

Strategizing Digital Disruption

A Transformation Roadmap for Global FinTech Corp.

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Module 6 Assignment

Overall Ease of Measurement of Project Outcomes

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Background

Global FinTech Corp (GFC) is a multinational financial services provider with a diversified business model that caters to individual consumers, small to medium businesses, and large corporations. The company has been a leader in traditional banking services for over a century, but in recent years, it has also made substantial strides in the field of digital finance.

Headquartered in London, UK, GFC operates in over 50 countries, employing more than 100,000 people worldwide. It manages assets exceeding \$2 trillion and serves over 20 million customers globally. As one of the largest global banks, it offers a wide range of services, including retail banking, corporate banking, investment banking, asset management, and insurance.

Despite the company's success, the past decade has seen an industry-wide shift in the financial sector. The advent of financial technology or "fintech" has started to disrupt traditional banking practices, leading to a shift in consumer expectations. Consumers increasingly demand seamless, round-the-clock digital experiences. This change is driven by a younger, more tech-savvy generation of consumers, but it has also been accelerated by the global shift towards digital services resulting from the COVID-19 pandemic.

In response to these changes, GFC has undertaken a digital transformation journey to remain competitive and deliver on evolving consumer demands. The company has already made significant progress in this regard, with over 60% of its transactions now being conducted digitally.

However, GFC recognizes that to remain at the forefront of the industry, it must go beyond simply digitizing existing services. The company must also harness the power of data and emerging technologies to deliver innovative financial products and services that

anticipate and meet its customers' needs. Therefore, GFC is seeking to leverage technologies such as artificial intelligence, machine learning, natural language processing, and blockchain in its operations.

Moreover, GFC also understands that to fully realize its digital ambitions, it must reimagine its internal processes and structures. This includes adopting agile methodologies, fostering a culture of innovation, upskilling its workforce, and integrating technology into every facet of its operations. These efforts are being led by a dedicated digital transformation team that reports directly to the company's executive leadership.

GFC's strategic vision is to become a global leader in digital financial services. This ambition is underpinned by a mission to deliver personalized, seamless, and secure financial services that empower its customers and drive inclusive growth. The company's executive leadership is fully supportive of this vision and is committed to investing the necessary resources to achieve it.

As part of this transformation journey, GFC has posted a large project for bid. It aims to hire an analytical consultancy to design a Digital Transformation Roadmap that focuses on several key areas such as digital personal assistants/chatbots, fraud detection, credit scoring, NLP for customer contracts, portfolio management, high frequency trading, algorithmic trading, investment predictions, process automation, consumer marketing and cross-selling, trade settlements, and an automated wealth advisor. The successful consultancy will play a critical role in shaping the company's future and cementing its position as a global leader in digital finance.

Transformation Areas

In today's rapidly evolving digital landscape, financial institutions must leverage emerging technologies to stay competitive and meet the evolving needs of their customers.

For GFC, this means exploring a range of transformation opportunities that could fundamentally enhance its operations and customer experience. From deploying AI-powered digital assistants to harnessing machine learning for superior fraud detection and credit scoring, the potential for digital disruption is immense. Similarly, applying Natural Language Processing (NLP) for customer contracts can revolutionize contract management, while improved portfolio management, high-frequency trading, and algorithmic trading can bring unprecedented efficiency and profitability. Investment predictions, powered by sophisticated analytics, can significantly enhance financial outcomes for GFC's clients. Process automation can dramatically reduce costs and improve service delivery. Targeted consumer marketing and cross-selling, powered by data analytics, can enhance customer acquisition and retention. Enhancements in trade settlements can streamline trading operations, and an Automated Wealth Advisor, or 'Wealth Bot,' can democratize wealth management services, reaching a wider customer base. Let's explore these transformation opportunities in more detail.

1. **Digital Personal Assistants/Chatbots:** The integration of AI-powered chatbots will revolutionize customer service within GFC. In the initial stages, these chatbots will handle simple customer queries, significantly reducing response times and enhancing the customer experience. As these AI tools learn from interactions, they will be able to tackle more complex questions, reducing the load on human agents, thereby cutting costs. Additionally, integrating chatbots with product recommendation systems can create personalized up-selling and cross-selling opportunities, driving further revenue.
2. **Fraud Detection:** A progressive AI-based fraud detection system will drastically minimize GFC's exposure to fraudulent transactions and associated financial losses. Initially, these systems would identify basic patterns of fraudulent activities. As they learn over time, they could predict sophisticated fraud patterns in real-time, securing customer accounts and boosting overall customer confidence in the platform. This

will also help maintain the company's reputation and foster stronger customer relationships, thereby indirectly driving customer retention and acquisition.

3. **Credit Scoring:** The deployment of AI and machine learning for credit scoring will enable GFC to make more precise credit decisions. The firm will evolve from using traditional credit scoring methods to advanced models that leverage alternative data sources. The system will improve over time, allowing the company to extend services to a broader customer segment previously viewed as high-risk or credit-invisible, resulting in increased revenues and market share.
4. **NLP for Customer Contracts:** Implementation of Natural Language Processing (NLP) for customer contract analysis will boost operational efficiency. The primary step will involve using NLP for automatic extraction and categorization of key contractual obligations, which will significantly reduce manual effort and related errors. As the system matures, it can handle more sophisticated analyses like identifying anomalies in contractual terms or predicting disputes, providing an additional layer of risk management.
5. **Portfolio Management:** AI-enabled portfolio management will transform GFC's approach to investment advice. Initially, personalized portfolio strategies based on the customer's risk profile and financial goals will be provided. As the models mature, they can consider more nuanced factors like market sentiment analysis, improving the quality of advice and potentially leading to higher returns for customers, thereby enhancing customer satisfaction and loyalty.
6. **High Frequency Trading and Algorithmic Trading:** These automated trading strategies can provide GFC a competitive edge in the market. Initially, these systems will execute trades more quickly and efficiently, improving profitability. As they evolve, they can adapt in real-time to market dynamics, providing even better trading

performance. This could attract more active traders to GFC, boosting its trading volumes and revenues.

7. **Investment Predictions:** AI-driven investment predictions can become a significant differentiator for GFC. Initially, these systems will provide forecasts based on historical data and market trends. Over time, they will incorporate more complex data like real-time news, social media sentiment, etc., to make more precise predictions, which could lead to higher returns for customers and boost the company's reputation as a sophisticated investment platform.
8. **Process Automation:** Automating routine processes can lead to cost savings and improved accuracy. Initially, automation will be applied to simple, repetitive tasks. As the technology and implementation improve, more complex tasks can be automated, leading to substantial operational efficiencies and cost reduction, which can be reflected in competitive pricing for customers, thereby enhancing customer acquisition and retention.
9. **Consumer Marketing and Cross-Selling:** Advanced analytics can enable GFC to create highly targeted marketing campaigns and identify cross-selling opportunities. In the initial stages, personalized offers based on customer's past behavior will be provided. As the analytics mature, they can predict future customer needs based on their life events, behavior patterns, and other factors, leading to even more effective marketing and cross-selling, enhancing customer lifetime value.
10. **Trade Settlements:** Automation in trade settlements will reduce the trade processing time, decrease errors, and improve customer satisfaction. Initially, basic automation will reduce manual effort. Over time, sophisticated technologies like blockchain could be incorporated for real-time, decentralized settlements, further enhancing efficiency and reducing counterparty risk.

11. Automated Wealth Advisor (Wealth Bot): An automated wealth advisor can democratize wealth management services. Initially, the bot will provide basic advice on portfolio allocation. As the bot learns and improves, it will provide more sophisticated advice, considering factors like tax implications, estate planning, etc., leading to a more comprehensive wealth management service. This can attract a larger customer base, boosting assets under management and revenues.

Overall Ease of Measurement of Project Outcomes

1. Digital Personal Assistants and Chatbots: Implementing Digital Personal Assistants/Chatbots requires expertise in AI programming and Natural Language Processing (NLP). However, several mature chatbot platforms available today can help streamline this process. Also, the initial training and continuous updating of the chatbots based on customer interactions can be labor-intensive and complex.
 - Success Looks Like: Success in this transformation area would result in faster customer service response times, a decrease in the number of simple inquiries handled by human agents, and improved customer satisfaction due to prompt and accurate responses from the chatbots. Additionally, the use of chatbots can also be extended for cross-selling and up-selling, thereby increasing overall revenue.
 - Measurement and KPIs: The success of this transformation can be gauged using several Key Performance Indicators (KPIs). These include a decrease in average response time, an increase in the percentage of inquiries resolved by chatbots without human intervention, and improved customer satisfaction scores on post-interaction surveys. Additionally, the revenue generated from cross-selling and up-selling by chatbots can also be an important measure of success.
 - Overall Ease of Measurement: 5/5. The assessment for this transformation area is straightforward, given that the metrics to be tracked include items like response

times, percentage of inquiries handled, and customer satisfaction scores. These metrics are easily accessible from the chatbot system logs and periodic customer satisfaction surveys.

2. **Fraud Detection:** Developing such a system requires the collection, cleaning, and management of large, diverse, and high-quality datasets, as well as advanced knowledge of machine learning models. In addition, designing a system that can learn and adapt to continuously evolving fraudulent activities demands rigorous testing and continual monitoring, hence making the process quite complex.
 - **Success Looks Like:** Successful implementation of this system would be reflected in a significant decrease in the number of fraudulent transactions, indicating the efficacy of the system. A higher accuracy rate of the fraud detection system in identifying potential threats is also a clear marker of success. Increased customer trust and confidence in the organization's ability to secure their data and financial transactions would be a direct benefit. Additionally, the company's reputation would see an upswing as a result of these improvements, further establishing the success of this initiative.
 - **Measurement and KPIs:** The Key Performance Indicators (KPIs) for measuring success in this transformation area include the number of detected fraudulent transactions, the accuracy rate of the fraud detection system, the customer trust score (measured through surveys), and the brand reputation index (quantified through independent brand evaluations, customer reviews, and surveys). By tracking these metrics over time, GFC can assess the effectiveness of the fraud detection system and make necessary adjustments to improve its performance.
 - **Overall Ease of Measurement:** 3/5. While it's quite straightforward to measure the number of fraudulent transactions and the accuracy of the detection system (since

this is binary - either the transaction is fraudulent or not), gauging metrics like customer trust and company reputation poses a challenge. These aspects are subjective and would require carefully constructed surveys or reviews of customer feedback, making the ease of measurement moderate.

3. **Credit Scoring:** The introduction of AI and machine learning for credit scoring is rated at a moderate level of complexity. This project requires GFC to acquire access to diverse and extensive data sources to improve the accuracy and inclusivity of their credit scoring system. Furthermore, developing effective predictive modelling and ensuring the system's compliance with global and regional regulatory standards will demand expertise and rigorous testing. It is a challenging task, but with the right data and skills, it is certainly achievable.
 - **Success Looks Like:** The primary indicators of a successful AI-driven credit scoring system would be high accuracy and reliability of the model's creditworthiness predictions. Success would also manifest in an increased number of customers gaining access to credit facilities due to the refined risk assessment capabilities. In the long run, an improvement in portfolio performance, primarily attributed to better risk management, will serve as a testament to the effectiveness of the new credit scoring model.
 - **Measurement and KPIs:** To evaluate the success of the AI-enabled credit scoring initiative, GFC can consider tracking several KPIs. These include the accuracy rate of the credit scoring model, the number of customers receiving credit, and the default rate of the credit portfolio. Over time, the AI-model's predictive capabilities should increase the accuracy rate, enable credit facilities for a larger customer segment, and concurrently maintain or reduce the default rate, demonstrating the effectiveness of the transformation.

- Overall Ease of Measurement: 4/5. Key metrics like the accuracy of credit scores, the number of customers receiving credit, and default rates are relatively easy to measure. These can be directly derived from data in the credit operations database. However, the impact on portfolio performance due to improved risk assessment may require a more sophisticated financial and risk analysis, necessitating the need for specialized skills.
4. NLP for Customer Contracts: The task of implementing Natural Language Processing (NLP) for customer contracts is moderately complex. This process necessitates a sound understanding of NLP and AI, as well as a familiarity with legal language typically used in contracts. Additionally, the complexity arises from the need for a comprehensive dataset of contracts to train the AI models effectively, ensuring that they can identify, interpret, and classify various legal terms, obligations, and clauses accurately.
- Success Looks Like: A successful implementation of NLP for customer contracts would lead to a significant reduction in the time and resources currently spent on contract management. This could include tasks like contract review, interpretation, and compliance checks. Additionally, fewer contract disputes arising from misunderstanding or non-compliance would be another indication of success, as it points to an enhanced understanding of contractual obligations. Lastly, a decrease in legal risks associated with contractual breaches would also signify success.
 - Measurement and KPIs: Several key performance indicators can be employed to measure the success of this transformation. These KPIs include the reduction in time and resources allocated to contract management, the number of contract disputes that arise, and a legal risk index that measures potential legal risks and liabilities associated with contracts. By tracking these KPIs, GFC can monitor the

progress and effectiveness of the NLP implementation in managing customer contracts.

- Overall Ease of Measurement: 3/5. Direct metrics like the time and resources spent on contract management and the number of contract disputes are easy to measure. However, determining a decrease in legal risk and ensuring compliance can be quite complex and may require external audits or detailed internal reviews, thus making the overall measurement a moderately complex task.
5. Portfolio Management: Incorporating AI into portfolio management is a highly complex undertaking. This task demands a thorough understanding of financial markets and instruments, coupled with the application of advanced AI models capable of analyzing large and diverse financial datasets. Additionally, there are stringent regulatory requirements that must be met when dealing with financial information, further adding to the complexity.
- Success Looks Like: Successful implementation of AI-driven portfolio management will result in increased customer satisfaction derived from more personalized and effective portfolio strategies. By leveraging AI's predictive and analytical capabilities, the system should be able to optimize portfolio allocation based on individual risk tolerance, investment horizon, and financial goals. Consequently, this should lead to improved portfolio performance, potentially marked by better returns and reduced risk. Moreover, a successful transformation would likely attract more customers, resulting in an increase in the Assets Under Management (AUM).
 - Measurement and KPIs: The key performance indicators to be tracked in this case include the customer satisfaction score, which reflects how well the system meets client expectations. Portfolio performance metrics, such as Return on Investment

(ROI) or risk-adjusted returns, indicate the effectiveness of the AI-driven strategies. Additionally, tracking the growth in AUM over time can provide insights into the system's success in attracting and retaining customers.

- Overall Ease of Measurement: 3/5. Direct measurements like customer satisfaction scores and Assets Under Management (AUM) can be easily obtained. But assessing the true impact on portfolio performance due to AI-driven strategies may require more complex financial analyses, including considering various market factors and other influences, hence a moderate score of 3.

6. High Frequency Trading and Algorithmic Trading: High-Frequency Trading (HFT) and Algorithmic Trading represent the most complex area of application for AI in the finance industry. The deployment of these systems necessitates considerable computational power to process massive amounts of market data at high speeds. Additionally, the development and fine-tuning of advanced mathematical models form the backbone of successful trading algorithms. These models require a deep understanding of financial markets and their dynamics. Furthermore, to ensure uninterrupted and swift execution of trades, access to low-latency networks is critical. Lastly, compliance with stringent financial regulations adds another layer of complexity.

- Success Looks Like: Success in this transformation area would be characterized by increased trading volumes, implying that the algorithmic trading system is actively participating in the market. Improved trading performance, manifested by better risk-adjusted returns or reduced transaction costs, would also suggest the effectiveness of the implemented algorithms. Finally, higher revenues from trading activities, attributable to the efficiency and speed of the AI-driven trading system, would be another marker of success.

- **Measurement and KPIs:** The Key Performance Indicators (KPIs) in this transformation area encompass trading volumes, which measure the system's market activity level. Trading performance metrics such as the Sharpe Ratio or Information Ratio assess the risk-adjusted returns or the return relative to a benchmark, respectively, and hence are valuable measures of the effectiveness of the trading strategies. Finally, revenue from trading activities directly captures the financial impact of the AI-driven system.
 - **Overall Ease of Measurement:** 3/5. Trading volumes and revenues from trading activities are directly measurable. However, assessing the trading performance and isolating the impact of high-frequency and algorithmic trading requires sophisticated analyses considering numerous variables, including market conditions, strategic decisions, and the specific algorithms employed.
7. **Investment Predictions:** The creation and deployment of AI-driven investment prediction models is an intricate process. Developing these models require access to large volumes of diverse, real-time financial data, spanning numerous variables that could potentially influence investment outcomes. The crafting of sophisticated AI models capable of capturing the underlying dynamics of financial markets is another challenging aspect. Furthermore, it demands a deep understanding of these markets to interpret model outputs accurately and to ensure that predictions align with financial realities.
- **Success Looks Like:** Success in this transformation area is marked by the high accuracy of investment predictions, indicating that the models are adept at deciphering the complexities of financial markets and successfully predicting investment outcomes. Improved investment performance is another success criterion, suggesting that the predictive insights provided by the AI models lead to

better investment decision-making. Moreover, an increase in customer satisfaction and trust signifies that the models not only perform well but also meet or exceed customer expectations and enhance their investment experience.

- **Measurement and KPIs:** The primary KPIs for this area include the accuracy of investment predictions, providing a quantitative measure of the models' predictive prowess. Investment performance metrics like Return on Investment (ROI) or Alpha (the excess return of an investment relative to the return of a benchmark index) are critical indicators of the financial efficacy of the AI-driven investment strategies. Finally, customer satisfaction scores serve as a gauge of customer sentiment towards the AI-enabled investment experience.
 - **Overall Ease of Measurement:** 5/5. Measuring the accuracy of investment predictions is reasonably straightforward, as it involves comparing the prediction with actual outcomes. Quantifying customer satisfaction and trust levels too is not very difficult, hence a high score.
8. **Process Automation:** The complexity depends on the nature of tasks being automated. Simple tasks with clear-cut rules can be automated easily with rule-based automation systems. However, the automation of more sophisticated tasks, which might require comprehension of unstructured data or decision-making capabilities, requires the deployment of advanced AI models. These tasks also necessitate robust systems that can effectively integrate with existing operations. Moreover, change management efforts are required to manage the shift in work processes and ensure employee buy-in, adding to the complexity.
- **Success Looks Like:** The successful application of process automation would lead to a noticeable reduction in operational costs as tasks previously done manually are automated, reducing labor costs and speeding up processes. Accuracy of

operations should also improve, as automated systems are less prone to human error. Furthermore, the elimination of mundane tasks could result in increased employee satisfaction, as employees can then focus on more value-added activities.

- **Measurement and KPIs:** The key KPIs in this context include operational costs, serving as a direct measure of the financial impact of automation. The accuracy and speed of operations would serve as indicators of the operational improvements achieved through automation. Finally, tracking employee satisfaction scores can provide insights into the impact of automation on workforce morale and productivity.
- **Overall Ease of Measurement: 5/5.** Operational metrics such as costs, accuracy, and speed of operations are directly measurable from the operational database and system logs. Employee satisfaction, while more subjective, can be gauged through carefully designed employee surveys.

9. **Consumer Marketing and Cross-Selling:** This area has seen much advancement and there are now mature marketing technology platforms that leverage machine learning models for customer segmentation and targeting. In addition, organizations usually have a wealth of customer data at their disposal, which can be used to train these models. However, some complexity still exists, stemming from the need for data privacy compliance, accurate data interpretation, and crafting a personalized customer experience.

- **Success Looks Like:** The success of AI-driven marketing and cross-selling efforts can be seen through an increase in customer acquisition and retention rates, which ultimately boosts the customer lifetime value. It also results in improved ROI on marketing spend as AI enables more targeted and effective marketing campaigns.

- **Measurement and KPIs:** The key metrics to track would be customer acquisition and retention rates, which give a clear picture of how effective the strategies are in attracting and keeping customers. The customer lifetime value is another crucial metric, as it captures the total value a customer brings to the business over their lifetime. Lastly, ROI on marketing spend provides insight into the cost-effectiveness of the AI-driven marketing initiatives. A higher ROI indicates a more successful marketing strategy.
- **Overall Ease of Measurement:** 4/5. Most metrics in this area, such as customer acquisition and retention rates, customer lifetime value, and ROI on marketing spend, are standard measurements in marketing operations. These can be computed directly from sales and customer data. However, attributing changes in these metrics specifically to AI-driven initiatives could require more sophisticated data analyses.

10. **Trade Settlements:** Trade settlements involve managing massive transaction volumes, high financial stakes, and regulatory compliance requirements, making the task significantly challenging. The need for creating a robust, secure, and scalable system to handle this process adds to the complexity.

- **Success Looks Like:** Success in this transformation area is characterized by the reduction of settlement times which leads to increased efficiency. There will also be fewer trade disputes and errors, which are costly and time-consuming to resolve. Another marker of success is a decrease in operational costs due to automation. Finally, improved customer satisfaction due to efficient and timely trade settlements is another significant indicator of success.
- **Measurement and KPIs:** In terms of Key Performance Indicators, the decrease in average trade settlement times would be a major one to track, as it directly reflects

the efficiency of the automated system. The number of trade disputes and errors is another critical metric, with a decrease in these indicating better system performance and reliability. Cost savings on operations would provide quantifiable measures of financial benefit. Lastly, customer satisfaction scores would offer insights into customer experience and the perceived value of improved trade settlement processes. These metrics combined would provide a holistic view of the impact of automation in the area of trade settlements.

- Overall Ease of Measurement: 4/5. The metrics for trade settlements like settlement times, trade disputes and errors, operational costs, and customer satisfaction are directly measurable. However, tracking these metrics in real-time and attributing improvements to specific initiatives can be challenging given the high volume of transactions and the complexity of the trade settlement process.

11. Automated Wealth Advisor (Wealth Bot): It requires a profound understanding of wealth management strategies and principles, along with expertise in AI and machine learning. The requirement of large, diverse datasets for model training, as well as the need for comprehensive testing and rigorous compliance checks, contributes to the complexity.

- Success Looks Like: Success in the context of a Wealth Bot would mean an increase in the customer base due to the scalability and accessibility of the tool. It would also be indicated by a higher amount of Assets Under Management (AUM) facilitated by the bot. Improved customer satisfaction through personalized and efficient wealth management services would also signify success. Additionally, democratizing access to wealth management services, making them accessible to a broader segment of the population, represents a significant achievement in this transformation area.

- **Measurement and KPIs:** Key Performance Indicators for a Wealth Bot would include tracking the number of customers using the service as a measure of acceptance and penetration. The volume of AUM managed by the bot would indicate its utility and impact. Customer satisfaction scores would provide insights into user experience and perceived value. The diversity of the customer base, including a wider range of income levels and demographics, would demonstrate the democratization of wealth management services. Together, these metrics provide a comprehensive assessment of the wealth bot's performance and impact.
- **Overall Ease of Measurement:** 3/5. While the number of customers using the wealth bot, the Assets Under Management (AUM) by the bot, and customer satisfaction scores can be directly measured, assessing the diversity of the customer base is a bit more challenging. It requires comprehensive demographic data and an understanding of the demographic distribution of the overall market for comparison. Similarly, attributing increases in AUM directly to the use of the wealth bot may require more complex analyses, hence a score of 3.

Summary – Overall Ease of Measurement of Project Outcomes

Use Case	What does success look like for a solution addressing this problem?	How can this success be measured (both to determine a baseline and then ongoing progress against that) from the data? What KPIs will be tracked?	Overall Ease of Measurement
Digital Personal Assistants and Chatbots	Quicker response times for customer service, a reduction in the volume of basic inquiries managed by human operators, and an enhancement in customer satisfaction.	A reduction in the average time taken to respond, a rise in the proportion of inquiries that chatbots handle independently without requiring human assistance, and enhanced scores for customer satisfaction.	5 (Key Performance Indicators can be conveniently evaluated using system-generated reports and customer feedback surveys)
Investment Predictions	Improved precision in forecasting investments and a notable rise in customer satisfaction.	Enhancement in Return on Investment and a marked improvement in customer satisfaction levels.	5 (Key Performance Indicators can be conveniently evaluated using system-generated reports and customer feedback surveys)
Process Automation	A significant decrease in operational expenses coupled with a marked enhancement in process accuracy.	The reduction in operational expenses can be straightforwardly quantified. Similarly, precision metrics are a fundamental part of reporting and can be tracked easily.	5 (Key Performance Indicators can be conveniently evaluated using system-generated reports and customer feedback surveys)
Credit Scoring	Improved precision in predicting creditworthiness and a rise in customer numbers attributable to enhanced credit risk assessment.	The precision of the predictive model and the extra business acquired as a result.	4 (While it's straightforward to quantify the accuracy of credit scores and the additional business garnered from new customers, attributing the degree of success directly to the AI/ML model can pose a challenge.)
Consumer Marketing and Cross-Selling	Enhancement in rates of customer acquisition and customer retention.	Monitoring the rates of customer acquisition and customer retention.	4 (Attributing the extent of customer satisfaction and retention rates to the AI/ML model can be challenging).
Trade Settlements	Decreased timeframes for settlement, diminished number of trade disagreements and mistakes, and enhanced satisfaction among customers.	Decrease in the duration of trade settlements, reduction in trade disputes and errors, and enhanced customer satisfaction levels.	4 (Attributing the extent of KPIs' performance to AI/ML model can be challenging).

Fraud Detection	A decrease in the occurrence of fraudulent transactions, and an increased identification of potential threats.	The count of identified fraudulent transactions, the precision rate of the fraud detection system, and the tally of potential threats spotted.	3 (Measurement of undetected fraudulent activities is feasible but may be delayed, and the potential threats might remain unnoticed for an extended period.)
NLP for Customer Contracts	Decrease in the current time and resources allocated towards managing contracts.	Decrease in both the resources and time devoted to contract management, as well as a reduction in the frequency of contract disputes.	3 (While direct metrics such as resources and time utilized in contract management, and the count of contract disputes, are straightforward to measure, assessing a reduction in legal risk and ensuring compliance introduces a layer of complexity.)
Portfolio Management	Boost in client satisfaction, enhancement in the performance of portfolios, and an increase in the Assets Under Management (AUM).	Customer Satisfaction Scores, Return on Investment, Assets Under Management	3 (Metrics such as Customer Satisfaction and Assets Under Management can be measured directly, but gauging the genuine influence of advancements in portfolio management could be intricate.)
High Frequency Trading and Algorithmic Trading	Enhancement in the volume of trades and an escalation in profitability.	Monitoring of trade frequency and revenue generated.	3 (While trade volumes and profits can be straightforward to track, delineating the specific influence of the AI model on these factors might pose challenges)
Automated Wealth Advisor (Wealth Bot)	Growth in the number of customers, enhancement in customer satisfaction ratings, and an upsurge in the Assets Under Management.	Monitoring the count of customers utilizing the service, gauging customer satisfaction indices, and tallying the Assets Under Management.	3 (Linking growth in Assets Under Management directly to the application of the wealth bot can pose certain challenges)

Conclusion

Implementing artificial intelligence (AI) technologies in various operations and services in the financial industry can bring forth transformational changes. However, gauging the impact and success of such initiatives requires meticulous measurement and monitoring of predefined Key Performance Indicators (KPIs). The ease of this measurement varies depending on the particular AI use case.

For use cases like Digital Personal Assistants and Chatbots, Investment Predictions, and Process Automation, the ease of measurement is relatively high, scoring 5/5. This is predominantly due to the direct nature of their KPIs which can be straightforwardly derived from system reports and customer surveys. For instance, a chatbot's effectiveness can be quickly gauged by the reduction in response time, the percentage of inquiries handled, and improvements in customer satisfaction scores. Similar principles apply to Investment Predictions and Process Automation where their success is linked to observable and measurable metrics.

On the other hand, Credit Scoring and Consumer Marketing and Cross-Selling have a slightly lower ease of measurement score of 4/5. In these cases, improvements can be observed and quantified, but attributing the extent of these improvements to the AI/ML model specifically can be challenging due to the presence of other influencing factors.

Further down the scale, we find Fraud Detection, NLP for Customer Contracts, Portfolio Management, High Frequency Trading and Algorithmic Trading, and Automated Wealth Advisor (Wealth Bot) all scoring 3/5 on measurement ease. These use cases present complex challenges when it comes to isolating the impact of AI/ML models due to the nature of their operations. For instance, in Fraud Detection, potential threats could be missed or there could be a time lag in detecting fraudulent transactions. For High Frequency and

Algorithmic Trading, attributing trading volumes and profits solely to the implemented AI models can be complex due to the influence of various market factors.

Despite the variance in ease of measurement across different use cases, it is important for organizations to not shy away from leveraging AI due to measurement challenges. Instead, the focus should be on developing robust, multi-faceted, and adaptable measurement frameworks. These frameworks should be capable of accurately capturing the holistic impact of AI implementations, thereby helping organizations to continually optimize their AI strategies and maximize their return on investment. Through this approach, the financial industry can harness the full potential of AI to drive innovation, efficiency, and growth.

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