# Al in the BFSI Industry

A bitgrit industry case study



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# INTRODUCTION

Among our service offerings, bitgrit provides financial firms and institutions with tailored AI and RPA solutions; one main benefit these services provide is a smoother, more positive customer experience through automating backend processes. Whether it be customized tools for fraud detection, claim and settlement processes, risk mitigation, anti-money laundering algorithms, specialized chatbots, robo-advisors for financial products, or smart wallets, we're here to help you increase productivity.

# **GENERAL CORPORATE USE CASES**

Leveraging the power of AI and RPA, bitgrit can assist firms in automating key processes and therefore increasing productivity. Below are some representative use cases applicable for corporations across various domains:

- Invoice Automation
- Data Digitization
- Data Visualization using Dashboards
- Generating Automated Reports
- Employment History Verification
- Bank Statement Reconciliation
- Financial Planning
- Daily P&L Preparation

### SPECIFIC USE CASES OF AI & RPA IN THE BFSI INDUSTRY AT LARGE

#### **Contract Intelligence**

- A manual review of 12,000 annual commercial credit agreements usually requires approximately 360,000 hours in total.
- An AI-based contract system can greatly reduce time required here – AI can analyze

legal documents and extract relevant data points and clauses.

#### **Process Automation**

- The deployment of RPA in backend systems connected to higher ROIs on processes for companies.
- Companies convert steps with high ROI into automated processes and multiply the number of tasks they are able to complete, both on an hourly and daily basis.

### **AI-Based Reporting and Analysis**

Al-enabled systems can observe and learn user behavior and trends. These insights can be used to create highly sophisticated insight reports which provide better and deeper perspective into different aspects of business operations, and by extension, drive overall growth.

### **Optimized Marketing**

- Al & Big Data solutions help analyze customer search and query patterns, assisting marketers to identify critical areas in which to focus efforts.
- Online ads can be made smarter & more productive to drive higher sales figures.
- Previously uncovered insights can be unearthed and incorporated into new campaigns, optimizing outreach to target customers more effectively.

# Security 2.0

- In the future, usernames, passwords and security problems will be outdated as the standard for user protection.
- Protection of banking and finance applications is of high importance, with highly valuable assets.
- One can use AI to develop next-generation security protocols, including facial



recognition, voice recognition, or other biometric data in addition to anomalydetection applications that are currently being developed and used to detect fraud cases preemptively.

#### BANKING

- 1. Predictive Banking
- 2. Credit Card Operations
- 3. Algorithmic Trading and Risk Management
- 4. Know Your Customer (KYC)
- 5. Portfolio Management

#### **Predictive Banking**

- Banking systems utilizing AI can alert customers of higher-than-average recurring bill payments.
- Customers can be prompted to transfer money to their savings account if they have a higher-than-average balance in their checking accounts.

#### **Credit Card Operations**

• Credit card applications can be captured from multiple channels and processed into the bank's core system of records.

#### Algorithmic Trading and Risk Management

- Al systems are designed to make ultra-fast business decisions. One such system is known as an "Automated Trading System"
- There is a subset of algorithmic trading called "high-frequency trading" (HFT) that is often used to make thousands or millions of trades a day.
- Traders' time searching through conversions, financial data and notes can be saved by using speech recognition and NLP technology.

#### Know Your Customer (KYC)

- Customer Due Diligence (CDD) verification (involving risk assessment) can be automated using AI systems.
- Document verification against standard templates can be automated.
- Al-based systems can also automate document digitization, removing the need for manual data entries.

#### **Portfolio Management**

One can employ AI for providing digital financial advice based on mathematical rules or algorithms. It helps minimalize human intervention in this process.

Robo-advisors are algorithms built to calibrate a business portfolio to the goals and risk tolerance of the user. For example, a customer's goal savings amount is \$200,000 and the algorithm has their age, income, and current financial assets; based on this, the advisor spreads investments through asset groups and financial instruments to achieve these objectives.

#### **FINANCIAL SERVICES**

Al can be employed to track customer activity, as to understand and analyze how account holders invest, spend, and make financial decisions. Below are a few applications of Al in the financial service sector.

- 1. Credit Risk Assessment
- 2. Sales/Recommendation of Financial Products

#### **Credit Risk Assessment**

- Al assists in maintaining the scorecard of an individual for lending purposes and a problem-solver for credit scoring.
- Al uses extensive datasets to provide a personalized credit score based on data points like current income, employment opportunity, recent credit history, future



earning ability, and past credit history.

 This data-driven approach allows banks and credit card companies to assess each borrower more accurately and grant credit to them accordingly.

# Sales/Recommendations of Financial Products

Al-based product recommendations can be made using accumulated data from the customer's web footprint. This data can be used to create a financial historical graph, which enables customers to visualize their investment and the corresponding returns, thus ensuring that the customers are making smart investment decisions.

Moreover, product recommendations enable customers to look for products outside of their classical preferences. For example, a customer who always invests in equities can also be recommended a commodity based on their behavior to look into, and if deemed good enough, to invest in.

### **INSURANCE SERVICES**

A recent study by Accenture states that "74% of consumers say they'd be happy to get computer-generated insurance advice." Insurers have access to enormous amounts of data. Al applications use data to increase customer engagement, create personalized services, and generate effective marketing messages.

Listed below are a few applications of AI which can have significant benefits on a company's performance.

- 1. Claims Management
- 2. Fraud Detection
- 3. Inspections
- 4. Advanced underwriting
- 5. Pricing Sophistication
- 6. Insurance Chatbots

#### **Claims Management**

In the traditional method of claim processing, the following tasks are typically performed manually. These are ways we can revisit these tasks with automation processes.

- If a claim is determined to be legitimate, it can be approved automatically in many scenarios.
- In complex situations, chatbots may direct customers to support representatives.
- Al can also help in initial high-priority investigation/review processes and keep customers informed of any issues in claims reprocess such issues.

#### **Fraud Detection**

- Al algorithms can be used to detect suspicious acts.
- Modern fraud detection systems go beyond following risk factors checklists to more thorough checks.
- Al-driven predictive analytics analyze claims based on rules and indicators, reducing fraudulent cases.
- Common indicators include frequency of claims, past behavior, and credit score.
- Analysts can focus on critical cases, like those where risk scores are at their peak and require dedicated attention.

#### Inspections

- To validate underwriting decisions depending on the exposure of risk including pre-cover, post-inception, or line-in with the renewal cycle, inspections are needed.
- Al can assist in reducing inspection time and increasing surveyor productivity.

#### Advanced Underwriting

- Machine learning algorithms can be trained with enormous amounts of data and usecases such as data and financial lending or insurance results.
- RPA can be deployed to determine whether



a person has defaulted or paid back their loans on time (e.g., Lemonade)

#### **Pricing Sophistication**

- Techniques like GLMs (Generalized Linear Models) are used for price optimization for sectors like car and life insurance.
- ML and non-linear models can challenge traditional models, along with access to non-traditional data sources, with better data, leading to better insurance price optimizations

#### **Insurance Chatbots**

Insurance chatbots can be deployed as your customer's personal insurance manager while equipping your sales team with valuable and contextually relevant insights.

- Customers can be informed on how processes work, and can be suggested optimal policies.
- Bots can segment different queries and provide relevant quotes and information.



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# bitgrit: AI for All

The AI industry is projected to grow to **\$116 billion** by 2025.

bitgrit is a company providing a platform that levels the playing field for AI by bringing together a community of data scientists and connecting them to companies needing AI solutions.



## **COMPETITION STEPS**



# UNREALISED POWER OF AI

Determining possible use cases and value that can be extracted from existing data.

Difficulties in translating business challenges into data science problems.

Inability to develop, experiment and rank a variety of models rapidly.

Risks of providing people the access to confidential data.

Hassles of identifying the right talent to produce customized, extraordinary models.

Structuring of data and identification of relevant parameters.

# 20,000+ DATA SCIENTISTS - BITGRIT COMMUNITY OVERVIEW





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# **STEPS TO HOSTING A COMPETITION**



# HOW WE HELP YOU TAP INTO AI

Determine possible use cases and value that can be extracted from existing data.

Pinpoint difficulties in translating business challenges into data science problems.

Overcome obstacles to develop, experiment and rank a variety of models rapidly.

Identify risks of providing people the access to confidential data.

Find the right talent to produce customized, extraordinary models.

Structure data and identification of relevant parameters.

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