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特許秘書

# Corporate Governance Paper Competition on 'Corporate Governance – Challenges and Opportunities in the Digital Age' and Presentation Award 2018



# The Hong Kong Institute of Chartered Secretaries

## 香港特許秘書公會

(Incorporated in Hong Kong with limited liability by guarantee)

The Hong Kong Institute of Chartered Secretaries (HKICS) is an independent professional body dedicated to the promotion of its members' role in the formulation and effective implementation of good governance policies as well as the development of the profession of Chartered Secretary and Chartered Governance Professional in Hong Kong and throughout Mainland China.

HKICS was first established in 1949 as an association of Hong Kong members of the Institute of Chartered Secretaries and Administrators (ICSA) of London. It was a branch of ICSA in 1990 before gaining local status in 1994 and has also been ICSA's China/Hong Kong Division since 2005. The ICSA is in the process of changing its name to The Chartered Governance Institute.

HKICS is a founder member of Corporate Secretaries International Association (CSIA) which was established in March 2010 in Geneva, Switzerland. In 2017, CSIA was relocated to Hong Kong in which it operates as a company limited by guarantee. CSIA aims to give a global voice for corporate secretaries and governance professionals.

HKICS has more than 6,000 members and 3,200 students.

For more information, please visit [www.hkics.org.hk](http://www.hkics.org.hk)

## 香港特許秘書公會

(於香港註冊成立的擔保有限公司)

香港特許秘書公會(公會)是一個獨立專業團體，一直致力於訂定與執行良好公司治理政策，在香港以至中國內地提升會員所擔當的角色，同時推動「特許秘書」和「Chartered Governance Professional」專業的發展。

公會於1949年成立，最初為設立在英國倫敦的特許秘書及行政人員公會(ICSA)的屬會，於1990年成為ICSA的香港分會，並於1994年在香港正式註冊成為獨立專業團體，亦從2005年至今為ICSA的中國/香港屬會。ICSA將於不久將來正名為The Chartered Governance Institute。

公會亦是公司秘書國際聯合會(CSIA)的創會成員之一，CSIA於2010年3月於瑞士日內瓦成立，從2017年CSIA遷移至香港，並以香港擔保有限公司形式運作，在國際上代表全球公司秘書和管治專業人士發聲。

公會現擁有超過6,000名會員及3,200名學員。

更多資訊，請瀏覽[www.hkics.org.hk](http://www.hkics.org.hk)。

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# Foreword

## Theme: Corporate Governance – Challenges and Opportunities in the Digital Age

It is my pleasure to write this foreword for this publication as the Education Committee Chairman. The topic for this year's Corporate Governance Paper Competition is 'Corporate Governance – Challenges and Opportunities in the Digital Age'.

The digital revolution has transformed every aspect of our lives – from how we communicate, transmit and receive information and the implications for management professionals to operate their businesses are significant. Undoubtedly, corporate governance must evolve to reflect rapid changes on business environment. Companies should adapt their governance and embrace new technology change to better manage the opportunities and mitigate the risks of the digital age for their businesses.

The objective of this paper competition is to raise awareness of the importance of good corporate governance among students of local universities. I am deeply impressed by the high quality of submitted papers from participants who have demonstrated their broad knowledge and in-depth insights on the topic. Well done to all participating teams!

I would like to express my gratitude to academic reviewers, paper judges and panellists for their precious time and valuable contribution in assessing the papers of this competition. Congratulations to all winning teams for their accomplishments!

**Dr Eva Chan FCIS FCS(PE)**

Council Treasurer and Education Committee Chairman  
The Hong Kong Institute of Chartered Secretaries  
December 2018

# HKICS Corporate Governance Paper Competition

The HKICS Corporate Governance Paper Competition has been organised since 2006 in order to raise the awareness of the importance of good governance among undergraduates of local universities. Participants are required to submit a paper of not more than 5,000 words in English on the theme of the year's competition.

Six teams with the highest total scores were invited to present their papers to compete for the Best Presentation Award.

## Topics of previous years' competition:

- 2007 – Corporate Social Responsibility
- 2008 – Corporate Risk
- 2009 – Investor Relations
- 2010 – Disclosure & Transparency
- 2011 – Best Practices vs Practicality
- 2012 – The twenty-first Century Board
- 2013 – Corporate Governance means more Reports and Disclosure?
- 2014 – Changing Rules, Changing Roles – Managing It All
- 2015 – Risk Management and Corporate Governance
- 2016 – Internal and External Forces for Better Corporate Governance
- 2017 – Corporate Governance and Business Sustainability

## Prizes of the competition:

### Paper Competition

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Champion	HK\$11,000 plus publication of the paper in 'CSj', the monthly journal of the Institute
First runner-up	HK\$7,000
Second runner-up	HK\$5,000
Three Merit Prizes	HK\$1,000 each

### Paper Presentation

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Best Presenter Award	HK\$6,000
First runner-up	HK\$3,000
Second runner-up	HK\$2,000
Three Merit Prizes	HK\$1,000 each



## Champion

Ma Pui Yee, So Bo Ki and Wong Mei Ming

Hang Seng Management College, Bachelor of Business Administration

### Introduction

In the digital age, companies are using various cutting-edge technologies. For instance, Apple uses artificial intelligence to manage Siri<sup>1</sup>; the Bank of China has introduced finger vein identification in all of its ATMs to elevate the system's security<sup>2</sup>; and logistic companies like Shapiro is adapting Radio Frequency Identification (RFID) technology in its inventory management by placing a tag on products which spreads radio waves that can identify inventory's location in its distribution warehouses.<sup>3</sup> These examples show how technology is becoming essential to corporates in improving their performance and customer experience.

Within manufacturing, different digital technologies are developing rapidly, with information and knowledge perhaps the key components of change across the globe.<sup>4</sup> Companies are now focusing more on the transformation of Industry 4.0. This is the current trend of automation and data exchange in manufacturing technologies, including enterprise systems, the Internet of Things, cloud computing, and cognitive computing.<sup>5</sup> The Internet of Things (IoT) applies in various industries such as car manufacturing and logistics. In the automotive industry, aftermarket service via IoT enables the tracking of product defects and maintenance needs

<sup>1</sup> A. Patrizio. (2017). Big data companies. Retrieved from <https://www.datamation.com/big-data/big-data-companies.html>

<sup>2</sup> C. Leung. (2018). Hong Kong lender banking on finger veins being better than faces for ATM security.

Retrieved from <https://www.scmp.com/news/hong-kong/economy/article/2131248/hong-kong-lender-banking-finger-veins-being-better-faces-atm>

<sup>3</sup> Shapiro. (2018). How technology is changing the future of logistics.

Retrieved from <https://www.shapiro.com/blog/how-technology-is-changing-the-future-of-logistics/>

<sup>4</sup> Bildt, C. (2017). The digital age. *Global Health Action*, 10(Sup3), 1-2.

<sup>5</sup> Industry 4.0: The fourth industrial revolution – guide to Industrie 4.0. (n.d.). i-SCOOP. Retrieved from <https://www.i-scoop.eu/industry-4-0/>

plus communication with customers about their product. This boosts quality assurance as well as customer satisfaction<sup>6</sup>. In the logistics industry, numerous built-in Wi-Fi sensors are installed in cargo ships and trains to monitor the supply chain via connection to an alarm system, enabling workers to detect hidden risks easily and reduce costs and delays.<sup>7</sup>

Enterprise systems are commonly used among corporates and organizations: these include enterprise resource planning (ERP) systems, customer relationship management (CRM) systems, and supply chain management (SCM) systems.<sup>8</sup> They aim at organizing and running business operations efficiently and effectively. In addition, staff use Wi-Fi, 4G networks, and mobile apps to strengthen the delivery of information among stakeholders internally. Most banks have created their own e-banking services to facilitate transactions and manage different bank accounts. For instance, the Bank of China has established its own mobile app, BOCHK Mobile Banking, to provide one-stop banking services and the latest financial information by providing e-cheque services and small value transfers.<sup>9</sup>

All in all, in the digital age, companies are seizing the opportunities presented by technology to strengthen the delivery of information between themselves and their stakeholders and to generate new means of delivery for their products and services.

## Corporate governance

Corporate governance has become a dominant element in many companies after recent crises,

including the Asia Financial Crisis in 1997, the bankruptcy of Enron in 2001 and WorldCom in 2002, and the collapse of Lehman Brothers which was followed by the global financial crisis in 2008.<sup>10</sup>

According to OECD Principles of Corporate Governance<sup>11</sup>, the corporate governance framework should:

- ensure the basis for an effective corporate governance framework
- protect and facilitate the rights, and equitable treatment of shareholders, and key ownership functions
- provide sound incentives to institutional investors, stock markets, and other intermediaries
- recognize the role of stakeholders in corporate governance
- ensure accurate disclosure and transparency
- provide the responsibilities of the board

Risk management identifies potential risks in advance, analyzes them, and takes preventive steps to reduce them.<sup>12</sup> It has become one of the hot topics in corporate governance since the global financial crisis in 2008. Companies should be aware of risks especially under the ever-changing business environment; and they should initiate solutions to tackle them.<sup>13</sup> Compliance is another recent development in corporate governance that has created a new career path in the industry.<sup>14</sup> A recent Compliance Risk Study revealed that nearly 90% of respondents believed that there will be an increase in the compliance spending during the next two years.<sup>15</sup> This shows the growing importance of compliance in the view of companies.

<sup>6</sup> U. Muench. (2018). New automotive DNA: How IoT is transforming the automotive industry. Retrieved from <https://www.digitalistmag.com/iot/2018/04/20/new-automotive-dna-how-iot-is-transforming-automotive-industry-06090526>

<sup>7</sup> How technology is changing the future of logistics. (2018). Shapiro. Retrieved from <https://www.shapiro.com/blog/how-technology-is-changing-the-future-of-logistics/>

<sup>8</sup> Definition of enterprise systems. (n.d.). Techwalla. Retrieved from <https://www.techwalla.com/articles/definition-of-enterprise-systems>

<sup>9</sup> BOCHK Mobile Application. (n.d.). BOCHK. Retrieved from <https://www.bochk.com/en/more/ebanking/apps.html>

<sup>10</sup> J.J. du Plessis. (2015). "World business and corporate governance: Decades of evolution and the way forward". Retrieved from [http://www.hkiod.com/document/DirConf/1\\_DirConf\\_SOTA1\\_1\\_Prof\\_Jean.pdf](http://www.hkiod.com/document/DirConf/1_DirConf_SOTA1_1_Prof_Jean.pdf)

<sup>11</sup> OECD (2015), G20/OECD Principles of Corporate Governance, OECD Publishing, Paris, <https://doi.org/10.1787/9789264236882-en>.

<sup>12</sup> Definition of 'risk management'. (2018). The Economics Times. Retrieved from <https://economictimes.indiatimes.com/definition/risk-management>

<sup>13</sup> Kingston Suen K. H., Grace Gu R., & Ray Ho W. Y. (2016). Risk management and corporate governance. Retrieved from <http://csj.hkics.org.hk/site/2016/01/11/risk-management-and-corporate-governance-2/>

<sup>14</sup> Sean J. Griffith. (2016). Corporate governance in an era of compliance. Retrieved from <https://corpgov.law.harvard.edu/2016/05/10/corporate-governance-in-an-era-of-compliance/>

<sup>15</sup> Samantha R., Nesrine B., Ben S., & Rafael G. (2018). 2018 compliance risk study - comply & demand. Retrieved from [https://www.accenture.com/t20180322T192051Z\\_w\\_us-en/\\_acnmedia/PDF-74/Accenture-2018-Compliance-Risk-Study.pdf](https://www.accenture.com/t20180322T192051Z_w_us-en/_acnmedia/PDF-74/Accenture-2018-Compliance-Risk-Study.pdf)

The relationship between the digital age and corporate governance started when IT began to play a notable role in improving corporate governance, such as through management information and the control of IT activities.<sup>16</sup> Both the digital age and corporate governance pinpoint the importance of information transparency, which in turn raises the issue of cybersecurity. Hence, companies can elevate its efficiency and effectiveness, thereby achieving better management.<sup>17</sup>

## Challenges of corporate governance in the digital age

### 1. Data breaches

One of the biggest challenges of corporate governance is data breaches: the unauthorized transfer of classified information from a computer or datacenter to the outside world.<sup>18</sup> Due to advances in technology, technological user-friendliness and access to data have become relatively easy and this

helps in the accidental spreading of confidential data.<sup>19</sup> According to the Privacy Commissioner for Personal Data (PCPD), there was a nearly 20% increase in data breach notifications received by the PCPD office in 2017 compared with the previous year.<sup>20</sup> This shows how technological advancement not only makes it more difficult to protect an organization's internal data, but also creates huge impacts on the business environment because of data leakage. The image below clearly shows the causes of data loss and how they affect the business environment.

Let's look at one example. In 2018, the Hong Kong Broadband Network (HKBN) was hacked and 380,000 customers' data stolen, including 43,000 credit card numbers, which raised concerns in the territory. Francis Fong, the president of the Hong Kong Information Technology Federation, commented that it was negligent for an internet service provider of this scale to be hacked and questioned whether



Figure 1: Data loss risks: the causes and effects on the business environment<sup>21</sup> (Ernst & Young)

<sup>16</sup> IT Governance. (n.d.). ISACA. Retrieved from <https://www.isaca.org/Certification/CGEIT-Certified-in-the-Governance-of-Enterprise-IT/Prepare-for-the-Exam/Study-Materials/Documents/Developing-a-Successful-Governance-Strategy.pdf>

<sup>17</sup> Navigating risk in the digital world. (n.d.). McKinsey & Company. Retrieved from <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-mckinsey-insights/digital-mckinsey-insights-number-2>

<sup>18</sup> Encyclopedia - definition of: Data leakage. (2018) PC Magazine. Retrieved from <https://www.pcmag.com/encyclopedia/term/61834/data-leakage>

<sup>19</sup> Data Loss Prevention. (October 2011). Ernst & Young. Retrieved from [https://www.ey.com/Publication/vwLUAssets/EY\\_Data\\_Loss\\_Prevention/\\$FILE/EY\\_Data\\_Loss\\_Prevention.pdf](https://www.ey.com/Publication/vwLUAssets/EY_Data_Loss_Prevention/$FILE/EY_Data_Loss_Prevention.pdf)

<sup>20</sup> Media Statements. (14 February, 2018). PCPD. Retrieved from [https://www.pcpd.org.hk/english/news\\_events/media\\_statements/press\\_20180214.html](https://www.pcpd.org.hk/english/news_events/media_statements/press_20180214.html)

<sup>21</sup> Data Loss Prevention. (October 2011). Ernst & Young. Retrieved from [https://www.ey.com/Publication/vwLUAssets/EY\\_Data\\_Loss\\_Prevention/\\$FILE/EY\\_Data\\_Loss\\_Prevention.pdf](https://www.ey.com/Publication/vwLUAssets/EY_Data_Loss_Prevention/$FILE/EY_Data_Loss_Prevention.pdf)



the company had afforded the same level of protection to all its databases.<sup>22</sup> Due to this incident, the reputation of HKBN declined since its customers doubted the security of their personal data: this led to a fall in the company's stock price. This shows that data leakage poses negative effects on a company and its customers.

## 2. Insider threat

An insider threat is when someone close to an organization with authorized access misuses that access to negatively impact the organization's critical information or systems.<sup>23</sup> Awareness in this issue has increased over this decade. A survey for Insider Threat Report in 2018 from CA Technologies showed a majority of 53% respondents confirmed there had been insider attacks against their organization in the previous 12 months, while 27% of organizations said that insider attacks had become more frequent.<sup>24</sup> The results suggest that the main factors behind insider attacks are: (1) too many users enjoy excessive access privileges; (2) there are more devices with access to sensitive data; and (3) the increase in complex technologies that are difficult to control.<sup>25</sup>

One of the examples was that of Edward Snowden, a 29-year-old former technical assistant for the CIA and employee of the defense contractor Booz Allen Hamilton, in 2013 in the United States. Snowden worked at the National Security Agency for four years as an employee of various external contractors, such as Booz Allen and Dell. He decided to disclose numerous top-secret documents to the public.<sup>26</sup> Because of him, the US government lost its a great deal of public trust as they now knew that

the National Security Agency was invading and supervising Mainland China and Hong Kong computers.<sup>27</sup> This example shows how an insider threat can bring about huge damage, such as the fall in reputation of an organization.

## 3. Network attack

According to the Quarterly Threat Report published by McAfee Labs in September 2017, browser attacks, brute force attacks, and denial-of-service (DDoS) attacks were the top three types of network attacks in 2017.<sup>28</sup>

(i) Browser attacks often appear on legitimate but vulnerable websites. When new visitors arrive, the infected site tries to force malware to spread into their systems by exploiting vulnerabilities in their browsers. Microsoft Internet Explorer, Google Chrome and Mozilla Firefox, which are the popular web browsers used around the world, were shown to be the most vulnerable web browsers in 2016.<sup>29</sup>

For example, assume the system uses JavaScript. Then malware authors use it to accomplish attacks by embedding an obfuscated Adobe Flash file within JavaScript. First, the Flash code invokes PowerShell, a powerful operating system (OS) tool that can perform administrative operations. Then, Flash feeds instructions to PowerShell through its command line interface. Next, PowerShell connects to a stealth command and control server owned by the attackers. After that, the command and control server downloads a malicious PowerShell script to the victim's device that captures sensitive data and sends it back to the attacker.<sup>30</sup> By complying with these instructions, the attackers successfully get

<sup>22</sup> D. Mok. (19 April, 2018). Hacking involves 380,000 Hong Kong broadband customers' info. Retrieved from <https://www.scmp.com/news/hong-kong/law-crime/article/2142317/personal-data-some-380000-hong-kong-broadband-customers>

<sup>23</sup> What Is an Insider Threat? (n.d.). Observeit. Retrieved from <https://www.observeit.com/insider-threat/>

<sup>24</sup> Insider threat report. (2018). CA technologies. Retrieved from <https://www.ca.com/content/dam/ca/us/files/ebook/insider-threat-report.pdf>

<sup>25</sup> Insider threat report. (2018). CA technologies. Retrieved from <https://www.ca.com/content/dam/ca/us/files/ebook/insider-threat-report.pdf>

<sup>26</sup> Greenwald, G., MacAskill, E., & Poitras, L. (11 June 2013). Edward Snowden: The whistleblower behind the NSA surveillance revelations. Retrieved from <https://www.theguardian.com/world/2013/jun/09/edward-snowden-nsa-whistleblower-surveillance>

<sup>27</sup> Edward Snowden. (n.d.). Wikipedia. Retrieved from [https://en.m.wikipedia.org/wiki/Edward\\_Snowden](https://en.m.wikipedia.org/wiki/Edward_Snowden)

<sup>28</sup> Top 8 Network Attacks by Type in 2017. (23 October 2017). Calyptix. Retrieved from <https://www.calyptix.com/top-threats/top-8-network-attacks-type-2017/>

<sup>29</sup> Top 8 Network Attacks by Type in 2017. (23 October 2017). Calyptix. Retrieved from <https://www.calyptix.com/top-threats/top-8-network-attacks-type-2017/>

<sup>30</sup> Browser-Based Cyberthreats: How They Attack, and How to Protect Against Them. (n.d.). Lastline. Retrieved from <https://www.lastline.com/blog/browser-based-cyberthreats/>

into victims' systems.

(ii) In brute force attacks, the attacker tries to discover the password for a system or service through trial and error. Since this is time consuming, attackers usually use software to automate the task of typing hundreds of passwords.<sup>31</sup>

(iii) Denial of service attack refers to an interruption in an authorized user's access to a computer network, typically one caused with malicious intent.<sup>32</sup> According to a Kaspersky Labs survey of 5,200 people from businesses in 29 countries, half of respondents agreed that DDoS attacks are growing in frequency and complexity.<sup>33</sup> This reveals that network attacks are the growing trend in the twenty-first century.

#### 4. Ransomware

Ransomware is a kind of cyber-attack in which the perpetrators encode an organization's data and then a monetary payment is demanded via cryptocurrencies, such as Bitcoin, for the decode key.<sup>34</sup> 2017 was a pivotal year for ransomware as three unprecedented attacks expanded the number of victims.<sup>35</sup> One significant case was the WannaCry ransomware attack which occurred in May 2017. Hong Kong companies were among the victims with at least three reported cases which of companies which had not updated their Windows 7 operating systems and Internet browsers.<sup>36</sup> Renault, a car manufacturer, had to close its largest factory in France due to WannaCry. In June, Honda's production facilities and 55 speed cameras in Victoria, Australia were also forced to shut down. Estimates are that there were nearly

three-quarters of a million victims in this incident. Over the past year, the number of reported ransomware incidents almost doubled, from 54,000 in 2016 to more than 96,000 last year.<sup>37</sup> This implies that ransomware has become the leading source of cyber-attacks and has affected corporates severely.

### Opportunities of corporate governance in the digital age

Companies should extend their governance to IT so as to better manage these opportunities and minimize the risks brought by the digital age to their businesses.

#### 1. IT governance

IT is an important element for companies wanting to provide excellent goods and services in the twenty-first century. Recent research suggests that more than 93% of business leaders recognize that IT is important for delivering the organization's strategy.<sup>38</sup> Governance over IT ensures IT investment follows business values and mitigates IT risks. Values created can fit into the overall corporate governance strategy of the organization. When stakeholders are required to participate in the decision-making process, a shared acceptance of responsibility for critical systems is established: this ensures that IT-related decisions are driven by the business.<sup>39</sup> Moreover, research among private sector organizations has found that top performing enterprises succeed in obtaining value by implementing effective IT governance to support their strategies and institutionalize good practice.<sup>40</sup>

<sup>31</sup> Top 8 Network Attacks by Type in 2017. (23 October 2017). Calyptix. Retrieved from <https://www.calyptix.com/top-threats/top-8-network-attacks-type-2017/>

<sup>32</sup> Denial of service. (n.d.). Oxford Dictionaries. Retrieved from [https://en.oxforddictionaries.com/definition/denial\\_of\\_service](https://en.oxforddictionaries.com/definition/denial_of_service)

<sup>33</sup> Top 8 Network Attacks by Type in 2017. (23 October 2017). Calyptix. Retrieved from <https://www.calyptix.com/top-threats/top-8-network-attacks-type-2017/>

<sup>34</sup> Robert S., Jacqueline C., & Reade Jacob of Paul H. (2018). Technology guidance note. Retrieved from [https://www.hkics.org.hk/media/publication/attachment/PUBLICATION\\_A\\_2412\\_HKICS\\_Technology\\_Guidance\\_Note\\_\(Second\\_Issue\).pdf](https://www.hkics.org.hk/media/publication/attachment/PUBLICATION_A_2412_HKICS_Technology_Guidance_Note_(Second_Issue).pdf)

<sup>35</sup> Fedor S. (2017). Kaspersky security bulletin: Story of the year 2017. Retrieved from <https://securelist.com/ksb-story-of-the-year-2017/83290/>

<sup>36</sup> Naomi N. (2017). Global ransomware attack hits third Hong Kong system. Retrieved from <https://www.scmp.com/news/hong-kong/economy/article/2094332/global-ransomware-attack-hits-third-hong-kong-system>

<sup>37</sup> Fedor S. (2017). Kaspersky security bulletin: Story of the year 2017. Retrieved from <https://securelist.com/ksb-story-of-the-year-2017/83290/>

<sup>38</sup> IT Governance Global Status Report. (2004). ISACA. Retrieved from <http://www.isaca.org/Knowledge-Center/Research/Documents/ITGI-Global-Status-Report-2004.pdf>

<sup>39</sup> What is IT Governance? (n.d.). INTOSAI WGITA. Retrieved from [http://www.intosaiitaudit.org/intoit\\_articles/25\\_p30top35.pdf](http://www.intosaiitaudit.org/intoit_articles/25_p30top35.pdf)

<sup>40</sup> Weill, P. (March 2004). Don't Just Lead, Govern: How Top Performing Firms Govern IT, Center for Information Systems Research, Sloan School of Management, Massachusetts Institute of Technology.

The International Board for IT Governance Qualifications (IBITGQ) is an examination board that specifies a syllabus and learning outcomes related to IT governance. The key training area includes EU General Data Protection Regulation (GDPR), cyber security, and compliance with the Payment Card Industry Data Security Standard (PCI DSS). This qualification is mainly aimed at the heads of large companies and government officers.<sup>41</sup>

By adopting IT governance, companies can create a culture of security awareness and cyber security hygiene. Encryption is one of the significant technologies for data and system security. It is "the process of converting information or data into a code, especially to prevent unauthorized access."<sup>42</sup> By using encryption, companies can help maintain integrity as it can deter data being altered to commit fraud and corruption. Moreover, encryption can be an effective way to help protect the internal data by meeting compliance requirements.<sup>43</sup>

## 2. Compliance in risk management

In today's high-risk environment, risk management has been deeply embedded in different industries since it brings business value to corporates by digital transformation. For instance, banking strategy is necessary for bank investment risks.<sup>44</sup> A digitized risk management system monitors and provides regulatory compliance.<sup>45</sup> Companies choose to adapt governance to better manage the opportunities and mitigate the IT risks of the digital age for their business. Both financial and non-financial institutions are concerned about outsourcing risks, such as IT risks, data security,

and data breaches. In fact, what a company needs is an effective implementation on enterprise-wide approaches,<sup>46</sup> such as compliance.

By meeting the compliance requirement, companies can alleviate the challenges posed by the digital age. In Hong Kong, the Personal Data (Privacy) Ordinance (PDPO) has been in force since 2012 and it contains six data protection principles. By obeying these principles, company secretaries must help collect personal data in a lawful and accurate way. They should also protect personal data from unauthorized access by making known to the public the use of data. Moreover, the data subject must be given access to the personal data and be allowed to make corrections if the data is inaccurate.<sup>47</sup>

ISO 27001, a specification for an information security management system (ISMS),<sup>48</sup> can also help companies convince their clients and other stakeholders that they are managing the security of the companies' information.<sup>49</sup> ISO 27001 mainly aims to: (1) protect client and employee information; (2) manage risks to information security effectively; (3) achieve compliance with regulations such as the EU GDPR; and (4) protect the company's brand image.<sup>50</sup>

The EU GDPR took effect on 25 May 2018. In the wake of technological development, globalization, and the constitutionalization of the right to data protection in the EU, the GDPR aims to harmonize the framework for the digital single market, put individuals in the control of their data and

<sup>41</sup> Why choose IT Governance for your training needs? (n.d.). IT Governance. Retrieved from <https://www.itgovernance.co.uk/training-testimonials>

<sup>42</sup> Encryption. (n.d.). Oxford Dictionaries. Retrieved from <https://en.oxforddictionaries.com/definition/encryption>

<sup>43</sup> The Advantages of Using Encryption to Protect Your Data. (09 January 2018). ClearCrypt. Retrieved from [http://www.clearcrypt.eu/blog/read\\_181489/the-advantages-of-using-encryption-to-protect-your-data.html](http://www.clearcrypt.eu/blog/read_181489/the-advantages-of-using-encryption-to-protect-your-data.html)

<sup>44</sup> Risk Management in Banking. (n.d.). Retrieved from [https://www.nbs.rs/internet/english/55/55\\_6/index.html](https://www.nbs.rs/internet/english/55/55_6/index.html)

<sup>45</sup> Navigating risk in the digital world. (n.d.). McKinsey & Company.

Retrieved from <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-mckinsey-insights/digital-mckinsey-insights-number-2>

<sup>46</sup> Risk Management and Corporate Governance - OECD. <http://www.oecd.org/daf/ca/risk-management-corporate-governance.pdf>

<sup>47</sup> The Ordinance at a Glance. (n.d.). PCPD. Retrieved from [https://www.pcpd.org.hk/english/data\\_privacy\\_law/ordinance\\_at\\_a\\_glance/ordinance.html#2](https://www.pcpd.org.hk/english/data_privacy_law/ordinance_at_a_glance/ordinance.html#2)

<sup>48</sup> ISO 27001. (n.d.). WhatIs.com. Retrieved from <https://whatis.techtarget.com/definition/ISO-27001>

<sup>49</sup> What is ISO 27001: 2013 Information Security GDPR. (n.d.). Certification Europe. Retrieved from <https://www.certificationeurope.com/certification/iso-27001-information-security/>

<sup>50</sup> What is ISO 27001:2013 Information Security GDPR. (n.d.). Certification Europe. Retrieved from <https://www.certificationeurope.com/certification/iso-27001-information-security/>

formulate a modern data protection governance.<sup>51</sup> This new regulation enhances the right to notice on data processing, to erasure or to be forgotten, and to object to processing.

The GDPR also established new rights to restriction of processing and to data portability.<sup>52</sup> The reason why the GDPR is relevant to Hong Kong organizations is that when the PDPO was drafted, reference was made to the relevant requirements under the OECD Privacy Guidelines in 1980 and the EU Directive; hence the PDPO and the GDPR share a number of common features.<sup>53</sup> As a result, GDPR is a regulation which impacts Hong Kong business.

### Implications for the stakeholders for effective corporate governance

After reviewing the challenges and opportunities of corporate governance under the digital age, the next step is to analyze how to uphold effective governance. Stakeholders like the board of directors, company secretaries, and the management play a crucial role here.

These stakeholders can enhance IT security awareness to a large extent. For many board members, technology is not their area of expertise. However, almost all the hot topics nowadays are technology-related, for instance, artificial intelligence and data protection, and these need to be integrated into corporate strategy. Thus, board members need to keep updating themselves about the latest industry developments so as to supervise strategy development in these areas. Company secretaries, meanwhile, should consider the

importance of IT inside their corporation, as this determines the level of IT security awareness throughout the company.<sup>54</sup> For example, an upgrade to Internet Explorer (IE) 11 can prevent cyber-attacks. NSS Labs has reported that having IE8 or subsequent browsers means there is less likelihood of a company suffering from phishing and malware attacks. Another measure is that users should not open links or attachments in unsolicited emails, otherwise, they may suffer from Trojan horses.<sup>55</sup> Company secretaries ought to monitor the progress of these protective measures and inform the board members of progress and threats from time to time.

Regarding cyber security hygiene, the above stakeholders can be role models for middle and first-line employees. They should implement a series of security protection policies, such as regular software updates, two-factor authentications, overseeing thirdparty access carefully, regulating data backups, and being alert for phishing.<sup>56</sup> Over time, management has to review the effectiveness of these policies and revise their guidelines if the overall performance cannot meet the required standards.

Regarding compliance, management needs to review the effectiveness of the IT security policies in order to lessen the probability of cyber-attacks. Take cyber security as an example. One of the most prevalent standards is to observe if there is a downward trend in these kinds of incidents. The level of seriousness is also significant as it reflects the overall performance of complying with the requirements.<sup>57</sup> By these means, credit can be given

<sup>51</sup> EU General Data Protection Regulation. (n.d.). PCPD. Retrieved from [https://www.pcpd.org.hk/english/data\\_privacy\\_law/eu/eu.html](https://www.pcpd.org.hk/english/data_privacy_law/eu/eu.html)

<sup>52</sup> European Union General Data Protection Regulation 2016. (25 May 2018). PCPD. Retrieved from [https://www.pcpd.org.hk/english/data\\_privacy\\_law/eu/files/eugdpr\\_e.pdf](https://www.pcpd.org.hk/english/data_privacy_law/eu/files/eugdpr_e.pdf)

<sup>53</sup> EU General Data Protection Regulation. (n.d.). PCPD. Retrieved from [https://www.pcpd.org.hk/english/data\\_privacy\\_law/eu/eu.html](https://www.pcpd.org.hk/english/data_privacy_law/eu/eu.html)

<sup>54</sup> Technology guidance note. (2016). HKICS. Retrieved from [https://www.hkics.org.hk/media/publication/attachment/PUBLICATION\\_A\\_2388\\_HKICS\\_Technology\\_Guidance\\_Note\\_\(Eng\).PDF](https://www.hkics.org.hk/media/publication/attachment/PUBLICATION_A_2388_HKICS_Technology_Guidance_Note_(Eng).PDF)

<sup>55</sup> Michael C. (2010). Increasing information security awareness in the enterprise. Retrieved from <https://www.computerweekly.com/tip/Increasing-information-security-awareness-in-the-enterprise>

<sup>56</sup> Alacrity. (2017). Information security: Strategies and stakeholders you should know in 2017. Retrieved from <https://www.alacritycanada.com/2017/06/20/information-security-strategies-and-stakeholders/>

<sup>57</sup> David M. (2009). End-user compliance: Creating a security awareness training program. Retrieved from <https://searchsecurity.techtarget.com/tip/End-user-Compliance-Creating-a-security-awareness-training-program>

to staff if their performance was satisfactory, which boosts staff morale. However, stricter rules or punishments can be set once the performance is far beyond the target so as to create an incentive for further improvement.

Regarding IT auditing, company secretaries have to integrate technology risks into company's audit plan, as well as inform the board or relevant committees such as the risk management committee about this.<sup>58</sup> Hence, it can control IT risks in different aspects of operation of the audit plan that can reflect company's situation.

## How technology facilitates the engagement of shareholders and stakeholders

### Digital shareholder engagement

More and more companies leverage technology to engage with shareholders since most of them believe that the combination of technology and social media can enable them to reach shareholders quickly and easily.

It is important to have an effective strategy to outline a company's goals, objectives, and future plans with shareholders. Some companies use conference calls or hold annual meetings with shareholders. However, those methods may not give concise content to shareholders. Face-to-face meetings are not welcomed in the past due to the distances involved. In fact, one-on-one meetings with shareholders are impossible in this hustle-and-bustle world. There has been a rise in virtual shareholders meetings (VSM) with usage increasing sharply in the first six months in 2018

and over 1000 VSMs have been recorded.<sup>59</sup> These have enhanced the flexibility of holding face-to-face business meetings.

Providing shareholders with a way to participate in voting enables shareholders to vote with their shares through the Internet while receiving voting instructions from issuers.<sup>60</sup> It also ensures companies corporate transparency in proxy participation. A convenient voting machine enhances the opportunity for companies to reach their shareholders. A secure online voting platform called Votaccess<sup>61</sup> satisfies the above demand. Votaccess is an information system that collects votes automatically and provides instructions which are sent by shareholders before a general meeting.<sup>62</sup> This system not only secures companies' confidential information but also speeds-up the process of collecting voting instructions.<sup>63</sup> It provides shareholders and issuers with a comfortable platform to share their views.

VSMs and Votaccess offer a great chance for companies to communicate with shareholders across the world while saving costs and time. Taking advantage of the efficiencies through technologies, they facilitate the flexibility of shareholder engagement in the business by allowing companies to manage meetings more efficiently and effectively, demonstrating transparency, and fostering relationships with shareholders.

### Digital stakeholder engagement

New opportunities and engagement for different stakeholder groups are informed by online tools, including social media, which facilitates conversations between members and visitors so that they can clarify misunderstandings and misinformation, and

<sup>58</sup> Technology guidance note. (2016). HKICS. Retrieved from [https://www.hkics.org.hk/media/publication/attachment/PUBLICATION\\_A\\_2388\\_HKICS\\_Technology\\_Guidance\\_Note\\_\(Eng\).PDF](https://www.hkics.org.hk/media/publication/attachment/PUBLICATION_A_2388_HKICS_Technology_Guidance_Note_(Eng).PDF)

<sup>59</sup> Shareholder Engagement is Increasing via Technology, Broadridge Hosts its 1,000th Virtual Shareholder Meeting. (9 July 2018). PR Newswire. Retrieved from <https://www.prnewswire.com/news-releases/shareholder-engagement-is-increasing-via-technology-broadridge-hosts-its-1-000th-virtual-shareholder-meeting-300677512.html>

<sup>60</sup> VOTACCESS - slib.com. (n.d.). Slib. Retrieved from [https://www.slib.com/pages/documents/Produits/FCH\\_VOTACCESS\\_V2\\_0\\_GB.pdf](https://www.slib.com/pages/documents/Produits/FCH_VOTACCESS_V2_0_GB.pdf)

<sup>61</sup> SLIB: VOTACCESS: Online-Vote prior to general meetings. (n.d.). Bobs guide. Retrieved from <http://www.bobsguide.com/guide/prod/5-23124-votaccess-online-vote-prior-to-general-meetings.html>

<sup>62</sup> VOTACCESS - slib.com. (n.d.). Slib. Retrieved from [https://www.slib.com/pages/documents/Produits/FCH\\_VOTACCESS\\_V2\\_0\\_GB.pdf](https://www.slib.com/pages/documents/Produits/FCH_VOTACCESS_V2_0_GB.pdf)

<sup>63</sup> SLIB: VOTACCESS: Online-Vote prior to general meetings. (n.d.). Bobs guide. Retrieved from <http://www.bobsguide.com/guide/prod/5-23124-votaccess-online-vote-prior-to-general-meetings.html>

Web 2.0, which is also called user-generated content, and which started in the 1990s and into the 2000s. These help users upload, identify and express views, and disseminate current social movements and content. Companies can choose adequate interaction partners, make necessary decisions, select effective strategies for future development, and finally engage with shareholders and stakeholders effectively.

## Case studies on business sustainability in the digital age

After bridging the gap between the online world and offline world, corporate social responsibility (CSR) is emerging as a prominent issue in Australia's business community and has become key to facilitating stakeholder engagement. Balancing economic, social, and environmental effects is the main consideration of CSR. For most companies, having a CSR program is recognized as an increasing strategic value creation<sup>64</sup> perspective that they use to bring necessary influence to corporate culture voluntarily.<sup>65</sup>

### A successful example: CLP Holdings Limited

CLP Power Hong Kong Limited (CLP) not only supplies electricity to millions of users, but also has implemented some schemes which aim at contributing to the communities it works in. A low-carbon energy technology<sup>66</sup> was implemented in 2010, generating interest in environmentally-friendly power supply with the public and promoting the company's core value of saving energy. Its low-carbon energy technology is mainly based on renewable

energy, including hydro-electric, solar, wind, and biomass plants in their projects.<sup>67</sup> They targeted in the reduction of greenhouse gas emissions from 0.84 CO<sub>2</sub>/kWh to 0.7 kg CO<sub>2</sub>/kWh in 2020, 0.45kg CO<sub>2</sub>/kWh in 2035, and 0.2kg CO<sub>2</sub>/kWh in 2050.<sup>68</sup>

CLP has made commitments to different stakeholders that they will achieve massive reductions in CO<sub>2</sub> emissions<sup>69</sup>; these commitments enhance corporate visibility and public trust.<sup>70</sup> They have made investment decisions that use better technologies for the storage of electricity without causing any environmental impacts. They empower Hong Kong's future development socially and environmentally since their comprehensive efforts in supplying sustainable energy to the communities and the impact on the global environment has enhanced the public's awareness of climate change. CLP's actions enhance social engagement between the government, environmentalists in different organizations, citizens, and investors who would like to invest in clean energy. The company's commitments and steps are achieving a sustainable and responsible approach in balancing economic, social, and environmental values.

Corporate governance systems develop the notion of how shareholders and stakeholders can strengthen management in a company. It is believed that technology and online media can help disseminate the above principles and goals in CSR communication. Research shows that there are more than 4 billion internet users around the globe.<sup>71</sup> Thus, engagement and technology are mutually beneficial to successful CSR communication.

<sup>64</sup> The Impact of Social Media on Stakeholder Engagement. (n.d.). ResearchGate. Retrieved from [https://www.researchgate.net/publication/259452067\\_The\\_Impact\\_of\\_Social\\_Media\\_on\\_Stakeholder\\_Engagement&tp=DevEx.LB.1,5505.1](https://www.researchgate.net/publication/259452067_The_Impact_of_Social_Media_on_Stakeholder_Engagement&tp=DevEx.LB.1,5505.1)

<sup>65</sup> Corporate responsibility: Managing risk and creating value. (June, 2006). Commonwealth of Australia. Retrieved from [https://www.aph.gov.au/binaries/senate/committee/corporations\\_ctte/completed\\_inquiries/2004-07/corporate\\_responsibility/report/report.pdf](https://www.aph.gov.au/binaries/senate/committee/corporations_ctte/completed_inquiries/2004-07/corporate_responsibility/report/report.pdf)

<sup>66</sup> None of us can defeat the threat of global warming Climate ... (n.d.). Retrieved from [https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP\\_Journey\\_to\\_Low\\_Carbon\\_Future\\_2010\\_en.pdf](https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP_Journey_to_Low_Carbon_Future_2010_en.pdf)

<sup>67</sup> None of us can defeat the threat of global warming Climate ... (n.d.). Retrieved from [https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP\\_Journey\\_to\\_Low\\_Carbon\\_Future\\_2010\\_en.pdf](https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP_Journey_to_Low_Carbon_Future_2010_en.pdf)

<sup>68</sup> None of us can defeat the threat of global warming Climate ... (n.d.). Retrieved from [https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP\\_Journey\\_to\\_Low\\_Carbon\\_Future\\_2010\\_en.pdf](https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP_Journey_to_Low_Carbon_Future_2010_en.pdf)

<sup>69</sup> None of us can defeat the threat of global warming Climate ... (n.d.). Retrieved from [https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP\\_Journey\\_to\\_Low\\_Carbon\\_Future\\_2010\\_en.pdf](https://www.clpgroup.com/en/Media-Resources-site/Publications%20Documents/CLP_Journey_to_Low_Carbon_Future_2010_en.pdf)

<sup>70</sup> Moonhee Cho, L. D. Furey, and Tiffany Mohr. (2017) Communicating Corporate Social Responsibility on Social. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/2329490616663708>

<sup>71</sup> Digital in 2018: World's internet users pass the 4 billion mark - We Are Social. (30 January 2018). Retrieved from <https://wearesocial.com/blog/2018/01/global-digital-report-2018>

## Conclusion

Business sustainability plays a vital role in the success of companies, both in the developing countries or developed countries. With a good corporate governance, companies can build a solid

reputation and reach their goals successfully due to sound planning and maintaining their business sustainability. Adjustments should be made to prevent potential risks and immoral business behaviour should be interdicted so as to shape a proper company culture.

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# The Hong Kong Institute of Chartered Secretaries

## Corporate Governance Paper Presentation Award

8 September 2018

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## First runner-up

Cheng Yi Ching, Tsoi Wai Hung and Wong Pui Yu

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### Introduction

Hong Kong's corporate governance regime has evolved steadily over the years (Yu and Rudge, Slaughter and May, 2014). From the first corporate governance initiative, the Corporate Governance Project undertaken in 1992 by the Stock Exchange of Hong Kong (SEHK), to today's comprehensive support of corporate governance with the adoption of the Code on Corporate Governance Practices, the revised Companies Ordinance, and the Anti-Money Laundering and Counter-Terrorist Financing Ordinance (Cap.615) of 2018, it is clear that Hong Kong's corporate governance follows closely that of other jurisdictions and has become more and more mature in supporting corporate governance frameworks. The trend for increasing scrutiny and attention is leading to a growing demand for transparency, social responsibility and higher governance standards (Gioia, 2017).

However, in today's business environment, corporate governance in the digital age is still an ongoing process that is under review by corporations. Social media is an indispensable and powerful tool that can help them achieve their governance objectives and balance different stakeholders' interests. It may enhance companies' operations and lead to success or failure. Having proper management of digital communication tools or systems can ensure that firms are well directed and controlled—and become successful in the long run. It also helps to shorten the time required for both internal and external communication. Also, it develops proper storage of information, including insider information, which can be effectively managed. However, there is no guarantee that merging corporate governance with the digital world must lead to success and easy management. Digital technology can be a

double-edged sword. Without proper maintenance of data, IT infrastructure and well-trained users, governance in the digital age may cause disastrous effects on the company and destroy the reputation of the firm overnight. Therefore, companies should prudently manage the usage of digital technology in their governance roles to bring beneficial effects to their businesses.

In this paper, both of the opportunities and challenges of corporate governance in the digital age are clearly evaluated and recommendations given for the hurdles that corporates are facing.

## Opportunities

### Transparency in governance

As today's business environment is indivisible from the digital world, the presence of digital communication tools is an essential for companies. These tools include social intranet software, private group messaging tools, case tracking software, and discussion forums. The influence of the tools in business world are beyond imagination. Improved transparency of corporates is a possible outcome brought by using digital communication tools. Demand for transparency has always been a subject for corporate governance (Schmidt & Cohen, 2013). Shareholders, the board of directors and management are three principal groups interested in corporate governance (OECD, 2004). Without transparency, it is more difficult for all three principal groups to fulfill their duties effectively as the required information may not be fully accessible to them. Corporates may get into trouble with poor governance. This highlights the importance of transparency in corporate governance. The tools act as a channel for effective communication and exchange of information within companies, increasing transparency. Comprehensive information is what transparency needs and it plays an important role in corporate governance (Bushman & Smith, 2003). It provides an overview on the actions, policies, decisions of companies.

### Making good use of digital communication tools

Within a company, digital communication tools help the board of directors achieve ideal corporate governance. In corporate governance, the board should be responsible for selecting the CEO and monitoring the performance of management. This is the part where digital communication tools do their job (Xie, Davidson III & DaDalt, 2003). The board is able to communicate with management efficiently through digital communication tools. Behaviour codes and standard guidelines are not enough for business world today. A complete analysis should be conducted to ensure management is working the right way. Directors can oversee the performance of the management more comprehensively. Good governance provides insights to the operations of companies and helps expose irregularities (Nolan & McFarlan, 2005). Hence, the risks of any dishonest actions involving management and losses can be lowered.

Management can communicate and exchange thoughts with subordinates and front-line workers through digital communication tools. As they are responsible for formulating strategic plans and managing corporates risks, sufficient understanding of the business environment and operations on a day-to-day basis is required. In order to achieve this, management need to access many statistics and information (Armstrong, Guay & Weber, 2010). Listening to the concerns and advice of their employees is an effective way and the tools can act as a link between them. Management can contact their subordinates through social intranet software and notice the problems in day-to-day operations. This is often ignored or overlooked by managers. This is a measure to avoid it. Moreover, there has been an increased emphasis on collaborating between different departments across different geographical locations as business is increasingly going global (Hill, 2008). Digital technology plays an important role in ensuring such collaboration can be carried out smoothly and efficiently regardless of geographical boundaries.

For shareholders, transparency is the most important factor regarding their capital investment decisions. No one is willing to invest their money in companies which they know nothing about. Shareholders would like to know what the companies have been doing and their future plans (Gillan & Starks, 2000). With communication tools, they can acknowledge different aspects of information concerning companies' performance and strategic planning by communicating with companies' representatives. The transparency policies help corporates gain public trust and are good for brand reputation.

## Employee involvement

Good corporate governance not only means the lawful processes of disclosure and transparency, but also the conduct of economic efficiency. After all, corporations exist to make profits.

Employees form a large group within an organization, and they play a significant role in achieving the governance objectives of generating profitability and revenue while operating under regulations.

### Employees understand how they contribute to achieving business goals

Though different types of digital technologies, employee can release the direction and vision of their department as well as the company. For instance, American Electric Power (AEP) has launched 'learning map': a 90-minute session that helps employees understand where their position sits in the larger scheme of the organization and how they contribute to the broader strategy. This serves as a great interactive tool even in a small group. The more transparency of internal information, the more efficient the company governance. Moreover, a sense of belonging among employees can be a driving force in creating well-developed organizations.

The technology of innovation and growth attracts the attention of human beings. Even in the same business environment and the same system,

different employees can work in different ways. Meanwhile, the competitive nature of human capital is the signature of the digital age of corporate governance. The characteristics of employees, such as being honest, can be a considerable soft power of the company.

### Employees work without geographic limitations

The digital age brings together business from all over the world. It helps different departments with different geographic locations collaborate. Through using digital technologies such as Internet, Intranet, email or government platforms, people both from inside or outside the firm can freely access or publish information related to the company. Therefore, digital governance plays a significant role in enhancing collaboration between all stakeholders.

In the digital age, employees can also act as a broadcasters and publishers (Ernst & Young Global Limited, n.d.). They are able to publish information freely on the social media or every public digital platform.

Turning to the board of directors, the digital age speeds up and facilitates their decision-making processes. Corporate governance includes balancing the interests between different stakeholders in companies. For instance, the board of directors have to set up rules and instructions to maintain a balance between the shareholders, management, customers, suppliers, financiers, the government and the community.

### Good corporate citizenship

Good corporate citizenship is shown through environmental awareness, ethical behaviour and sound corporate governance practices. Since corporate governance also provides the framework for attaining a company's objectives, it encompasses practically every sphere of management, from action plans and internal controls to performance measurement and corporate disclosure.

## Challenges

### Cybersecurity

One of the greatest concerns about merging corporate governance into the digital age is cyber security. Incorrectly disclosing confidential information from different stakeholders to the public or third parties may cause detrimental effects to both firms and their stakeholders. Businesses have to develop a secure platform to manage their internal information so as to prevent cyber hacking. Due to cyber security issues, different stakeholders have increasing awareness on how the companies handle their information and data. Firms that fail to protect and maintain the data properly may suffer serious loss of brand equity and trust from the public (VComply Editorial, 2017).

In order to tackle the cybersecurity problem, both the government and the business itself have the responsibility to respond to this issue. For the government, new regulations should be set up so as to meet the challenges of the fast-growing digital world. For instance, regulatory requirements relating to the protection of privacy, data handling and compliance should be further developed; this would help lower the chances of corporates failing to comply. The firms themselves should maintain their data properly by enhancing the security level of their systems. Software should be regularly checked so as to ensure that the system is trustworthy and to prevent cyber hacking. Companies should also ensure proper training is provided to both management and general staff members so as to manage confidential data properly without wrongly disclosing it to unrelated parties.

### The change in board composition in digital age

Nowadays, technological advancements continue to modify the way of doing business. These include in-depth customer segmentation, mobile commerce, cloud computing, and the automation of business processes (Bharadwaj, El Sawy, Pavlou & Venkatraman,

2013). All of the above measures are possible thanks to the development of information technology. They now sit at the heart of business. Companies need to ensure they make good use of technology to achieve the best possible outcomes. The management board, as the major decision makers and planner of the company, should be able to develop digital strategies for the company to create value for shareholders. Therefore, the composition of the board can affect the performance of company (Baysinger & Butler, 1985). The appropriate usage of technology is critical to the company's competitive advantage. However, the traditional composition of the management board would be personnel experienced in marketing, operations, finance, accounting, etc. They may not be familiar with digital trends such as social media, smartphone penetration and data analytics, and their understanding of this is weak. They may not prefer to use digital strategies to address issues faced by their companies.

The problem of the older generation not keeping up with market issues in digital age emerged in the last decade (Palfrey & Gasser, 2011). This implies that companies should address the digital capabilities gap at the management level. In companies in which digital technology has a major impact on the core business, such as Apple, Google, IBM, Intel, Microsoft, the companies are acting fast and the majority of their boards has digital expertise. In other sectors like consumer goods, retail and hospitality, companies are also changing the composition of their boards. The business environment shows the change in board composition is necessary.

### One size does not fit all

As mentioned above, the board is responsible for evaluating how technology trends are going to shape the company's future. The concern is: can they fulfill the task of taking the strategic view? To ensure they are fully capable of doing that, digital talent is needed (Hirt & Willmott, 2014). The term 'digital talent' covers several different domains

such as business processes automation, cloud computing, e-commerce, and mobile advertising. Hence, there are talents with diverse skill sets in different segments. The requirements for talent vary tremendously across industries and choosing the right talent is critical. If the board underrates or misjudges the new recruits required, the company's long-term profitability could be affected (Hollenbeck, Noe & Gerhart, 2018). Therefore, companies should identify their future digital policies and risks to determine the requirements of expertise that needs to be recruited. As they understand the relation between technology and their strategies, their search for talent can be more precise. Also, skill requirements and mindsets for different management levels are distinct. The management board needs to plan long-term strategies for several years while front-line managers have to prepare plans for day-to-day operations. As a result, companies should be able to distinguish the differences.

### Disclosure of information to the public

As mentioned above, transparency has been greatly improved due to improvements in digital platforms, with more information uploaded to the internet for public inspection. The community or stakeholders can easily access the information relating to the company's performance through published documents. Through these online published documents, it is more convenient for different stakeholders to monitor companies. Any misconduct or failure to meet compliance standards may be easier for the stakeholders to spot. In addition, any negative comments published in the social media may spread fast without control which may seriously affect the image and reputation of the firm (VComply Editorial, 2017). To the best way to tackle the direct inspection from both the general public and inspectors is for each company to have better internal controls and set up proper management strategies to monitor their companies as well as comply with regulations. As a result, increasing transparency may bring both opportunities and challenges to the businesses.

### Increasing cost of IT infrastructure

The increased involvement of digital technology in business has resulted in higher costs of maintenance and development of software so as to ensure the effectiveness and efficiency of digital governance. At the same time, more up-to-date training is needed for digital leaders and different digital users. Employees may have to spend more time getting used to the system in order to manage it properly. All of this depends on each companies' technological capabilities and whether they can afford the funding required on IT infrastructure development.

### Recommendations

In this digital age, the use of technology in the business world is essential. Technological advancements bring opportunities and challenges to corporate governance. Hence, we have come up with recommendations for corporates to help them adapt to the changing business environment.

#### Understanding what your company needs

Digital policies provide direction and guidelines on implementing technologies in daily operations and link these with the company's overall goals and mission. This is why formulating appropriate digital policies is essential. To create suitable policies, several points need to be considered. First of all, the company's overall mission should be determined as it is the foundation of the company's activities. Then, the company's current digital practices should be identified (Peppard & Ward, 2016). These may include the resources that are committed to digital activity, the ways of using digital across the company, and the effectiveness of the use of digital in achieving goals. After that, responsibility for digital policies should be assigned to the proper people. Lastly, a timetable for the revision of policies should be set up for routine review. If all of the above considerations are finished, a clear and comprehensive statement can be presented.

Under digital policies, there are plans which contain more details such as targets, activities and deadlines. They should be aligned with the objectives of the digital policies. With more details, there are more points of concern (Mithas & Lucas, 2010), such as the hardware and software required to achieve goals, the cost and financial budgets needed for the plans, the skills and capabilities to deliver the plans, and the abilities of current digital activities to fulfil existing requirements. The plans also need to be reviewed to ensure their effectiveness and that they are up-to-date.

### Recruiting competitive talent

As mentioned above, digital talent is the key to achieving success in digital business. It is important for companies to recruit competitive talent. First, companies should know exactly what they want before recruitment. Setting a clear recruitment target is important and avoids the extra costs involved by hiring the wrong candidates. Job analysis can be conducted to identify the content, skills and experience required by the job. After identifying the ideal requirements of the job, companies should choose right sources and channels to find recruits (Chapman & Webster, 2003). Rather than using traditional channels, social media like LinkedIn is an effective way for recruitment.

Moreover, there are measures which can be taken by companies to attract digital talent and show their sincerity. Offering higher salaries is one of

these. As top talent is not easy to attain and digital skill sets are in high demand, these employees deserve high salaries. Also, companies can create a healthy culture which provides a relaxing work environment and flexible working hours (Kane, Palmer, Phillips, & Kiron, 2017). These incentives attract talent to choose one company over others. If companies do manage to recruit the right persons, retention is important too. As new employees take time to be familiar with the new environment, a high turnover rate can affect companies' long-term development.

### Conclusion

This paper discusses both of the favourable factors and hurdles for corporate governance in digital age. Without doubt, those companies which have managed to use digital technologies well may definitely see beneficial effects. However, those who fail to use digital technologies properly may bring negative effects to the whole business. Every member of the company, including the board of directors and employees, have the responsibility to comply with regulations and protect the privacy and interests of their stakeholders so as to achieve successful corporate governance. In the future, there is still a lot of work and rules need to be established and discussed so as to facilitate corporate governance in digital age.

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# The Hong Kong Institute of Chartered Secretaries Corporate Governance Paper Competition and Presentation Award 8 Sept 2018

信和集團  
Sino Group

Hong Kong Institute of Chartered Secretaries  
秘書基金有限公司

## Second runner-up

Kao Ho Kwan Ben, Lau Tsz Fung Michael and Ng Kwan Tung Quentin

Hang Seng Management College, Bachelor of Business Administration in  
Corporate Governance

### Section 1: Definitions of corporate governance and the digital age

Corporate governance has become more and more important in recent decades. Corporate governance literally means the approaches and systems for the board of directors and management to influence the company. Corporate governance describes a wide range of issues like systems and processes for ensuring proper accountability, probity and openness in the conduct of the organization's business. It also includes the improvement in share performance

and that other stakeholders' views towards the interests of the company, and its operators, ought properly to be taken into account.<sup>1</sup> It includes not only the shareholders, but also other stakeholders in the company like the customers, suppliers and employees.<sup>2</sup>

Many scholars have different interpretations<sup>3</sup> of corporate governance.<sup>4</sup> Shleifer and Vishny (1997)

<sup>1</sup> Turner, Catherine. *Corporate Governance: A Practical Guide for Accountants*. CIMA. © 2009. Books24x7.C. Leung. (2018).  
Hong Kong lender banking on finger veins being

<sup>2</sup> Oman, C. and D. Blume (2005), "Corporate Governance: A Development Challenge", OECD Development Centre Policy Insights, No. 3, OECD Publishing, Paris, <https://doi.org/10.1787/023555084632>.

<sup>3</sup> Gillan, Stuart and Starks, Laura T., *Corporate Governance, Corporate Ownership, and the Role of Institutional Investors: A Global Perspective* (August 2003).

<sup>4</sup> Weinberg Center for Corporate Governance Working Paper No. 2003-01. L'huillier, Barbara. (2014). What does "corporate governance" actually mean? *Corporate Governance: International Journal of Business in Society*. 14.10.1108/CG-10-2012-0073.



define corporate governance as ways in which suppliers of finance to corporations assure themselves of getting a return on their investment.<sup>5</sup> Knell (2006, p. 5) defines corporate governance as 'the regulating influence applied to the affairs of a company to maintain good order and apply predetermined standards'.<sup>6</sup> Zingales (1998) defines corporate governance as the complex set of constraints that shapes the ex-post bargaining over the quasi-rents generated by the firm.<sup>7</sup>

Corporate governance codes of conduct and legislation guide firms on how to structure an organization, on the board of directors, control of the company, ownership, compliance processes, and internal control. In many jurisdictions, corporate governance is more strict and involves compliance with requirements of different jurisdictions. For example, Hong Kong has adopted the significant controller register, while banks and corporate services agents have adopted the KYC (know your client) process<sup>8</sup> in recent years. These initiatives show that corporate governance and compliance is very important as the laws require companies to fulfil them. Banks and registered agents should comply with due diligence requirements on their clients. Compliance is just one of the key elements of corporate governance. The development of corporate governance enables the management and controllers of the company to better manage the company.

In the last 30 years, digital technology has taken a paramount role in the world. The digital age is a period of retrieval, management and transmission of information and the promotion of use of computing technology.<sup>9</sup> We loosely define this period from the 1990s, when the use of email and search engines became widespread, and the potential for online transactions provided new

opportunities for sales and opportunities for new business models. In the past 10 years, social networking and cloud technology has gained influence in the business world. More recent examples of technological development include online real-time information, blockchain technology, and data security, which have become of increasing importance. These developments in the speed and availability of information can have important consequences for the decision making of boards and top management, both by providing new opportunities and creating new risks and requirements for how data is governed. But, how can corporate governance evolve and be influenced by the development of digital age?

## Section 2: Development of corporate governance relating to employees in the pre-digital and digital era to the employees

The invention of the computer technologies has made a vital change to corporations' operations, managements and governance. 20 years ago, the technology began to advance. The digital age has been becoming more mature. The evolution of the digital age has had a major effect on employees' behaviour, with implications for corporate governance. From 1996<sup>10</sup>, the digital age advanced with the appearance of Hotmail on the web, allowing employees to communicate faster and more effectively. The introduction of instant messaging and Google has meant the accessibility of different information and knowledge has become even faster. At the beginning of the 21st century, social networks such as Skype, Napster have emerged. Video conferencing also became more common in among MNCs. The introduction of professional web LinkedIn, Myspace, and the well-known social network Facebook strengthened

<sup>5</sup> Shleifer, A. and Vishny, R.W. (1997), "A survey of corporate governance", *The Journal of Finance*, Vol. 52 No. 2, pp. 737-783

<sup>6</sup> Knell, A. (2006), *Corporate Governance: How to Add Value to Your Company: A Practical Implementation Guide*, CIMA Publishing, Burlington, MA.

<sup>7</sup> Zingales, L., 1998, "Corporate Governance," *The New Palgrave Dictionary of Economics and the Law*.

<sup>8</sup> Know Your Customer (KYC). (n.d.). Retrieved from <https://risk.thomsonreuters.com/en/risk-solutions/kyc-know-your-customer.html>

<sup>9</sup> Sherly Elizabeth Abraham, (2012) "Information technology, an enabler in corporate governance", *Corporate Governance: The International Journal of Business in Society*, Vol. 12 Issue: 3, pp.281-291, retrieved from: <https://ezproxy01.hsmc.edu.hk:2080/10.1108/14720701211234555>

<sup>10</sup> Sheppard, F. (2014, May 27). The internet over the past 20 years. Retrieved from <http://www.abc.net.au/news/2014-05-25/internet-changes-over-20-years/5470442>

the digital age in 2003 and 2004 as these further allowed individuals to connect with each other. The development of mobile networks, smartphones, and project management software also allowed individuals to communicate faster, use time more efficiently, and access information more quickly.

Such technological developments have made organizations around the world become more productive. For example, receiving information instantly from colleagues in different locations allows managers to access important data more quickly and to come to a quicker decision. Access to more information may also lead to better decisions. Furthermore, employees' feedback<sup>11</sup> can be reflected within the company as soon as possible and allow the human resources department to motivate them by adopting the right policies at the right time.

Constant feedback provides room for improvement in an organization. At the board level, this means that directors have access to more timely and reliable data, allowing better decision making. For example, more feedback can reveal that Millennials deeply covet career growth and professional development – in turn, companies have strategized new ways to incorporate these aspirations.

Communication improves a lot as it becomes easier for people to get in touch with others, allowing the sharing information by social media, such as Snapchat, Facebook Messenger and Instagram, increasing engagement between them. Besides, with clear instructions and guidance from computer settings, employees are not confused when they follow the requirements from their managers or directors. These enhance employees' efficiency and decision making. Thus, the functions in smartphones or on their desktops will notify them what to do

before their job or project deadline, clarifying their job duties and responsibilities.

Last but not least is employee recognition.<sup>12</sup> Recognition encourages employees to work harder and to contribute more to the company. This can bring them a higher sense of belonging. Employees who receive recognition through social media platforms will gain positive regard among their colleagues. They can also receive compliments and rewards which they are very keen to obtain.

### Section 3: Opportunities in the digital age with corporate governance

As noted above, advances in technology have brought about numerous changes to companies' operational practices, employee productivity, and relationships with customers. They have also brought about changes to the internal workings of the board of directors. There is also scope for broader coverage on the regulatory side, particularly in respect of customer data, methods of payment, and relationships with employees.

#### Opportunities for regulators

New developments in payment methods, currencies, and data storage have created opportunities for regulators to develop guidelines, control systems, and reporting requirements for how companies use these technologies. In recent years, blockchain technology has been widely used in different fields especially in the financial industry. Blockchain is a technology which can provide a share database with many entries that is encrypted through transferring data.<sup>13</sup> It aims to let two parties transfer payments with encrypted methods. The technology allows the storage of data into the blockchain products, which are encrypted.

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<sup>11</sup> Kiss, M. (2018, May 08). How the Digital Age has Transformed Employee Engagement. Retrieved from <https://www.hrtechnologist.com/articles/employee-engagement/how-the-digital-age-has-transformed-employee-engagement/>

<sup>12</sup> Employee Benefits. (2017, April 12). Engaging employees in the digital age. Retrieved from <https://www.employeebenefits.co.uk/engaging-employees-in-the-digital-age/>

<sup>13</sup> The Fundamental Principles of Utility Tokens in the Blockchain Ecosystem. (2018, March 05). Retrieved from <https://www.ccn.com/fundamental-principles-utility-tokens-blockchain-ecosystem/>

Blockchain technology is divided into equity tokens and utility tokens.<sup>14</sup> One of the examples of blockchain technology is Bitcoin, which is a type of cryptocurrency. Bitcoin allows transactions to be done by individuals. However, the technology has raised public concerns on possible human errors, security, politics and the control by the market of the price of the cryptocurrency. Due to the increasing concerns on cryptocurrencies, the Anguilla Registrar has recently adopted a new act on utility token offerings<sup>15</sup>, making Anguilla the first jurisdiction in the world to regulate cryptocurrencies. This act enables companies registered in Anguilla Registrar to offer utility tokens legally with full registration. The Anguilla Registrar is the first registrar to adopt regulations regarding token offerings such as Bitcoin. The government's goal is to strike a sound balance between meeting the information requirements of the purchasing public, and creating an accelerated but prudent process to meet the needs of the fast-moving blockchain industry<sup>16</sup>. Regulating this technology in Hong Kong or developing policy and expertise in how cryptocurrencies should be used and treated by companies may also help position Hong Kong as an attractive place for businesses in this area.

### Internal communications and governance practices

Improvements in communications may lead to changes in decision-making processes by boards of directors and managers. The traditional corporate governance code requires a minimum number of meetings and records of attendance at these meetings. However, these meetings may be supplemented by electronic communications and decision-making. Discussions and decisions

between formal meetings conducted by email and video-conferencing can reduce the time between meetings and speed up decision-making. However, it is important that a company secretary maintains records of correspondence, like minutes of board meetings. Similarly, 'virtual meetings' among board members may reduce the time spent by directors in travelling to meeting sites, though this is more important for boards with greater geographic diversity. This would also reduce the cost of the meetings, and printing and administrative costs.

Moreover, recent years have seen companies communicate increasingly virtually with their shareholders using video-conferencing. Hong Kong Exchanges and Clearing Limited adopted guidelines on General Meetings in 2010: these state that companies can use video conferencing in annual general meetings to communicate with shareholders<sup>17</sup>. This can increase shareholders' participation in AGM. This guideline could be extended to virtual shareholder meetings, which are now permitted in several jurisdictions internationally (the UK, US, Canada, Denmark, Ireland, New Zealand, and South Africa)<sup>18</sup>. Virtual meetings provide opportunities for local companies to communicate with geographically dispersed shareholders. This may also make Hong Kong more attractive to foreign-based firms.

The introduction of cloud computing and cloud services also bring new opportunities to corporate governance. Cloud computing<sup>19</sup> is a pay-per-use model which enables convenient and on-demand network access to a shared pool of configurable computing resources (networks, servers, storage, applications). Today, cloud technology has

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<sup>14</sup> Wilmoth, J. (2018, May 04). The Difference Between Utility Tokens and Equity Tokens. Retrieved from <https://strategiccoin.com/difference-utility-tokens-equity-tokens/>

<sup>15</sup> Anguilla Authority (2018), Anguilla Utility Token Offering Act, 2018. Act No. 4/2018

<sup>16</sup> Anguillian (2018), Government of Anguilla Announces World's First Blockchain Token Offering Registration Process for "Utility Token Offerings", The Anguillian.

<sup>17</sup> GUIDE ON GENERAL MEETINGS (24 September 2010 (Updated 25 July 2016)). HONG KONG EXCHANGES AND CLEARING LIMITED. Retrieved from [http://www.hkex.com.hk/-/media/hkex-market/listing/rules-and-guidance/other-resources/practices-and-procedures-for-handling-listing-related-matters/gm\\_guide](http://www.hkex.com.hk/-/media/hkex-market/listing/rules-and-guidance/other-resources/practices-and-procedures-for-handling-listing-related-matters/gm_guide)

<sup>18</sup> "The future of shareholder meetings is virtually here." Computershare. Retrieved from <https://www.computershare.com/News/Virtual-Meetings.pdf>

<sup>19</sup> Sun Microsystems, Introduction to Cloud Computing Architecture, (2009, June). Retrieved September 21, 2011 from [http://webobjects.cdw.com/webobjects/media/pdf/Sun\\_CloudComputing.pdf](http://webobjects.cdw.com/webobjects/media/pdf/Sun_CloudComputing.pdf)

improved to provide platforms for clients with database management systems and security services as well as storage services<sup>20</sup>. Cloud computing brings great improvement to data storage, and enhances data processing, employee efficiency and company decision making as information can be shared among all staff and management executives. Companies may also use certified cloud computing services to assure their own compliance relating to information security and information systems. In the US, for example, SAS 70 (Statement on Auditing Standards No. 70) provides a means for cloud services providers to certify their data security practices. This improves the internal controls of companies, helping with their compliance, transparency and privacy issues with encryption systems set up<sup>21</sup>. In European Union, The European Network and Information Security Agency (ENISA), an EU governmental agency created to advance the functioning of the internal market, produced a report detailing the agency's findings on the benefits, risks, and recommendations for information security<sup>22</sup>. Using externally assured cloud services and applications provides a way for companies to reduce their own security costs and the costs of internal control procedures relating to compliance.

Last but not least, advanced technology also helps improve the training and development of employees, which leads to a better working environment for employees. Training can be referred to as a short-term goal to help employees achieve the company's mission while development is a long-term target to keep its daily routine operation running well.

Training materials can be sent to employees by companies through smartphones anytime, and the employees need not to attend certain

classroom-based training courses. Instead, they can use their smartphones to study the materials according to their schedule or whenever necessary. This reduces companies' costs and the time spent on employee training. One of the examples is microlearning<sup>23</sup> – a way of teaching and delivering content by breaking it into short courses that are easier for learners to complete and remember. They can finish the learning within a short time. As well as saving time and money, the method is flexible as employees can access the information at any place at any time even if their phone is offline as they can download the materials first and read them later. The training materials can be based on employee demand and the needs of the company, and the content can be varied among the employees, depending on their technical or intellectual knowledge. Employees tend to need materials that are easy to remember. This enhances the long-term development of the company such as increasing profit, and intangible assets such as reputation and goodwill. It makes it easier to recruit talent and makes the company run more smoothly.

The digital age definitely benefits corporate governance in different ways in terms of compliance, employees and board executives. The digital age has led to laws being revised in different countries to improve corporate governance to avoid risks happening. It also enhances the efficiency of workers as they serve customers and cooperate with their colleagues better to increase profits. The digital age also increases connections between shareholders and the companies they invest in to let companies show their good corporate governance.

Although the digital age can bring convenience to the board and employees, it can bring challenges to companies in their internal control policies, which affects the company's governance.

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<sup>23</sup> Top 4 Trends in Human Resource Training and Development. (2018, July 21). Retrieved from <https://www.wibeacademy.com/trends-in-human-resource-training-and-development/>

## Section 4: Challenges with risks in the digital age with corporate governance

While new technologies have introduced many operational improvements and new ways to reach and do business with customers, they have also introduced new risks and challenges that boards now need to consider, and which they may not have previously faced. Such issues range from the governance of personal data to reputational risks from social media attention and customer mobilization to cyberattacks.

### Security of user and customer data

First of all, privacy is one of the major concerns for corporate governance in digital age. Privacy issues and web security have been pivotal issues during technological development throughout years. Data protection is always the hottest topic for companies, even government. Some companies have failed to protect the data and privacy issue of their users and customers as they have passed information and preferences to third parties to gain profits; others have even been involved in political events. Privacy leakage worsens the corporate governance and credibility of the company.

### Risks of data governance – Facebook:

In 2018, it was revealed that Facebook had allowed third-party access to profile information on up to 87 million Facebook users without users' knowledge as part of political election campaigns and other campaigns, particularly the Brexit vote in the UK. Cambridge Analytica, a political consulting firm, was hired to profile potential voters in US election campaigns. In 2016 Cambridge Analytica helped US President Donald Trump to deliver Trump's material to the US Facebook users while they were online. Facebook's granting of access to third parties to their users' data violates proper corporate governance and led to users' preferences and information being leaked to other parties, which caused inconvenience to their users. Nearly 50 million users were affected from this scandal. Facebook's permission for third-party access to users' data was widely

considered a breach of user privacy and Facebook was fined £500,000 by the UK Information Commissioner's Office.

How did Facebook respond? Mark Zuckerberg responded to the public after five days the scandal was revealed. Apart from apologizing, Facebook and Zuckerberg announced that they had hired a digital forensics firm to perform an audit on the use of data analytics for political purposes and they would investigate all the applications which could access to large amount of users' data or information. Facebook also announced that it would expand its bug bounty programme to allow people to report the misuse of data. Most importantly, Facebook rewrote its Terms of Service and Data Use Policy which, like GDPR (General Data Protection Regulation, an European Union policy which updates data protection and privacy rules), complies with transparency requirements to get users to consent to allow Facebook to use their data and information.

Facebook made mistakes in the lack of supplementary internal control and risk management, a wrong strategy on stressing only advertisement for profit, the combined chairman and CEO role for Mark Zuckerberg, and its dual-class share model. In terms of internal control and risk management, the company failed to control other companies' access to their users' data and information, which caused the scandal. Facebook only stressed profit from advertising and neglected the importance of high-quality data protection for users. It believed in huge income from advertising however it ruined its trustworthiness and may potentially have worsened profits.

Zuckerberg's combined CEO and chairman role may lead to dictatorship due to his leadership over both executives and management. He would influence the management board and the executive board in decisions in his favour for Facebook. Also the dual-class share model brings Zuckerberg huge influence over the company's decision making as his voting rights outweigh those of other shareholders.

Corporate governance is essential as it can provide internal control and risk management. It allows the company to balance its need to make profits with the rights and responsibilities of different stakeholders in the company and rules and procedures for the company's decision making (OCED, 1999). Facebook should improve its corporate governance by separating the CEO and chairman role, and by adopting new compliance regulations for data and information protection and access rules for third parties with user consent.

The case illustrates the importance of having good internal controls and risk management systems. In the long run, these systems allow a company to balance the need to make profits with the rights and responsibilities of different stakeholders, rules and procedures, and the possibility of future problems.

#### **Hong Kong Broadband Network:**

The recent cyberattack on Hong Kong Broadband Network shows the risks faced by companies in protecting their data. In April 2018, Hong Kong Broadband Network (HKBN) faced a cyberattack and more than 40,000 credit cards details were stolen by the cyber attackers. The details were from an inactive customer database and consisted of details from former and existing customers. HKBN had failed to adopt sufficient measures to protect this information from cyber attackers, such as by using firewalls and encryption. This had legal implications, as it was reported to Hong Kong's Privacy Commissioner, and reputational implications, with HKBN being Hong Kong's second-largest broadband provider. HKBN was criticized for having insufficient protection of customers' data and for hosting data about inactive customers on an active server. This suggests that HKBN's risk management systems were not thorough enough to identify and mitigate this risk.

HKBN has adopted new measures following the scandal. The company removed from the database personal data on accounts that have been closed

and cleared for six months between April 2018 and July 2018. The company will only retain partial but not full HKID card and credit card numbers for existing customers. The company will ensure it improves compliance procedures. For new customers, the company will collect full ID card and credit card numbers to support service activation, number porting and bank payment applications.

The case shows the importance of data and privacy protection by a company. Although HKBN has taken good risk management and compliance measures to rectify its data protection policy, users' information was still accessible to hackers. This shows that companies' awareness of data protection is low. Since the start of the technological era, the protection of customer data and information by every company has been essential. Companies should provide measures to manage the storage of customers' data and information.

From the two cases above, we can see the awareness of data protection is low. Some companies like Facebook think that user information can be accessed by third parties to let them earn more money through links. Therefore, its data protection policy may have been restricted in favour of its profits-oriented policies. Compliance rules set by statutory bodies can be improved to ensure better customer data protection.

#### **Influence of government information policies**

The other challenge to companies is government influence on their corporate governance. The Chinese government has censored search engines, web pages and social media to remove issues sensitive to the governance of the Central government. Google LLC in Mainland China and Yahoo are among those whose search engines are blocked by the Chinese government and cannot be accessed in Mainland China. Weibo, WeChat and Baidu are the main search engines for the Mainland China market as they help the government censor sensitive issues.

How could this affect corporate governance? Chinese Internet companies such as Baidu supported the Chinese government in its fight against Google LLC in 2002. Baidu had to accept the Chinese government's ruling about Internet searches before the Chinese government would help it fight the world's largest search engine, Google, enabling it to gain a greater share of the Chinese market<sup>24</sup>. The Chinese government hopes to shut down Google LLC and adopt censorship of other Western Internet companies.

More recently, the Chinese government has asked international airlines to list Taiwan as a part of Mainland China, to spread the belief that Taiwan is not a separate country<sup>25</sup>. Companies with routine operations in Mainland China thus need to evaluate whether they wish to comply with Mainland China's censorship requirements or be willing to risk government penalties. This issue poses numerous governance issues for companies over the rights of their users, and the role they wish to play in complying with a (foreign) government's internal policies.

## Section 5: The board of directors in the digital age

It is clear from the issues discussed above that while technology has improved operations and communication with customers, some companies need to make changes to their governance procedures to prevent, prepare for, and reduce the impact of risks arising in this digital age.

### Appointing a Chief Information Officer or Chief Technology Officer to the board

While the CIO position is well-established in many companies, companies should also consider whether appointing this role to the board of

directors is warranted, as the responsibilities of the CIO are critical to the company's ongoing business operations, risk management, and internal control of information. This role includes not only IT strategy and digitization of operations, but threats and risks to operations and opportunities for improvement.

In recent decades, many companies have begun to value the strategic importance of IT and they have started to include strategic expectations in the CIO's role. Similarly, the appointment of a Chief Technology Officer signals the importance of technological expertise and investment in technology resources. Firms in which technology or digital communications is part of their main business model or service offerings may need to structure the board to highlight the importance of technology.

### The importance of having robust internal control and risk management procedures

"Internal control is a process that is implemented by the board of directors, managements and business managers in an organization to provide reasonable assurance that operations will allow the organization to reach its objectives in terms of efficiency, quality of financial information disclosed and compliance with applicable laws and regulations."<sup>26</sup>

As technology changes grow rapidly and digital information become more advanced, internal control is essential to ensure the organization complies with data privacy requirements and laws, and that data is transmitted (e.g. through email or shared drives) with the proper storage protocols, privacy settings, and sharing limitations. To ensure that there is no unauthorized access, companies must have strong internal control procedures and employees should follow procedures to protect the

<sup>24</sup> Thompson, C. (2006, April 23). Google's China Problem (and China's Google Problem). The New York Times Magazine. Retrieved from <https://www.nytimes.com/2006/04/23/magazine/23google.html>

<sup>25</sup> Zhen, L., and Wong, C. (2018, May 8) US and international airlines risk curbs on mainland operations if they refuse to obey Beijing's 'one-China' rules in Taiwan row. South China Morning Post. Retrieved from <http://www.scmp.com/news/china/diplomacy-defence/article/2145062/foreign-airlines-risk-curbs-mainland-operations-if-they>

<sup>26</sup> Definition of Internal Control. (n.d.). Retrieved from <https://capitalconseil.ca/en/2016/12/12/importance-internal-control/>

company's confidential information, thus establishing procedures on how receiving and reporting administrative and management tasks can be protected and encrypted.

It is also important to have internal controls on data privacy. Data, whether about customers, users, new products, or operations, is fundamental to every company. Risks to data leakage can be significant. While corporate governance guidelines include internal controls and risk management within the remit of the audit committee, some companies may wish to include some aspects of risk management in a separate risk committee.

### Monitoring of employees actions

The examples discussed in section 5 on the treatment of customers show the potential for individual employees' actions to cause damage to a company's reputation. Thus, it is increasingly important for companies to develop policies regarding employee behaviour and accountability for actions, and policies regarding the treatment of customers. In the case of Starbucks, the company invested in racial diversity training for employees. Company managers may need to invest more in employee training to prevent specific actions from causing negative attention in the future. Developing or enhancing employee codes of conduct may help reduce the likelihood of such events.

### Quick response to scandals, risk management controls

To prevent unexpected problems, risk management are always needed to protect the interest of the companies. Risk management is the process of identifying, analyzing and responding to risk factors throughout workout of a project and provides the best interests of its objectives<sup>27</sup>. In order to handle unexpected conditions, companies should respond quickly to scandals. Companies should reduce the likelihood of risks and develop contingency plans for unfavourable outcomes. Firms will become better-governed as they will

have fewer problems to during business operations and be well prepared for all kinds of risks.

### Digitize the board meetings and voting systems

In order to improve communication, board meetings can be digitized to enable better decision-making and a better flow of information. Hence, efficiency for board of directors' meetings will increase.

Directors will be better prepared for their meetings as documents like the agenda, meeting minutes and other content can be prepared before the meeting, making it easy to save and be read the information any time. As the digital age develops, the cost of meetings can be saved by reducing the number of administrative staff and printing costs, which can lower the work burden for employees.

Next, quick access to important information can reduce the time taken to discuss matters in meetings and improve the speed of decision-making. Setting up voting systems makes the decision process more efficient as voting data can be collated online. Meeting discussions can be recorded and the directors can set reminders as all the technologies are real time. Meetings can be held using video conferencing which increases the effectiveness of the board of directors.

There are lots of advantages of virtual as compared to traditional meetings. The meetings provide a better environment and improve corporate governance, and allow firms to be more competitive.

## Section 6: Conclusion

The development of the digital age provides many opportunities for companies to improve their corporate governance in terms of stressing compliance, internal control and risk management of companies; improving efficiency for decision-making by the board of directors; and improving the working environment for employees. We can see that over the last 20 years, the digital

<sup>27</sup> What is Risk Management? (n.d.) Retrieved from <https://bia.ca/risk-management-the-what-why-and-how/>



age has improved lots of laws and regulations on various financial technology products such as security tokens and data privacy issues. Companies have to comply with stricter laws and regulations to ensure the internal control and risk management predictions satisfy applicable laws. Compliance is one of the components of corporate governance and its functions adapt legal and social norms to company activities<sup>28</sup>. Only with good compliance can companies perform good corporate governance under digital development.

However, the digital age also brings many challenges to corporate governance. These include data privacy issues, government censorship, and reputational risks due to the use of social media. These present technological challenges, and

companies must ensure that they have adequate expertise and investment, and sound policies, to ensure that private data is safeguarded. In addition, government requirements and censorship require companies to make decisions about the degree they are willing to comply with and become agents of government. Lastly, companies should ensure that they have strong procedures and policies over employee behaviour and training, and identify potential risks that may be spread through social media. These challenges may require boards of directors to identify areas of priority, such as investing in technology, appointing a CIO or CTO to the board of directors, enhancing internal controls and data privacy procedures, and improving employee training and codes of conduct.

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<sup>28</sup> Griffith, Sean J., *Corporate Governance in an Era of Compliance* (April 18, 2016). *William & Mary Law Review*, Vol. 57, No. 6, 2016; *Fordham Law Legal Studies Research Paper No. 2766661*. Available at SSRN: <https://ssrn.com/abstract=2766661>

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# Photo Gallery

The top six teams were invited to present their papers on 8 September 2018 and compete for the Best Presenter Award. The six final teams are:



*(From left to right)*

**Wong Mei Ming, So Bo Ki and Ma Pui Yee**

Hang Seng Management College, Bachelor of Business Administration



*(From left to right)*

**Lam Tsz Kwan and Chan Yat Hei**

Hong Kong Shue Yan University, Bachelor of Business Administration in Corporate Governance



*(From left to right)*

**Wong Pui Yu, Tsoi Wai Hung and Cheng Yi Ching**

Hong Kong Shue Yan University, Bachelor of Business Administration



*(From left to right)*

**Lau Tsz Fung Michael, Ng Kwan Tung Quentin and Kao Ho Kwan Ben**

Hang Seng Management College, Bachelor of Business Administration in Corporate Governance



*(From left to right)*

**Lau Ka Ching, Lam Tsz Yan and Tse Wai San**

The Open University of Hong Kong, Bachelor of Business Administration in Global Business and Marketing



*(From left to right)*

**Ma Man Hin, Yeung Ho Yin and Cheung Ka Ming**

Hong Kong Shue Yan University, Bachelor of Business Administration

## Awardees of Paper Writing Competition

Jasmine Ho ACIS ACS, Deputy Company Secretary of LINK, presenting certificates to the awardees of Paper Writing Competition 2018 in appreciation of their achievement.

### Champion

**Ma Pui Yee, So Bo Ki and Wong Mei Ming**  
Hang Seng Management College,  
Bachelor of Business Administration



### First runner-up

**Cheng Yi Ching, Tsoi Wai Hung and Wong Pui Yu**  
Hong Kong Shue Yan University,  
Bachelor of Business Administration



### Second runner-up

**Kao Ho Kwan Ben, Lau Tsz Fung Michael and Ng Kwan Tung Quentin**  
Hang Seng Management College,  
Bachelor of Business Administration in  
Corporate Governance



Robin Healy FCIS, Assistant Group Secretary, Statutory & Regulatory Reporting of HSBC Holdings plc, presenting the certificates to the awardees of Paper Presentation Competition 2018 in appreciation of their achievement.

### Best Presenter Award

**Kao Ho Kwan Ben, Lau Tsz Fung Michael and Ng Kwan Tung Quentin**  
Hang Seng Management College,  
Bachelor of Business Administration in  
Corporate Governance



### First runner-up

**Ma Pui Yee, So Bo Ki and Wong Mei Ming**  
Hang Seng Management College,  
Bachelor of Business Administration



### Second runner-up

**Chan Yat Hei and Lam Tsz Kwan**  
Hong Kong Shue Yan University,  
Bachelor of Business Administration in  
Corporate Governance



## Merit Certificates

Winnie Li FCIS FCS, the Institute Education Committee member, presenting the Merit Certificate to awardees of Paper Writing and Paper Presentation Competition.

### Paper Writing Competition



**Chan Yat Hei and Lam Tsz Kwan**  
Hong Kong Shue Yan University,  
Bachelor of Business Administration in  
Corporate Governance

### Paper Presentation Competition



**Cheng Yi Ching, Tsoi Wai Hung and  
Wong Pui Yu**  
Hong Kong Shue Yan University,  
Bachelor of Business Administration

### Paper Writing and Paper Presentation Competition



**Cheung Ka Ming, Ma Man Hin and  
Yeung Ho Yin**  
Hong Kong Shue Yan University,  
Bachelor of Business Administration



**Lam Tsz Yan, Lau Ka Ching and Tse Wai San**  
The Open University of Hong Kong,  
Bachelor of Business Administration in Global  
Business and Marketing



Group photo of the participants, judges and guests

## Panel judges

Institute Chief Executive, Samantha Suen FCIS FCS(PE), presenting souvenirs to the judges and reviewers of the Corporate Governance Paper Competition and Presentation Award 2018 in appreciation of their support.



**Robin Healy FCIS**  
Assistant Group Secretary,  
Statutory & Regulatory Reporting  
of HSBC Holdings plc



**Jasmine Ho ACIS ACS**  
Deputy Company Secretary  
of LINK



**Winnie Li FCIS FCS**  
Director of CWCC



**Dr Candy Liu**  
Assistant Professor Lee Shau Kee  
School of Business and  
Administration of the Open  
University of Hong Kong



**Dr Raymond Wong**  
Associate Dean (Undergraduate  
Programmes), College of Business  
of City University of Hong Kong



**Dr Edén Chow received the  
souvenir on behalf for  
Dr Linsey Chen**  
Assistant Professor – both of  
them are from Department of  
Accountancy of Hang Seng  
Management College

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(Names are arranged in alphabetical order of surnames)

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- 1 Dr Derek Chan, Associate Dean (Undergraduate), Faculty of Business and Economics, The University of Hong Kong
- 2 Dr Linsey Chen, Assistant Professor, Department of Accountancy, Hang Seng Management College
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