AI AS A CATALYST FOR FEE REVENUE TRANSFORMATION IN BFSI

Abstract

As financial institutions navigate a competitive and dynamic landscape, there is a growing need for innovative strategies to optimize fee income. This paper explores the transformative impact of artificial intelligence (AI) on fee revenue management in the banking, financial services, and insurance sector. It examines how AI enables data-driven decision-making, enhances personalization, and facilitates real-time pricing and product optimization. The paper highlights key trends in fee computation, including dynamic pricing, customer segmentation, and subscription model optimization.

Introduction

The banking, financial services, and insurance industry (BFSI) is transforming rapidly. Once reliant on interest income, financial institutions are today exploring diverse revenue streams to drive growth. The emergence of fee-based services—including traditional offerings like payment processing and wealth management as well as innovative models like embedded finance and co-branded products—presents significant opportunities. However, competition has intensified with the rise of fintech companies and neobanks, which are disrupting the industry with digital-first, customer-centric solutions. To succeed, financial institutions must optimize fee revenue while delivering exceptional customer experiences. Artificial intelligence (AI) is poised to be a game changer, enabling institutions to extract valuable insights from data, personalize pricing strategies, and stay ahead of the competition.

The Significance of Fee Revenue

A McKinsey study reveals that fee income can account for up to 40% of total revenue for some banks. Some factors that have helped fee-based income gain prominence include:

Regulatory changes:

Stringent regulations governing interest rates and lending practices that have compelled banks to diversify revenue streams

Digital transformation:

The rise of digital channels and fintech disruptors, with a consequent proliferation of fee-based services

Customer behavior:

Customers opting for fee-based services that offer convenience, flexibility, and value-added benefits

These trends highlight the need for financial institutions to leverage AI to optimize fee revenue effectively.

The Evolution of Fee Computation Models: AI-driven Dynamics

Dynamic and customer-centric models are replacing traditional fee structures that are often characterized by static pricing or tiered slabs. AI is leading this transformation, enabling financial institutions to devise more sophisticated and personalized fee structures.

The key trends in fee computation include:

Real-time pricing:

AI-powered algorithms analyze market conditions, customer behavior, and cost factors in real time to determine optimal pricing. This approach ensures the fees stay aligned with current market dynamics and customer needs.

Usage-based pricing:

AI tracks customer usage patterns to tailor fee structures to reflect actual consumption. This model is particularly relevant for digital services where customer usage can vary widely.

Risk-based pricing:

AI evaluates customers to adjust fees in line with risk profiles. High-risk customers may incur higher fees for certain services, while low-risk customers could enjoy discounted rates. This approach aligns fees with each customer's level of risk.

Subscription Vs. Per Transaction: A New Equilibrium Powered by AI

The debate between subscription and per-transaction pricing has intensified in recent years. AI offers valuable insights to guide this decision, enabling financial institutions to balance recurring revenue streams with profitability. Here are three key areas in which AI can help:

Customer segmentation:

AI helps determine the most suitable pricing model for each group by identifying customer segments with distinct usage patterns and value perceptions. For example, customers with high-frequency usage may benefit from a per-transaction model, while those with consistent usage patterns may prefer a subscription model. Customers who primarily use online banking for bill payments and occasional transfers may find the per-transaction model more cost-effective. Customer who makes numerous transfers and pays a fee of $1 per transaction, if they had a subscription for $15 per month, they could make unlimited transactions

AI predicts customer lifetime value (LTV), enabling institutions to prioritize subscription models for high-LTV segments. Financial institutions can maximize their profitability by retaining these valuable customers with attractive offers that tap cross-sell and upsell opportunities.

Bundling optimization:

AI identifies services that can be bundled effectively, offering customers compelling value while maximizing revenue. For example, bundling complementary products or services encourages customers to adopt subscription models. Making the loan portfolio with offering personalized products that meet the needs of customers
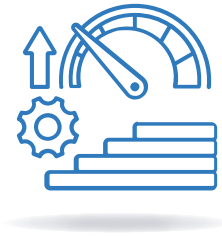
While subscription models provide the advantage of recurring revenue, per-transaction pricing can be more profitable for high-frequency users. AI can help financial institutions make informed decisions about pricing models, ensuring alignment with customer needs and maximizing revenue potential.

Customer Relationship-based Pricing: AI-powered Personalization

A deep understanding of customer relationships is essential to effective fee revenue management. AI can revolutionize this understanding by providing valuable insights into customer behavior and preferences in the following ways:

Customer lifetime value modeling:

AI predicts a customer's future value, enabling financial institutions to tailor pricing strategies based on their potential contribution. For example, customers with a high customer lifetime value (CLTV) may receive more favorable fee terms as a reward for their loyalty.

Churn prediction and mitigation:

AI identifies customers at risk of churn, allowing institutions to address their needs proactively with targeted incentives or fee adjustments. Churn prediction not only protects revenue but also strengthens customer relationships.

Personalized offers:

AI analyzes customer preferences and behavior to deliver personalized fee-based products and services. Financial institutions can boost customer satisfaction and drive revenue growth with tailored solution offerings.

Behavior-based Pricing: AI-driven Insights

Understanding customer behavior is essential for developing effective pricing strategies. AI can provide valuable insights into the following aspects:

Usage analytics:

AI analyzes customer usage patterns to help financial institutions identify opportunities for new fee-based services or adjustments to existing ones. For example, if customers use a particular feature frequently, the institution might consider introducing a premium version with added fees. Bank noticed a customer frequently using airport lounges. They offered a premium card with a higher fee, providing unlimited lounge access and other travel benefits.

Price elasticity:

AI estimates customer responses to price changes, enabling institutions to optimize fee levels. Financial institutions can minimize pricing errors and maximize revenue by understanding the price elasticity of different products and services.

Cross-selling and upselling:

AI identifies cross-selling or upselling opportunities based on customer behavior. For example, if a customer frequently uses a credit card for travel purchases, the institution could offer a related service such as travel insurance.

AI-driven Personalization: Meeting Customer Needs

AI can empower financial institutions to anticipate customer needs and adjust fee structures accordingly. Some of the ways in which it can help include:

Predictive analytics:

AI analyzes customer data to predict future needs and preferences, allowing for proactive fee-based product development.

Dynamic bundling:

AI creates customized product bundles tailored to individual customer requirements, optimizing fee revenue.

Transparent pricing:

AI enhances price transparency and customer satisfaction by explaining the rationale behind fees based on customer-specific benefits.

The Role of Non-banking Transaction Data

Non-banking transaction data, such as social media activity, provides valuable insights into customer behavior and preferences. AI can draw information in the following ways:
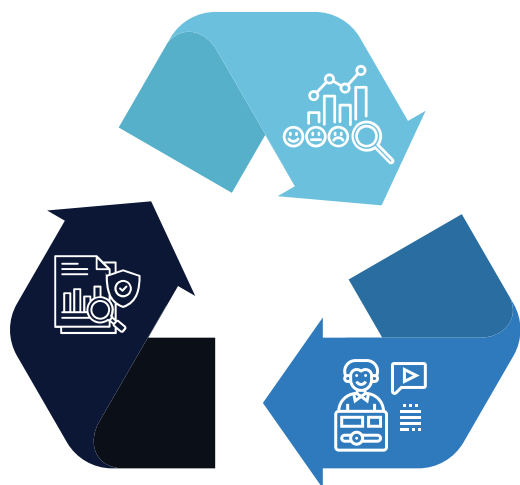
Sentiment analysis:

Analysis of social media posts to gauge customer sentiment toward products and services, informing pricing decisions

Lifestyle profiling:

Correlation of social media data with financial behavior for institutions to create more accurate customer segments

Fraud prevention:

Detection of anomalies in social media activities that may indicate fraudulent behavior, helping to protect revenue

Table 1: Revolutionizing banking leveraging AI for cost savings, pricing mastery, and market dominance

Line of Business (LoB)	Reducing Costs	Maximize Pricing Capabilities	Timely Positioning
Retail Banking	Streamlined account opening, optimized branch operations	Dynamic pricing for overdraft fees, personalized fee packages	Proactive fee communication, fee-free product bundling
Commercial Banking	Automated loan processing, enhanced credit risk assessment	Risk-based pricing, pricing optimization	Predictive analytics for customer needs, cross-selling opportunities
Investment Banking	Automated trade execution, enhanced compliance	Dynamic pricing for trading services, optimized fee structures	Predictive analytics for market trends, personalized client recommendations
Wealth Management	Automated portfolio rebalancing, enhanced customer service	Tiered fee structures, performance-based fees	Personalized product recommendations, proactive client engagement
Cards and Payments	Fraud prevention, efficient customer service	Dynamic pricing for interchange fees, personalized rewards programs	Real-time offer personalization, customer lifecycle management
Trade Finance	Automated document processing, enhanced credit assessment	Dynamic pricing for trade finance products, fee optimization	Predictive analytics for trade finance needs, cross-selling opportunities

Having explored how AI enhances fee revenue management, it is essential to know how this translates for real-world scenarios. The next section describes the benefits AI brings to the financial services industry, highlighting how AI-driven strategies optimize pricing models and drive profits.

Case Studies

To illustrate the transformative power of AI in fee revenue management, here are a few tangible examples

1. Dynamic pricing in retail banking:

2. Subscription model optimization in wealth management:

3. Behavior-based pricing in insurance:

- **Scenario:** A leading retail bank implements an AI-powered pricing engine to optimize overdraft fees.

- **Implementation:** The engine analyzes customer behavior, account balances, and transaction patterns to determine optimal fee levels for individual customers.

- **Result:** The bank achieves a significant increase in overdraft fee revenue while improving customer satisfaction through tailored fee structures.

- **Scenario:** A wealth management firm seeks to maximize revenue from subscription-based advisory services.

- **Implementation:** AI segments clients based on net worth, risk tolerance, and investment preferences, enabling the firm to offer personalized subscription packages that optimize fee income.

- **Result:** The firm achieves increased customer retention and higher average revenue per user (ARPU).

- **Scenario:** An insurance company aims to optimize premiums based on their customers' driving behavior.

- **Implementation:** AI analyzes telematics data, including speed, braking, and night driving, to assess driving habits and adjust premiums accordingly.

- **Result:** The insurer reduces fraudulent claims and improves underwriting accuracy with increased profitability.
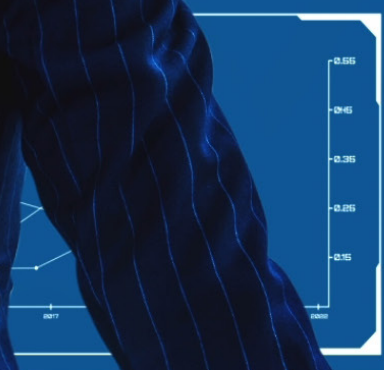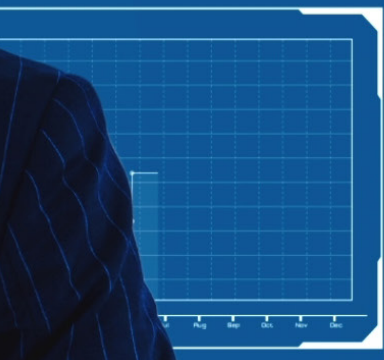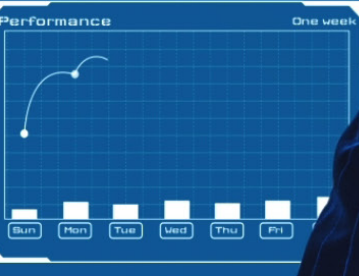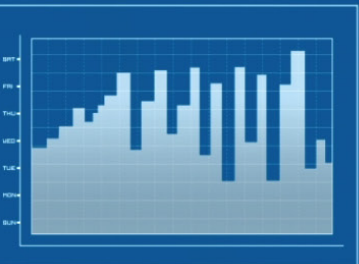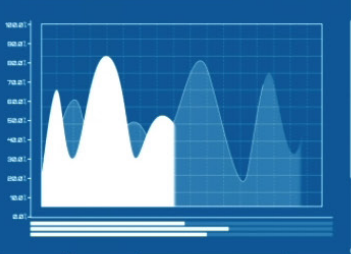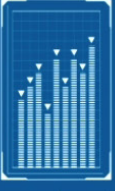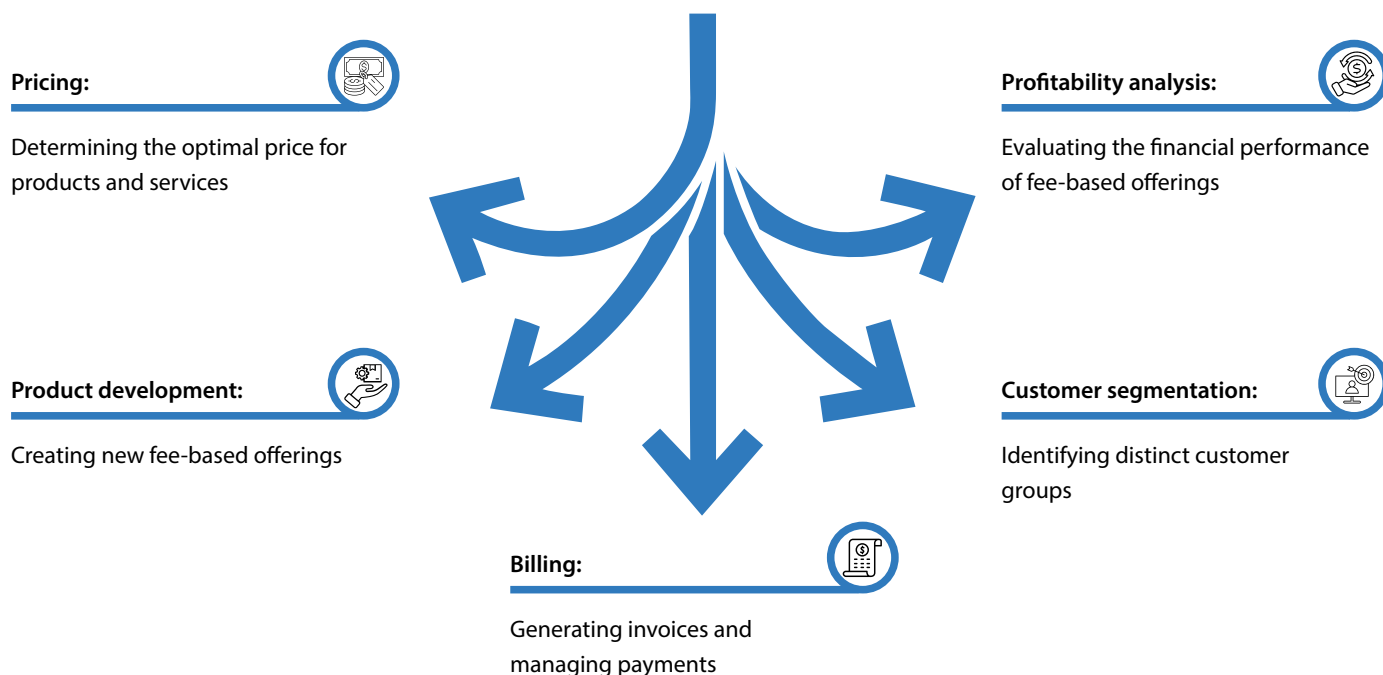
Table 2: AI-driven banking revenue revolution by line of business (LoB)

Line of Business (LoB)	Revenue Management Capabilities Enhanced by AI	Potential Benefits
Retail Banking	Personalized pricing, micro-segmentation churn prediction, AI-powered sales	• Increase ARPU by 5-10% through optimized pricing, behavior-based pricing • Reduce customer churn by 15-20% through proactive retention • Increase cross-selling success rate by 20-30%
Commercial Banking	Credit risk assessment, loan pricing, automated underwriting	• Reduce loan default rates by 10-15% through improved risk assessment • Increase loan pricing accuracy by 5-8% • Reduce loan processing time by 30-40%
Investment Banking	Algorithmic trading, predictive analytics	• Increase trading profitability by 5-10% through optimized algorithms • Improve investment returns by 2-4% through better predictions
Wealth Management	Personalized advice, customer segmentation	• Increase customer satisfaction by 15-20% through tailored recommendations • Improve asset under management (AUM) growth by 5-8%
Cards and Payments	Fraud prevention, customer segmentation	• Reduce fraud losses by 20-30% through AI-powered detection • Increase card usage and revenue by 5-8% through targeted marketing
Trade Finance	Risk assessment, automated processing	• Reduce trade finance losses by 10-15% through improved risk management • Increase transaction processing efficiency by 30-40%

AI Personas: Your Virtual Workforce

AI can play a significant role in fee-based revenue management by considering key functions across core areas. These include:

Pricing:

Determining the optimal price for products and services

Profitability analysis:

Evaluating the financial performance of fee-based offerings

Product development:

Creating new fee-based offerings

Customer segmentation:

Identifying distinct customer groups

Billing:

Generating invoices and managing payments

AI Persona	Role	Capabilities
Pricing Strategist	Optimizing pricing structures based on market dynamics • Carrying out customer segmentation • Conducting competitive analysis	• Predictive modeling • Machine learning • Demand forecasting • Price elasticity analysis **Example:** "Leverage historical data and current market trends to recommend a 15% increase in the annual fee for our premium investment advisory service, specifically targeting high-net-worth individuals aged 45-55."
Product Innovator	• Identifying new fee-based product opportunities based on customer needs • Identifying market gaps • Conducting profitability analysis	• Data mining • Customer sentiment analysis • Trend forecasting • Cost-benefit analysis **Example:** "Analyze customer feedback and transaction data to recommend launching a fee-based digital financial planning tool aimed at millennials, with a focus on retirement savings."
Billing Efficiency Expert	• Automating billing processes • Reducing errors • Improving customer satisfaction	• Robotic process automation (RPA) • Machine learning (ML) • Natural language processing (NLP) **Example:** "Implement RPA to automate the correction process for recurring errors in billing systems, such as those related to credit card processing fees, and prevent future issues."
Customer Segmentation Analyst	• Dividing customers into distinct segments (micro-segmentation) based on demographics, behavior, and value	• Data clustering • CLTV modeling • Propensity modeling **Example:** "Analyze customer transaction data to identify a high-value segment of customers likely to respond positively to a bundled package of fee-based services."
Profitability Analyst	• Evaluating the profitability of fee-based products and services • Identifying areas for improvement • Providing recommendations	• Financial modeling • Data visualization • Scenario analysis **Example:** "Based on the profitability analysis, recommend discontinuing the low-margin overdraft fee and introducing a usage-based tiered fee structure."

Conclusion

AI is poised to revolutionize fee revenue management in the BFSI sector. AI can help financial institutions thrive in an increasingly competitive landscape by facilitating data-driven decision-making, personalization, and real-time optimization. Companies that embrace AI will not only enhance their fee income but also strengthen customer relationships and drive long-term growth. The future of fee revenue management lies in the strategic and well-executed adoption of AI. Its success relies on leveraging a technology and consulting partner with extensive domain experience and deep expertise in AI.

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About the Author

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Ravi is a seasoned Revenue Management professional with over 25 years of experience in relationship-based pricing and billing products. With a deep understanding of functional design, solutioning, and implementation, he has successfully worked with major banks and telecommunication companies worldwide. His expertise extends to various revenue management products, including (but not limited to) ORMB, SunTec's Xelerate/ TBMS-F, and Finacle Revenue Management Hub. Ravi's innovative contributions led to the development of Infosys Revenue Management Platform, tailored for banking and financial services verticals.

Infosys Topaz is an AI-first set of services, solutions and platforms using generative AI technologies. It amplifies the potential of humans, enterprises and communities to create value. With 12,000+ AI use cases, 150+ pre-trained AI models, 10+ AI platforms steered by AI-first specialists and data strategists, and a 'responsible by design' approach, Infosys Topaz helps enterprises accelerate growth, unlock efficiencies at scale and build connected ecosystems.

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