

Case Study - Digital Decisioning Platforms

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Introduction

In the landscape of business and technology, one of Charter Solutions' clients was increasingly reliant on intrusive coding solutions to optimize their decision-making processes. They had hard coded these decisions into the very fiber of each of their platforms. We were engaged to help address this increasingly complex environment and to make recommendations on how they could adapt. One such solution recommended was to invest in a Digital Decisioning Platform (DDP).

A DDP is a comprehensive software framework that leverages data analytics, business rules, artificial intelligence (AI), machine learning (ML), and automation to facilitate informed and efficient decision-making across various domains. This position paper aims to highlight the advantages and considerations surrounding Digital Decisioning Platforms.

Advantages of a DDP

Enhanced Decision Accuracy

DDPs utilize sophisticated algorithms and AI-driven models to process vast amounts of data and derive insights that human decision-makers might overlook. This leads to more accurate and data-driven decisions, reducing the potential for errors and biases.

Real-time Decision-Making

In today's fast-paced business environment, the ability to make timely decisions is crucial. DDPs enable real-time data processing and analysis, empowering swift response to changing conditions and capitalization on emerging opportunities.

Personalization and Customer Experience

DDPs can analyze customer behavior and preferences to create personalized experiences. By tailoring offerings to individual needs, the client could enhance customer satisfaction, loyalty, and retention.

Operational Efficiency

Automation within DDPs streamlines repetitive tasks and processes, freeing up human resources for more strategic activities. This boosts overall operational efficiency and productivity.

Risk Management

DDPs can assess risks by analyzing historical data, market trends, and external factors. This enabled the client to proactively mitigate risks and make decisions that align with their risk tolerance.

Scalability

Organizations grow, so does the complexity of their decision-making processes. DDPs scale by design, accommodating increasing data volumes and decision complexity without compromising performance.

Considerations and Challenges

Data Quality and Integration

DDPs heavily depend on high-quality, reliable data from various sources. Ensuring data accuracy, consistency, and proper integration can be challenging, as poor data quality can lead to inaccurate insights and decisions. While a DDP that is standalone will be necessary for the broadest use and acceptance, it is important to consider tighter integration, such as a plug-in model, for less intrusive business rule adoption. Decisions provides such a plug-in model for Microsoft Dynamics, Salesforce, and other CRM and Sales tools.

Transparency and Ability to Explain Choices

The use of AI and ML algorithms in DDPs might result in decisions that are difficult to explain to stakeholders. Striking a balance between complex algorithms and decision transparency is crucial, especially in regulated industries. Decisions DDP has the capability to explain the attributes and rules that lead to a decision, satisfying this capability consideration.

Ethical Concerns

DDPs can inadvertently perpetuate biases present in historical data, leading to unfair or discriminatory decisions. Ensuring fairness and ethical considerations in algorithmic decision-making is an ongoing challenge. While DDPs are not the only system that needs to consider bias, we believe the client was initially only harvesting existing logic and rules related to payers, CMS DME, and their own product discriminants, and thus did not introduce ethical concerns during their adoption phase. We noted, however, that future development users should be aware of this consideration.

Change Management

Implementing a DDP often requires significant organizational change. Employees might need to adapt to new processes, and a cultural shift towards data-driven decision-making might be necessary. Like the ethical concerns called out above, Charter Solutions believed the client would be using Decisions DDP to replicate the hard-coded logic in their core platforms and would insulate the user base from extreme change when introducing their “Technical Accelerator” solution.

Initial Investment

Developing or adopting a DDP involves a substantial upfront investment in terms of technology, talent, and training. Organizations must carefully evaluate the long-term benefits against the initial costs. Decisions DDP has a very reasonable price point for their enterprise licensing and provides a simple low/no code interface for their clients to enter and maintain rules going forward.

Security and Privacy

DDPs manage sensitive data, raising concerns about data security and privacy. Robust security measures and compliance with data protection regulations are essential. This would remain true even if we recreated the rules within the Technical Accelerator instead of externalizing them through a Decisions interface.

Player Selected - Decisions

Decisions as a DDP aims to provide a comprehensive framework that combines data analytics, artificial intelligence (AI), business rules management, and automation to facilitate effective and efficient decision-making across various domains.

Key features and capabilities of Decisions:



1. **Workflow Automation:** Decisions allow organizations to automate complex workflows and decision processes. This can involve routing decisions, approvals, and tasks to appropriate stakeholders based on predefined rules and conditions.



2. **Business Rules Management:** Decisions includes a business rules engine that enables organizations to define, manage, and execute business rules and logic. This allows for consistent decision-making and the ability to adapt to changing business conditions.



3. **Data Integration:** Decisions DDP can integrate with various data sources and systems (e.g., Salesforce, Microsoft Dynamics, and others) to access relevant information for decision-making. This can include data from internal databases, external APIs, and other sources.



4. **Analytics and Insights:** These platforms provide tools for analyzing data to derive insights that support decision-making. This could involve generating reports, dashboards, and visualizations to provide a clear understanding of the data.



5. **Artificial Intelligence and Machine Learning:** Some DDPs, including Decisions, incorporate AI and machine learning capabilities to enhance decision-making. These technologies can analyze patterns in data, predict outcomes, and suggest optimal decisions.



6. **Real-time Decisioning:** Decisions can facilitate real-time decision-making by processing data and generating decisions on the fly. This is particularly useful in dynamic environments where timely actions are crucial.



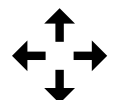
7. **Personalization and Customer Experience:** DDPs like Decisions enable organizations to create personalized experiences for customers by leveraging data to tailor offerings and interactions to individual preferences.



8. **Compliance and Governance:** These platforms often include features to ensure decisions align with regulatory requirements and internal policies. They can provide an audit trail and documentation to demonstrate compliance. What is more, Decisions DDP can explain the reasoning behind any evaluation.



9. **Collaboration:** Decisions DDP offers collaboration features that allow teams to work together on decisions, share insights, and communicate effectively.



10. **Change Management and Versioning:** DDPs can support change management by allowing organizations to manage different versions of decision logic and rules. This is crucial for maintaining consistency as processes evolve.

Conclusion

Digital Decisioning Platforms like Decisions offered the client a powerful means to enhance their decision-making processes, leveraging advanced technologies to drive accuracy, efficiency, and competitiveness. However, their successful implementation required careful consideration of data quality, rule harvesting, and organizational change management. By acknowledging these advantages and challenges, they were able to harness the potential of a DDP while navigating the evolving landscape of their Technical Accelerator.

Next Week: Neural Networks