was relatively large compared to other research studies and according to Clinical & Translational Science Institute (2017), the total sample size was of a significant level to achieve a power of 0.80 and an estimated effect size of 0.30.

Implications for office work

The overall research also implied that an average employee experiences a close to high level of workplace stress on a regular basis and, therefore, presenting a universal threat to organizational costs and workplace performance. The research data have concluded that emotional stress and relational tension are inherent in the workplace. Emotional stress may deplete one’s internal resources regardless of whether one is healthy or non-healthy. Consequently, employee turnover may occur when employees are dissatisfied with the workplace environment. Besides, existing

employees who do not have any intention of quitting may be exhibiting immobilization with (or without) fear, leading to a drop in workplace performance. It is, therefore, very critical to find new and effective tools such as HRV assessments to measure and monitor stress as well as having effective interventions to reduce and prevent workplace stress.

Implications for organizations

It is recommended that organizations ought to implement organizational resilient strategies such as mindfulness psychology and integrative health coaching programs as an integral part of a strategic framework of change management initiatives. The act of being mindful for employees and leaders within an organization means to be aware in the present moment, intention in thought and purposeful in action. Additionally, beneficial outcomes for the overall organization include competitive advantages, employee engagement, decreased attrition, increased productivity, better well-being, leadership development, better collaboration leading to healthier organizational culture, climate, longevity and social coherence.

Recommendations for further research

A purpose of having future research is to align the various research works with the social and global coherence notion propelled by the HeartMath Institute. Future research will continue to address topics ranging from stress to reducing violence, reducing health costs, emotional regulation, biofeedback interventions, stress management and even other non-workplace topics such as the academic performance of children of different ages, PTSD, intuition and much more. Hence, further research on the effects of employee stress and HRV needs to be conducted. The researcher has several suggestions for future research.

Repeat research

Similar research can be conducted in other Asian countries such as Singapore, Taiwan with a more diversified age group. A second way is to repeat the research with other subjective perceived stress surveys.

Heart-brain and face-heart connections

Integrating the works of McCraty (2017) and Porges (2017), comparable studies on heart-brain and face-heart connections can be further explored to add to the current body of knowledge regarding relational tension and resilience.

HRV research

Future research studies could use HRV stress measurements to evaluate the effectiveness of stress management interventions. Based on the findings, organizations can objectively identify the most effective intervention types and customize an employee assistance program to reduce workplace stress. Another study could include repeating the original research with additional primary biomarkers which can serve as confirmatory approaches.

Conclusion

This research has explored the correlation between a new quantitative stress measurement known as the emWave Pro Plus and compared it with two other sets of quantitative self-reported perceived stress data: the POQA (POQA) from HeartMath (Barrios-Choplin and Atkinson, 2000) and the PSS (Cohen *et al.*, 1983). This research has looked at the effects of Hong Kong employees' workplace stress on HRV. Two surprising findings have been found in the research in terms of emotional stress and intention to quit. First, a significant positive correlation has been found between the emotional stress and the MHRR, which indicates that the higher the emotional stress an employee faces, the higher his or her HRV. Second, a significant positive correlation has been

found between intention to quit and five-minute Ln VLF, which indicates that healthier employees may have higher intentions of quitting their jobs. Discussions have been held to explain these surprising findings in order to make sense of the data. The research shows promising results and future studies should continue to tap into HRV as an objective measure of mental health and workplace stress.

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About the authors

Adrian Low is Chartered Psychologist (BPS) graduated with a Doctor of Clinical & Industrial/Organizational Psychology Degree from California Southern University in the USA. He also holds a Master's Degree in Education from The Chinese University of Hong Kong. His workplace stress research has won the Presidential Award for Doctoral Research Excellence at the California Southern University and since then he has been invited to be a Keynote Speaker in many conferences worldwide. He is the President of the Hong Kong Association of Psychology, an NGO. Besides, he is Adjunct Faculty Member at the University of Worcester as well as Adjunct Lecturer at the HKU School of Professional and Continuing Education. Adrian Low is the corresponding author and can be contacted at: adrian.low@live.hk

Rollin McCraty is Psychophysicologist and Professor at Florida Atlantic University. He is Executive Vice President and Director of Research of HeartMath Institute. He is also Director of Research and Project Coordinator of the Global Coherence Monitoring System. His research interests include the physiology of emotion, with a focus on the mechanisms by which emotions influence cognitive processes, behavior and health. He and his team regularly participate in studies with scientific, medical and educational institutions worldwide. He has written extensively and been widely published in his areas of scientific interest. He holds numerous memberships, including with the American Autonomic Society, Pavlovian Society, National Association for Psychological Science, Association for Applied Psychophysiology and Biofeedback and Society for Scientific Exploration.

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A case study of the critical success factors for organizational change of a public listed corporation

Hong Kong Broadband Network

Earnest Li

*School of Communication,
The Hang Seng University of Hong Kong*

Abstract

Purpose – The purpose of this paper is to explain how an organization can achieve successful change implementation with Kotter’s eight-step organizational change model and 3-H (heart–head–hand) theory.

Design/methodology/approach – With the case study approach, the author recollects his career experience in Hong Kong Broadband Network Limited from 2007 to 2011 to find out why and how the top management can balance 3-H factor to bridge the “knowing” and “doing” gap to engage right talents and motivate them to achieve peak performance and company goal.

Findings – To create talent culture, the company implemented two policies including Mini-CEO management and Talent Engagement Department. The former is a vertical management model to empower and enable department heads. The latter is a way to change the role of human resources department from passive to proactive.

Originality/value – The implications of this case study are to encourage public and private organizations to rethink the factors including talent development and empowerment that can have a positive impact on innovative work behavior. Moreover, organizations can rediscover the value of “unique” talent culture as a sustainable competitive advantage.

Keywords Communication, Organizational commitment, Transformational leadership, Motivation, Discipline action, Talent culture, Knowing doing gap

Paper type Research paper

Introduction

In 2008, the author was promoted to be the News Controller of HKBN’s Pay-TV News Department and under the coaching of William Yeung, the newly appointed CEO. From 2008 to 2013, he experienced a journey of organizational change with a “Big Hairy Audacious Goal” (BHAG) to be the largest next-generation network (NGN) provider in Hong Kong by 2016. To achieve this goal, top management decided to invest in building a unique talent culture as a key sustainable competitive advantage. HKBN was established by City Telecom (HK) Limited (CTI) in 1999. One year later, the company obtained the local wireless Fixed Telecommunication Network Services License and launched broadband internet services. During that period of time, the market was shared by three major competitors: PCCW Netvigator, i-CABLE Communications, and Hutchison Global Communications. CTI was defined by the market and media as “cheap telecom international.” It showed the branding of HKBN was not as good as the competitors.

HKPAA



Having invested in fiber network infrastructure for five years, HKBN launched bb1,000 high-speed broadband service, making Hong Kong the first in the world where one-third of total households could enjoy Fiber-to-the-Home 1,000Mbps residential broadband service. Being the technology leadership, top management of the company decided to set BHAG and write vision statement in 2006. Ricky Wong, Founder of CTI and HKBN, appointed William as successor to replace him as CEO to lead the organizational change with 2,700 talents in 2008.

According to the 2009 annual results, the company got excellent performance which was better than its competitors. The growth of FTNS in the industry increased by 21.8 percent and subscriptions increased by 142,000–943,000 during the FY2009. HKBN charged a price premium to our competitors and kept customer churn rate below 1 percent. In 2011, *New York Times* reported HKBN's provision of 1,000Mbps high-speed broadband services at mass market price. Top management described the branding of the company changing from “cheap telecom international” to “Hong Kong Best Network.”

Statement of the problem

Based on the author's observation and experience, top management led the change successfully with talent culture in three years. Kotter (1995) suggests the eight-step organizational change model. He finds out many companies fail to lead the change because they cannot avoid the errors of transformation. Why HKBN can achieve to build talent culture in “short” time? How can the company manage the change with three dimensions: create the climate for change, engaging and enabling the organization, implementing and sustaining for change? What factors can influence the motivation and job performance of 2,700 talents? Some researchers state that transformational leadership will have a positive impact on employees' innovative work behavior (Afsar *et al.*, 2014). Under the challenge of technology and changing environment, both public and private organizations are required to adopt change and promote innovation to improve products and services. Conger and Kanungo (1988) state several factors including organizational factor, supervisory style, reward system, and job design to empower employees. Some researchers argue that public sector organizations can use training and lead by example to adopt change as private organizations (Schraeder *et al.*, 2005).

Significance of the study

Regarding to the issues of survival or winning on competition, researchers argue that many companies know they have to change to create competitive advantages and know the knowledge of leadership, motivation theories, change management, strategic management and human capital under the benefits of information technology. However, the performance of some companies showed that they are knowing but not doing. It seems a “knowing-doing gap” existing in change process. First, this paper will explain the critical success factors of organizational change with Kotter's eight-step organizational change model and 3-H (heart–head–hand) theory (Yu, 2018). Second, this paper will analyze how leaders can balance 3-H factors resulting in the unity of knowing and doing. Barney (1986) states that a firm with valuable and rare culture can obtain superior financial performance. This study can help researchers and leader-managers to further examine how 3-H factors can influence the success or failure of building “unique” talent culture as sustainable competitive advantage by winning the commitment from majority of staff (“heart” factor) with competitive strategy (“head” factor) and skills (“hand” factor) to achieve organizational goal.

Research problem

This paper will assess 3-H functionality in HKBN building talent culture from 2007 to 2011. Following questions will be asked and answered from the author's past experience and knowledge:

- (1) Does HKBN factor 3-H elements into human resources (HR) such as recruiting and talent development to empower "knowing" and "doing" plus build on the change?
- (2) Does the talent performance review process, especially the reward and promotion decision considering 3-H factors to make "doing" stick to talent culture?
- (3) How often the "heart-related" adjectives such as "mission," "passion," "dream," "commitment," "value," "discipline" and "execution" are usually used by top management as "heart" approach to describe a leader-manager while communicating the vision?
- (4) Has the 3-H perspective been blended into HKBN's BHAG and vision statement which were notably showed and periodically delivered to employees through formal communication channel to engage talents "knowing"?
- (5) Has the purpose and significance of 3-H perspective been preached and discussed in major corporate events to show talents the way to unify "knowing" and "doing"?
- (6) Does the talent culture strengthen the development of 3-H indoctrination in HKBN as a way of unity "knowing" and "doing"?

Literature review*Organizational culture, change and leadership*

Handy (1996) argues that an organization can be killed by wrong culture such as bureaucratic culture restricting flexibility. To survive, organization has to create "right culture in the right place for the right purpose." Under the right culture, employees may share the feelings and experiences proposed by top management or leaders. Culture will provide company a history to share and a set of core values and purposes to build a motivated workplace. On the other hand, it can kill a company. It means organizational culture can be a key to short-term success, and if leaders cannot master evolutionary and revolutionary change, company will experience long-term failure (Tushman and O'Reilly, 1996).

Schein (2010) in his book "Organizational culture and leadership" states that if we do not understand the cultural force, we will be victim in organizational life. Companies like CTI developed its business for 15 years with past success may build a culture of arrogance and fall in organizational trap (Argyris, 2012). To save the company, leaders have to change the game rule avoiding the dark side of leadership and disadvantages of bureaucracy (Wren and Bedeian, 1994). Role of a corporate leader is a decision-maker to lead organizational action and thinking (Salaman, 2001). Leading change is also the responsibility of a corporate leader who can transform the culture with continuous change and comfortable change (Handy, 2012). Abell (2006) in the journal "The future strategy is leadership" argues that leaders have to balance the jobs of "running" the business with the mindset of "today-for-today," and "changing" the business with the thinking of "today-for-tomorrow." We better to seek a fit between four dimensions to influence organizational behavior: leadership purpose (want), leadership responsibility (should), resources (can), future opportunity (could).

Compared Abell's theory with Yu's (2006) 3-H theory, both are talking about "heart" factor driving leaders "want to," "head" factor leading talents "should or ought to," and "hand" factor guiding talents "can or how" do things with resources. In 2006, Ricky Wong, Founder of CTI and ex-CEO of HKBN, earned his EMBA knowing the theories of organizational culture, change management and leadership. Facing the competition of broadband service, he discussed with members of top management team and decided to

change the company culture to create sustainable competitive advantages. According to the annual report (CTI, 2007), Ricky stated that HKBN got technology leadership with the infrastructure of fiber network which was three years ahead of competitors. Nonetheless, he thought it was time to create a new and differentiated corporate culture as sustainable competitive advantage. It explained why Ricky wrote a vision statement of the company, set BHAG and created talent culture to influence the “heart” of right talents.

Goal setting and motivation

Collins and Porras (1996) in the journal “Building your company vision” state that the importance of core ideology that benefits organizational development with core values, core purposes and BHAG describing the envisioned future. Goal setting will influence employee behavior and motivation. Ricky set a quantitative BHAG for HKBN: be the largest NGN service provider in Hong Kong by 2016. He also led the company to set core purposes and core values. To create talent culture, two policies were implemented. Mini-CEO management is a vertical management model to empower and enable department heads thinking and acting like a CEO. Talent Engagement Department (TED) is changed from HR department to control and allocate the resources of not only HR, but also talent development and administration to execute the transformation achieving the building of talent culture. Actions showed that top management was adopting strategic management and motivation related theories to attract right talents and deal with the “heart-head-hand” issues of department heads and subordinates.

Hofstede *et al.* (2010) in the book “Cultures and organizations: software of the mind” states that culture is a “mental software” that will influence employee behavior. To avoid company being an elephant restricting flexibility of “change” culture, top management should pay attention on employee, process, system and control issues. Researchers argue that HR can be a source of sustainable competitive advantage (Wright *et al.*, 1994). Steers *et al.* (2004) review the observation of MIT Economist Lester Thurow, arguing successful companies will compete in the future based on technology and HR. What factor will be a critical strategic asset in competition? It is a “motivated workforce.”

Under the age of information technology, employees not only work for satisfying basic needs, but also work for self-actualization. Talents will want to learn to be leaders rather than followers. Regarding the motivation theories about the future work, researchers support the concepts of “shared leadership” (Maitland and Thompson, 2011) and “shared decision-making” (Williams, 2007). Mini-CEO management model is a kind of shared leadership allowing 40 department heads of HKBN including the author to make decisions to run and change the business of Pay-TV News Department under the coaching of CEO. It is “heart-head” action. Kotter (1998) argues that the success or failure of transformation efforts and sustainable results depend on “vision” and “coalition.” It means leaders have to win the “heart” of employees and get “human capital.” Researchers review Kotter’s eight-step change model and concern the discussion of the relationships between motivation, communication, and leadership that will influence organization change (Gilley *et al.*, 2009).

Execution and knowing-doing gap

Porter and Michael (2001) in the journal “Strategy and the internet” state that a company needs to follow six principles to maintain a distinctive strategic positioning. The first principle is “starting with right goal,” and the sixth principle is “continuity of direction.” Researchers argue that corporate success comes from consistently creating, spreading and using new knowledge (Rani and Sania, 2016). Top management of HKBN including Ricky and William always mentions “execution” and “run the talk, not walk the talk.” It appears that “execution” is a key to bridge knowing-doing gap with regards to the case of HKBN’s

talent culture. What is execution? Bossidy and Charan (2002) in the book “Execution: The discipline of getting things done” state the following concepts: execution is a discipline and integral to strategy; execution is the major job of the business leader; execution must be the core element of an organization’s culture.

The author believes culture is a matter of “heart,” strategy is a matter of “head,” and job is a matter of “hand.” Therefore, execution is a matter of fitting elements of 3-H. Drucker (2012) in his book “Management Challenges for the 21st century” states that social discipline such as management is a way or action to take for dealing with people and human institutions. How to motivate people with goal setting and make it happen during the process of execution? It needs “discipline action” to take (Collins and Collins, 2001). If we can balance 3-H when managing the change, we can build the culture. Burke and Cooper (2008) in the book “The peak performing organization” argue that culture is the result of the actions of all. Compared this concept with the theories of Chinese leadership such as Sun Tsz’s Art of War, if we want to achieve our collective potential performance, we need to enhance our capability. It means if we can execute “doing,” make good use of our capability of heart–head–hand and turn it to be corporate culture, we can win the competition.

Methodology

This paper is a case study of a local telecommunication company with 5-R (recollect–research–review–reflect–realize) research approach to examine Kotter’s eight-step change model with 3-H factor. Recollecting the author’s experience in HKBN from 2007 to 2011, it was a journey of building a new culture focusing on talent engagement, development and execution. The author will review the following company’s actions including BHAG and vision statement, Mini-CEO management model, educational partnership, “CXO of the future” program, working-improvement team, and 5 percent talent upgrade plan. These actions are put into different steps of Kotter’s change model to examine the presence of 3-H factors (Table I).

To further explore the effect of 3-H factor on the change process of HKBN, the author puts heart-oriented, head-oriented, and hand-approach actions with the concept of change management, leadership and motivation (Table II).

Regarding the “heart-oriented” approach to organizational change, Yu (2018) states that it is a very difficult job because of managing people. To examine 3-H theory and extend the

Create the climate for change	Engaging and enabling the organization	Implementing and sustaining for change
No. 1: Create urgency BHAG (heart)	No. 4: Communicate the vision Vision day/staff meeting (heart) Management meeting (heart) Intranet (heart-head)	No. 7: Build on the change KPI (head-hand) 5% talent upgrade plan (heart-hand) “CXO of the future” program (heart-head)
No. 2: Form a powerful coalition Mini-CEO management (heart-head) Talent Engagement Department (head)	No. 5: Empower action Mini-CEO management (head) Educational partnership (head-hand) Working-improvement-team (hand)	No. 8: Make it stick Management trip (heart) Staff meeting (heart)
No. 3: Create vision for change Vision statement (heart) Core purposes (heart) Core values (heart)	No. 6: Create quick win Technology leadership (heart) Service leadership (heart) HR awards (heart)	

Table I.
Kotter’s change model with 3-H factors

Table II.
Verifying 3-H factors
with HKBN's
strategies for change

Factor	Basic state	Advanced state	HKBN's action	Appeal to
Heart	Feeling	Engagement and commitment leadership	BHAG Unique culture Unique vision statement Core purposes Core values	Want to
Head	Thinking	Strategy	Mini-CEO management Talent Engagement Department 5% talent upgrade plan "CXO of the future" program	Ought to
Hand	Doing	Knowledge and skills	KPI Educational partnership Working-improvement-team	How to

understanding of Kotter's change model, following assumptions are applied in this paper. The author believes that top management wants to help employees to develop their potentials doing good and doing well, use heart-to-heart communication methods, and care not only the interests of the company but also the social communities.

Analysis and discussion on findings

Having conducted research-related facts and theories and review the author's career experience, he found the answers of the above-mentioned questions.

Does HKBN factor 3-H elements into HR such as recruiting and talent development to empower "knowing" and "doing" plus build on the change?

The answer is yes. HKBN changed the name of HR Department to TED in 2007. The role of TED is changed from personnel management to talent management and acquisition. Combining the functions of administration, talent management, learning and development opportunities, TED is treated as "head" factor to enrich and enforce job knowledge and skills of existing and new-joined talents think and act synchronizing with the company vision and culture.

To recruit "right" and young talents as management trainees (MT), HKBN launched the "CXO of the future" program in 2009. Selected talents have to go through an 18-month on-the-job training to understand all aspects of the company including company history, vision statement, core purposes and core values. During the training period, MT is expected to gain professional qualification such as the Chartered Financial Analyst Examination, read and share 36 management books as well as complete a 21 km Half Marathon. Top management wants to use this program to engage young talents who will buy-in the company vision and culture and they will be coached and developed to be the next generation of executive leaders as COO, CFO or CMO in the next 15–20 years. It is a "heart-head" factor. Young talents feel that they are treasured by top management and know their career path.

MT also played the role of "change agent" as a "heart-head" to motivate leader managers. In 2009, NiQ Lai, CFO of HKBN who was the supervisor of TED, invited the author to have lunch chat and encourage him to develop new service delivering video news stories on digital platforms such as YouTube. He suggested the leader to reallocate the resources of news department for service development and set key performance indicator (KPI) to attract a certain number of views. If news department could achieve KPI, it would be a showcase to prove departmental performance increasing from the level of "below-average" to "average."

The author proposed the KPI of attracting 10,000 views in three months, but NiQ said he should aim high. As a leader, the author took the challenge and re-set the KPI of attracting 100,000 in six months with a request of extra manpower. NiQ agreed and assigned three

MTs to be my “partners.” However, they could only participate in the product after work. As a leader-manager with vision, the author accepted the offer to show top management and the MTs that we could make it happen under limited resources and time. It is HKBN’s corporate culture which affects leaders’ feeling, commitment (“heart” factor) and thinking (“head” factor) to make decision and take action.

One year later, the YouTube channels attracted over 1m views because talents of news department changed the content direction focusing on feature stories rather than routine daily news stories. If top management did not use “heart-head” factor to motivate the author doing “change” with the support of MTs, the author would not gain the experience which helped the team to develop new service of mobile application in 2010. At that time, the company experienced the building of talent culture for over three years. Top management used the principle of Kotter’s change model to motivate the author to “create quick win” and “build on change” which were perceived by the author as 3-H factor.

Referencing the “CXO of the future” program, the leaders of news department proposed a new way to recruit next-generation news anchor and reporter in 2010 and 2011. The program was called “The Anchor.” With the support of top management, news department worked with TED to launch the program and conduct recruitment talk in universities to attract the “heart” of “right” talents who will buy-in HKBN’s culture. In 2010, the author and the team selected two candidates who experienced the on-the-job training and coaching. Their performance was above average and they helped the department to produce feature stories covering current affairs in Beijing and Japan (outport assignment). It was estimated that the production cost was 15–30 percent lower than our competitors.

Normally, a TV news agency will use three people (one reporter, one cameraman and one technician) to handle outport assignment. However, HKBN assigns two people (one reporter and one cameraman; or two reporters) to handle outport assignment under the mindset of producing “high-value” story for audience at lower cost. In addition to mindset, we offered mentoring and the top performers of news department will play the role as a coach to strength the knowledge and skills (“hand” factor). As a result, the feature stories got satisfied number of views on our YouTube Channel and the portals of Yahoo and MSN Hong Kong. Action of “The Anchor” program showed the principle of “build on change” suggested by Kotter’s change model with “heart-hand” factor.

However, when news department tried to adopt HKBN’s Mini-CEO management model to change production team, resistance to change (RTC) happened. Mini-CEO concept is a vertical management model to decentralize authority to better manage respective departmental resources. It can facilitate a lot of innovation in operation of each department. The purpose of this management model was to empower potential talents being a committed “business owner” rather than working as employees. Surprisingly, the head of production team rejected the idea and showed the attitude of RTC, but other producers supported the idea. Finally, the head of production team resigned and the team was restructured. To motivate the “right” talents, “heart-head-hand” factor is used to influence the talents thinking and doing. All production assistants with above-average performance were promoted to be junior producer and arranged them to receive training classes offered by educational partner. It showed that transformation may fail because leaders cannot reduce or overcome the force of RTC. If we do not remove this obstacle, the “heart” of other talents may have a negative effect. He or she may think it is not necessary to buy-in company culture and try to strengthen “knowing” and “doing.” It is because if someone who does not buy-in culture and vision, he or she can stay in the team with no impact.

To implement company vision and create company culture, top management decided to invest more on building human capital to strengthen the talent pool rather than spending on advertising. Top management wanted to show talents that HKBN cared the learning and development opportunities of staff. Under this direction, TED obtained resources to build

life-time learning facilities including a total of 25,500 square feet talent development venue, an internal library with a wide collection of management books, and professional knowledge series delivered by in-house subject matter experts. Moreover, TED invited celebrities to be guest speakers expressing strong commitment to quality and positively influencing talent's mindset. Furthermore, HKBN collaborated with a "life coach" encouraging department heads to work with him to conduct workshop of team-building or personal goal-setting.

To strengthen the employees' innovative work behavior of news department, leaders took action to collaborate with TED and the life coach conducting several half-day workshops to "tune" the mindset of talents. The purpose was to deliver the message: right talents stay, and wrong talents leave. One of the significant workshops was held in Hong Kong Disney Hotel. A total of 30 selected talents from different sections joined the workshop with the theme of dream and career. Talents were requested to form groups and join outdoor activity to find the papers with positive words hiding in the park. After they collected the papers, each group had to construct a statement. With the statement, each talent had to think how to execute the statement in daily operation. Such kind of activity influenced few of them to resign later. These talents were graded as under-performed and being the potential force of RTC. Using this kind of activity, we can reduce RTC and damage when he or she was terminated under the 5 percent talent upgrade plan. The author finds "heart-to-heart" factor sometimes can influence the relationship between supervisors and subordinates and help to persuade right talents "knowing" and "doing" better. In contrast, wrong talents may perceive their future in the company will not be "good" and motivate them to think about what to do next.

From 2007 to 2009, the number of talents increased from 2,700 to 3,000. Half of them were working in Guangzhou (GZ) to support our customer services. One question for top management and TED was to engage and empower talents with different cultural background. Another question was to engage both local talents and GZ talents to work as a team with shared vision and values. To solve these questions, TED launched two programs: Education Partnership Program (EPP) and Executive Development Program (EDP). Purpose of EPP was to cultivate a continuous learning and development culture. All permanent talents once joined the group. In 2007, 62 talents joined EPP to study diploma or degree courses with allowance. Number of applicants increased 250 percent compared to 2006. Later, two front-line talents (one production assistant and one audio-visual editor) from news department joined EPP to study degree courses. Atmosphere of learning to be a better talent makes employees believe the company is investing on talent development synchronizing the corporate culture. It is a "heart-head" factor. In reality, the attitude and performance of the two talents who joined EPP were improved. With regards to the GZ talents, top management used EDP to groom GZ local staff to management roles, attract and motivate them with reward system. One of the key purposes of EDP was to visualize the concept of talent's career development opportunities. The outline activities of EDP include departmental attachment in Hong Kong, management book reading and mentoring system. It was a "mini-CXO of the future" program and "heart-head-hand" approach to engage and empower GZ talents to bridge "knowing-doing" gap.

Both EPP and EDP are the evidence of executing the principle of "empower action" suggested by Kotter's change model. Top management of HKBN not only invested on the development of front-line talents, supervisors, and managers, but the company also motivated the talents of TED to upgrade knowledge and skills. For example, department heads, managers, supervisors, and front-line talents were required to join "Outreach" program.

All talents of MT proactively went out to understand the need of our business partner rather than business partner come to us. It was the first and the only one in the local telecommunication industry. Inspired by the outreach program, leaders of news department "copy" the concept to motivate supervisors (news editors and producers) of news

department to go out with front-line talents (reporters and cameramen) to understand the workflow, difficulties, and situations. It helps supervisors know more the actual workplace and the need of our front-line talents rather request them to complete assignments without evaluating the real situations. It is a “3-H” factor for making transformation “build on change” and “make it stick.”

Does the talent performance review process especially the reward and promotion decision considering 3-H factors to make “doing” stick to talent culture?

The principle of HKBN’s reward system is “gain-and-pain.” Talents with the best performance will gain discretionary performance bonus, salary increment, promotion and incentive scheme. For example, one news anchor and one cameraman of news department were graded excellent performance in 2009. Each got the performance bonus which was equivalent to 200 percent of monthly salary. Besides, they were nominated as the outstanding staff and both received award on the stage of monthly management meeting. In contrast, under-performed employees got “pain” with 0 percent bonus and 0 percent salary increment. TED allowed department head to offer working-improvement plan for underperformed staff in one to two months. If he or she could pass the requirements, he or she would have the chance to stay in the department. Otherwise, department head will terminate his or her employment and recruit new talents. This was “5% talent upgrade plan” which required department head to review and measure the performance of all talents with a standard scorecard. In total, 5 percent underperformed staff will get “punishment” and leave the company.

HKBN’s reward system showed “heart-head” factor to motivate right talents to buy-in company culture and influence their affective feeling to “doing” better performance and contribute more for personal and departmental objectives. With regards to Kotter’s change model, it is the principle of “make it stick” showing all employees that HKBN treasures “smart” people. It delivered a message that right people did the right things in the right time. He or she would gain a lot. This is company culture. Nonetheless, the force of RTC is still existing though we have a “fair” and “justified” reward system. For example, one graphics designer of news department was graded as under-performed employee and would be one of the 5 percent of employees who would leave the company later. He did not accept the result because leaders failed to coach the supervisor communicating with him to manage his expectation before notifying his performance and “pain.” Accidentally, he was injured at work on the same day. He took ten-month sick leave and the department was not allowed to recruit a new graphics designer because of the policy of freeze-headcount. Again, this incident led to a “negative” influence on the “heart” of some producers and reporters at the beginning. Some of them thought the graphics designer used “work injury” to get sick leave and delay his termination of employment. Facing this situation, leaders of news department wanted to maintain the morale of workforce synchronizing with the company culture. Leaders tried to persuade team mates not to guess the objective of that graphics designer, accept the fact that someone got work injury, focus our mind and effort to learn new skills and produce good stories for our audience and achieve department goal. It showed that leader-manager has to “know” the two sides (positive and negative) of Kotter’s change model and principles, “do” the “right” things or make a shared decision to deal with the obstacles of change.

Some talents may treat learning opportunities with financial support from the company as a reward. In HKBN, top management believes talent culture and learning organization can create sustainable competitive advantage. The company launched executive upgrade plan for senior managers to extend leadership pipeline coaching more business executives rather than functional managers. In 2007, 11 senior managers got educational sponsorship to study eMBA or MBA in named and top-ranked universities including the Chinese University of Hong Kong and the Hong Kong University of Science and Technology. It is a “heart-head” factor which may help forming powerful coalition for transformation.

To reward leader-managers, TED tried to energize them with the concept of enhancement and work-life-balance. Every year, TED conducted management trip which was a one of the outdoor activities for senior managers to see the world. From 2009 to 2011, the author joined the trip to Japan, Germany and Cambodia. The theme of the Cambodia trip was “paint-our-dream.” Purpose of the trip was to inspire us to re-think the values of our life and what we want to do in the next 10–20 years. One of the key activities was to draw the dream on a A3-size paper in front of the Angkor Wat temple without the disturbance of mobile phone and talking. It is a “heart” factor to motivate the right talents. After this trip, leaders of news department conducted a workshop with TED and life coach again to inspire team members. The purpose is to deliver the message about “knowing” the company culture and “doing” the right things to enhance themselves, company and the world.

Regarding the work-life balance, TED offered leave benefit such as sabbatical, paternity leave, examination leave. It is another evidence for talents to perceive the company concerns not only the organizational life of employees, but also personal development and family life. However, leave benefit sometimes may have a “negative” effect on daily operation. Supervisors have to communicate with team mates to change working method and style to get the job done effectively allowing team mate to take leave benefit. The good side is that the policy may help the department developing new ways (knowledge and skills) to improve efficiency. The bad side is the policy may lead some talents thinking the issues of “workload” and “fairness.” It will be a challenge for leader-manger to balance 3-H factor to execute the company policy and have a “happy” result.

How often “the heart-related” adjectives including “mission,” “passion,” “dream,” “commitment,” “value,” “discipline” and “execution” are used by top management as “heart” approach to describe a leader-manager while communicating the vision?

In order to guide the company and all talents with a clear direction, a unique vision statement and a set of core purposes and values were designed. The core purposes set three dimensions to change the mindset. First, HKBNers love to experience the emotion of competition, winning and crushing competitors. Second, HKBNers love to experience the joy of advancing and applying telecommunications technology for the benefit of the public. Third, HKBNers love to fulfill the desire of Self-Actualization and “to become everything that one is capable of becoming.” From the content of core purposes, the author can see the company applied 3-H theory (Yu, 2018) with heart-oriented approach to attract “the right people to get on the bus,” and the “wrong people get off the bus over time.” The core values are set to guide the organizational life with three directions: continuous strive for the best as a way of life; being people’s leader and pioneer; direct and action-oriented. Besides, top management sets two aspirational values: integrity; working with smart, capable, competent and demanding people.

Kotter’s change model states that the principle of communicating the vision can avoid the error that makes the transformation efforts fail. It means top management has to teach talents new behavior by examples of guiding coalition. To the author’s past experiences, William, CEO of HKBN always used adjectives including “mission,” “passion,” “dream,” “commitment,” “value,” “discipline” and “execution” when he communicated the company vision and described the performance of leader-mangers in monthly management meeting and yearly staff meeting. It is a “heart” factor which makes the author believe top management not only “talking” vision, but also “doing” to turn knowledge into action.

Has the 3-H perspective been blended into HKBN’s BHAG and vision statement which were notably showed and periodically delivered to employees through formal communication channel to engage talents “knowing”?

Engaging and enabling the organization to communicate the vision with all talents is one of the tasks of TED. The department tried different communication channels such as vision day, staff meeting, monthly roundtable meeting, staff forum in intranet, and monthly electronic video newsletter. It showed TED paid effort to strengthen “heart” factor on

positive talent perception, and different activities were matched with one of the core values of HKBN: direction and action oriented.

Has the purpose and significance of 3-H perspective been preached and discussed in major corporate events to show talents the way to unify “knowing” and “doing”?

TED communicated the vision (“heart” factor), strategies (“head” factor), knowledge and skills (“hand” factor) with all kinds of activities like coaching (team coaching; field coaching), monitoring (compulsory company examination), sharing, reading day and postgraduate studies by senior management. From the author’s observation, “vision day” and “staff meeting” are the major company events that will show talents “know-why” and “know-when.” Under the support of TED, staff meeting will be divided into three rounds. The first round is conducted for day-shift employees, the second round for night-shift employees and the third round for GZ’s talents. CEO will moderate the staff meeting and announce business goal connecting to company vision and BHAG. Moreover, top management will notify major strategies and action plan. Further, employees are allowed to ask questions, and CEO will give immediate answers. Under the coaching of CEO, head of news department has to set KPI, and communicate with CEO to review performance. If the department cannot achieve KPI with justified reasons such as limitation of resources, leader is allowed to reset KPI and reallocate resources to achieve new goal. In 2010, new service was developed by news department to provide news stories through mobile app. It affected daily productivity which was one of KPIs. Having talked with CEO, he agreed the department could focus on the development of new service which could help the branding of our department with lowered productivity in that period of time. It appears top management considerate (“heart” factor) the situation of department, support the strategic action (“head” factor) and allow us to re-allocate departmental resources (“hand” factor) doing the right things.

Does the talent culture strengthen the development of 3-H indoctrination in HKBN as a way of unity “knowing” and “doing”?

Talent culture helps HKBN to create more leaders with vision and shared values to achieve BHAG. It appears that the company uses Mini-CEO management model as a strategy (“head” factor) for change and uses “education” method (“hand” factor) suggested by Kotter and Schlesinger (2008) to make senior managers being leaders and feel more committed (“heart” factor) turning knowledge into action with his or her supervisors and subordinates. By changing “company-out” traditional horizontal management structure into “customer-in” new vertical management structure, HKBN can offer more benefits to customers of five districts (Hong Kong Island, Kowloon West, Kowloon East, New Territories West, Territories East) managed by five mini-CEOs. Under this strategy, CEO can lead the transformation with five leaders and TED instead of managing 40 department heads. It allows top management to have flexibility to think (“head” factor), learn and take action (“hand” factor). According to the 2009 annual results, the company said an assertive step was put towards BHAG. Fixed Telecommunications Network Services turnover increased by EBITDA increased from 29 percent in FY2008 to 34.4 percent in FY2009. Basic earnings per share increased from HK19.7 cents in FY2008 to HK32.4 cents in FY2009.

Reflection and realization

Having recollected and reflected the journey of building talent culture with HKBN from 2007 to 2011, the author realizes that Kotter’s change model is applicable, and leader-manager can use 3-H factors to make a positive effect on the change process and create sustained competitive advantage. However, if an organization cannot create a unique talent culture, it cannot engage the right talents joining and staying in the company to bridge the “knowing-doing” gap. Moreover, organizational transformation with “heart-head-hand” factors, leaders do have commitment, knowledge, skills and discipline action to “fit” all competencies and resources together effectively. Therefore, a transformation leadership style is a key to making

change happen. Ricky, former CEO of HKBN, started the transformation. To avoid falling into the organizational trap, he decided to appoint William to be the successor. Before joining the company as COO in 2005, he was the Director of Customers Division at SmarTone Mobile Communications Limited. Shortly after starting out as a police inspector, William realized his passion was in customer engagement and operational efficiency. His past experiences showed his discipline action influenced by personality, experiences, knowledge, and skills. It can explain why he can balance 3-H factors to bridge “knowing-doing” gap and help to build unique talent culture with superior economic returns.

Conclusion

A lesson to learn from the transformation of HKBN is a result of balancing 3-H factor to execute Kotter’s eight-step change model. It explains the critical success factor of organizational change. This paper adds a literature of using 3-H factor with the principles of Kotter’s change model. It finds that proactively communicating the company vision with employees may lead to positive and negative motivation that influences the performance of a local broadband service company. Researcher can verify and examine 3-H factors in modern workplace of other industries to find out how 3-H factors can help leaders predict talent behavior when they implement change in organizations. The implications of the case study to public sector organizations include talent development and empowerment that can have a positive impact on innovative work behavior. In Hong Kong, some public organizations find transactional leadership style may limit employees’ idea generation and idea implementation. One of the critical success factors of HKBN’s transformational leadership is using knowledge sharing and psychological empowerment to build employee confidence to perform innovative behavior. Another critical success factor is to build an organizational culture encouraging employees to propose new ideas and turn ideas into action. Nonetheless, public organizations may face a difficulty in balancing standard operation procedure and empowerment. Some talents may fear to take risk to be innovative that may cause job insecurity. Practitioners can further test 3-H factors in organizational change to create competitive advantage in service industry, though a company cannot easily “copy” the talent culture of HKBN. It is a kind of “sportsmanship” winning a right talent’s commitment, motivating him or her to learn, take risk, take action to fight for the best results. Meister *et al.* (2010) state the motivation of next-generation employees are looking for different values in their workplaces. An organization with vision to treasure “people, plant and profits” may attract talents especially young generation to perform better.

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About the author

Earnest Li is a part-time lecturer of The Hang Seng University of Hong Kong, and a Media and Communications Professional with over 25 years' experience. He is the Founder of Newzpire Limited, a start-up which provides "edutainment" and consultancy services including transformation design, change management training and social media communication for NGOs, public and private organizations. Prior to that, Earnest spent six years with Hong Kong Broadband Network Limited (HKBN) – a listed company on Hong Kong Stock Exchange and New York Stock Exchange – as the News Controller of digital TV news channel and a member of the senior management team. He was one of the key senior executives responsible for training over 300 supervisors and frontline staff of HKBN in Hong Kong and Guangzhou. He led a series of workshops on good governance, innovation leadership, talent development, process improvement, internal control management (ICM) and workplace safety. Earnest obtained his MBA Degree at the University of South Australia. He has been studying DBA at the University of Wales Trinity Saint David since 2018. Earnest Li can be contacted at: earnestli@hotmail.com

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