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Insurance Contracts: A comprehensive evaluation of the readiness status and measurement models for implementation of Accounting Standard Ind AS 117 for Insurance Companies in India

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Abstract

Insurance contracts globally are accounted for as per IFRS 17 and in India the equivalent accounting standard is Ind AS 117. However, the implementation of Ind AS 117 for insurance companies was initial notified to be effective April 1, 2024 but subsequently deferred to April 1, 2026. The existing (global) research studies IFRS 17 globally (but not Indian scenario) and this paper fills the research gap by being the first forward looking academic paper to examine in-depth the implementation of Ind AS 117 for Insurance companies in India and identify associated challenges. Insurers can evaluate liabilities of insurance contract by using one of the three models viz. General Measurement Model (GMM), Premium Allocation Approach (PAA) or Variable Fee Approach (VFA). The study employed 72 technically qualified respondents for primary data survey from 12 insurance companies and their audit teams. Using appropriate statistical and econometric tools, the survey re-affirms that GMM Model is more suitable for long term contracts and suits Life Insurance businesses while PAA model is more suitable for short term contracts (up to one year) and suits general insurance businesses and VFA model is applicable for contracts with direct participation features and suits Unit Linked Insurance plans. Since GMM model is far more complex than PAA model and has higher level of data requirements and implementation challenges, therefore the cost of implementation will be higher for life insurance businesses (because of GMM model) than general insurance businesses. The study also evaluates the applicability of systems, major associated challenges

and the data related technical requirements of each model. However, expert opinions are divided on whether PAA model will give similar results to GMM model. The other findings are that voluntary adoption of Ind AS 117 ahead of timeline, though permitted, appears difficult and that relatively smaller size insurance companies face more execution challenges. The study finds that data-identification challenges are central to achieve successful compliance with the accounting standard. Consequently, Ind AS 117 will also accelerate AI adoption in insurance as AI will help resolve data challenges and minimize manual processes. Finally, implementation of Ind AS 117 has already been postponed once (as is common with accounting standards) and this paper identifies major challenges ahead of deadlines and is important for regulators, standard-setters, practitioners and researchers alike to prevent another potential deferral and reduce uncertainty as well as compliance costs.

Keywords: Ind AS 117, IFRS 17, Insurance Accounting in India, Insurance Contracts, General Measurement Model, Premium Allocation Approach, Variable Fee approach

Introduction

The insurance sector plays a vital role in the financial system, providing long-term savings, risk mitigation and stability in finances. Insurance businesses promote risk-taking and entrepreneurship by reducing uncertainty and provide economic stability for businesses as well as individuals and thereby contribute to economic development of a country (Klein, 2012; Pareek (2026b)). Insurance businesses also develop employment, boosts savings and invest insurance premiums in various sectors of the economy (Outreville, 2013; Outreville, 1996; Pareek (2026b)). Further, insurance businesses serve as economic stabilizer by facilitating trade and commerce and support risk management for both businesses and individuals (Outreville, 1985 and Singh et. al., 2024).

Given the significant importance of insurance sector, transparent and accurate reporting of financials of insurance is pivotal to the development of the sector and the economy. Due to the complex structure of insurance contracts and their extended liabilities, detailed and transparent financial reporting is essential for maintaining investors' trust and regulatory compliance. The currently applicable accounting standards globally are IFRS. Pareek (2026a) summarizes the situation that the implementation of IFRS globally in last two decades has resulted in greater transparency (De George, Li and Shivakumar, 2016) and as a result of the alignment of Ind AS with IFRS, the Indian accounting landscape has experienced substantial improvements. For Insurance contracts, globally IFRS 17 was implemented in countries that follow IFRS from 1st Jan, 2023 and for India, the equivalent accounting standard which was notified subsequently is

Ind AS 117. Accounting for insurance contracts is applicable to both insurance companies and non-insurance companies (as they also have insurance contracts). However, the implementation of Ind AS 117 was initially notified for all companies on 12th August, 2024 as being effective from April 1, 2024 but subsequently on 28th September 2024, it was deferred only for insurance companies (notified later to be April 1, 2026). Interestingly, it was still made effective for non-Insurance companies (for their insurance contracts). The enforcement of Ind AS 117 was deferred for Indian insurance companies after consultations and discussions involving regulatory bodies such as IRDAI (body regulating insurance industry), ICAI (body regulating accounting standards), industry bodies and other stakeholders. The deferment was possibly motivated by fears relating to actuarial readiness, capability of IT infrastructure, data accessibility and overall industry readiness.

Prior to IFRS 17, the previous accounting standard on insurance contracts was IFRS 4 and the corresponding accounting standard for insurance contracts in India was Ind AS 104. These standards allowed considerable flexibility in presentation of information frequently leading to limited comparability among insurance companies and jurisdictions. These constraints required the formulation of IFRS 17 on Insurance Contracts, which is designed to provide a comprehensive principle-centered accounting structure for insurance contracts. Ind AS 117 broadly aligns with IFRS 17 and aims to improve uniformity, flexibility and comparability in the recognition and measurement of insurance contracts. The standard fundamentally changes the methodology by which insurers evaluate performance, transitioning the emphasis from contractual premiums to the implementation of insurance liabilities and the systematic recognition of profits throughout the coverage duration. Ind AS 117 implementation process, showcasing an important milestone for Indian insurance contracts in harmonizing local insurance accounting procedures with global financial reporting standards, is currently on in India.

Ind AS 117 mandates that liabilities of insurance contract can be measured by using any one of the three prescribed measurement models. The first one is General Measurement Model (GMM), the second model is Premium Allocation Approach (PAA) and the third model is Variable Fee Approach (VFA) which is applicable for insurance contracts having direct participation features. The GMM basically serves as the default model and this model requires insurers to evaluate the fulfilment of cashflows, applying appropriate and suitable discount rates, risk adjustments calculations for non-financial risk and regulate the contractual service margin (CSM). On the other hand, as per PAA model, a simplified approach is also available for short-term contracts if they fulfil the eligibility criteria. Finally, the VFA model puts on to

contributing contracts where stakeholders share in returns from fundamental items. The proper selection as well as application of all these measurement models strongly impacts stated liabilities, economic viability and financial performance. Indian regulators will start considering a gradual approach to the adaptation of Ind AS 117, simultaneously identifying the intricacies involved in its proper execution. Insurance companies have been permitted a prolonged transitioning time, with mandatory implementation set for April 1, 2026, even though the standard permits early adoption if an appropriate disclosure is made in the financial statements. This recognizes the significant operational, computational and financial difficulties involved in implementing the standard, incorporating system upgradations, data conversion, implementing measurement models coupled with the necessity to train staff. Insurers must assess characteristics related to contract, availability of data, system capabilities, as well as implications of cost while ensuring compliance with the standard. Smaller insurers, specifically, are expected to face disproportionate operational costs as well as resource restrictions, raising concerns about ability to prepare and long-term viability under the new accounting standard.

Current literature broadly discusses the IFRS 17 technical requirements, though there is practically no academic literature on Ind AS 117 as it is a new topic. Further, there exists a research gap for an intensive, practical and analytical study to evaluate the empirical implications of selection of measurement models under Ind AS 117, particularly in the context of Indian insurance sector while the process of implementation is still on so that challenges can be identified ahead of deadlines and corrective actions can be taken. Transformations in marketplace structures, differences in product designs, regulatory environment and technological and scientific maturity make it mandatory to examine how these measurement models are executed in day-to-day practice and what kind of challenges insurers will encounter during this transition. Another issue, which is forward looking in nature, is that still many processes of insurance companies are manual in nature. Artificial intelligence is expected to transform the insurance industry too but Ind AS 117 with its data related challenges may accelerate the process of AI adoption in insurance sector in India. These are the gaps in literature that this paper seeks to fulfil.

Against this framework, this study seeks to examine the measurement models permitted under Ind AS 117 and examines the challenges in implementing the same and also evaluates how Indian insurance companies are preparing for implementing the standard, with specific reference to the execution challenges, operational functionality and feasibility and the influence on financial reporting. By investigating these issues related to preparedness of system, data

granularity, implications related to cost and suitability of permitted models, the research aims to contribute to the infant body of literature particularly implementing of Ind AS 117 and offer practical understandings for insurers, governing regulators and accounting professionals, especially considering the fact that implementation of Ind AS 117 has been deferred once already and so there is a need to identify challenges ahead of time to ensure timely implementation. De Nichilo (2022) shows that uncertainty in practical application during the transitional phase generally raises implementation related risks as well as compliance costs and so this paper aims to reduce risks and costs too.

The rest of this paper is organized as follows. Section 2 summarizes the key aspects of Ind AS 117 with special reference to measurement model and challenges in implementing Ind AS 117 including key data challenges and also mentions some key topics that are not part of this study. Section 3 reviews the literature primarily on IFRS 17 and Section 4 discusses the objectives of the research which also leads to the hypothesis in Section 5. Section 6 discusses the research methodology. Section 7 analyses the data and interprets the results. Section 8 discusses the findings while Section 9 concludes the discussion.

Section 2: Key aspects of Ind AS 117 and Key Exclusions from Scope of this study

Pareek (2026a) has already summarized the key aspects of Ind AS 117 and readers may refer to that paper. So, in this section, only the key features are listed and then measurement model and transition challenges are pointed out. The key features of the standard are:

- The definition of "insurance contract" has been retained from the previous accounting standard viz. Ind AS 104.
- However, the accounting for insurance contract has changed, substituting previous disjointed accounting practices related to insurance contracts.
- It requires that insurance contracts be measured on the basis of current estimations of future cash flows, instead of historical or oversimplified methods.
- The idea of CSM (Contractual Service Margin) is also introduced, which denotes unearned profit that is earned as insurance services are being provided.
- To sum up, it requires broadly 3 approaches to measuring insurance contracts viz.
    I. General Model
    II. Premium Allocation Approach
    III. Variable Fee approach (for insurance contracts having direct participation features)

- Finally, if a contract qualifies as an "insurance contract" under Ind AS 117, then it will be applicable and it will even override provisions of Ind AS 115 on revenue recognition and Ind AS 109 on financial instruments. So, it has important implications for contracts covered within the scope of this standard.

Ind AS 117 is mainly converged with IFRS 17, though it is slightly modified considering local industrial conditions and domestic governance norms. In India, possibly the major challenges associated with Ind AS 117 implementations relate to identifying the appropriate measurement model, identifying data related challenges to implement the same, modifying IT and actuarial systems and finally generating new reports to comply with the standard.

IFRS 9 and IFRS 17 issued by IASB were considered for this study. However, some key topics that are not included in this study are mentioned below. The associated Ind AS that are also to be considered while implementing Ind AS 117 are:

1. Ind AS 1 on Presentation of Financial Statements
2. Ind AS 109 on Financial Instruments
3. Ind AS 113 on Fair Value Measurement
4. Ind AS 115 on Revenue from contracts with customers and
5. Ind AS 116 on Leases

While the aforesaid accounting standards impact the financial statements of insurers and also to an extent the implementation of Ind AS 117, they were not considered as part of this study as the focus of this study was primarily on models and associated challenges as well as overall challenges in implementing Ind AS 117.

Similarly, Pareek (2026b) has studied the impact of Insurance Act, 1938 and Amendment of Insurance Laws, 2025 but several sections in the aforesaid Insurance Act impact the reporting of financial statements too. These are Section 11, Section 12, Section 13, Section 15, Section 27 to 29, Section 49, Section 64VA and Section 114A. These sections impact the statutory obligation of the insurer to prepare their audited financial statements but they are not considered separately within the scope of this study. Similarly, IRDAI (Actuarial, Finance and Investment Functions of Insurers) Regulations, 2024 and their key requirements are not studied separately as the present study is already very detailed. Finally, Sections 128, 129 and 134 of Indian Companies Act, 2013 impact the financial statements of Insurers but they are not considered separately for the purpose of this study.

IRDAI has also been conducting gap assessments with insurers to understand the issues pertaining to the industry and to evaluate their readiness and is considering parallel reporting

for the first year. However, their report is not considered as the present work is independent from the work of the regulatory authority and is intended to supplement their work.

The following figure shows major challenges presented in transition to Ind AS 117:

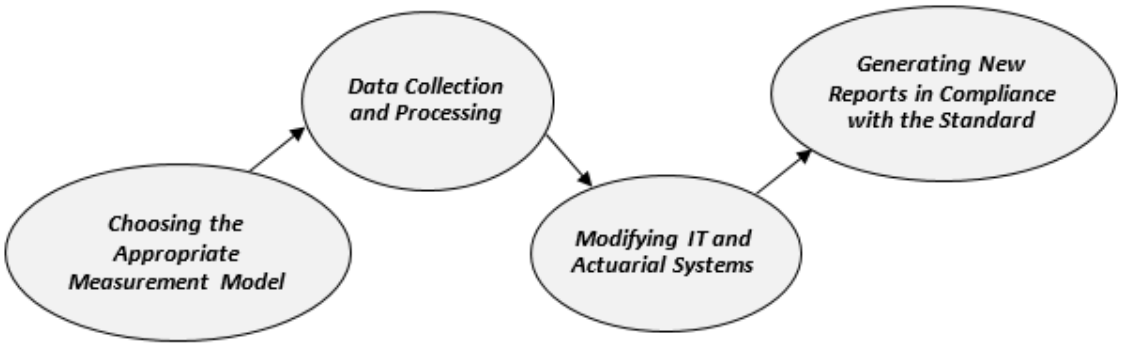

Figure 1: Transitional Challenges under Ind AS 117

Against this framework, this study seeks to examine the measurement models permitted under Ind AS 117 and examines the challenges in implementing the same.

Measurement Models

Ind AS 117 offers three measurement models viz. General Measurement Model (GMM), Premium Allocation Approach (PAA) and Variable Fee Approach (VFA). The General Measurement Model (GMM) is basically a default approach model and is usually used for long-term along-with complex contracts, which requires detailed data, proper and detailed estimations of future cash flow and appropriate calculations of the Contractual Service Margin (CSM). Similarly, for short-term insurance contracts, the PAA model (known as Premium Allocation Approach) offers a simplified and relatively easy method that decreases complexities by avoiding detailed predictions of future cash flows. Moreover, VFA model (known as Variable Fee Approach) is relevant to those contracts which are having direct participation features, wherein policyholders share in returns from underlying assets. Under this method, the Contractual Service Margin (CSM) is generally adjusted on the basis of the performance of those underlying assets, which are making the measurement extra dynamic and reactive.

A potential problem with IFRS 17 is its complexity. The International Actuarial Association (IAA) has come up with a Note (IAA, 2021) that is very detailed (252 pages) which describes the general approach that the actuaries can take to apply this new accounting standard. The Note mentions that it isn't intended to be prescriptive in nature but is an attempt to help actuaries tackle issues which arise while applying IFRS 17. Other parties who will depend upon

IFRS 17 include investors, auditors, regulators, consumers, and boards of directors and not everybody understands the technicalities associated with this standard.

Having understood the key aspects of Ind AS 117, in the following section a review of literature on IFRS 17 is presented.

Section 3: Literature Review

IFRS 17 implementation has been extensively studied in current academic literature, with the support of scholars and industry experts emphasizing multiple operative functioning, technical know-how and cost-related challenges. However, the Indian equivalent of IFRS 17 i.e., Ind AS 117 has not been studied in academic literature as it is a new standard and India is relatively a few years behind in the implementation process. As a result, this paper is one of the first academic papers on this new topic. At the same time, a few practical aspects of Ind AS 117 has been studied primarily by big accounting firms and actuaries from a practitioner's perspective. So, most of the literature review in this section focuses on IFRS 17.

Alhawtmeh (2023) suggests that the preliminary adoption of any standard requires a thorough system of restructuring, re-design of financial related reporting progressions as well as reconfiguration of actuarial assumptions. Such challenges are made worse where insurers used to rely on the local GAAP standards under IFRS 4, which made the initial implementation both time consuming and technically challenging. Further, uncertainty in practical application during the transitional phase generally raises implementation related risks as well as compliance costs. Fernandez (2026) highlights that implementation of IFRS 17 faced challenges because of insufficient IT-driven infrastructure and readiness of actuarial system. Legacy systems, originally designed under IFRS 4 / local GAAP, are not capable of managing the multifaceted calculations mandatory for cash flow forecasts, discounting as well as contractual service margin (CSM) under IFRS 17. The study classifies this as a high-impact challenge, as inadequate structural readiness can delay implementation timelines and increase dependency on manual base interventions, thereby raising operational risks.

ESRB (2021) highlight that discrepancies in insurance liabilities measurement under IFRS 17 as well as financial assets under IFRS 9 can present reporting challenges. This interface creates confusion in the selection of measurement models and demands combined accounting system and risk management systems, a challenge mainly applicable for insurers in India. The transition from IFRS 4, based national accounting standards to IFRS 17, when combines with its Indian analog Ind AS 117, represents a major change in the estimation and treatment of insurance contracts. Previous literature consistently demonstrates that this transition

introduces both complex and analytical measurement difficulties and substantial difficulties with operations, particularly with regard to the implementation of various measurement models, including GMM and PAA.

ASB and ICAI (2021) reports that IFRS 17 / Ind AS 117 implementation requires extremely high granular data and contract-driven accurate data to identify insurance liabilities accurately and generate comprehensive disclosures. Moreover, many insurers may struggle with uneven data sources, unreliable historical records and data which impacts actuarial estimations and affects the quality of financial reports and audit assurance.

PwC (2024) reports that although PAA model simplifies measurement for short-term contracts of insurance, but its applicability may be restricted and it may face complexities arising out of contract cataloguing and continuing compliance. The study also points that it largely affects insurers with miscellaneous portfolios and raises systematic, logical and documentation requirements. Hannibal and Moody's Research (2018) highlight that IFRS 17 doesn't prescribe a single method; and in fact, leads to differing practices across insurers.

Andrioaia et. al. (2023) emphasize that IFRS 17 requires insurers to upload granular data with greater care across cross-data metrics, encompassing cohorts, groups-level contracts as well as risk modifications, thereby resulting in greater dependance on innovative actuarial-enabled systems and data management processes. The study also emphasizes PAA related applicability and constraints though it is envisioned as a quite simple model for measurement specifically for short-term contracts.

Thérond and Froment (2020) argue that there is limited usage of PAA and practicability is limited because of the necessity to establish equivalence with the GMM. Yousuf et. al. (2021) point out that insurers frequently require to perform corresponding GMM base calculations to defend PAA model applicability, thus reducing the envisioned simplification advantages. This dual-base model necessity increases need for governance, introduces complexity in auditing and operational assignments, and adds functionality-based workload, mainly during the transition phase. They further suggest that annual cohorts improperly represent the economical substance of engaging contracts of life insurance contracts across multiple European markets. This structural prerequisite magnifies the complex nature of grouping contracts as well as directly impacts liability measurements under the banner of General Measurement Model (GMM) model, rendering compliance both incredibly expensive and operationally burdensome. These challenges may be particularly significant for Indian insurers coping with requirements of Ind AS 117.

Yousuf et. al. (2021) suggest that recognizing burdensome contracts necessitates extensive decision in defining the contractual service margin (CSM), predominantly during early recognition phase. The instantaneous recognition loss obligation increases instability in stated earnings and places supplementary burden on actuarial expectations. This complicates the optimal choice and execution of measurement models, particularly when insurers sustain both GMM model and PAA model. ESRB (2021) noted that the accessibility of two discount rate-based methodologies, such as top-down and bottom-up methodologies, might result in unreliable assessment of liability across insurers. The absence of consistency in selection of discount rate generally raises subjectivity and complicates the evaluation of financial statements by investors.

Richardson (2025) and Fernandez (2026) find the major problems include availability of data, re-construction of historical data and contract-level aggregations, especially to figure out satisfying cashflows along-with contractual service margin (CSM) under the model of GMM. He notes that the most important execution challenge is data granularity and adequacy of IT systems.

In addition, determination of discount rates and risks adjustment related technical issues are frequently highlighted in many studies. Yousuf et. al. (2021) and also ESRB (2021) suggest that the presence of several methods related to multiple discount rates, including top-down as well as bottom-up methods, might lead to unreliable valuations and inaccurate financial results. Likewise, to determine the risk adjustments for non-financial related risks necessitates substantial expert decision making and high-quality actuarial approach, which affects both profitability and liability valuation over time. Palmborg et. al. (2020) argue that defining suitable levels of confidence and assigning risk adjustment in all contract groups significantly impacts profitability over time. Such challenges strengthen the necessity to estimate how measurement models are executed in practice.

Horton et. al. (1994, 1998, and 2011) and Basu and Grace (2022) find that U.S. insurance firms lag the non-US companies in disclosing fair values since Securities and Exchange Commission was focused more on accounting based on historical cost and was averse to revaluations. On the other hand, in the early 1990s, many U.K. insurance firms started disclosing different forms of “embedded value” in their supplementary financial statements, in order to avoid takeovers at relatively low valuations. Embedded value is broadly similar to CSM measures though they differ conceptually since embedded values follow a fair value approach whereas CSM tries to match revenues and expenses as well as assets and liabilities to suppress volatility.

KPMG (2024) reports that large insurers may afford the high cost of system upgradation, actuarial tools and expert workforce, but smaller insurers generally cannot afford the same easily. These enterprises frequently lack economies of scale, investing in advanced IT-enabled system frameworks, external consultants as well as skilled and experienced professionals. The study consistently categorizes this challenge as a high impact challenge affecting profitability, affordability and even long-term sustainability. KPMG (2017) indicates that larger insurers are significantly better prepared for IFRS 17 as compared to smaller size companies. Dunkelberg (2016) claims that costs of regulatory compliances, especially for those linked to IT infrastructure, concept of actuarial modeling and independent consulting, impacts a lot on smaller size firms more significantly due to constrained financial resources and human help. This cost disparity raises concerns about the cost-benefit analysis and further issue is the higher execution costs for smaller insurers.

Gupta et. al. (2022) examine the adoption of Artificial Intelligence (AI) in the insurance industry in India and apply Technology Organization and Environment framework and use survey of employees. Many studies including Agarwal et. al. (2024) and Pareek (2026b) find that the use of AI applications has a paramount role in shaping the technological transformation of Indian insurance sector. On the one hand, AI in the insurance sector helps maintain a balance between pricing policies, operational costs, and claims, on the other hand, it introduces new risks and ethical issues (Dutt, 2020; Mullins et al., 2021). So, AI is a reality and is gaining increasing importance across sectors, including insurance.

After a thorough review of literature and identification of research gaps, in the next section the objectives of this study are presented.

Section 4: Research Objectives

1. To examine whether insurance companies plan to voluntarily adopt Ind AS 117 (which is permitted if appropriate disclosure is made) before the mandatory adoption date of April 1, 2026.
2. To analyze whether smaller insurance companies face more challenges compared to larger companies.
3. To identify key reports and reporting challenges under Ind AS 117.
4. To evaluate and compare which measurement model (GMM, PAA, VFA) is preferred by which type of insurance company (e.g., life / general) or is better suited to which type of situation (e.g., ULIP).
5. To identify key challenges in implementing each model.

6. To determine whether PAA (a relatively simpler model) provides similar results to GMM (a more complex model).
7. To identify data-related challenges in implementing Ind AS 117.
8. To assess whether the April 1, 2026 timeline for implementation is feasible and achievable (in view of the fact that the timeline has already been extended after notification of implementation of the standard by April 1, 2024).
9. To assess whether Ind AS 117 will further accelerate the adoption of AI to mitigate data challenges and to eliminate manual processes
10. To examine whether experience level affects perception of data challenges.

Section 5: Hypotheses of the study

Based on the aforesaid discussions, we arrive at the following hypotheses.

H_{01}: Insurance companies will adopt Ind AS 117 mandatorily as per timeline but may not be able to voluntarily adopt Ind AS 117 ahead of timeline.

(This is due to operational hurdles and complex data challenges).

$H1_1$: Insurance companies will voluntarily adopt Ind AS 117 ahead of the timelines.

H_o2: Smaller size insurance companies do not face significantly more complex adoption challenges as compared to challenges faced by larger companies.

H12: Smaller companies will face significantly complex adoption challenges as compared to larger companies.

H_o3: There are no preferences for different models for short term contracts, long term contracts or contracts with direct participation features.

H13: There is preference given to PAA model for short-term contracts, GMM model for long-term contracts and VFA model for ULIP or direct participation contracts.

H_o4: There are no significant data related challenges as barriers to implementing Ind AS 117.

H14: There are significant data related challenges which act as barriers to implementing Ind AS 117.

H_o5: PAA model generates comparable results to GMM for all contracts.

H15: PAA model generates comparable results only for specified short-term related contract groups.

H_o6: April 1, 2026 deadline is adequate and feasible for mandatory implementation of Ind AS 117.

H16: April 1, 2026 deadline is not adequate for mandatory implementation of Ind AS 117.

H_o7: Contract types do not significantly impact measurement model choices.

H17: Contract types significantly impact measurement model choices.

H08: Implementation level challenges do not vary significantly across all three models (GMM, PAA and VFA).

H18: Implementation level challenges vary significantly across all three models.

H_o9: Implementation of Ind AS 117 will not further accelerate the adoption of AI in Insurance sector in India.

H19: Implementation of Ind AS 117 will further accelerate the adoption of AI in insurance sector in India

(because AI can help mitigate data challenges involved in implementing Ind AS 117 and minimize manual processes)

The figure below presents the hypothesis in the form of a model.

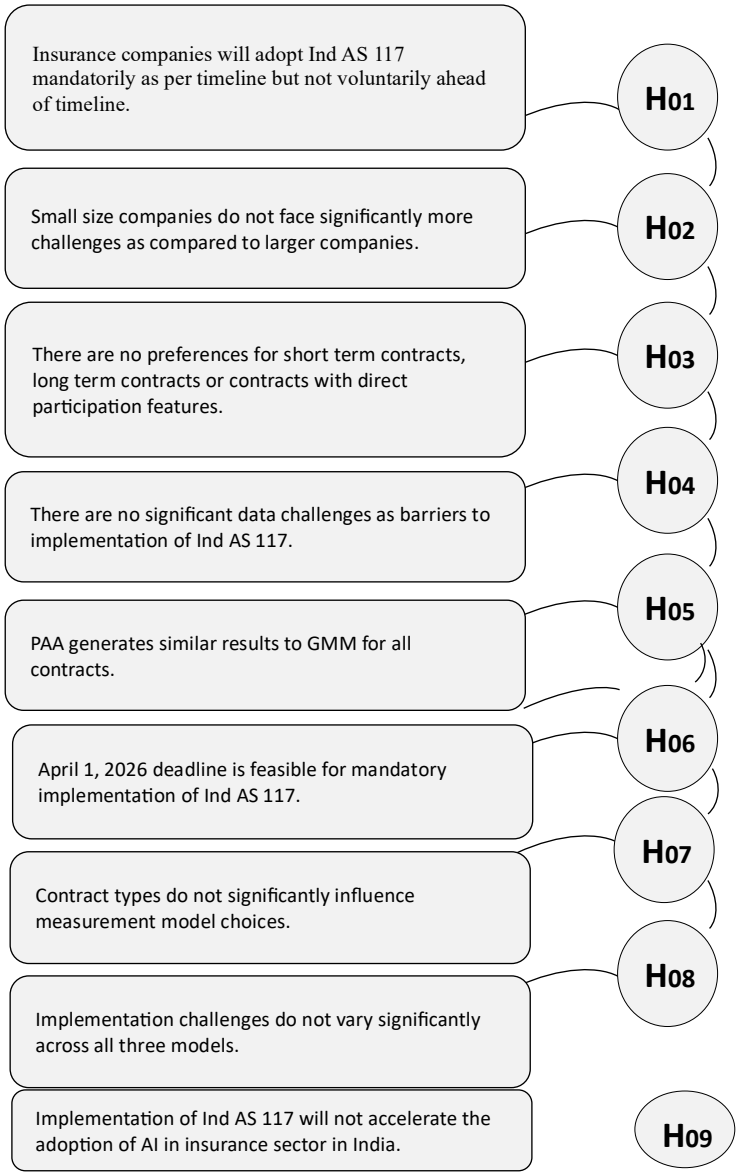

Figure 2: Hypothesis

Section 6: Research Methodology

The main aim of this research is to analyze the readiness and evaluate the measurement models for implementation of Accounting Standard Ind AS 117 for Insurance companies in India. The study used both quantitative and qualitative research design approach. For collecting qualitative data, survey questionnaire was used and distributed among 12 insurance companies in India to designated professionals including auditors, compliance executives and audit managers. The structured questionnaire covered questions related to preferred measurement model, data security concerns, reporting requirements, action plans and so on. For the purpose of this study, an aggregate of 72 valid responses was received from 90 questionnaires that were distributed to insurance companies, reflecting a response rate of 80 percent.

From the viewpoint of methodology, a response rate (RR) between 60% to 70% is usually considered satisfactory for structural and accounting research. Only persons with good knowledge of accountancy, insurance agreements and financial statements were included in this research, which limited the sample size to 72 respondents. Nevertheless, it is a large enough sample for insurance companies and the conclusions drawn are statistically reliable as evidenced in various statistical and econometric tests performed for the analysis.

Table 1 below shows the tools and techniques for sample design.

Table 1: Sample Design - Tools and Techniques

Particulars	Description
No. of Insurance Companies	12
Respondents in Total	72
Respondents Profile	Audit Managers (AM), Auditors (Aud.), Compliance Executives (CE)
Techniques for Sampling	Adopted Purposive Sampling Method
Tools for Data Collection	Adopted Structured Questionnaire Method
Measurement Scale Adopted	Adopted Five-Point Likert Scale Method

Note: Researcher Compiled.

The closed ended structured questionnaire was prepared and all the items were measured by using a 5-point Likert scale method. Subsequently, the collected data are amenable to analysis using advanced statistical methods and were evaluated by using SPSS software to confirm robustness and results validity. To test hypothesis, study used multiple statistical tools like chi-square test, Anova analysis, descriptive statistics, crosstabulation etc.

Section 7: Data Analysis and Results Interpretation

Table 1 below shows the demographic profile of respondents.

Table 1: Demographical Profile of Respondents

Demographical Variables	Categorization	No. of Respondents	Percentage (%)
Assigned Designation	Audit Senior / Manager (AM)	18	25 (%)
	Auditor (Aud.)	30	42 (%)
	Compliance Executives (CE)	24	33 (%)
Type of Company	Life Insurance Business (LIC)	24	33 (%)
	General Insurance Companies (GIC)/ Non-Life Insurance Companies (N-LIC)	31	44 (%)
	Unit-Linked Companies (ULC)/ ULIP	17	23 (%)
Experience Level	Less than 5 Yrs	20	28 (%)
	5 Yrs to 10 Yrs	35	49 (%)
	Above 10 Yrs	17	23 (%)
Size of Company	Small Size Company (Less than 1000 employees)	24	33 (%)
	Medium Size Company (Having 1000 to 10000 employees)	28	39 (%)
	Large Size Company (Above 10000+ employees)	20	28 (%)

Note: Researcher Compiled.

The majority of respondents are auditors (Aud.) and audit senior / managers (AM), which ensures a technically qualified opinion. Life insurance businesses (LIC) constitute one third of the sample while general insurance businesses constitute the largest portion (44%) of the sample. Most respondents have experience level of 5 to 10 yrs and almost always they have both requisite qualification and experience. Medium Size Company (having 1000 to 10000 employees) represent the modal group. In insurance sector, generally the size of companies is big and so for the purpose of this study, companies with less than 1000 employees are

considered small and companies with more than 10000 employees are considered large. If this classification was not followed, then almost all companies will fall under "large" category. Yet another possible way to classify insurance companies is using the Assets under Management (AUM) criteria but for the purpose of this study, the number of employees was considered. The demographical analysis facilitates the comparison of challenges across all categories such as assigned designation, type of company type, size of company and experience level.

As mentioned earlier, there is virtually no literature on implementation of Ind AS 117 but literature exists on implementation of IFRS 17 and so inferences can be drawn from the same but still it needs to be empirically validated by surveys for Ind AS 117. Table 2 summarizes major challenges noted in insurance accounting literature.

Table 2: Major Challenges Noted in Literature for IFRS 17 / Insurance Contract

Challenges	Description of Challenges Noted Down from Literature	References Used from Below Sources	Level of Impact (High-Medium-Low)
Constraints Related to Early Adoption (because of limitations of IT systems and actuarial systems)	There exist limitations related to IT-enabled systems and actuarial systems (as a result of which early adoption is unfeasible)	(Richardson, 2025 and Fernandez, 2026)	High Impact
Higher Operational Costs for smaller Enterprises	Smaller insurance entities face higher costs	(KPMG, 2017 and 2024)	High Impact
Data granularity Issues and Accuracy	Requirement for comprehensive, accurate and authentic data to measure contract liabilities and for generating reports	(ASB and ICAI, 2021)	High Impact
Constraints Related to PAA applicability	PAA model primarily suitable for short-term insurance contracts and necessitates GMM model comparison for certain contracts	(PWC, 2024)	Medium Impact

Note: Researcher Compiled.

A review of literature in previous section shows that early adoption of IFRS 17 is not feasible for a huge majority of insurers owing to lack of organized IT-enabled systems as well as time needed to implement actuarial models. For Ind AS 117, survey results in this research support this outcome, as a vast majority of respondents (see below table) suggested voluntary early adoption is not possible. Survey results further show that smaller size of insurance companies lack infrastructure and face higher operational costs to implement Ind AS 117. Exact and granular data is needed for all the three Ind AS 117 measurement models. Database related challenges significantly raise time and physical efforts and result in high cost in generating compliant reports. A review of literature seemed to suggest that PAA model is principally appropriate for short-term contracts which are less than one year duration. For longer period contracts, comparing with GMM model is ideally needed to ensure uniformity, which further adds complications into implementation. This is also borne out by survey results wherein 60% of respondents point to constraints related to PAA applicability.

Table 3: Adoption Challenges in Ind AS 117 via Survey-Based Impact and Assessment

Challenges	Percentage Respondents
Constraints Related to Early Adoption	81%
Higher Operational Costs for smaller Enterprises	75%
Data granularity Issues and Accuracy	88%
Constraints Related to PAA applicability	60%

Note: Researcher Compiled.

Table 4: Descriptive Analysis (Major Challenges in Ind AS 117 Implementation)

Challenges	No. of Respondents	Mean Scoring (Scale 1–5)	Std. Dev. Values	Min	Max	*High Impact reporting percentage of respondents
Constraints Related to Early Adoption	72	4.25	0.68	3	5	81%
Higher Operational	72	3.95	0.73	3	5	75%

Costs for smaller Enterprises						
Data granularity Issues and Accuracy	72	4.45	0.59	3	5	88%
Constraints Related to PAA applicability	72	3.30	0.89	2	5	60%
*High impact is defined as replies received with Likert score ≥ 4 i.e., (Agree/Strongly Agree).						

Note: Researcher Compiled

Data granularity and data accuracy represents a critical set of challenge wherein 88% of respondents consider it as a high impact item. Constraints related to early adoption are also one of the most significant challenges (with 81% respondents considering it a high impact item) and this is a result of constraints of IT as well as actuarial system. Higher operational costs for smaller enterprises suggests that size of the company is a relevant factor vis-a-vis difficulty in adoption. Constraints related to PAA applicability restrictions are moderately challenging with 60% of respondents suggesting high impact. The challenges in the above table indicate that there is a requirement for proper data maintenance and training for implementation of Ind AS 117.

Table 5: Ind AS 117 (Voluntary Adoption)

Responses Received	No. of Respondents	Percent (%)
Yes	5	7 %
No	58	81 %
Not Sure	9	12 %
Majority of the respondents seem unwilling for voluntary early adoption of Ind AS117		

Note: Researcher Compiled.

The majority of respondents (81%) indicated that voluntary early adoption of Ind AS 117 is not feasible for their organizations. This is largely attributed to complexities in operational tasks and constraints related to IT. Very few respondents showed their readiness regarding voluntary adoption, which reflects more time is needed for preparedness across the sector.

Table 6: Challenges (Smaller / Larger Companies)

Company Type	Higher Level of Implementation Challenges	Moderate Level of Implementation Challenged	Lower Level of Implementation Challenges
Smaller Companies	18	6	0
Larger Companies	12	12	6
Smaller companies facing higher level challenges in adaptation			

Note: Researcher Compiled.

Table 6 shows that smaller companies experience significantly higher level of challenges compared to larger firms. Such differences are mainly due to limited financial, human as well as technological resources available to smaller companies. Larger firms, having better infrastructural system and readiness, report more of relatively moderate to lower-level challenges. It is to be emphasized that Table 7 below subsumes Table 6 but Table 6 is presented just to highlight the difference between small companies and large companies which is stated as one of the key research objectives.

Table 7: Cross-Tabulation of Company Size and Level of Implementation Challenges

Company Type	High level of Implementation Challenges	Moderate Level of Implementation Challenges	Low level of Implementation Challenges	Total
Smaller Size Companies	18	6	0	24
Medium Size Companies	16	10	2	28
Large Size Companies	12	12	6	30
Total	46	28	8	72

Note: Researcher Compiled

Table 7 shows that smaller size insurance companies show the highest proportion of high level of challenges in implementation. Larger size companies comparatively show lower level of challenges in implementation, which indicates better preparedness. Medium size insurance

companies face moderate level challenges, on an average. This pattern generally suggests that there is a strong relationship between organizational size as well as implementation capability. The results of the table support the assumption that scale as well as resources significantly impact readiness levels for implementing Ind AS 117.

Table 8: Chi-Square Test Results

Parameters	Calculated Value
Company Size vs Implementation Challenges	
Chi_Sq. Value (χ^2)	4.051
Degrees of Freedom (DF)	2
P_value	0.0440
Significance Level	0.050
Result	Significant
H02: Small size insurance companies face significantly complex challenges in adoption as compared to larger companies.	

Note: Researcher Compiled.

The Chi_Sq. (χ^2) test shows that there is a significant association between size of company as well as level of challenges. As p value < 0.05, hence, the null hypothesis is rejected. Smaller companies experience disproportionately higher challenges. This also validates the responses of survey and literature findings. Therefore, null hypothesis H2 is rejected in favour of the alternate hypothesis.

Table 9: Independent Sample T-Test Results (Small vs Large Companies)

Size of Company	No. of Respondents	Mean Values (Challenge Score)	Std. Devi.
Smaller Companies	24	4.122	0.580
Larger Companies	20	3.781	0.601

Test_Statistic	Value
T_value	2.911
P_value	0.005

Note: Researcher Compiled

Table 9 shows that smaller companies report significantly higher mean value (challenge score being 4.122). The difference in mean values between small and large companies is statistically significant. It is possibly because availability of resources and system readiness is responsible

for the difference between large companies and small companies. This result also matches the result of cross-tabulation outcomes and results of Chi-Square test and one of the research objectives was to compare mean challenge severity between small and large insurance companies and jointly above three tables establish the point.

The major reports that are required under Ind AS 117 are tabulated below along with their key features.

Table 10: Major Reports under Ind AS 117 and Related Challenges

Major Reports	Purpose	Key Reporting Challenges	Justified Interpretation and Validation	Proposed and Precise Solutions
Insurance Revenue (Ins._Rev.)	Purpose of (Ins._Rev.) to earn total income from insurance contracts	Challenges in gathering extreme granular data to estimate revenue correctly	Validate insurance revenue accuracy recognition under Ind AS 117 which further depends on comprehensive contract-oriented data, absence of granularity related issues.	Defining detailed and accurate revenue calculation related rules and data automation aggregation at insurance contract as well as group levels.
Incurred Claims and Expenses (Inc_C._Exp.)	Purpose of (Inc_C._Exp.) related to payment of claims and outstanding claims	Challenges in gathering accurate calculation orders and correct recognition	Validate appropriate claim components sequencing such as risks adjustment, expenses and claims and mistakes directly influence	Ensuring standardized flow of process and maintain steady claim components interpretation.

			compliance and profitability.	
Insurance Service Result (Ins._Serv._Res.)	Purpose of (Ins._Serv._Res.) P&L from insurance level services not including financial items	Proper balancing of actuarial and accounting expectations as well as consistency in data	Inconsistencies in between actuarial calculations and accounting identification can lead to incompatible results from services and reconciliation issues.	Reinforce coordination across cross-functional departments in between actuarial, financial teams, and accounting staff.
Insurance Finance Expense (Ins._Fin._Exp.)	Purpose of (Ins._Fin._Exp.) expense associated with financing insurance obligations	Proper risk adjustment and interest calculations are required for granular data	Expenses related to finance are quite sensitive to discount rates as well as risk adjustments; it requires to validate detailed data accuracy.	Integrating both financial and actuarial systems; authenticate calculations with subsidiary datasets.
Net Financial Result (Net._Fin._Res.)	Purpose of (Net._Fin._Res.) Completely generate financial results inclusive of service and financial outcomes	Complex conciliation; combination of utilizing multiple sources of data sources	Since this analysis incorporates multiple aspects, discrepancies among systems can be amplified reporting mistakes	

Note: Researcher Compiled

Table 11: Analysis of Major Reports Under Ind AS 117 and Complexities

Major Reports	Challenge/ Complexity
Insurance Revenue (Ins._Rev.)	86 %
Incurred Claims and Expenses (Inc_C._Exp.)	80 %
Insurance Service Result (Ins._Serv._Res.)	76 %
Insurance Finance Expense (Ins._Fin._Exp.)	70 %
Net Financial Result (Net._Fin._Res)	78%

Note: Researcher Compiled

The table shows that (Ins._Rev.) reporting has the highest challenge, with (86%) of respondents emphasizing it as a key challenge. (Inc_C._Exp.) and (Net._Fin._Res) also have high complexity levels, highlighting significant reporting as well as calculation issues. Ind AS 117 has significantly amplified the financial reporting complexity across major insurance metrics.

Table 12: Preference of Measurement Models and Related Challenges

Contract Models/ Types	Preference of Measurement Models	(N = 72)	Percent	Major Challenges	High Challenge (Nos., reported by Respondents	Percent
Life Insurances / Long-term Health Insurance	GMM Model	33	46 %	Complex estimations, risk alterations, data-intensive methods and processes, restricted previous experience	27	82 %
Short-term General Insurances	PAA Model	24	33 %	Comparison along-with GMM model, analysis challenges	16	67 %

				related to group-level data		
Unit-linked (ULIP) / Direct Participation Contracts	VFA Model	15	21 %	CSM roll-forwarding, supplementary processing of data, complex algorithms	12	80 %
Total	—	72	100 %	—	—	—

Note: Researcher Compiled.

Table 13: Chi-Sq. Analysis (Contract Type vs. Measurement Model Preference)

Parameters	Value
Chi-Square Value (χ^2)	18.48
Degrees of Freedom (DF)	4
Level of Significance (P-value)	0.001
Result	Significant

Note: Researcher Compiled

The Chi-Sq. test result (18.48) is statistically significant and positive at the 1% significance level. This further indicates there is a strong association in between contract types and the preferred measurement models (PMM) under Ind AS 117. Therefore, the selection of any model whether it is GMM, PAA or VFA is significantly and statistically impacted by the nature of insurance contracts. The table achieves the research objective pertaining to examining whether the choice of measurement model depends on the type of insurance contract and it seems to be the case as per results above.

Table 14: One-Way ANOVA Test Results

Source of Variation	Sum of Squares	df	Mean_Square	F_Value	P_value
Measurement Models vs. Implementation Level Challenges					
Between the Groups	142.362	2	71.180	6.922	0.002
Within the Groups	710.421	69	10.301	—	—
Total	852.781	71	—	—	—

Note: Researcher Compiled

Table 14 above highlights ANOVA outcomes and shows that there are statistically significant differences in implementation level challenges across all the three measurement models. Further, GMM and VFA have higher mean challenge scores as compared to PAA. The table also justifies the research objective of comparing the mean of implementation level challenges across GMM, PAA, and VFA. Further, since GMM is technically more challenging as compared to PAA and since GMM is preferred by Life Insurance businesses while PAA is preferred by General Insurance businesses, so the cost of implementing GMM (with all its data related challenges) will be higher than the cost of implementing PAA. This further leads to the conclusion that the cost of implementing Ind AS 117 will be higher for Life Insurance businesses as compared to General Insurance businesses.

Table 15: Comparison (PAA vs GMM)

Responses	No.	Percent
Similarity in Results	36	50 %
Differences in Results	22	30 %
Not Sure	14	20 %
Inconsistency in perceptions about whether PAA and GMM delivers similar outcomes		

Note: Researcher Compiled

Table 15 shows that half of the respondents have confidence that PAA will produce results which will be similar to GMM. However, since 30% respondents do not agree and balance 20% respondents are not sure, so this shows high variability in professional judgments. One of the key features of Ind AS 117 is that PAA should ideally produce results similar to GMM but opinion is clearly split on the topic. So, actual implementation of the standard will tell the final outcome in this regard and further research is required on this topic.

Table 16: Challenges Related to Data (Implementing Ind AS 117)

Challenges Related Data	Respondents (N = 72)	Percentage
Data Accuracy and reliability	61	85 %
Appropriate aggregation levels for contracts and cohorts	54	75 %
Absence of suitable tools leading to manual efforts and inefficiencies	58	81 %

Note: Researcher Compiled

The results show that accuracy and reliability of underlying data is the most critical challenge as reported by 85% of respondents. A major proportion also emphasized difficulties in defining appropriate level of aggregation for contracts and cohorts, highlighting complexity in grouping necessities. Moreover, the absence of proper tools leading to manual effort and operational inefficiencies, strengthens the necessity for automation and system upgradation.

Table 17: Feasibility Analysis for Deadline (April 1, 2026 Implementation)

Responses	No.	Percent
Implementable	52	72%
Operationally difficult / Challenging	15	21%
Not Feasible	5	7%
Requires data preparedness, adequate training and IT systems implementable		

Note: Researcher Compiled

The table outcomes indicate that a larger respondent's majority having (72.22%) considering the April 1, 2026 implementation timeline to be implementable. Though, about (20.80%) of the respondents responded that the timeline as operationally difficult or challenging, emphasizing the requirement for focused preparation. Suitable investments in data readiness, workforce training and IT systems are consequently critical for timely compliance.

Table 18: ANOVA Results (Experience Level vs Data-Related Challenges)

Experience Group	No. of Responses	Mean Values	Std. Dev.
Less than 5 Yrs	20	4.101	0.602
5 to10 Yrs	35	4.202	0.580
Above 10 Yrs	17	4.051	0.621

Statistics	Values
F_value	0.321
P_value	0.727

Note: Researcher Compiled

There are no empirically significant differences across experience level groups. Challenges in data are consistently recognized. Analysis Indicates systemic issues rather than any skill-based concerns. The table also highlights that experience level does not mitigate data complexities. Table, supports H04 hypothesis which indicates data challenges are universal. The table also

justifying the objective i.e., To examine whether experience affects perception of data challenges.

Table 19: Correlation Coefficient Results (Size of Company vs Challenge Severity)

Variables	Correlation Coefficient (r)	P-Value
Size of Company and Challenge Severity	–0.421	0.002

Note: Researcher Compiled

Moderate (–0.421) negative correlation occurs in between size of company and challenge severity. Smaller companies generally notice higher challenges. Table shows, relationship is statistically significant. Analysis, strongly supports H02 hypothesis.

Table 20: Cross-Tabulation (Designation vs Measurement Model Preference)

Assigned Designation	GMM	PAA	VFA	Total
Audit Senior / Manager (AM)	10	6	2	18
Auditor (Aud.)	15	12	3	30
Compliance Executive (CE)	8	10	6	24
Total	33	28	11	72
Preferred Measurement Model by Assigned Designation				

Note: Researcher Compiled

As per table, it reveals that GMM is normally preferred by Auditor (Aud.) due to its technical depth. Compliance Executive (CE) shows higher preference for VFA and PAA. The analysis shows that job role / designation impacts choice of model suitability and perception.

Table 21: Impact of Ind AS 117 on acceleration of adoption of AI in Insurance Sector

Responses	No.	Percent
Ind AS 117 will accelerate AI adoption	70	97%*
Ind AS 117 will have no impact on AI adoption	1	1.5%
Not Sure	1	1.5%
**p value = 0.000 (one tailed t-test) (Highly Significant)* *AI can help in mitigating data challenges and minimizing manual processes*		

Note: Researcher Compiled

Table 21 indicates that an overwhelming majority (97%) consider AI to be an important factor in helping mitigate data challenges presented by Ind AS 117. Also, Table 16 shows that 81% of

respondents report that insurance companies still have many manual processes (which can be reduced / minimized by using AI). These two forces explain the belief that Ind AS 117 will *further accelerate* the adoption of AI in insurance sector in India. The one tailed t-test had a p value of 0.000 showing the result is highly significant. It is to be noted that literature review section shows that many studies point to increased use of AI in insurance and the point that this study is addressing is that implementation of Ind AS 117 will *further accelerate* the adoption of AI.

Table 22 below summarizes the results of hypothesis testing and justification for the same.

Table 22: Summary of Results of Hypothesis Testing and Justification

Hypothesis Statements	Rationale	Decision
H_{01}: Insurance companies will adopt Ind AS 117 mandatorily as per timeline but may not be able to voluntarily adopt Ind AS 117 ahead of timeline.	High execution costs, limitations of IT-enabled systems and actuarial frameworks and lack of previous experience make voluntary early adoption unrealistic for most insurers.	Failed to reject H_0
H_02: Smaller size insurance companies do not face significantly more complex adoption challenges as compared to challenges faced by larger companies.	Limited financial capabilities, outdated IT infrastructure system and shortage of adequately trained accounting professionals and actuarial staff are constraints for smaller insurers.	H_0 rejected
H_03: There are no preferences for different models for short term contracts, long term contracts or contracts with direct participation features.	Contract duration matters; features related to participation and mechanisms for risk-sharing govern the viability of the measurement model.	H_0 rejected (as preference given to PAA model for short-term contracts; GMM model for long-term contracts and VFA model for ULIP or direct participation contracts)

H_o4: There are no significant data related challenges as barriers to implementing Ind AS 117.	Accuracy of granular data and contract-driven datasets are significant challenges for liability reporting and assessment.	H_o rejected
H_o5: PAA model generates comparable results to GMM for all contracts.	PAA model is more suitable for short-term contracts (less than one year) and generates comparable results for these contracts but not long-term contracts where GMM model is suitable.	H_o rejected
H_o6: April 1, 2026 deadline is adequate and feasible for mandatory implementation of Ind AS 117.	Infrastructural investments for IT development, governance of data, proper manpower training can make the deadline achievable.	Failed to reject H_o
H_o7: Contract types do not significantly impact measurement model choices.	Different contractual basis components like time frame, involvement, cash flows variability directly impact selection of model.	H_o rejected
H08: Implementation level challenges do not vary significantly across all three models (GMM, PAA and VFA).	Each measurement model entails distinctive data and operational complexities as well as actuarial problems, resulting in varying degrees of implementation issues.	H_o rejected
H09: Implementation of Ind AS 117 will not further accelerate the adoption of AI in insurance sector in India	AI will help minimize data challenges associated with implementation of Ind AS 117 and also help minimize the manual processes currently being followed by insurance companies in India.	H_o rejected

Note: Researcher Compiled

Section 8: Findings of the study

The study finds that voluntary early implementation of Ind AS 117 is not feasible for the majority of insurance companies. Respondents stated that the current preparedness level in terms of quality of data, system capabilities skilled staff is insufficient to facilitating early implementation. This demonstrates that insurers advocate to utilize the complete transition period to boost internal processes and infrastructural activities before mandatory adoption.

Another significant finding is that smaller insurers confront significantly higher implementation complications compared to larger enterprises. Insufficient financial resources, lack of IT infrastructure and dependency on manual or semi-automated procedures restrict their ability of firms to deal the complex data as well as calculation requirements of Ind AS 117. In contrast, larger insurers advantageously maintain better system readiness and having access to specialized skills, supporting smoother implementation.

The analysis further supports that the complex nature of measurement models differs considerably. The General Measurement Model (GMM) is recognized as the most sophisticated due to its extensive data requirements, risks adaptation and ongoing Contractual Service Margin (CSM) calculations. Similarly, Premium Allocation Approach (PAA) model is considered as relatively simpler and more appropriate for short-term insurance contracts. However, the Variable Fee Approach (VFA) model is relevant to contracts with direct participation features and requires advanced actuarial and system capabilities. The Figure 3 below summarizes the finding which is a re-affirmation of what is known in general.

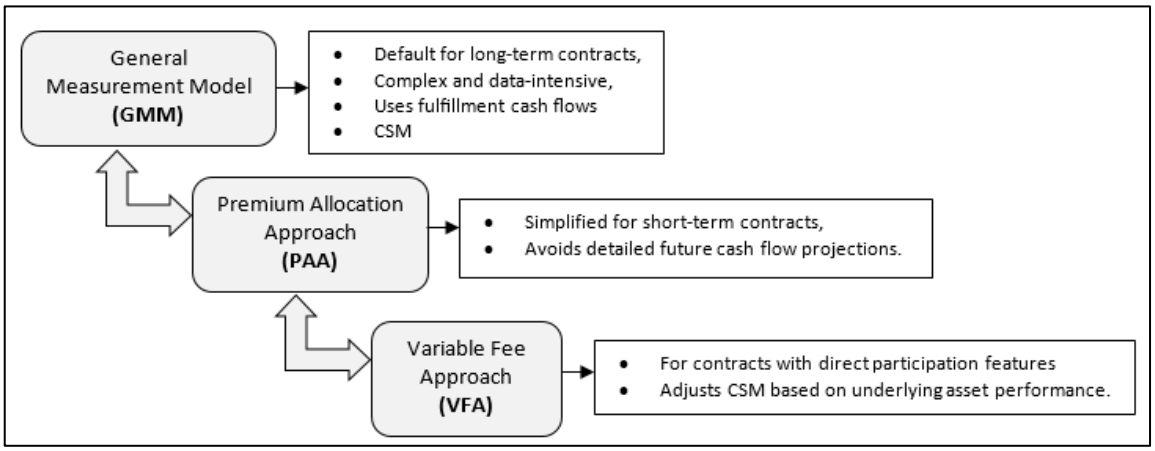

Figure 3: Measurement Models

A primary finding of the research is that accuracy in data, system integration as well as having access of appropriate tools are necessary for successful implementation of Ind AS 117. Respondents regularly emphasized that unstructured data throughout actuarial, financial and fundamental insurance systems leads to reconciliation concerns and reporting risk. As a result,

effective automation and connectivity are therefore important to assure consistent, fast and reliable reporting. Some of the most critical challenges pertained to data, system improvements and manpower training and upgradation. Granular data, CSM computation and measurement and impairment of financial assets are the predominant data related challenges. In terms of systems upgradation, these data related challenges require improvement in systems to capture CSM computation, measurement of fulfilment cash flows, grouping of insurance contracts, measurement of financial assets and integration across actuarial, finance and reporting systems and generation of reports. All of this is possible only with adequate manpower training and upgradations and requires organization wide efforts.

The findings indicate that expert opinion is divided on whether PAA generates similar results as GMM in all cases. While PAA generates outcomes identical to GMM in restricted and specific scenarios, particularly with respect to short-term insurance contracts with static risk profiles. Even so, respondents emphasized that this similarity might disappear in more complicated situations, highlighting the need for diligent assessment prior to select PAA as an alternative measurement paradigm.

The study also finds that implementing GMM and VFA model is more challenging that implementing PAA model. Since GMM is technically more challenging as compared to PAA and since GMM is preferred by Life Insurance businesses while PAA is preferred by General Insurance businesses, so the cost of implementing GMM (with all its data related challenges) will be higher than the cost of implementing PAA. This further leads to the conclusion that the cost of implementing Ind AS 117 will be higher for Life Insurance businesses as compared to General Insurance businesses.

The analysis finds that execution challenges under Ind AS 117 are significantly pronounced in areas necessitating massive data granularity and complex mathematical calculations. The reporting of Insurance finance and revenue expenses emerged as particularly challenging, as both relied extensively on exact contract-level data, risk modifications and discount rates. Any contradiction or deficiency of detailed data significantly impacts the reported outcome's reliability, validating respondents' concerns about data adequacy and system capability.

The findings further point out that estimation sequencing and interpretation play an important role in reliable reporting, especially with regard to incurred claims as well as expenses. Respondents noted that incorrect processing sequencing or incorrect interpretation of claim components may result to serious misstatements and compliance threats. Such statements reinforce the demand for uniform workflows and unambiguous calculation protocols to ensure consistent implementation across companies.

Another important finding is the substantial relationship in between actuarial, financial and accounting actions in ascertaining the insurance service results. The dissimilarity in assumptions as well as data descriptions among these responsibilities often leads to reconciliation issues along-with reporting delays. The research also confirms that cross-functional coordination along with coordinated systems are necessary to achieve uniform and trustworthy outcomes under Ind AS 117.

It is noteworthy that the overall financial results were found to be significantly sensitive to the integration of data and reconciliation processes, since it aggregates various reporting sections. The findings also suggest that centralized data management functionality, automation system and standardizing reporting templates are vital enablers to reduce errors and boosting reporting effectiveness. The study further finds that actual implementation of Ind AS 117 is not only a technical topic but also dependent on data governance, system integration and overall organizational preparedness.

The study finds that implementation of Ind AS 117 is expected to further accelerate the adoption of AI in Insurance sector in India. The rationale for the same is that AI will help minimize data challenges associated with implementation of Ind AS 117 and also help minimize the manual processes currently being followed by insurance companies in India. AI is a reality and is anyways getting adopted in insurance sector in India but Ind AS 117 intensifies the need for the same.

Finally, the research concludes that the April 1, 2026 implementation deadline is largely implementable, based on insurers engagement in systematic preparation and phased implementation. Comprehensive preparation and planning in data cleansing, system upgradation, manpower training, collaboration among departments can significantly reduce execution risks. This strengthens the perspective that overall organization wide readiness is crucial to successful implementation of Ind AS 117.

Section 9: Conclusion

Ind AS 117 offers to insurers the flexibility for selecting an appropriate measurement model is based on the contacts nature. However, its effective adoption demands a strong data foundation, innovative IT systems and unceasing skill development. Indian insurance companies must be prioritized the amalgamation of actuarial, accounting standards, and core insurance data to confirm uniformity and reliability in reporting. Automation of calculations is needed to reduce manual intervention, eliminate errors and to enhance efficiency, while prompt preparation of reports in align with the new standards will promote seamless regulatory compliance.

Finally, the literature advocates that although Ind AS 117 and IFRS 17 improve transparency and quality in financial reporting, yet comparability concerns of measurement models and their implementation processes are quite cumbersome. The study points to high-impact challenges associated with cost related issues, data management, system readiness and complexities in measurement models. These challenges are exacerbated for smaller insurers and also very noticeable during first-time adoption process, which strengthens the necessity for implementation strategies in phases, providing regulatory guidance regularly and technological investments to update systems. The Ind AS 117 implementation process also involves multifaceted challenges in measurement beyond elementary submission, predominantly regarding contract-level grouping, techniques of discounting, onerous contracts, interaction with financial instruments standards and risk adjustments. Such unresolved challenges provide solid explanation for the current research, which is designed to assess the readiness of implementation under Ind AS 117 and also appropriateness of insurance contract measurement models along with their potential implications on the reporting process.

The study offers practical understanding for insurers, governing regulators and accounting professionals, especially considering the fact that implementation of Ind AS 117 has been deferred once already and so there is a need to identify challenges ahead of time to ensure timely implementation. De Nichilo (2022) shows that uncertainty in practical application during the transitional phase generally raises implementation related risks as well as compliance costs and so this paper aims to reduce risks and costs too.

Special attention is also needed to particular focus on smaller insurers, as they experience higher complexity owing to limited infrastructural resources. Successful execution of Ind AS 117 will permit insurers to precisely measure contract liabilities, enhance financial reporting transparency, adhere to regulatory requirements and ultimately reinforce decision-making procedures and shareholder confidence. Yet another topic that deserves greater focus in future research is the impact of artificial intelligence on insurance sector or implementation of reporting standards

The study, in spite of its comprehensive evaluation of ten different objectives related to the implementation process, has its limitations too. Section 2 of this study already mentions the key exclusions of this study in detail including provisions of Insurance Act, 1938 and Amendment of Insurance Laws, 2025, as also IRDAI Regulations (2024) and provisions of Indian Companies Act, 2013. In one study it is not possible to evaluate all possible dimensions of the implementation process and further research is required in the area. For example, three

key areas have not been considered in this study viz. topic of policyholder and shareholder fund, exemption from annual cohort requirement for participating insurance businesses and distribution of surplus in participating insurance businesses. All these topics are at the intersection of Indian insurance laws and the accounting standard and require thoughtful consideration but were beyond the scope of this study, which is already quite detailed. Yet another issue is that considering the gigantic size of the insurance companies, the classification used for number of employees for small, medium and large companies is not in line with general norms. Yet another classification could have been made on the basis of Assets under Management (AUM) of Insurance companies. Finally, the study may be impacted by the views of the respondents but over a large sample of seventy-two respondents, the individual biases are likely to be evened out. Future research is needed to evaluate other dimensions of the implementation process not covered in this study but it marks a very good beginning to understand the implementation process and to point to potential challenges ahead of time so that the need to postpone the implementation of the standard (as has already happened once) does not arise. This will also reduce the uncertainties as well as costs of implementing the same and has important implications as explained above for regulators, professionals and different stakeholders.

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