Lecture

INSTITUTE OF ACTUARIAL
& QUANTITATIVE STUDIES

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Chapter: Unit 3 Chp 1

Chapter Name: Product development

Today's Agenda

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1 Introduction

> "Different people want different benefits and different mixes of benefits."
>
> Philip Kotler

1.1 What is an Insurance product?

Insurance Products means any product provided by an insurer or service contract provider in its insurance or warranty business whereby such insurer or service contract provider undertakes to pay or indemnify another as to loss from certain specified contingencies or perils called “risks” or to pay or grant a specified amount or determinable benefit in connection with ascertainable risk contingencies or to act as a surety.

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1.2 Why is there need for modernizing?

- At a time when exceptional client experience is pervasive throughout most other industries, customer-centricity, speed, and flexibility are becoming necessities in insurance product development.
- Many insurers are reconsidering outdated product-driven business models to meet customer experience–driven market expectations.
- With new risks emerging, and traditional coverage requiring updates to stay relevant in the evolving landscape, the need for more rapid product development transformation seems to be intensifying.
- Insurers will likely be tasked with eliminating or minimizing friction throughout their business models, processes, and infrastructure.
- Insurers should evolve toward creating a more seamless, customer-driven experience that incorporates tailored options and services, which is already table stakes for most other industries.

https://www2.deloitte.com/us/en/insights/industry/financial-services/insurance-product-development-capabilities-modernization.html

1.3 Five Essential Ingredients of Product Development

1. Understanding Client's requirements
2. Product Development Dynamics
3. Analyzing Costs and Benefits
4. Accumulating Reinsurance Support
5. Continuous Value Addition/ Technological Upgrades to the Product

https://www.linkedin.com/pulse/five-essential-ingredients-product-development-insurance-rizvi

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Factors in Product Design

- Financing requirement
- Onerousness of any guarantees
- Risk characteristics
- Competitiveness
- Extent of cross-subsidies
- Sensitivity of profit
- Consistency with other products
- Regulatory requirements
- Administration systems
- Marketability
- Profitability

2.1 Profitability

- A company will want to ensure that the premiums charged for non-linked contracts will be sufficient to cover the benefits to be provided and the expenses in most foreseeable circumstances, and provide a profit margin.

- At a general level, a life insurance product can be broken down into three components: savings, protection and administration.

- For unit-linked contracts it will want to ensure that overall the charges will be sufficient to cover the expenses to be incurred, and provide a profit margin.

2.2 Marketability

- The benefits offered need to be attractive to the market in which the contract will be sold.
- Innovative design features may make a contract more attractive as may the addition of options and guarantees.
- In the context of marketability, one would consider how understandable the product is.
- The distribution channel involved will have a fundamental influence on what product is required, how it should be structured, and how it should be priced.

2.3 Competitiveness

- The prime influence on competitiveness will be the level of the expense charges.
- Competitive markets ensure lower profit margin, as earning lower profit will be better than earning NO profits. (Focus on volumes)
- In low competitive markets, higher per policy margin is possible.

2.4 Financing requirement

- This is a particularly important criterion for new insurance companies because of the small amount of free assets that they have available to finance new business.

- As a result, these new companies often sell just unit-linked products.

- The actuary will use model office techniques to project the financial situation with and without the new product under sensible sales assumptions to assess the company's ability to finance the product, and whether the return on capital is adequate.

2.5 Risk characteristics

- The level of risk that may be acceptable will depend upon the company’s ability or willingness either to absorb risk internally or to reinsure or hedge it.

- For a company entering a new market for that company (perhaps using a new distribution channel) the mortality parameter risk would still be relatively large.

- If the company is faced with a large parameter risk it could do one or several of:
  - offer the contract in unit-linked and/or reviewable form to avoid a long-term rate guarantee
  - reinsure a large part of the risk
  - incorporate very ample margins in the premium rates
  - offer the contract as an additional “rider” benefit rather than stand-alone.

- The ability to hedge investment risk will be an important consideration in the design of financial guarantees.

2.6 Onerousness of any Guarantees

- The company will need to consider the onerousness of any guarantees, for example the level of any guaranteed surrender values under a non -linked contract.

- Offering guarantees results in two problems:
  - Possibly having to suffer a cost that you did not fully expect; and,
  - Probably (depending on the supervisory reserving regime) having to reserve for this possibility from the outset – thereby increasing the capital strain of the product.

2.7 Sensitivity of Profit

- Products are more likely to be sensitive to particular types of risk the more onerousness the guarantees are.

- The important variables that might impinge on profitability are:
  - investment return
  - mortality, or other contingency if relevant
  - expenses, including expense inflation
  - withdrawal rates.

2.8 Extent of Cross-subsidies

- A company needs to decide on the extent of any cross-subsidies between, for example, large and small contracts.

- Ideally, even small policies should cover their own administrative cost and sales cost.

- However, cross subsidies could be used at product level or SA level to compensate for smaller polices.

2.9 Administration system

- The system requirements of a new product may limit either the benefits to be provided or the charging structure to be adopted.
- The issue of compatibility with the administration system can also be extended to cover the aspect of simplicity: it is in the interests of the administration system, policyholders, agents / brokers and the company's staff that the product be simple.
- Thus any complications must be warranted by some significant advantage in terms of the factors discussed.

2.10 Consistency with other product

- The company may wish to ensure that the charging and benefit structures of a new policy are at least similar to any existing business.

- The key reason is that a major change will result in significant systems development, which will take time.

- There are benefits in terms of saving time and cost with such things as training administration and sales staff, printing marketing literature and so on.

2.11 Regulatory requirement

- A company must adhere to any regulatory requirements,

Eg: maximum (capped) charges, treating customers fairly.

- These should be taken into account in product design.