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Junior Actuary's Pricing Predicament- Professional Case Study

Guide :

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Case Study



Crunching Numbers, Dodging Trouble: The Junior Actuary's Pricing Predicament

You are a junior pricing actuary who has recently joined a small sized health insurance company. The company has been providing group health insurance coverage to a big client with 20,000 employees for the last 2 years and they have requested for a quotation for the 3rd consecutive year. The client has been happy with the quotations provided over the last two years as these are lowest in the market.

Your manager is also a recent hire to the company. Historically when the client for onboarded in the first year, they had shared the previous claims history and apparently no analysis was conducted on it by the previous actuary to allow for any experience in producing the premium rates.

Case Study



Crunching Numbers, Dodging Trouble: The Junior Actuary's Pricing Predicament

Given as a company you have access to the historic data and two years' worth of your own claims experience with the client, you conducted an experience analysis on the claims data to conclude that this portfolio is loss making and over the last two years the company has been undercharging this client by ~50%.

When you raised this with your manager, he was fearful that both you and him/ her are new to the company and the CEO will not be happy with the decision to significantly increase the premium and lose the client to another player in the market. Hence, he asked you to not report this and provide the book rated premium like the last two years to the client.

How will you tackle this situation?

Case Study - Summary



Background

- Small sized health insurance company with a large client
- Undercharged by 50% in previous 2 years resulting in loss-making portfolio
- Happy client requests for a quote for the 3rd consecutive year

Manager's Concern

Fear of upsetting the CEO and losing the business

Dilemma

- Raising premium to reflect claims experience may lose the client
- Ignoring the findings
 - Portfolio continues to bleed
 - Compromising professional integrity

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Professionalism



What is Professionalism?

"Professionalism is defined as adhering to the fundamental principle of **integrity, objectivity, professional competence and due care, confidentiality and professional behavior**. It emphasizes serving the public interest above self-interest."

-International Federation of Accountants (IFAC)

Role of professionalism in actuarial profession

Actuarial profession has an obligation to serve the public interest within the context of building and promoting confidence in the work of actuaries and in the actuarial profession. Individually members must maintain and observe the highest standard of conduct.

(2.2.1 Professional Conduct Standards)

Direct Impact - Actuarial Profession



Actuarial profession governed by

- Provision of Actuaries Act, 2006
- Professional Conduct Standards
- Actuarial Practice Standards
- Regulations and Circulars of the Authority - Insurance Regulatory and Development Authority of India (IRDAI)

Actuarial Practice Standards, Regulations and Circulars are used to enhance the reputation of the profession to increase the public trust in the quality and utility of the professional's work.

Actuaries Act 2006-Institute of Actuaries of India



➤ Objectives of the Institute of Actuaries of India (IAI)

shall promote, uphold and develop the standards of professional education, training, knowledge, practice and conduct among Actuaries;

- 5 (a) of Chapter II IAI of The Actuaries Act 2006.

➤ sets standards for professional conduct and ethics that members must adhere to

✓ Integrity and Honesty

✓ Professional Behavior

✓ Communication

✓ Competence

✓ Compliance with Standard

✓ Professional Development

➤ provides framework for disciplinary actions against members who violate professional standards or engage in misconduct

Professionalism Committee of IAI

- Set up of actuarial standards and monitoring compliance
- Set up of criterion for and issuance of Certificate of Practice (COP)
- Set up criterion for Continuing Professional Development (CPD) and monitoring compliance
- Conduct of CPD/Professionalism/Ethics courses/Seminars

Actuaries Act 2006–Institute of Actuaries of India



Advisory Group on Professionalism, Ethics and Conduct

- Inculcate high level of professionalism amongst members through delivery mechanism that is effective
- Develop robust Code of Conduct, Actuarial Practice Standards and its compliance mechanism
- Encourage motivate and incentivize compliance with Code of Conduct and Actuarial Practice Standards
- Advice on implementation of disciplinary provisions within the framework of Actuaries Act 2006, that is just, fair and meets the ends of justice within the requirements of principles of public interest
- Educate the members on matters affecting the profession

Professional Conduct Standards



2. Professional Standards

2.1 The actuarial profession has an obligation to serve the public interest within the context of building and promoting confidence in the work of the actuaries in the actuarial profession. Individual members must maintain and **observe the highest standard of conduct**. The standing of the actuarial profession depends on the judgement of individual members.

2.2 Members have a duty to the actuarial profession and clients and act **honestly** and with **integrity**.

2.3 Clients are entitled to have absolute confidence in the **skill, objectivity** and **integrity** of any member.

Professional Conduct Standards



4. Standards for advice

4.1 An actuary is expected to **use best judgement** in formulating advice and must have proper regard to any relevant professional guidance or other guidance.

6. Impartiality

6.1 Actuaries must ensure that their professional judgement is not compromised, and is not seen to be compromised, by any bias, conflict of interest or the **undue influence of others**.

Actuarial Practice Standards



Actuarial Practice Standards (APS) are professional guidelines issued by **IAI**, to ensure **consistency, quality, and professionalism** in actuarial work. They serve as **guidelines for actuaries** to follow when performing their duties, offering clarity on the methodologies, ethical considerations, and technical standards required in various actuarial tasks.

We consider the following APS for our case study...

- APS 34 - General Actuarial Practice
- APS 21 - Appointed Actuary (AA) and General Insurance (GI), Health (HI) or Reinsurance business (RI)
- APS 9 - Continuing Professional Development (CPD) and the Actuary

1. APS 34 - General Actuarial Practice



2.7.1. Selection of Assumptions and Methodology - The actuary should select the assumptions and methodology that are appropriate for the work. The actuary should consider the needs of the intended users and the purpose of the actuarial services.

...give regards to the experience of the client. Pricing in light of the client's assumption is the appropriate approach

2.11.2 Reasonableness Checks - The actuary should review the results produced by the selected assumptions and methodology for overall reasonableness.

..Checks and controls for work done as the reasonable checks should be performed while pricing

1. APS 34 - General Actuarial Practice



3.2.2. The actuary issuing a report should disclose in that report, if applicable

...for the current actuary while writing the report around the issues found

2. APS 21 - AA and GI/HI/RI business



2.1 Appointed Actuary shall ensure the Solvency of the Insurance Company to which they are appointed.

....pricing is important aspect to ensure the solvency of the insurance company

2.2 The essence of the profession lies in upholding its standards, technical and ethical, in the public interest. As a member of the Institute of Actuaries of India (IAI), every Actuary has the responsibility to maintain the highest professional standard envisaged by the IAI

....as members of the Institute, junior actuary and manager have responsibility to maintain professionalism to highest standard

2. APS 21 - AA and GI/HI/RI business



3.5 The actuary must ensure that their professional judgment is not compromised, and cannot reasonably be seen to be compromised, by bias, conflict of interest, or the undue influence of others.

....junior actuary or manager to not be fearful to CEO about the pricing

5.1 The Appointed Actuary shall ensure that the premium rates of the insurance products are fair

....undercharging the client could lead to potential selection against the insurer and other implications

2. APS 21 - AA and GI/HI/RI business



6.1 The Appointed Actuary must satisfy himself that premium rates for business (new, renewal etc. as applicable) are fair, i.e., are neither excessive or inadequate, that is to say sufficient in due course to enable the company to meet its liabilities

...emphasizing on fair premium for renewals as well.

6.3 *The Appointed Actuary should also analyze the insurer's own claims experience and, where possible, compare it with the industry experience*

....pricing should regard the client experience and if inadequate experience should consider the industry experience

3. APS 9 - CPD and the ACTUARY



On compliance with this Actuarial Practice Standards (APS), a member will have a high degree of confidence in the application of actuarial principles and practices while meeting his/her obligations for the cause of public interest under professional conduct standards.

It imposes the requirement of minimum continuing professional development learning hours.

.... CPD includes learning about professional ethics, which would guide the manager to prioritize transparency and reinforce the importance of communication of underpricing events to stakeholders.

IRDAI Regulations



1. Insurance Regulatory and Development Authority of India (Actuarial, Finance and Investment Functions of Insurers) Regulations, 2024
2. Insurance Regulatory and Development Authority of India (Protection of Policyholders' Interests, Operations and Allied Matters of Insurers) Regulations, 2024

IRDAI Regulations



- Actuarial, Finance and Investment Functions of Insurers, 2024
 - ...requires regulatory returns are prepared and reported in accordance with applicable standard
 - ..policyholders' interests are protected

7.(3) Identifying and monitoring the risks associated with the insurer's ability to maintain the solvency at all times and reporting those risks to the Board of the insurer

....feedback of underpricing in the actuarial control cycle and monitoring the solvency risk

7.(13).(i) Ensuring that the premium rates of the insurance products are fair

....neither underrated or overrated

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Indirect Duties of the Pricing Actuary

Regulatory Perspective



- Responsibilities towards the Appointed Actuary's Office
- Rendering actuarial advice to the management of the insurer in areas of pricing and product design
- Identifying and monitoring the risks associated with the insurer's ability to maintain the solvency at all times; to take remedial actions for rectifications of solvency position
- Ensuring that premium rates are fair

Indirect Duties of the Pricing Actuary

Regulatory Perspective



- Generally accepted actuarial principles and practices are followed
- Financial statements reflect true and fair picture of the financial condition of the insurer
- The ability of the insurer to meet the reasonable expectations of the policyholders
- Solvency margin is ensured at the control level at all times

Indirect Duties of the Pricing Actuary

Regulatory Perspective



- Impact on Reserves and Premium Deficiency Reserves (PDR)
- To ensure that interest of policyholders are protected and the conduct of the insurer is not prejudicial of policyholders
- Policyholders are treated with fairness and impartiality
- Not only at time of sales but also at all stages of the relationship

Indirect Duties of the Pricing Actuary

Stakeholders



We now consider the stakeholders who may be impacted by not pricing the risk correctly

1. Shareholders:

- The risk accepted may not be acceptable to the Shareholders.
- This could also result in a reduced return on investment

2. Rating Agencies:

- If practices followed are not in line with generally accepted practices, these could result in an adverse rating
- It may also require more capital from shareholders if they need to maintain their rating
- Could exacerbate the capital situation (if currently not good)

Indirect Duties of the Pricing Actuary

Stakeholders



3. Capital Markets:

- If the firm is listed then bad performance will result in share prices going down
- Analysts tracking the firm and its performance may not recommend the stock

4. Regulator & Industry:

- If solvency of the firm gets below the threshold, then it could invite adverse comments from the Regulator
- For the industry to grow and develop, firms must be profitable

5. Underwriting

- Risk will not be appropriately priced if past practice is continued
- This will be in violation of board approved underwriting policy

Indirect Duties of the Pricing Actuary

Stakeholders



6. Reinsurance

- The loss ratios would be quite high
- Reinsurance premiums would be higher, or conditions favourable to the company may not be given
- Worst case, reinsurance cover would not be available
- It may be possible that the reinsurance premium rates are higher than the direct premium rates

7. Auditors:

- If they make adverse comments on the risk assessment then this could have a negative impact on the firm's reputation

Indirect Duties of the Pricing Actuary

Stakeholders



8. Investment:

- Funds available for investment would be insufficient

9. Prospective customers

- It would be difficult to get New Business if financial position of the company is not good

10. Existing Customers:

- If there is talk of the company not being in a good financial position then existing customers could cancel their policies and take it elsewhere
- This could worsen the situation for the company

Indirect Duties of the Pricing Actuary

Stakeholders



11. Distributors

- They look at financial position of the companies whose products they sell
- They rely on companies delivering their promise which is influenced by their financial position
- Not getting enough premium or volumes could worsen the situation

12. Marketing

- If the company gets a bad reputation, then the marketing efforts would be adversely affected
- Moreover, to counter the bad reputation, it would require more resources allocated to this activity

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Possible Scenarios

1. Adhere to the manager's direction

Follow the manager's instruction and provide the book-rated premium without reporting loss making situation.

Junior Actuary:

- Avoids immediate conflict with the manager
- Violates actuarial principles and professional ethics

Possible Scenarios

1. Adhere to the manager's direction

Client:

- Satisfied with same pricing
- Long term risk if insurer struggles to honor claims

Company:

- Retains the client, preserving revenue
- Sustains financial losses, weakening overall portfolio and solvency

Possible Scenarios

2. Moderate Adjustment

Propose a smaller, gradual increase in premiums (e.g., a 10-15% increase)

Junior Actuary:

- Transparently communicating the need for adjustment
- Balances professional integrity with practical business needs
- Might not fully address company's immediate financial losses

Possible Scenarios

2. Moderate Adjustment

Client:

- Gradual increase is easier to manage
- Some dissatisfaction due to increased costs

Company:

- Retains the client
- Losses may persist in the short term, putting pressure on other portfolios

Possible Scenarios

3. Propose Alternative Solutions

Suggest alternative to a direct premium increase such as revising policy terms, implementing cost sharing mechanisms.

Junior Actuary:

- Demonstrate creativity in solving financial challenges, may avoid a direct premium increase
- Could create administrative complexity for the company

Possible Scenarios

3. Propose Alternative Solutions

Client:

- Instead of immediate increase, client manage costs through adjustments
- Potential dissatisfaction with reduced benefits or higher out-of-pocket costs.

Company:

- Mitigates financial losses without drastically altering premium
- Complex benefit designs could strain resources

Possible Scenarios

4. Charging premium as calculated

Premium is charged as calculated based on claims experience analysis, resulting in 50% increase compared to last year..

Junior Actuary:

- Ensures adherence to actuarial standards by setting premium aligned with risks
- May be viewed as overly focused on technical accuracy without balancing business realities

Possible Scenarios

4. Charging premium as calculated

Client:

- Premium aligned with its claim history
- Dissatisfaction due to increased costs

Company:

- Improved financial health and demonstrates adherence to actuarial principles
- Risk of losing client to competitor, impacting revenue

Possible Scenarios

5. Escalate the issue internally

If the manager refuses to act, escalate the matter to higher leadership including the Appointed Actuary. Present findings objectively and recommend corrective actions.

Junior Actuary:

- Ensures accountability and transparency, upholds professional ethics
- Potential damage to relationship with the manager

Possible Scenarios

5. Escalate the issue internally

Client:

- No impact on client
- Potential delay in quote to the client

Company:

- Gives senior management a chance to address the underpricing issue
- Potential internal discord and leadership tensions

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- Preventive measures
- Develop standardized pricing models that account for claims history
- Schedule periodic reviews of client portfolios to identify underpricing.
- Mandate an actuarial review of pricing decisions before approval.
- Strengthen coordination between actuarial, underwriting, and sales teams.

Conclusion

- Case study presents a classic dilemma faced by professionals balancing ethical responsibilities and business considerations.
- Professional integrity is non-negotiable. Actuaries must ensure pricing reflect risks.
- Balancing ethics with business considerations strengthens company's reputation and market position.
- The final decision is expected to balance the technical accuracy with ethical considerations in decisions that affect a wide array of stakeholders.

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Thankyou!

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