MSc Computer Science

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Methodology

Student Name: Oi Lam SIU

Student ID: 12694914

Project Title

Data Strategy for Regulatory Compliance and Innovation in Hong Kong's Insurance Sector: Navigating Privacy Law Amendments and Emerging Cybersecurity Challenges

Chosen Methodological Approach

This project adopts a practical, engineering-type approach rather than a traditional "research onion" methodology (Saunders et al., 2019). Specifically, it will employ an agile framework informed by the Scrum Solo methodology (Brito et al., 2020; Pagotto et al., 2016) to iteratively develop and refine a web-based self-assessment tool that supports Hong Kong insurers in aligning their data strategies with the Personal Data (Privacy) Ordinance (PDPO), the Insurance Authority's updated Guideline on Cybersecurity (GL20), and the Protection of Critical Infrastructure (Computer System) Bill (CI Bill) requirements. This approach is appropriate as it enables the incremental delivery of functional components, frequent stakeholder feedback, and swift adaptation to evolving regulatory and technical conditions (Brito et al., 2020).

Data collection will be conducted using a combination of structured interviews or surveys (primary data) and narrative review of published surveys or researches (secondary data) (DeFrain et al., 2023; Deloitte, 2024; Deloitte Digital, 2017). These will target senior consultants and general managers who oversee new technologies and strategies within the insurance sector, to capture insights into current data governance practices, compliance priorities, and innovation challenges in integrating AI-driven solutions.

Emphasis will be placed on understanding specific needs and constraints arising from the Hong Kong regulatory environment, thus ensuring the tool's relevance.

During each development sprint, feedback from industry experts will inform iterative refinements to the tool's features and guidelines. The final deliverable will integrate globally recognised frameworks (DAMA International, 2017; CMMI Institute, 2013) in a consolidated manner, aligning with local compliance demands while supporting AI innovation (Aldoseri, Al-Khalifa & Hamouda, 2023; Fleckenstein & Fellows, 2018; Wallis, 2021).

Phase	Methodology	Data Source	Purpose
Literature/Regulatory Review	Systematic Review	Secondary – literature, legal documents	Establish domain knowledge and context
Industry Understanding	Narrative Review	Secondary – published surveys and researches	Identify practical requirements
	Interviews/Surveys	Primary – qualitative	
Artefact Development	Scrum Solo (Agile)	N/A	Build and refine self-assessment tool

Validation/Evaluation	Usability Testing	Primary – qualitative	Assess tool effectiveness and usability

Table 1: Summary Table – Methods Overview

Reference

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