ASEAN INSURANCE EDUCATION COMMITTEE

Survey Findings On Actuarial Statutory Roles and Requirements Analysis

Insights

(Responses received from Brunei, Cambodia, Lao PDR, Philippines, Malaysia, Singapore, Thailand, Vietnam)

1. Requirements For Actuary in ASEAN

Table 1: Most Common Requirements

	Thailand		Vietnam		Malaysia		Philippines		Brunei		Cambodia		Singapore		Laos	
Statutory Roles	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary[1] (Y/N)	Non-life actuary[2] (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)
Report on the valuation of liabilities (as required by insurance regulator)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N
Report on the valuation of liabilities (accounting basis e.g IFRS)	N	N	Y	Y	N	N	N	N	Y	Y	Y	Y	N	N	N	N
Financial condition/ stress-test/ Own Risk and Solvency Assessment report	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	N
Actuarial pricing	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y[3]	N	N	N
Policy provision/wording			Y	Y												
Pricing registration document with the regulator			Y	Y											Y	Y
Reserving registration document with the			Y	Y												
Surplus distribution registration document with the regulator			Y	N												
Policyholder fund split/segregation/expense apportion registration document with the			Y													
Investment appraisal and suggestion report			Y	Y												
Reinsurance program appraisal			Y	Y												
Policy/contract stranfer			Y	Y												
Solvency and other statutory reports			Y	Y												
Surplus distribution			Y	N												
Policyholder and shareholder fund split/segregation/expense apportion report			Y	Y												

1: Appointed actuary (direct life insurers), Certifying actuary (life reinsurers)

2: Certifying actuary

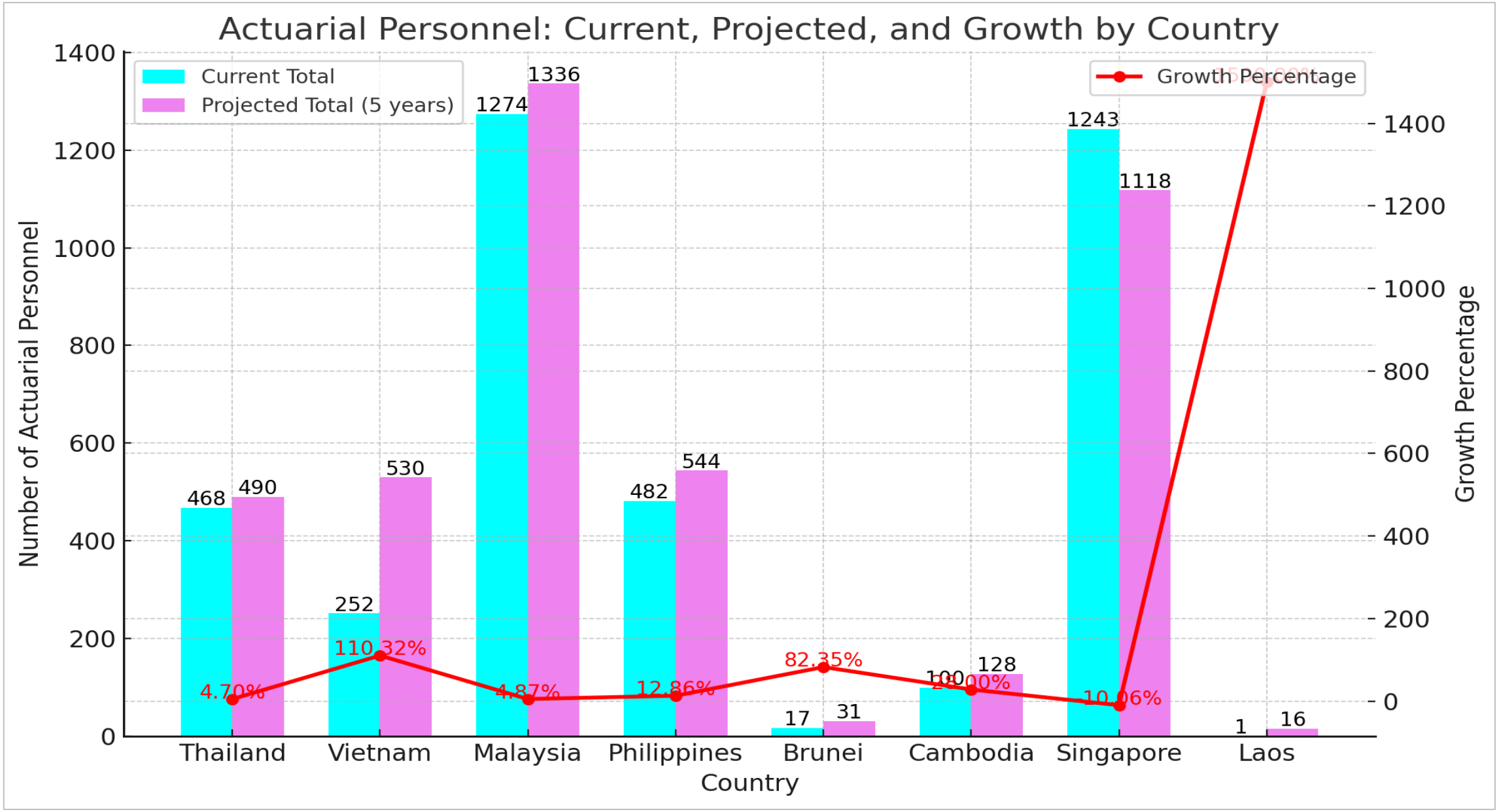
3: Only for direct insurers with life business

1. Requirements For Actuary in ASEAN

Table 2 : Less Common Requirements

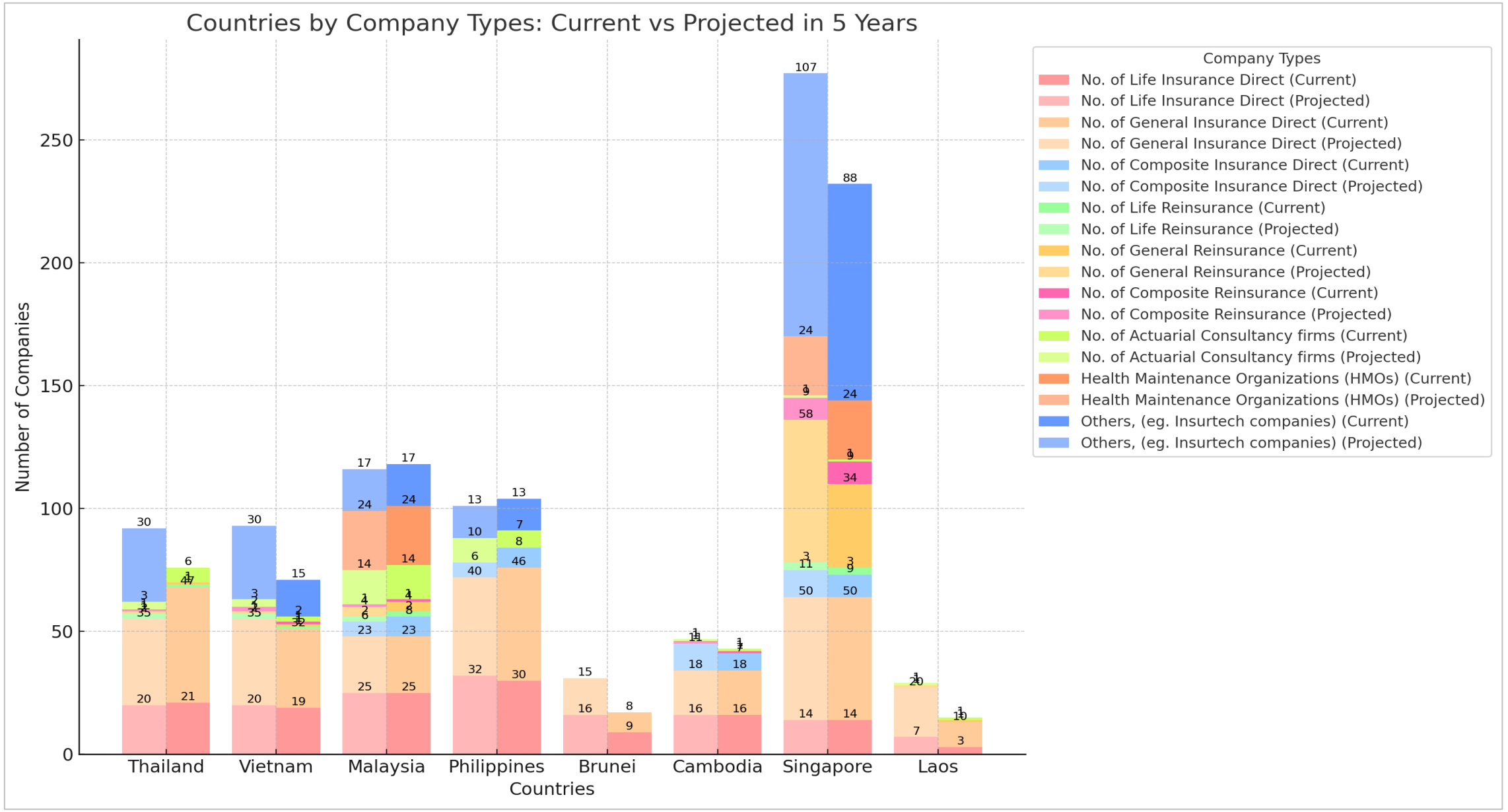
	Thailand		Vietnam		Malaysia		Philippines		Brunei		Cambodia		Singapore		Laos	
Statutory Roles	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)	Life actuary (Y/N)	Non-life actuary (Y/N)
Annual report on investment linked, pension products			Y	N												
Experience studies/investigations			Y	N												
Review of interest rates used for policy illustration			Y	N												
Reporting on and making remedy suggestions to abnormal issues that threaten the financial stability			Y	Y												
Transfer of significant risks			Y	Y												
Projected financial condition report			Y	Y												
Claim analysis			Y	Y												
Surplus Sharing (transfer out of risk fund) for Takaful Operators					Y	Y										
Bonus sustainability report for participating business (life insurers)					Y	N										
Dividend	Y	N														
Risk Based Capital Report	Y	Y														

2. Supply-Demand Assessment



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2. Supply-Demand Assessment



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2. Supply-Demand Assessment

- The Southeast Asian insurance market is experiencing dynamic growth and transformation, with each country showing distinct patterns.
- Vietnam stands out with its aggressive growth projections in both market size and actuarial workforce, particularly in the Insurtech sector.
- Singapore maintains its position as the largest and most diverse market, despite a projected slight decrease in actuarial personnel.
- The Philippines carves a niche with its strong Health Maintenance Organizations sector.
- Malaysia balances growth with specialization in Actuarial Consultancy.

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2. Supply-Demand Assessment

- Emerging markets like Brunei and Cambodia show promising growth potential.

- Overall, the region demonstrates a trend towards increased specialization, technological integration, and a growing demand for actuarial expertise, reflecting the evolving complexity of the insurance landscape in Southeast Asia.

- Laos is an emerging market, with notable growth potential as it expands its actuarial workforce, especially in the life insurance sector. Though small in size, the market is projected to have steady development, reflecting the growing need for actuarial personnel to support its insurance industry.

- Thailand, on the other hand, is already more established, with a sizable and balanced actuarial workforce across both life and non-life sectors. It shows a robust growth projection, especially in life insurance. This solidifies Thailand's position as one of the more mature markets in the region with a well-distributed demand for actuarial services across various sectors.

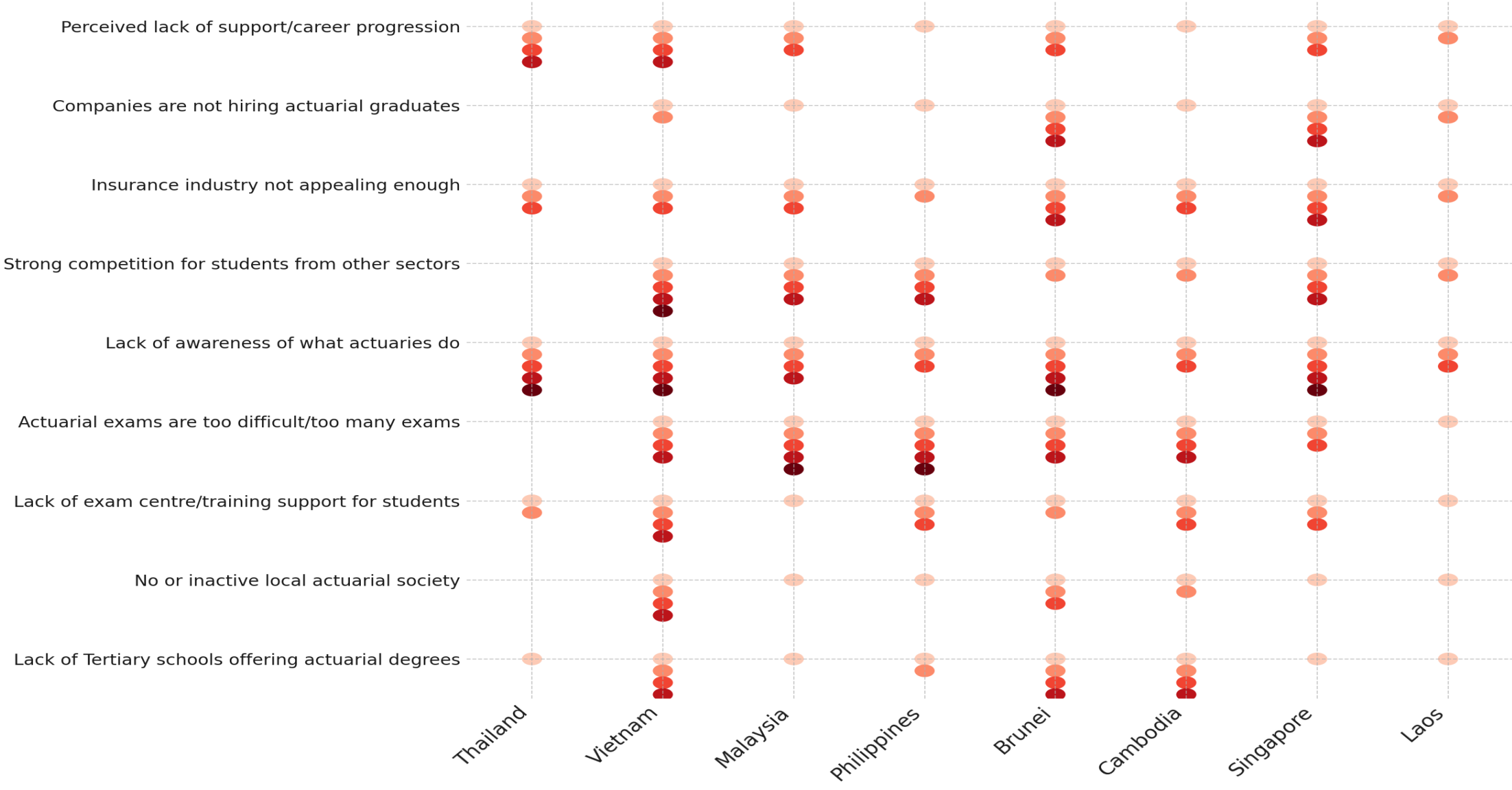
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3. Key Reasons for Actuarial Resource Shortage

- Lack of Tertiary Schools offering actuarial Degrees
- Actuarial Exams are too difficult / too many exams
- Lack of Awareness of what actuaries do
- Lack of exam center / training support for student

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3. Key Reasons for Actuarial Resource Shortage



4. Top Skills Desired for Actuaries

- Analytical Problem-Solving Skills – This skill is referenced in several countries like Vietnam, Cambodia, and others, indicating its significance for actuaries.

- Mathematical and Numeracy Skills – This is crucial across all regions, particularly in countries like Brunei, Cambodia, Laos, and the Philippines, where statistical and arithmetic knowledge is highly valued.

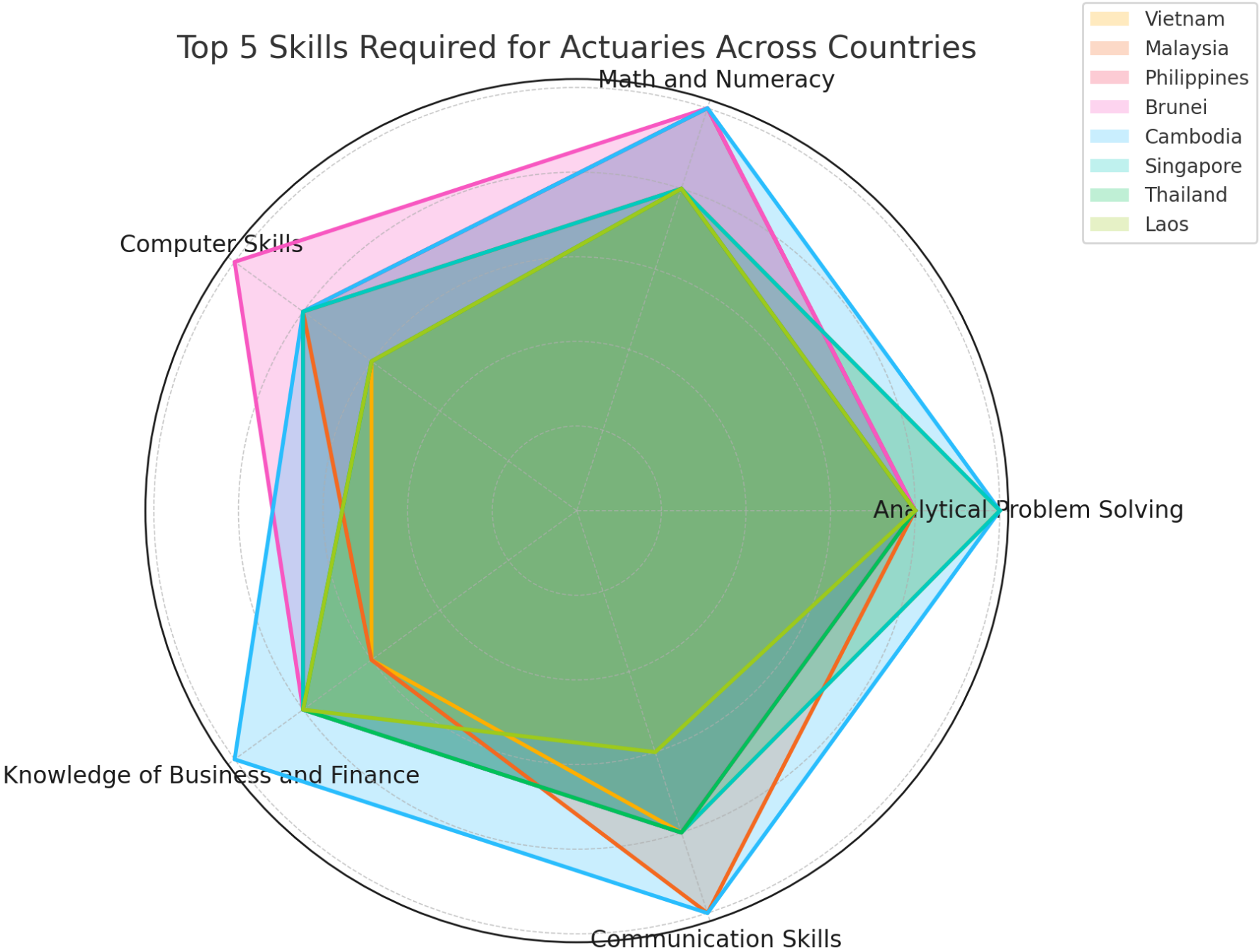
- Computer Skills (especially Excel and programming) – Countries like Brunei emphasize technical expertise in Excel and programming, while Malaysia also highlights programming as important.

- Knowledge of Business and Finance – Business acumen and an understanding of financial institutions are important in regions like Singapore, Cambodia, and Laos.

- Communication Skills – The ability to communicate technical analyses clearly is emphasized in countries like Cambodia and Brunei, which is essential for presenting findings effectively to clients or business partners.

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Top 5 Skills Required for Actuaries Across Countries



5. Types of Support Required for Actuaries

1. Actuarial Support to Regulators and Government

- Actuarial support to the insurance regulator and government (Vietnam, Laos).

2. Establishment of Actuarial Societies or Programs

- Establishment and operation of an actuarial society (Vietnam).
- Development of an actuarial science degree (Cambodia).

3. Support for Exams and Professional Qualifications

- Support for exam fees and study time-off (Philippines).
- Support for obtaining professional qualifications (Brunei).
- Education support: scholarships, grants, and exam support (Singapore).

4. Continuous Professional Development and Learning

- Continuous professional development (CPD) opportunities through seminars and conferences (Malaysia).
- Regular attendance at conferences and seminars on actuarial-related matters (Brunei).
- Work-study programs, mentorship, technical workshops (Singapore).

5. Types of Support Required for Actuaries

5. Technical Skills Development

- Building technical skills in actuarial modeling, pricing, and IFRS17 accounting rules (Brunei).
- Syllabus or program development equivalent to Fellow-level knowledge, with a focus on valuation (IFRS17, RBC), pricing, and investments (Thailand).

6. Data Collection and Analytics

- Collecting and storing data for the industry (Vietnam, Laos).
- Data analytics for the insurance industry (Laos).

7. Knowledge Transfer and Co-Learning

- Transfer of knowledge from external appointed actuaries (Brunei).
- Co-learning from other countries' experience (Malaysia).

8. Promotion and Awareness of Actuarial Careers

- Greater promotion of actuarial careers through social media and other platforms (Singapore).

9. Business and Industry Knowledge

- Development of insurance-related faculties and courses at universities (Laos).
- Courses to equip students with insurance concepts and prepare them for actuarial exams (Cambodia).

6. Existing Actuarial Academic Degrees

Brunei, Cambodia & Laos

- No current actuarial programs.

Malaysia

- Sunway University: BSc(Hons) in Actuarial Studies
- Universiti Malaya: Bachelor of Actuarial Science
- Asia Pacific University (APU): Bachelor of Science (Honours) in Actuarial Studies
- Heriot-Watt University Malaysia: BSc (Hons) in Actuarial Science
- Universiti Tunku Abdul Rahman (UTAR): Bachelor of Science (Honours) Actuarial Science
- UCSI University : BSc (Hons) in Actuarial Science / BSc (Hons) in Actuarial Science and Finance
- Universiti Teknologi MARA : Bachelor of Science (Honours) Actuarial Science
- Taylor's University: BSc (Hons) in Actuarial Studies
- Universiti Kebangsaan Malaysia: BSc (Hons) in Actuarial Studies
- Universiti Sains Islam Malaysia
- Inti College

6. Existing Actuarial Academic Degrees

Philippines

- University of the Philippines: BS Math
- Ateneo de Manila: BS Math
- University of Santo Tomas: BS Math Major in Actuarial Science
- De La Salle University: BS Math
- Polytechnique University of the Philippines: BS Math

Singapore

- Nanyang Technological University (NTU), Bachelor of Business (Actuarial Science programme)

6. Existing Actuarial Academic Degrees

Vietnam

- International University, Vietnam National University-Ho Chi Minh City: Financial Engineering and Risk Management
- University of Economics, Ho Chi Minh City: Risk Management and Actuarial

Thailand

- Mahidol University: Actuarial Science
- Thammasat University: Actuarial Science
- Chulalongkorn University: Insurance
- National Institute of Development Administration: Applied Statistics (Actuarial Science and Risk Management)

7. Future Role of Technology and Its Impact on Demand For Actuaries

Brunei

- As Actuarial tasks requires bulky data, with advance technology it will assist in obtaining historical data with granular information. With that, automations such generation of reserves, projections of business, pricing of products and market analysis can be be produced. Further, data can be harness in more detailed and obtain better insights.
- In terms of technology - big date gathering will be utilize where there will be integration from many resources which can provide the actuaries a lot of data sets to analyze and enhance the accuracy of the risk assessments. Therefore, role of an actuaries will be increasing in terms of strategic planning, reasonableness of the data which impact the advisory and decision making. Here the actuaries will need to understand to use the technology and building algorithm."

Cambodia

- Technology will help in minimize manual and repetitive work for actuaries, especially in the early part of the career. This could enable actuaries as a profession to further add value to the insurance business. This is seen as a shift in nature of work, but in a good way, and it should not materially impact the demand for actuaries.

7. Future Role of Technology and Its Impact on Demand For Actuaries

Singapore

- The role of technology in the area of data science will have a great impact in the field of actuarial science.
- Generative AI allows actuaries to automate mundane tasks, freeing them to focus on high-value work requiring actuarial judgment. Actuaries combine data science expertise with technical skills to analyse and solve complex business problems effectively.
- Actuaries need to be open to using modern tech tools to assist in their job. Eg how can AI help to make our jobs easier. It will be expected that actuaries with more skilled computing skills will be sought after.
- Actuaries will be still in demand as they are adapting to fast moving environment.

7. Future Role of Technology and Its Impact on Demand For Actuaries

Malaysia

Actuaries are set to take advantage of advances in technology to further their skill set and provide important information to their employer and regulator. The profession by nature is forward looking. Demand for actuaries should not wane as we would be the best in utilising technology to make business sense.

Philippines

Technology can help actuaries perform their work more efficiently, effectively and speedily. Technology can improve the computing and analytical power available to actuaries.

Thailand

Technology will likely enhance the actuarial profession by enabling more precise risk assessments, improving efficiency, and expanding the scope of actuarial work. However, it will also require actuaries to continuously update their skills and adapt to new technological developments to remain competitive and effective in their roles.

Thank You

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