

HKBM7000

Approaches to Research and Academic Communication

Assignment 2 – In-class Presentation

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LEVEL 7 ASSESSMENT SPECIFICATION

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Lecturer:	Dr Chammy Lau	Internal Verifier:	Prof Peter Fong
Assignment Title:	Assignment 2 – In-class Presentation	Word count (or equivalent):	10 minutes for presentation plus 5 mins of Q&A
Submission deadline:	12 August 2023	Return date of provisional marks & written feedback:	10 October 2023

Topic/Subject Area under ABS Journal List of Business and Management

	Field	Journal Title
1	ECON	Geneva Risk and Insurance Review
2	FINANCE	Insurance: Mathematics and Economics
3	FINANCE	Journal of Risk and Insurance
4	FINANCE	Geneva Papers on Risk and Insurance: Issues and Practice



The Use of InsurTech to Narrow Insurance Mortality Protection Gap – A Hong Kong Case Study





(i) What is the nature of the topic/subject area today?

What are the key theory or issues that dominate the field now?

Who are among the key scholars today?

Key Theory/Concept of Insurance: “Risk Pooling”

Fundamental principle in insurance - by spreading the risk among a large group of individuals, the financial burden of an unexpected event, such as death, can be shared amongst the members. **Risk pooling allows insurers to estimate the frequency and severity of potential losses more reliably, enabling them to set appropriate premiums and provide coverage at a reasonable cost.**

Risk pooling is rooted from **the Law of Large Numbers** (which is the fundamental concept of **Probability Theory**) - as the number of independent and identically distributed risks increases, the average loss per participant would concentrate around its means as a result from μ , and therefore more easy to predict (Denuit & Robert, 2021).

“Economies of Scale” is also relevant as the quantity of goods or services produced increases, the average cost of producing each unit decreases.



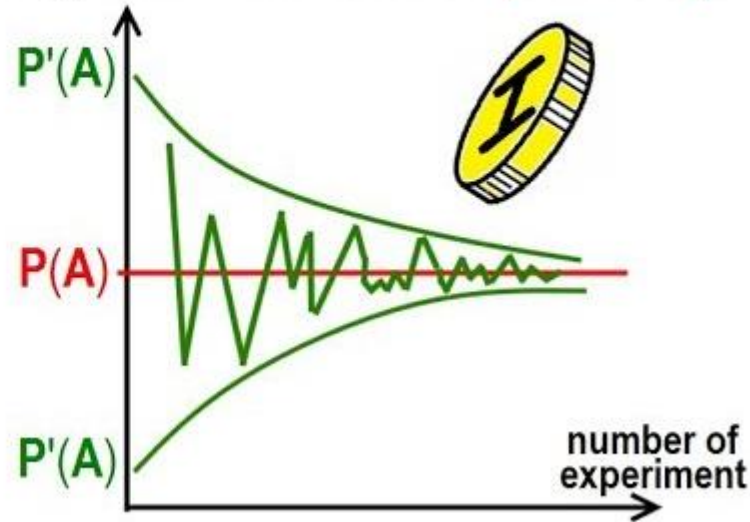
Key Theory/Concept of Insurance: “Risk Pooling”

Law of Large Numbers

As the number of the times the experiment is related the **empirical probability** will approach the **theoretical probability**.

$P(A)$ = theoretical probability

$P'(A)$ = (empirical) probability



Source: <https://capojolly.blogspot.com/2020/01/statistics-ch-4-probability-in.html>

Other Theories related to Customer Behavior on the use of InsurTech

Theory of Planned Behavior - is a social psychological theory that seeks to explain and predict human behavior based on an individual's beliefs, attitudes, intentions, and perceived behavioral control. The theory was developed by Icek Ajzen in the late 1980s as an extension of the earlier Theory of Reasoned Action.

Expected Utility Theory - is a normative economic theory that seeks to explain how individuals make decisions under conditions of uncertainty. It was developed by Daniel Bernoulli in the 18th century and later formalized by John von Neumann and Oskar Morgenstern in the mid-20th century.

Theory of Reasoned Action - is a social psychological theory developed by Martin Fishbein and Icek Ajzen in the late 1960s. It aims to explain and predict human behavior based on an individual's attitudes and subjective norms.



Concept of Insurance Mortality Protection Gap

Mortality Protection Gap (“MPG”) is the difference between :

- (1) the amount of **life insurance coverage needed**; and
- (2) the amount of **actual life insurance coverage** in place to protect against financial risks associated with mortality.

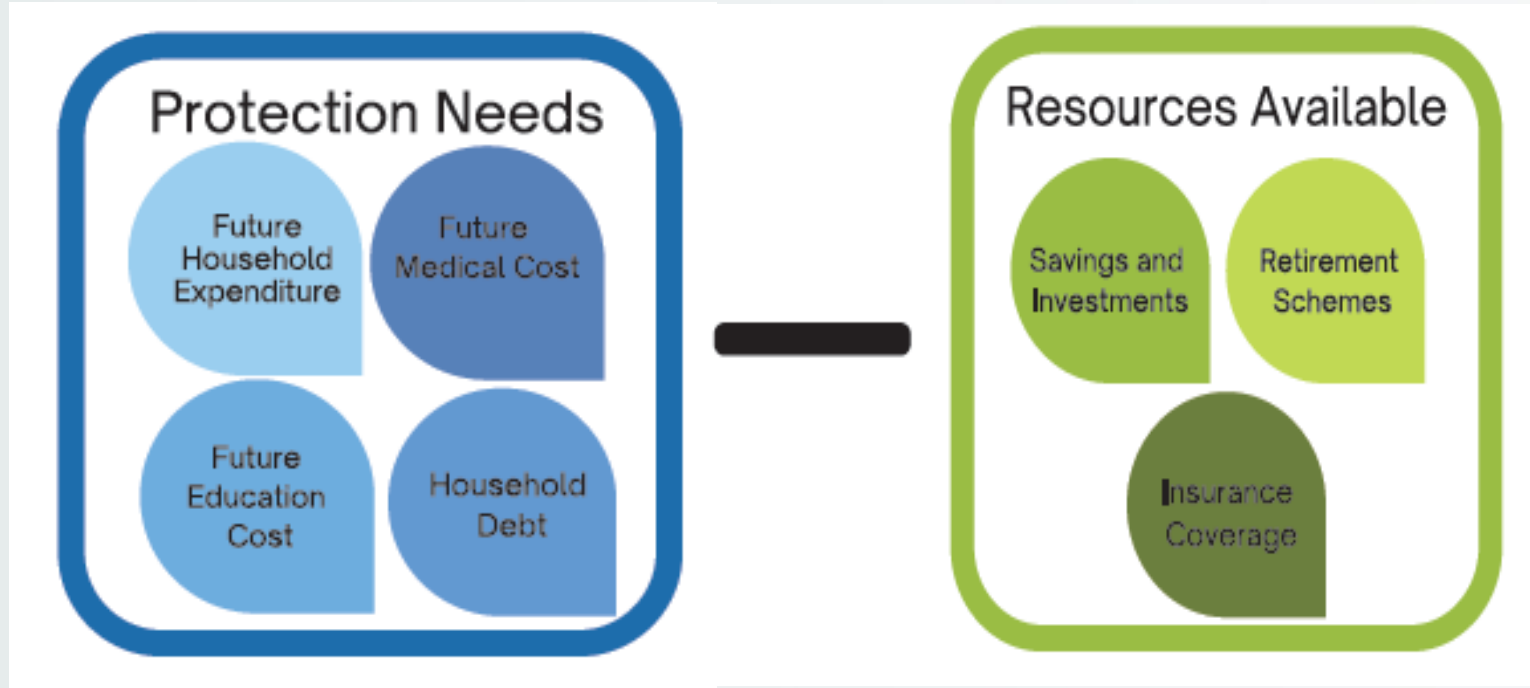
In other words, it represents the shortfall of life insurance coverage....

or simply “under-insure”



Concept of Insurance Mortality Protection Gap

MPG =



Source : Insurance Authority (2021)

Key Issue: The Gap Has Doubled in Asia

Swiss Re is one of the largest reinsurer in the world, its report highlighted that:

Estimated the mortality protection gap is **USD 83 trillion** in 2019 (compare to **USD 42 trillion** in 2010) across the Asia-Pacific region, and is increasing in a rate of **4%** p.a.

Hong Kong reported **USD 0.4 trillion** protection gap with a **41%** total protection need is **uncovered**

Over **75%** households across Asia were **under-protected**, with a gap of **8** times of its annual income

27% families in Asia worried about their financial future

Source : Swiss Re (2020).



Key Issue: The Gap is Big in Hong Kong

The insurance regulator, the Hong Kong Insurance Authority, also issued its MPG Study:

Premiums for life insurance
in-force policies reached
HKD 511 billion
(USD 66 billion) in 2019



On average, each working
adult has a gap of
HKD1.9 million



Estimated Hong Kong has
a mortality protection gap
of **HKD 6.9 trillion**
(USD 0.88 trillion) in 2019



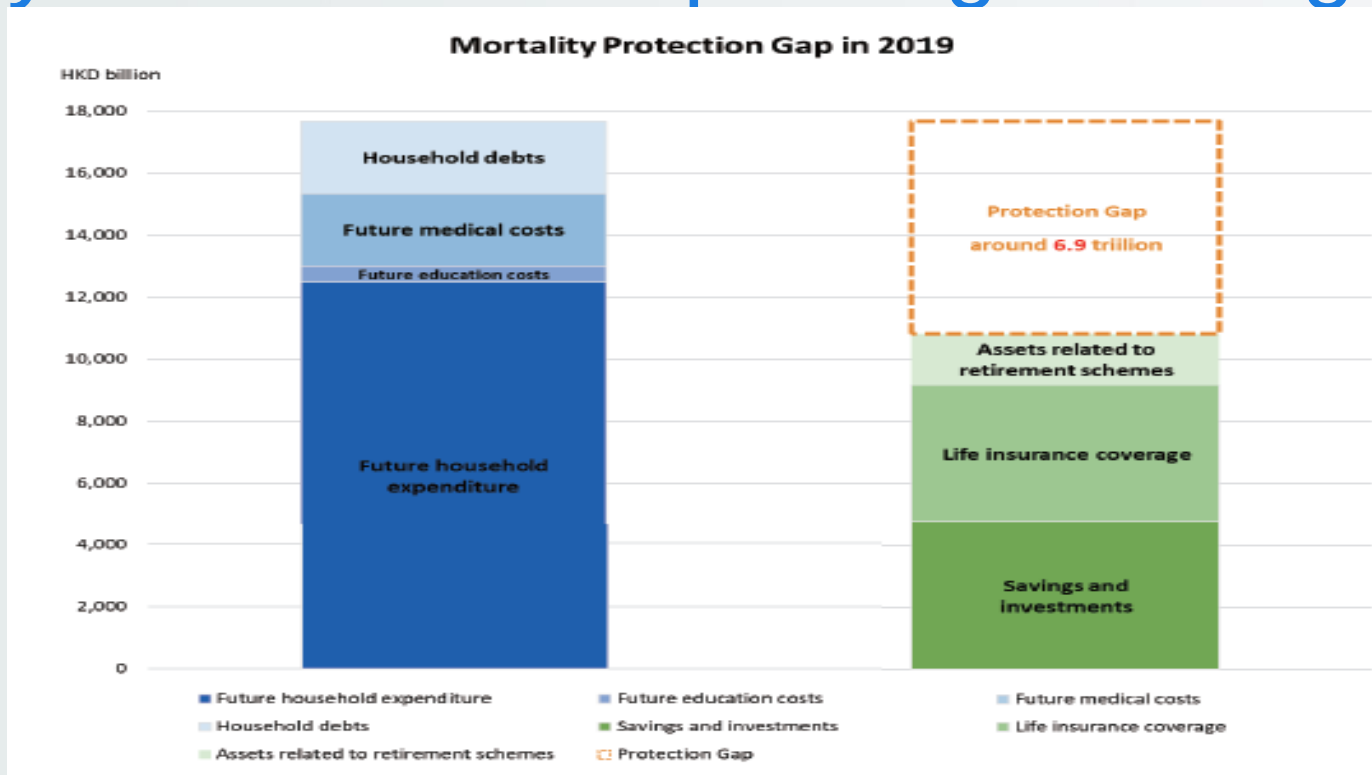
The average size of gap is
5.7 times of annual
income



Source : Insurance Authority, 2021.



Key Issue: The Gap is Big in Hong Kong



Source : Insurance Authority (2021)



(iii) How important in my opinion is this topic/subject area within the discipline of business and management today?

The Importance of Closing the Gap

The purpose of “life insurance” is to protect consumers against unexpected events by providing their dependents with financial support if the breadwinner passes away prematurely.

The trends below are contributing to an **increasing** MPG :

- growing health consciousness (e.g. better medical quality, rising medical cost);
- higher cost of living (e.g. household expenditure, education, etc.)
- longer life expectancy (e.g. longevity and retirement expense);
- aging population (e.g. higher dependency ratio);
- low insurance penetration;
- rising household debt;
- no/low social security protection etc.

For a high MPG, that's mean more dependent(s) would not be able to maintain the same living standard in an unexpected events (e.g. critical illness, accident or death of the breadwinner, etc.). This could even lead to a huge social cost on the whole economy.



How Can We Close the Gap

Insufficient attention is given to MPG, which is a global issue, especially in emerging markets (Klein, 2020). Compare to other financial instruments, life insurance provides an effective and efficient way for consumers to narrow their protection gaps.

So, how can we rise the awareness of MPG and promote the use of insurance to narrow the MPG? Possible solutions includes:

- Insurance policy provides more services in addition to cash payout
- **digitalize the process for effectiveness (“InsurTech”)**
- enhance financial literacy (Mahdzan & Victorian, 2013; Dalkilic & Kirkbesoglu, 2015)
- new product innovation
- increase consumer awareness on MPG
-
- **reduce insurance cost**



Why Focus on InsurTech?

InsurTech means “Insurance Technology”, it refers to the use of technology and innovation to enhance and transform the insurance industry (Chang, 2023).

There are wide range of technology, such as AI, machine learning (ML), big data analytics, blockchain, IoT and digital platforms(online insurance).

InsurTech aims to improve various aspects of the insurance value chain and enhance customer experience. (Chang, 2023; Stoeckli et al. 2018). InsurTech has the potential to transform the insurance industry by making it **more customer-centric, efficient, and cost-effective**. As the industry continues to evolve, InsurTech becomes increasingly important to deliver value to consumers.

This also **tied with the strategy to promote the Insurtech development** by the Hong Kong’s insurance regulator (Insurance Authority, 2023).

There are limited study and research on the use of InsurTech to reduce the MPG.



InsurTech - Solution for Hong Kong?



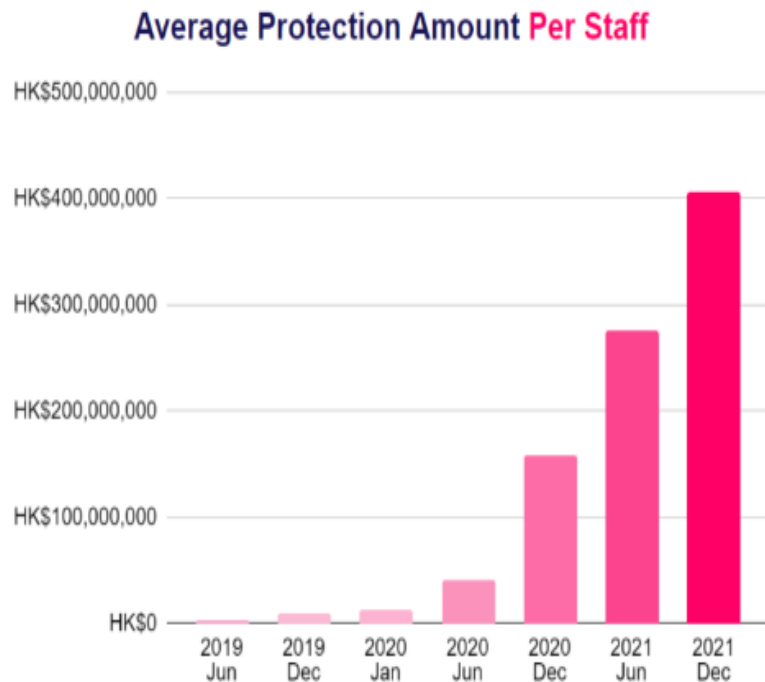
The World Bank highlights the substantial potential of **InsurTech** in emerging markets, where a significant MPG persists as a result of limited insurance penetration (Holliday, 2019).

Bowtie Life Insurance Co. Ltd (“Bowtie”) was established in 2018, and is the Hong Kong's **first virtual insurer**.

- It has no insurance intermediaries & offers commission-free products;
- Purely digital (i.e. products are sold directly online);
- Offers “pure protection” products with no savings element;
- Lower cost insurance
- Products with high flexibility (i.e. customers can cancel their policies anytime without penalty fees) etc.



Bowtie – Hong Kong Case Study



Gender: Age: 40 Smoking Status:

Choose or enter sum assured

HK\$200,000 HK\$8,000,000

Bowtie Term Life -20%

~~\$139~~
\$104/month

Enter promotional code
HOLIDAY23

Before August 13, 2023: 20% off 1st year's premium

APPLY NOW

The monthly premiums above are for reference only. The actual premiums are affected by time, inflation, underwriting, Insurance Authority levies and other factors. For further details, please download and check the [standard premium schedule \(HK\\$1,000,000 Sum Insured\)](#).

Source : Bowtie Corporate Website

Bowtie – Hong Kong Case Study

保險公司	定期人壽計劃	20歲 每月保費 (HK\$)	30歲 每月保費 (HK\$)	40歲 每月保費 (HK\$)	50歲 每月保費 (HK\$)
Bowtie	Bowtie人壽保	46	38	68	152
ZA Bank	ZA 人壽保	50	51.7	107.5	240.8
滙豐	「滙家保」	56.8	65.2	119.4	267.2
恒生	「易安逸」	56.8	65.2	119.4	267.2
蘇黎世	至安心定期壽險計劃	70.2	74.7	126.0	291.1
AIA	「摯誠定期壽險計劃」	90	120	230	530
中國人壽 (海外)	智簡易10年定期保險計劃	92.5	108.3	192.5	439.2

Source : Internet (www.hongkongcard.com)

The Importance of the HK Case Study



The Use of InsurTech to Narrow Insurance Mortality Protection Gap – A Hong Kong Case Study



Build on MPG report issued by regulator
Align with regulator's strategy on InsurTech development

01



An unique area, which has not yet
been reviewed by other scholar

02



The result may improve overall
protection of Hong Kong's citizens

03

Potentially disrupt the current
traditional insurance distribution
model

04



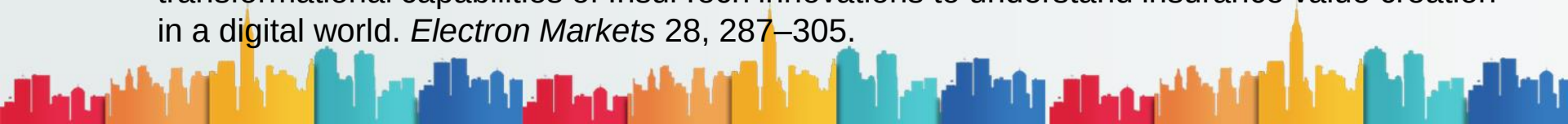
Reference

- Baranauskas, G., & Raišienė, A. G. (2021). Reflections on the customer decision-making process in the digital insurance platforms an empirical study of the baltic market. *Applied sciences*, 11(18), 8524.
- Bowtie (2023). Corporate Website. Available at: <https://www.bowtie.com.hk/> [Accessed: 11 August 2023].
- Chang. (2023). Do InsurTech startups disrupt the insurance industry? *Finance Research Letters*, 57, 104220.
- Dalkilic, N., & Kirkbesoglu, E. (2015). The role of financial literacy on the development of insurance awareness. *International Journal of Economics and Finance*, 7(8), 272-280.
- Denuit, M., Robert, C. (2021). From risk sharing to pure premium for a large number of heterogeneous losses, *Insurance: Mathematics and Economics* vol. 96, p116–126.
- Holliday, s. (2019). How Insurtech Can Close the Protection Gap in Emerging Markets, *EMCompass Note 70*, International Finance Corporation, World Bank Group.
- Insurance Authority (2021). Mortality Protection Gap Study 2021. Available at: https://ia.org.hk/en/infocenter/files/Mortality_Protection_Gap_Report_eng.pdf [Accessed: 11 August 2023].



Reference

- Insurance Authority (2023). Promotion of Insurtech development. Available at: https://www.ia.org.hk/en/digital_onboarding/promotion_of_insurtech_development.html [Accessed: 12 August 2023].
- Klein, R. (2020). Life Insurance Protection Gaps - What they are and why they exist. *International Insurance Society*.
- Khare, A., Dixit, S., Chaudhary, R., Kochhar, P., & Mishra, S. (2012). Customer behavior toward online insurance services in India. *Journal of Database Marketing & Customer Strategy Management*, 19, 120-133.
- Swiss Re (2020). Closing Asia's mortality protection gap, *Swiss Re Institute*.
- FutureCIO (2020). "Hong Kong: no market for virtual insurance?". Available at: <https://futurecio.tech/hong-kong-no-market-for-virtual-insurance/> [Accessed: 12 August 2023].
- Mahdzan, N. S., & Victorian, S. M. P. (2013). The determinants of life insurance demand: A focus on saving motives and financial literacy. *Asian social science*, 9(5), 274.
- Stoeckli, E., Dremel, C. & Uebernickel, F. (2018) Exploring characteristics and transformational capabilities of InsurTech innovations to understand insurance value creation in a digital world. *Electron Markets* 28, 287–305.



THANK
YOU !

