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# Strategic Management Framework On Credit Risk Assessment In Commercial Real Estate Department Of Financial Services

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### Abstract

The rapid advancement of advanced technology that has been fundamentally transformed operational processes across the financial services especially commercial real estate sector. This paper presents a strategic management framework on credit risk assessment system to enhance decision accuracy, efficiency, and regulatory compliance. Traditional credit evaluation strategy relies heavily on manual analysis and static rule-based methods, often leading to delays, human bias, and inefficiencies in data handling. By leveraging various analytics and strategy, and intelligent bots, financial institutions can automate complex workflows such as data collection, borrower profiling, and predictive scoring. The proposed framework emphasizes three core dimensions: process methodology, data-driven intelligence, and strategic governance. It integrates predictive strategizing with real-time risk monitoring to dynamically adapt to market fluctuations and borrower behaviours. Moreover, the study explores organizational challenges including individual privacy, vulnerabilities, and workforce adaptation, proposing best practices for sustainable deployment. Empirical and simulation analyses demonstrate that the proposed system can reduce credit assessment time by up to 60% and improve predictive accuracy while maintaining compliance with evolving regulatory standards.

**Keywords:** Strategic, Analytics, Data handling, sustainable, Credit

## I. Introduction

The advanced digital tools like UiPath have fundamentally transformed how credit risk is assessed. Previously, evaluating credit was a manual, time-consuming process where analysts had to sift through various data sources. This method was often limited and prone to errors. With the integration of authentic process, financial institutions can automate these repetitive tasks, boost data accuracy, and create more comprehensive and predictive credit risk strategy.

### A. The Collaboration of Digital platform and its repetitive process

At its core, task simplification mechanism uses software bots to mimic human actions for automating repetitive, rule-based tasks. In a credit risk department, these bots can be programmed to log into systems, extract data from documents, and enter it into a central database. However, traditional task simplification mechanism is limited to structured and predictable tasks. The addition of technology enhanced Decision Support enhances these tools, allowing them to handle complexity and make intelligent decisions. It employs technologies like self-learning by system, natural language processing (NLP), and optical character recognition (OCR) to process unstructured data, identify patterns, and learn from new information. This partnership creates a powerful tool that automates routine tasks and performs sophisticated analysis that was once impossible.

### B. A New Approach to Data Extraction and Analysis

Credit score evaluation begins with data extraction, where proposed system excels. A automated process can automatically access and extract data from multiple sources for a loan application. Using OCR, it can read and digitize information from scanned documents like bank statements and pay stubs, converting them into a structured format. NLP enables the bot to understand and categorize information from unstructured text, such as customer emails, providing a more holistic view of the applicant. Concurrently, task simplification mechanism can navigate credit bureau portals to retrieve credit history reports and

consolidate this data into a single, comprehensive profile. This entire extraction process, which would typically take a human analyst hours, is completed in minutes with a high degree of accuracy.

Once the data is extracted, the focus shifts to analysis, where the advanced digital tools component takes the lead. Instead of relying on a limited set of variables from a traditional credit score, advanced digital tools strategy can analyse thousands of structured and unstructured data points to build a more nuanced and predictive credit risk profile. The strategy, powered by self-learning by system algorithms, can identify subtle patterns that a human might overlook. It can also incorporate alternative data sources like utility and rental payment history, helping to evaluate the creditworthiness of individuals with limited credit files. This is a significant step toward promoting financial inclusion.

### ***C.Improved Decision-Making and Risk Management***

The result of this Data-Driven process is not just a credit score, but a dynamic risk assessment. The strategy provides a probability of default and insights into the key factors driving that prediction. This allows the credit risk department to shift from a reactive to a proactive approach. Advanced digital tools can continuously monitor a borrower's financial activity in real-time, providing early warning signals of potential credit deterioration and allowing for intervention before a default occurs.

Furthermore, automating data extraction and analysis frees up human analysts to focus on more strategic, high-value tasks. Instead of manual data entry, they can use their expertise to interpret the AI's insights, manage complex cases, and develop more robust risk management strategies. The increased speed and accuracy of Data-Driven task simplification mechanism tools not only reduce operational costs but also improve compliance by maintaining consistent, auditable records. This represents a fundamental shift in credit risk management, allowing financial institutions to make faster, more accurate, and more equitable lending decisions in a competitive market.

## **II. Literature Review**

Technology enhanced decision support refers to the simulation of human intelligence processes by machines, enabling them to perform tasks such as learning, reasoning, and problem-solving. In recent years, Technology enhanced decision support has gained significant traction in the banking sector, transforming operations by improving customer service, automating routine tasks, enhancing decision-making, detecting fraud, and optimizing overall efficiency. This case study explores the integration of Technology enhanced decision support in ICICI Bank, focusing on key applications such as self-learning by system, natural language processing (NLP), and Task simplification Mechanism. The study aims to identify how ICICI Bank uses advanced digital tools to redefine its banking operations, with notable examples such as iPal, the AI-powered virtual assistant that offers personalized financial consultations, and Data-Driven fraud detection systems that analyse transaction patterns to reduce fraud risks. Additionally, the use of Task simplification mechanism in automating tasks like document processing has improved operational efficiency. Collaborations with external tech firms have further accelerated advanced digital tools adoption, fostering an innovative culture within the bank. This research also seeks to examine the strategic deployment of advanced digital tools in various areas of banking, offering insights into how ICICI Bank has leveraged Advanced digital tools to enhance customer satisfaction, reduce operational risks, and position itself as a leader in the digital banking landscape.[Kanchan et. al., 2025]

Due to the rapid development of technology enhanced decision support, banking and financial services have had a significant impact on financial and operational risk management. With the use of advanced digital tools powered technologies such as self-learning by system, deep learning, and natural language processing, financial institutions have been able to help improve their predictive capabilities, make decisions faster, and reduce risks better. This paper aims to provide a critical analysis of how Advanced digital tools is playing out in financial and operational risk management based on the theoretical foundations, applications, tools, ethical considerations, and legal implications, as well as the future trajectories of advanced digital tools in the financial and operational risk management space. This study examines the possibilities of the solutions in predictive analytics, fraud detection, credit risk assessment, algorithmic trading, compliance monitoring, and operational risk management. Advanced digital tools systems can use large datasets to identify patterns, identify anomalies, and make data-driven predictions so they can enhance the accuracy of risk assessment and financial decisions by leveraging data. Furthermore, advanced digital tools help optimize the portfolio in a dynamic condition as the portfolio is updated based on the actual time conditions of the market. Yet, despite its potential for transformational impacts, advanced digital tools also present some ethical and legal challenges — data privacy, algorithmic bias, a lack of transparency, issues of regulatory compliance, and cybersecurity threats, among them. This paper shows the practical utilization of advanced digital tools in financial institutes through real-world situations and the impact of advanced digital tools on mitigating risk and enhancing efficiency and security. The study implies that advanced digital tools would remain the critical factor in the development of

financial risk management, turning out to be a nice thing for innovation and defending in a more intricate career. However, the study demonstrates that responsible deployment and long-term sustainability in financial operations depend, among other things, on regulatory oversight, ethical advanced digital tools governance, and human-advanced digital tools collaboration. [Ogundimu, et. al., 2025]

The accelerating complexity of global business environments has necessitated a paradigm shift in corporate financial governance, with traditional strategy increasingly challenged by volatility, regulatory dynamics, and the demand for real-time decision-making. In this evolving landscape, technology enhanced decision support -powered predictive strategy are emerging as transformative tools for enhancing financial governance frameworks. At a macro level, these technologies offer the capacity to process vast, diverse datasets—from macroeconomic indicators to operational financial metrics—enabling corporations to anticipate market disruptions, credit risks, liquidity constraints, and compliance threats with unprecedented precision. By integrating advanced digital tools into risk management processes, organizations can transition from reactive to proactive governance strategy. Predictive analytics, driven by self-learning by system algorithms, allows for continuous monitoring of financial health, stress-testing of capital structures, and real-time scenario analysis. These capabilities enable CFOs, compliance officers, and corporate boards to make data-driven decisions that align with both fiduciary responsibilities and stakeholder expectations. Furthermore, advanced digital tools strategy contributes to the automation of risk detection in transactional flows, fraud surveillance, and early warning systems, reinforcing internal controls while reducing human bias and oversight limitations. This article explores how such predictive strategy redefine corporate financial governance by embedding intelligence into enterprise risk management (ERM) systems. It highlights cross-industry applications, ethical implications, infrastructure requirements, and future research directions. A detailed examination is also provided on how global firms leverage this strategy to ensure resilience, transparency, and competitive agility in an increasingly uncertain economic landscape. Ultimately, this work demonstrates that Advanced digital tools is not merely a technological upgrade but a foundational shift in how financial governance is conceptualized and operationalized globally. [Yanney et.a l., 2025]

The integration of technology enhanced decision support into financial services has revolutionized the industry, driving innovation, enhancing operational efficiency, and enabling hyper-personalized customer experiences. This paper examines how AI-powered technologies, including self-learning by system, natural language processing, robotic process automation, and predictive analytics, are transforming core areas of the financial services sector, such as banking, insurance, investment management, and regulatory compliance. By automating routine tasks, optimizing decision-making, and extracting actionable insights from vast datasets, Advanced digital tools enable institutions to deliver smarter, faster, and more secure services. The paper also examines the challenges of Advanced digital tools adoption, including ethical concerns, data privacy issues, algorithmic bias, and regulatory uncertainty. As financial institutions continue to navigate digital transformation, this study highlights the strategic role of Advanced digital tools in fostering innovation, managing risk, and reshaping the future of financial ecosystems. [Heleen et. al., 2025]

The intersection of Financial Technology (FinTech) innovations, Technology enhanced decision support, and risk management is revolutionizing the landscape of traditional banking, accounting, and financial services. As financial institutions grapple with the challenges of digital transformation, the integration of Data-Driven FinTech solutions is enabling unprecedented efficiency, accuracy, and adaptability in managing financial operations and risks. Traditional financial strategy, often hindered by manual processes and rigid structures, are being supplanted by intelligent systems capable of processing vast datasets, predicting risks, and automating complex decision-making processes in real-time. This paper explores the transformative impact of FinTech and Advanced digital tools on core financial services, emphasizing their role in enhancing fraud detection, regulatory compliance, and customer experience. AI-powered algorithms, including self-learning by system and predictive analytics, facilitate precise risk assessments, while blockchain technology ensures transparency and security in transactions. [Ikumapayi et al., 2025]

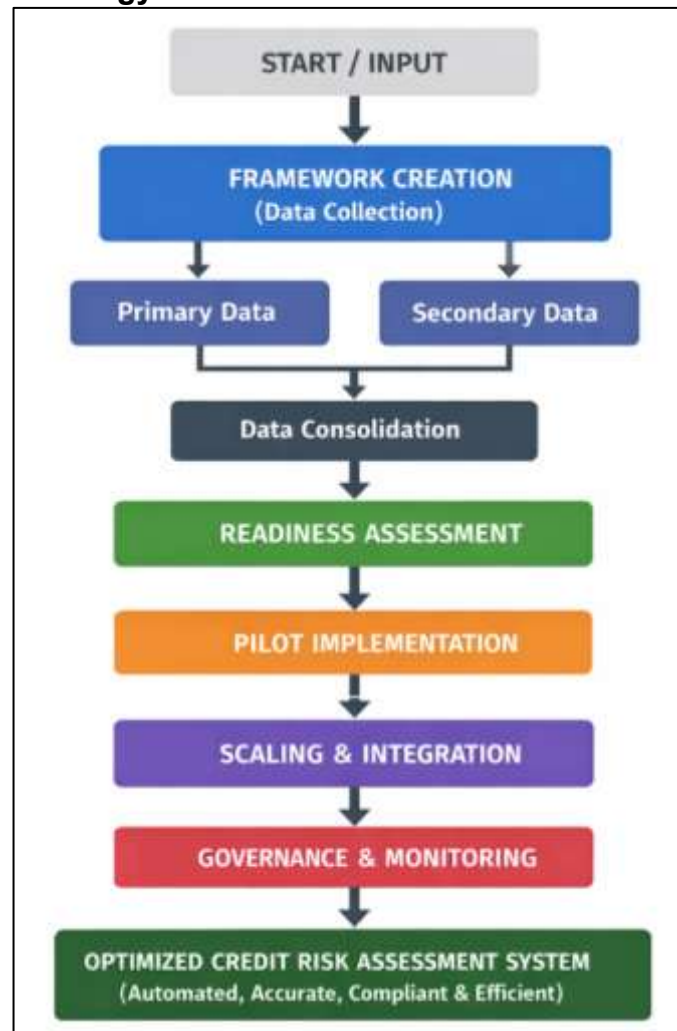
This article examines the integration of technology enhanced decision support and Task simplification mechanism in financial accounting and management, underscoring their role in driving the digital transformation of corporate finance. It discusses the shortcomings of traditional financial processes and highlights the potential of Advanced digital tools and Task simplification mechanism technologies to enhance efficiency, accuracy, and cost-effectiveness. The paper also explores the limitations of Task simplification mechanism, such as its challenges in processing unstructured data and handling complex decision-making scenarios. Looking forward, it considers the future trends in Advanced digital tools and Task simplification mechanism, emphasizing the benefits of cloud technology in scaling automated systems and addressing associated challenges. [Zhan et. al. , 2024]

Technology enhanced decision support has become a critical driver of firm survival in the banking industry, particularly for deposit money banks (DMBs) facing increasing challenges such as economic volatility, regulatory compliance, cybersecurity threats, and rising customer expectations. This study explores the role of Advanced digital tools in enhancing operational efficiency, risk management, fraud detection, customer experience, and financial resilience in the banking sector. [Akinwunmi, 2025]

### III. RESEARCH OBJECTIVES

- To assess the improvement in efficiency by measuring how much time is saved in gathering and analysing information compared to traditional manual practices.
- To evaluate the reliability of insights produced by the task-simplification system by comparing its results with those generated through human effort, with a focus on identifying and quantifying discrepancies.
- To examine how effectively the streamlined process supports the complete credit assessment workflow—from initial information collection to final decision-making and reporting.
- To review the adequacy of safeguards in place to ensure the protection of confidential financial and personal information throughout the streamlined assessment process.

### IV. Research Methodology



#### A. Framework Creation

Based on the literature review and data analysis, the study would propose a multi-stage framework for the strategic implementation of Task simplification mechanism. This framework would likely include phases such as:

##### Primary Data

- Directly collected from individuals or institutions for the purpose of the study.
- Structured or semi-structured with:
- Credit managers

- Loan officers
- Risk analysts
- Compliance officers
- IT/automation managers
- Questionnaires / Surveys:
- Collected from employees and customers to understand:
- Current challenges in credit assessment
- Time-consuming tasks
- Perceptions about automated decision-support tools
- Operational efficiency and accuracy issues

**Secondary Data**

- Information already available through various sources.
- Internal Organizational Records
- Past loan files
- Customer profiles
- Credit scores
- Default history
- Operational reports
- Audit findings
- Risk evaluation documents
- Financial Institution Databases
- Loan management systems
- CRM databases
- Credit bureau data
- MIS reports
- Academic Journals and Research Papers
- Used to support theoretical frameworks, methodology, and comparative analysis.
- Web-Based Sources
- Government websites
- Industry whitepapers

**B. Readiness Assessment**

Evaluating data quality, IT infrastructure, and organizational culture.

A robust IT infrastructure is necessary to handle the computational demands of Advanced digital tools and to seamlessly integrate Task simplification mechanism with existing systems.

i. Assess System Compatibility: Evaluate whether legacy systems can integrate with new Advanced digital tools and Task simplification mechanism platforms. Can APIs be used to create a bridge, or are major overhauls required? A thorough audit of your current systems will reveal potential bottlenecks.

ii. Evaluate Scalability and Flexibility: Consider if the current infrastructure can scale to handle the increased data volume and processing power needed for advanced digital tools and task simplification mechanism. The system should be able to dynamically provision resources and support both on-premises and cloud-based solutions.

iii. Review Security and Governance: Since advanced digital tools and task simplification mechanism will handle sensitive financial data, assess existing security protocols. This includes reviewing data encryption, access controls, and compliance with industry regulations like GDPR or CCPA. An AI-ready infrastructure should be designed with robust security at its core.

iv. Analyse Data Storage and Accessibility: Determine if data is stored in a centralized, accessible location. Data silos can prevent Advanced digital tools from having a holistic view of a customer's credit risk, undermining the technology's value. A unified data system is crucial.

v. Evaluate Network Capabilities: Ensure the network has sufficient bandwidth and low latency to support real-time data processing and communication between different systems and bots.

**C. Pilot Implementation**

Starting with a high-impact, low-risk process.

- Set Clear, Measurable KPIs: Define success metrics upfront. These should be a mix of operational and financial metrics.
- Operational Metrics:
- Cycle Time Reduction: How much faster is the process now? (e.g., "Reduce loan application processing time by 40%").

- Error Rate Reduction: What is the percentage decrease in human errors? (e.g., "Decrease data entry errors by 90%").
- Bot Uptime and Accuracy: Measure the reliability of the bot. (e.g., "Maintain a bot success rate of over 95%").

#### **D. Scaling and Integration**

Expanding the technology across departments and integrating it with existing systems.

- Use APIs and Middleware: Prioritize using APIs (Application Programming Interfaces) to connect task simplification mechanism bots and advanced digital tools strategy to core banking systems, loan origination software, and data warehouses. APIs provide a more stable and reliable connection than screen scraping, which can break with any UI change.
- Address Data Silos: A credit risk assessment requires a holistic view of a customer. Scaling requires breaking down data silos. This can involve creating a central data lake or data hub that advanced digital tools strategy can access to get a unified view of customer data, including financial history, non-traditional data points, and communication history.
- Build an Integration Layer: Consider creating a dedicated integration layer or using middleware that can translate between modern task simplification mechanism tools and older legacy systems. This approach protects the core systems from direct interaction with the new technology and simplifies maintenance.

#### **E. Governance and Monitoring**

Establishing a formal governance structure and a continuous monitoring process to ensure accuracy, fairness, and compliance.

### **V. EXPECTED OUTCOMES**

- Development of Simplification Mechanisms Prototype: The primary outcome will be a functional prototype of a Data-Driven Task simplification mechanism tool. This tool will automate the end-to-end credit scoring process, from data extraction to credit score generation.
- Improved Credit Risk Strategy: The research will yield a more accurate and robust credit risk Strategy, validated against existing Strategy. This Strategy will be able to process and analyse a wider range of data points than traditional methods.
- Increased Institutional Trust and Stakeholder Confidence
- Transparent, fair, and consistent credit decisions strengthen trust among borrowers, employees, regulators, and investors. Stakeholders are more confident when the rationale behind credit decisions is clearly documented and auditable. This improved trust environment leads to stronger borrower relationships, better repayment behavior, and lower default probability—ultimately helping manage and reduce NPAs.
- Foundation for Future Research: The study will serve as a foundational piece for future research in hyper automation, FinTech, and the ethical application of Advanced digital tools in financial services.

### **VI. FUTURE DIRECTIONS**

- Generative Advanced Digital Tools: While this research focuses on traditional Advanced digital tools for analysis, future work could explore the use of this Digital Tools to further automate processes. For example, Advanced digital tools could be used to automatically summarize complex financial reports or even draft a preliminary credit review report, which a human analyst would then refine.
- Deep Learning for Unstructured Data: The current research may use NLP to a certain extent, but a future direction could be to deploy more advanced deep learning strategy to understand highly unstructured data, such as a borrower's emails, social media activity, or call transcripts (with proper authorization and ethical guidelines). This would enable an even more comprehensive risk assessment.
- Real-time Data Streams: The current system would likely work on a snapshot of data at the time of application. A future direction would be to build a system that continuously monitors real-time data streams (e.g., transaction data, market trends) to provide a dynamic credit score. This would allow for continuous risk management throughout the loan's lifecycle.
- Blockchain Integration: To enhance data security, transparency, and trust, future research could explore integrating the Task simplification mechanism tool with blockchain technology. This could create a secure, decentralized record of financial transactions and credit history, making it tamper-proof and more reliable.

## VII. Conclusion

This study highlights the transformative potential of advanced digital technologies in reshaping credit risk assessment within the commercial real estate segment of financial services. By moving beyond traditional manual and rule-based evaluation methods, the proposed strategic management framework demonstrates how automation, analytics, and intelligent systems can significantly enhance the accuracy, speed, and reliability of credit decision-making. The integration of process methodology, data-driven intelligence, and strategic governance enables institutions to adopt a more adaptive and responsive approach to risk management, capable of addressing dynamic market conditions and evolving borrower behaviors in real time. The empirical and simulation results confirm that the framework not only shortens assessment cycles but also strengthens predictive performance while ensuring regulatory compliance. At the same time, the study acknowledges critical organizational and ethical challenges, such as data privacy, system vulnerabilities, and workforce readiness, and offers practical guidelines to support sustainable implementation. Overall, the findings suggest that strategically deployed intelligent credit risk assessment systems can deliver substantial operational efficiencies, reduce bias, and improve institutional resilience. Future research may further refine these models by incorporating emerging technologies and broader datasets, thereby strengthening their applicability across diverse financial contexts.

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