Point of View

Re-Imagining Insurance for a Smarter Future

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Abstract

The insurance industry is one of the world's oldest and most important industries. Insurance companies have provided vital services for centuries by protecting people and businesses from the financial losses associated with risks such as catastrophic events, death, injury, health issues, and damages to vehicles and properties.

In recent years, traditional business models are becoming increasingly outdated as technologies and customer expectations evolve.

The industry faces increased losses due to incorrect risk assessments, customer churn, and fraudulent claims.

To remain competitive in the ever-changing ecosystem, insurers should keep up with the changing landscape and find intelligent solutions for a competitive advantage.

It is necessary to shift focus towards emerging technologies to cater to customer demands for personalized and competitive products and services.

In this pov, we will discuss:

01	The key value propositions

02	Risks and challenges

03	Generative AI-based solutions for the insurance value chain

04	Pre-requisites for insurers to step into generative AI space

05	The potential of generative AI to transform the insurance industry

How Generative AI can help insurers meet consumer expectations

Improving sales and reducing operational costs are a couple of key goals insurers are trying to achieve. Insurance sales have primarily been push-based and require customer insights to personalize, cross-sell, and upsell products. Data is paramount for push-based sales to succeed. Offering tailored insurance products improves customer experience, satisfaction, and loyalty.

Insurance consumers and company employees expect to interact with technology seamlessly and in a humanly conversational fashion by quickly finding and acting on the information they need.

Generative AI can offer insight to insurers to improve sales, reinvent customer and employee experiences, and reduce operational costs. It is an emerging technology that uses machine learning models to produce unique content such as text, images, audio, and video. Generative AI models work based on an Input, Process, Output (IPO) cycle and receive inputs called prompts (a set of instructions), process the instructions, and generate unique content called completions or output. The output accuracy of these models depends on the learnings from the training content used.

Generative AI is set to revolutionize the way insurance companies do business. It can potentially enhance the insurance value chain, including launching differentiated products, promotional campaigns, intelligent underwriting and pricing, training, claims, and service.

Generative AI-based solutions for the insurance value chain

New Product Creation

Marketing & Sales

Service

Claims

Training

Generative AI

New product creation

Generative AI models empower insurers to create differentiated offerings. Insurers should use the power of existing large language models to create custom brand-specific generative AI models trained on market insights, product portfolio information from insurer websites, documents and transaction systems, and competition data. This model can help insurers to create differentiated offerings based on specified criteria. For instance, specifying a geography in the prompt and asking the generative AI model to suggest a differentiating product will trigger the analysis of large complex data sets of the geographical market and provide a suggestion. For example, electric vehicle adoption has increased in geography X, so automotive insurance for electric vehicles could be considered.

Marketing campaigns

Insurance marketers today spend days creating content for new product launches and promotional campaigns for existing products. Generative AI can make their lives easier by analyzing clients' needs and automating the content creation pipeline for outbound email campaigns and social media banners. The content generated can be seamlessly integrated with the existing campaign management tools for quick human validation and launch. Given the limitations of the technology of producing biased and unethical content, a human in the loop is crucial for validating and publishing content.

Sales

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Product advice and prospect engagement –
Insurers want seamless and scalable operations. Generative AI-powered self-service brand bots can answer basic to complex queries about insurers' products/policies. Bots can also intelligently transfer the call to an agent based on customer request or sentiment, thereby reducing human agents' load.

Empower sales team –
Empower sales teams, insurance agents, and distributors with client summaries, personalized product recommendations, and the latest product information, offers, and sales pitches.

Customer profiling and risk assessment –
Underwriters today spend considerable time doing monotonous, time-intensive tasks extracting information from disparate insurance systems, assessing data to evaluate risks associated with a customer, and accordingly pricing the policy. Generative AI algorithms can help underwriters instantly search all the available customer information, assess data and highlight potential risks associated with the client's profile. e.g., risks based on age, medical history, driving record, claims history, or geography. Gen AI models can also reduce insurer exposure by predicting the likelihood of a customer filing a claim, thereby helping underwriters with pricing a quote/policy.

Personalized quotes, policies, and pricing–
The aging actuary workforce managing all the complex calculations for pricing is a crucial concern for the insurers. Generative AI models can address the increasing customer demands for personalized products and services at a competitive insurance premium. Cross-comparison of insurance products and coverages is also possible.

Service

Insurers can use generative AI to find the most relevant information to serve policyholders. Policy coverage queries/maintenance queries can also be answered by a generative AI-powered bot providing round-the-clock service across geographies with native language support. It can also recommend the next best actions to help agents resolve queries faster, reducing the Average Handle Time (AHT) and After Call Work (ACW) with automated post-call summarization and increasing the first call resolution rates. Self-service bots are the future, allowing agents to focus more on productive analysis and customer experience than spending hours on monotonous data entry tasks.

Claims processing

Optimizing claims is a key battle most insurers grapple with consistently. Generative AI models are known for their text composition capabilities and can respond to insured's claims submissions by:

01
Assessing the claims data with policy coverage.

02
Extracting relevant damage information from the First Notice of Loss (FNOL) proof submissions.
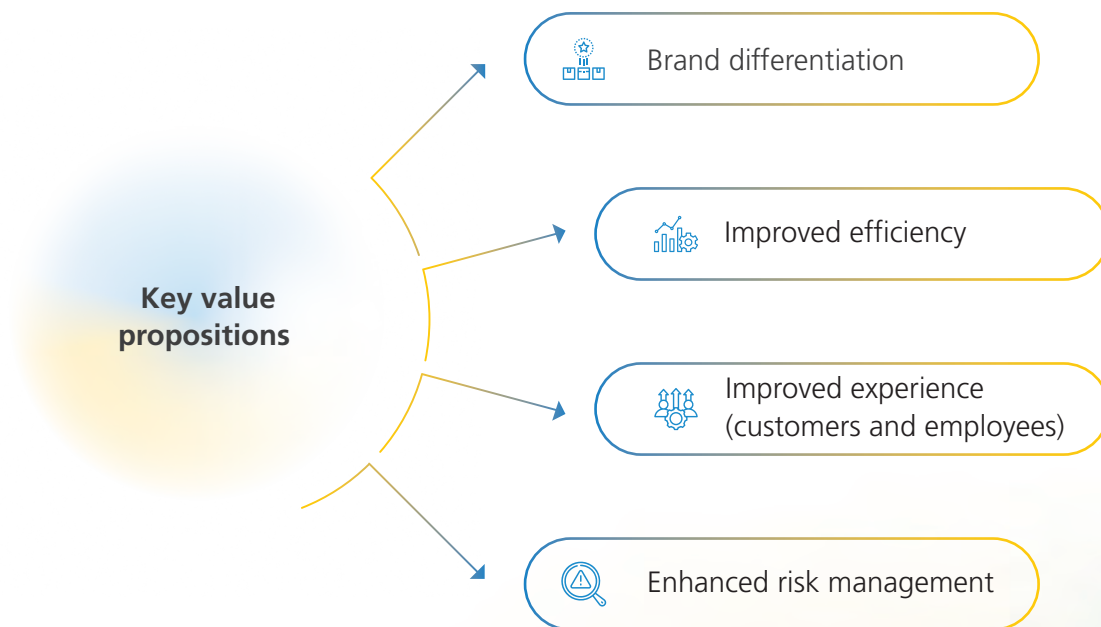
03
Summarizing and formulating a claims decision letter to the insured with the necessary justifications.

Generative AI models can also understand claim trends from global data based on demography and amalgamate with insured claim history to find unusual patterns and flag suspicious claims. Studies have revealed that claimants are satisfied to receive 80% of the claim amount at a faster pace than the entire claim amount after weeks.

Training

Generative AI-powered bots, tailored to specific brands and trained on insurer-specific data and product information, can enable agents, marketers, underwriters, sales, and support teams. These bots can educate teams about new product offerings, summarize existing product features, and engage in human-like conversations, thus empowering them.

Key value propositions

Brand differentiation

Improved efficiency

Improved experience (customers and employees)

Enhanced risk management

Key value propositions

Brand differentiation

Increase innovation, expand offerings, and differentiate services and products by understanding competitive landscape and customer needs. Identify pricing trends and optimize pricing strategies to maximize revenue.

Improved experience

Create tailored products and customer services, helping insurance prospects and clients to make informed decisions.

Improved Efficiency

Reduce operational costs through automation of:

Data analysis for customer segmentation

Risk assessment and pricing

Claims fraud identification

Marketing campaigns

Underwriting

Risk Management

Analyze large data sets quickly to identify patterns, correlations, and insights. Assess existing and emerging risks and make informed decisions. Detect fraudulent claims accurately and reduce losses.

What is in it for insureds/customers?

Personalized insurance products

Best premium/price

Enhanced experience & 24/7 service

Key risks, challenges, and mitigation strategies

As with any modern technology innovation, Generative AI has its associated risks and challenges

Intellectual property/copyright

Risk –

Using publicly available generative AI models comes with the inherent risks of copyright infringement and lawsuits. There is no track-and-trace mechanism for training data sources or consent from content owners.

Challenge –

Regulatory authorities across geographies are struggling to match the pace of the changing technology landscape.
Regulatory bodies are trying to set up the copyright and intellectual property rules governing generative AI, i.e., rules for governing data sets used in training algorithms and ownership of output content.

Mitigation –

Training custom models with company-specific information for accurate insights will ensure a fair use policy and prove the provenance of legitimate information for training the algorithms. The approach, however, comes with an overhead infra cost for training and maintaining the algorithms along with the data.

Security and privacy concerns

Risk –

Loss of confidential information due to data leakage and non-compliance with privacy standards.

Challenge –

Complying with existing regulations while anticipating future regulatory changes is a challenge. Large language models require information of existing products and services of an insurer to create recommendations. Insurers must be aware of the risk of data manipulation by malicious actors.

Mitigation –

To mitigate this risk, insurers should experiment with small POCs. Creating custom algorithms on top of existing Large Language Models (LLMs) leveraging publicly available information and non-sensitive client information (non-PII) will restrict data exposure.
Insurance companies must ensure that generative AI solutions are secure and compliant with the existing data protection laws.

Cost of adoption

Risk –

The computational hardware and storage costs are immense for building, training, and deploying models.

Challenge –

Limited availability of compute-intensive infrastructure and scarcity of skilled professionals for creating and deploying models.

Mitigation –

Insurers should take a crawl, walk, and run approach by starting small, building an MVP, validating through a pilot, and scaling based on acceptance, accuracy, and efficiency.

Operational risks

Risk –

Quality issues, bias, and publishing factually incorrect information can lead to lawsuits and financial losses.

Challenge –

Generative AI models can generate factually incorrect information with high conviction.

Mitigation –

Training data set quality and quantity greatly influence the model's output. Insurers must create a hybrid collaborative model involving humans in the loop to validate and approve the generative AI content until we have accurate and reliable models.
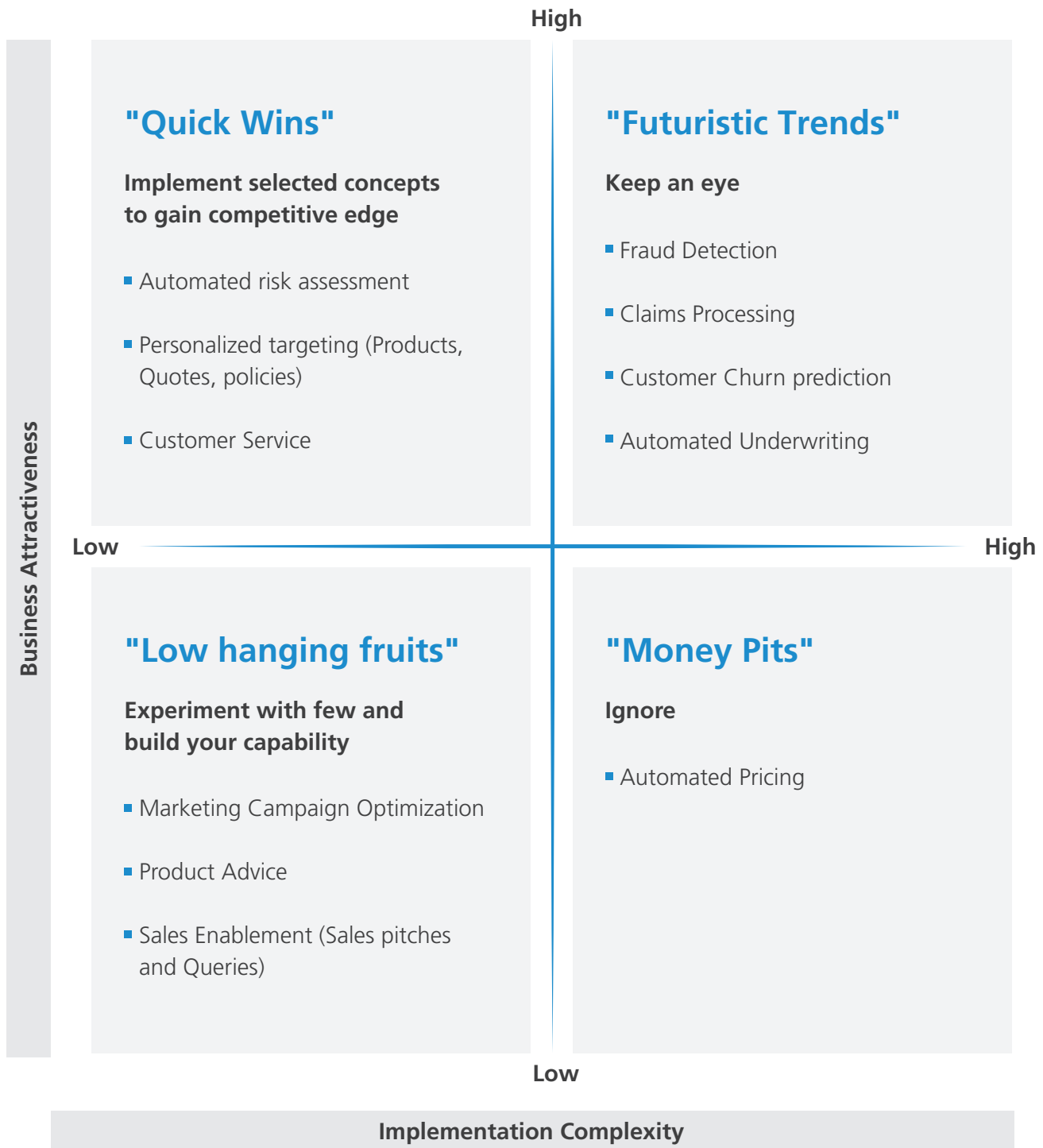
Pre-requisites for insurers

To effectively harness the generative AI potential and protect themselves from copyright risks due to the nascency of the technology and absence of regulations, insurers must:

- Comply with existing regulations and local data privacy laws.

- Invest/partner with IT service firms to create a skilled pool of professionals to implement, train, integrate, and maintain generative AI models.

- Identify the data sources and ensure training data is free from unlicensed content.

- Create a custom algorithm with licensed and proprietary company data.

- Develop ways to show the provenance of generated content by maintaining an audit trail of training data sets, prompts, and generated content.

- Identify the "low hanging fruit" use cases, create a minimum viable product, pilot it, validate the market acceptance, and scale.

- Insurers can decide on the use cases for experimentation based on a generative AI offerings framework that categorizes use cases by business attractiveness and implementation complexity.

Generative AI Offerings Framework

High

"Quick Wins"

Implement selected concepts to gain competitive edge

- Automated risk assessment

- Personalized targeting (Products, Quotes, policies)

- Customer Service

"Futuristic Trends"

Keep an eye

- Fraud Detection

- Claims Processing

- Customer Churn prediction

- Automated Underwriting

Low ——————————————————————— High

Business Attractiveness

"Low hanging fruits"

Experiment with few and build your capability

- Marketing Campaign Optimization

- Product Advice

- Sales Enablement (Sales pitches and Queries)

"Money Pits"

Ignore

- Automated Pricing

Low

Implementation Complexity

Conclusion

Generative AI is a powerful tool for re-imagining insurance business models. It has the potential to transform the way insurance companies do business. It allows insurance providers to develop more efficient, cost-effective, and customer-centric products and services, enabling them to reach new customer bases and engage existing customers.

Generative AI enables insurance companies to better understand customer profiles, preferences, behaviors, and associated risks. Using data-driven insights, insurers can optimize products, offering comprehensive coverage tailored to the customers' needs with competitive premiums.

Appendix:

https://www.copyright.gov/ai/ai_policy_guidance.pdf

About the Author

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Karthikeyan has versatile experience in the IT industry working on cutting-edge technologies, digital transformation programs, and platforms. He has successfully led several large digital engagements with customers across the globe and been a key contributor to many industry-first showcases. Currently, he is responsible for innovation, conceptualization, implementation, and Go-to-Market Strategy of platforms and solutions.

Read More on how LTIMindtree can help transform your business