

Artificial Intelligence in the Financial Sector and Emerging Consumer Protection Concerns

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Outline

Artificial Intelligence and Generative AI in the Financial Sector

Artificial Intelligence in South Africa

Consumer Protection Risks and Challenges

Supervisory and Industry Considerations



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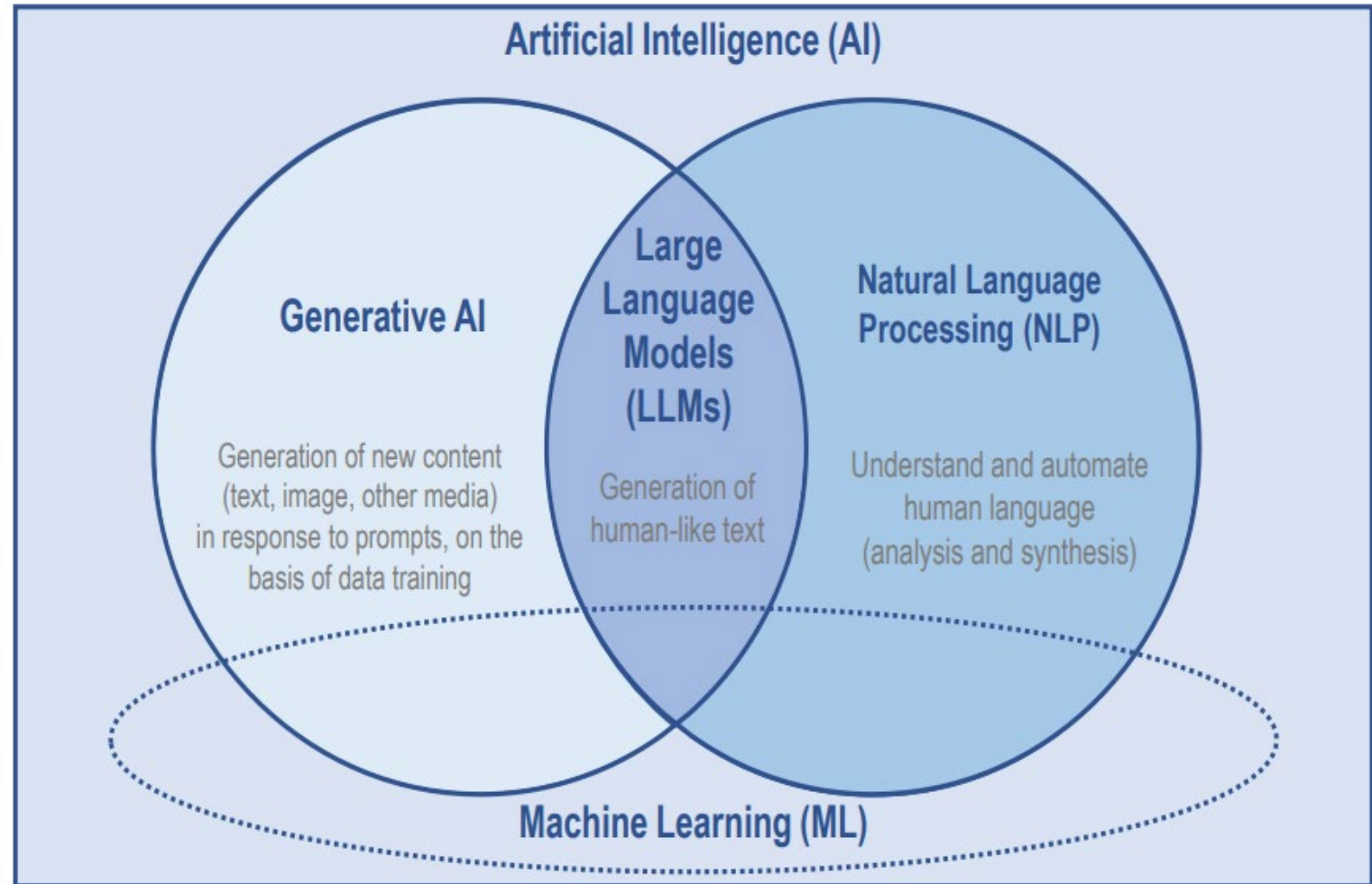
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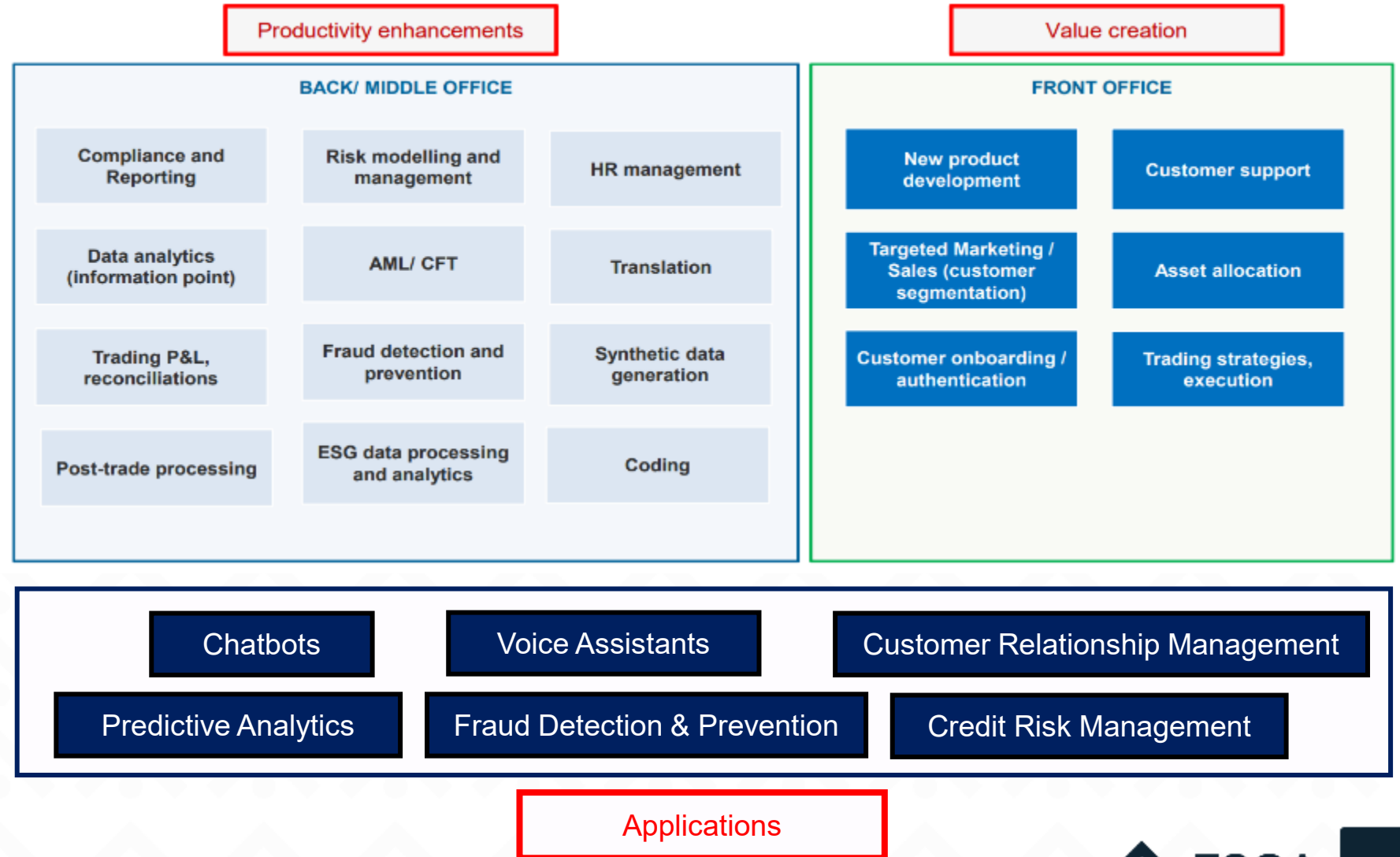
What is Artificial Intelligence and Generative AI?



What are the drivers of AI disrupting the financial sector?



AI and GenAI Use cases



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South Africans' interest in AI has significantly increased over the last few years



AI Trends

South Africans' interest in AI increase by 370% over the last year.

60% of South Africans said they were excited about the possibilities of AI.



Banks are leading

Not only have South African banks been the leaders in using AI/ML models they are also the leaders in deploying Gen AI tools that are seeing them use advanced functionality to increase the efficiency. However, it isn't without its risks.



Other segments are using AI/ML

Other segments of the financial sector are also using AI/ML systems, these include insurance and payments due to the rise of fintechs that are using unstructured data.



How are South African financial institutions using AI/ML and GenAI?



FNB

- **Use cases:**
 - Improve customer experience
 - Regulatory reporting
 - Combat fraud and improve risk management
- Build more desirable products for customers and streamline the onboarding process and flagging problematic documents through AI enabled ID verification models at submission.
- System used for fraud investigation, suspicious transaction reporting, and even to enable the risk advisory space.



Nedbank

- **Use cases:**
 - Streamline processes—Copilot
 - Mitigate risks
 - Foster innovation
- Improve productivity and modernize internal working tools.
- Improve customer service thereby increasing the number of customers.
- Use digital only channels to extend services, such as Nedbank insurance—quoting, fulfillment and claims.

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Consumer protection risks of AI and GenAI in Finance

Bias, Discrimination and Unfair Outcomes

- AI/ML has the capacity to unmask anonymized data through inferences i.e., deducing identities from behavioral patterns.
- AI/ML may remember information about individuals in the training set after the data is used, or AI/ML's outcome may leak sensitive data directly or by inference.
- These risks are exacerbated by GenAI's access to a wider scope of data.

Lack of Explainability

- The difficulty in decomposing the output of a ML model into the underlying drivers of its decision, referred to as explainability, is the most pressing challenge in AI-based models used in finance.
- The scale of complexity and difficulty in explaining and reproducing the decision mechanism of GenAI models makes it challenging to mitigate risks stemming from its use.
- Through explainability, an AI/ML system can justify how it solved the problem rather than working as a mysterious black box.
- Limited explainability levels can result in low levels of trust in AI-assisted financial service provision by customers.

Data Privacy

- The robustness of AI/ML models, however, in preventing data leakage from the training data set raises new privacy concerns.
- AI/ML has the capacity to unmask anonymized data through inferences (that is, deducing identities from behavioral patterns and GenAI has larger capacity to do more of this).
- AI/ML may remember information about individuals in the training set after the data is used, or AI/ML's outcome may leak sensitive data directly or by inference.

Competition

- A lack of competition or increased product complexity can deliver suboptimal outcomes for consumers in the long-run in terms of price and product/service quality.

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Regulatory and supervisory considerations from a consumer rights perspective

Right to Equality in the Consumer Market and Protection against Discriminatory Marketing Practices

Promote safeguards against risk of bias and discrimination, AI/ML model explainability:

- Apply pre-existing fairness frameworks and impact assessments of model outputs
- Ensure rigorous training and ongoing monitoring and validation
- Apply testing for harmful capabilities before deployment and conducting audits
- Apply OECD AI Principles: 1.1, 1.2
- Promote human-centric approach

Right to Privacy and Disclosure of Information

- Strengthen data governance and promote accountability mechanisms
- Ensure opt-out options in accordance with POPIA
- Apply OECD AI Principle: 1.3—Transparency and explainability
- Disclosure requirements around the use of AI techniques in finance when these have an impact on the customer outcome to consumers.

Right to Lodge a Complaint

- The Consumer Protection Act (2008) has establishment of the National Consumer Commission, a body assigned to investigate consumer complaints, therefore, inter-regulatory collaboration is key for AI supervision.

Right to Fair and Honest Dealing

- Raise awareness of the perils of AI/ML and GenAI.
- Invest in R&D, skills and capacity to keep pace with advances in AI.
- OECD AI Principles encourage multi-stakeholder cooperation to ensure a holistic view and objective for trustworthy and safe AI deployment.
- Apply OECD AI Principle 1.5

ML explanation methods:

- Explainability by design.
- Model inspection.
- Individual prediction explanation.
- Global model explanation.
- Models to explain ML models.

Regulatory and supervisory considerations on treating customers fairly

Risk-based approach to the regulation and supervision of AI in the financial sector.

Requirements for clear, accessible terms and conditions that are written in plain language that is easy to understand regarding products that use AI systems throughout their lifecycle.

Financial consumers should be informed about the use of AI techniques in the delivery of a product, when these have an impact on the customer outcome, as well as about machine-generated content and any potential interaction with an AI system instead of a human being.

Strengthen model governance and promote accountability mechanisms particularly in high-value use cases such as determining access to credit of investment advice. Governance arrangements may need to include explicit attribution of accountability to a human irrespective of the level of automation of the model, with a view to also help build trust in AI-driven systems.

Applying controls on targeted advertising and marketing practices enabled by AI should be considered.



Industry considerations on consumer protection



Inclusive growth,
sustainable development
and well-being



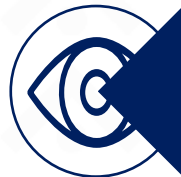
Human-centered values and
fairness



Transparency and
explainability



Robustness, security and
safety



Accountability



- **Corporate governance and AI:** The financial services sector can build on its extensive understanding and experience with existing corporate governance principles to ensure ethical use of AI.
- Proactive equity assessment of outputs and testing to ensure limited risk of bias and discrimination.



Thank you

