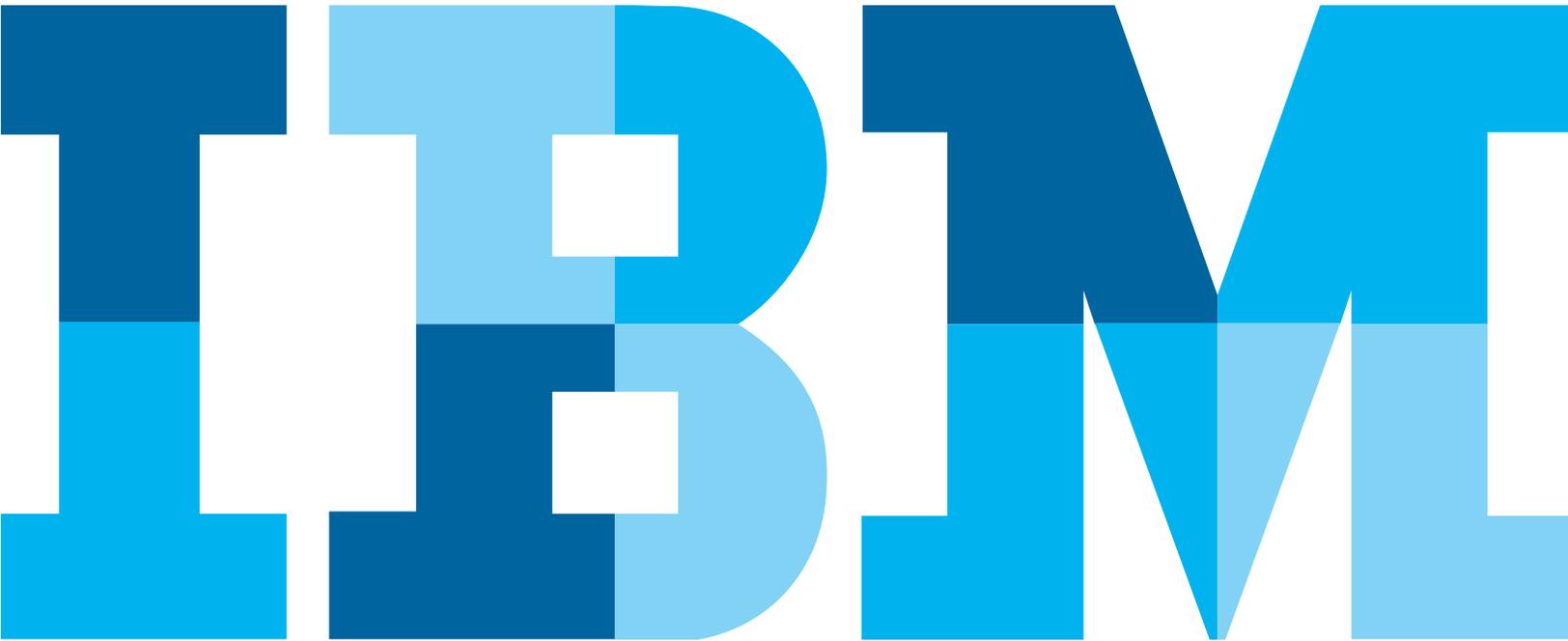


Using blockchain to disrupt trade promotions



Highlights

- Thirty-three percent of trade promotion spending (USD500 billion annually) has a negative return on investment (ROI)¹
- Eighty-five percent of consumer product companies are highly dissatisfied with their trade promotion capabilities²
- Weak controls create risks
- Immutable blockchain shared ledger technology can significantly improve trade promotion processes, reduce costs, and provide a better and more timely source of data to optimize trade spend ROI

Introduction

Globalization, blurring industry boundaries and a global talent crunch are forcing enterprises to rethink their operating models and focus on new revenue streams. In the light of digital disruption, businesses are grappling with high operations cost, nonstandard processes and many non-value-added activities, suboptimal working capital performance and a lack of insight into business process and performance.

To prepare for the future, organizations are digitally reinventing their back-office operations.

Blockchain is an immutable shared ledger technology that supports a new generation of transaction applications and streamlined processes by establishing trust, accountability and transparency across the business network. The peer-to-peer distributed ledger architecture makes it easier to create cost-efficient business networks where virtually anything of value can be tracked and traded—without requiring a central point of control.

Unpacking blockchain

To understand how blockchain can revolutionize finance processes, it is important to understand the following technology fundamentals:

- **Distributed ledger:** Unlike many systems that store data via central repositories, blockchain uses a distributed database ledger. Therefore, all participating members of a blockchain network share access to identical information on accounts and balances.
- **Consensus:** The shared ledger across the peer network is maintained in sync by running a coordination protocol called a “consensus” algorithm. Business transactions are

committed onto the ledger only after consensus is reached and, once committed, can never be changed or denied by any of the participants.

- **Smart contracts:** These are business logic that help execute business terms among the participating members. Smart contracts are critical to operating a digital business, and enabling security-rich and decentralized automation of business processes across boundaries.
- **Permissions:** Ensuring appropriate transparency, transactions are security-rich, authenticated and verifiable.

Transforming finance operations with blockchain

Targeted use cases of finance blockchain implementations include:

- Accounts payable or invoice payables in procure to pay (P2P)
- Dispute management, order management, trade promotions and cash applications in order to cash (O2C)
- Fixed assets accounting and intercompany reconciliation in record to report (R2R)

Inherent challenges of managing trade promotions

Consumer package goods (CPG) companies spend over USD500 billion per year on trade promotions with their retail customers, making trade promotion management (TPM) a critical process for the CPG and retail industries. This process has been examined numerous times in efforts to use analytics and technology to improve existing processes and increase the ROI on trade spend.

However, current TPM processes are fraught with errors and, frequently, are a high friction business processes. [The Promotion Optimization Institute's latest TPx Vendor Panorama Mid-Cycle Update](#) (published January 2017) reported that 85 percent of companies are highly dissatisfied with their trade promotion capabilities and about 90 percent of organizations still rely on spreadsheets to manage their end-to-end TPM business processes.³ [Forrester](#) reports that about one third of trade promotion spend yields negative returns.⁴

Blockchain has the potential to dramatically transform TPM by increasing trust between organizations through transparency and driving consensus using smart contracts. The transformed TPM processes on blockchain can provide a better source of data that can be used to optimize trade promotion spend.

Let us examine the issues that lead to inefficient processes and ineffective trade promotion operation:

- **Lack of a single version of the truth:** The TPM process involves multiple parties (such as supplier and retailer) who each record their view of the promotion contract in their own ledger (trade promotion system or enterprise resource planning, or ERP). More often than not, these versions of the contracts do not agree.

The lack of a consolidated “single source” of contracts causes inconsistencies, which require time and resources to reconcile and resolve. In IBM’s experience, approximately 25-to-40 percent of trade promotion contracts may be incorrect or out-of-date in the trade promotion system and the retailer has started taking these trade promotion deductions.

Across the trade promotion value chain, there are other points where the lack of common information between the different party’s legal systems results in more reconciliation efforts and suboptimal post event analysis.

- **Unapproved events:** In IBM’s experience, approximately 20 percent of the trade promotion events are not approved in the system of record before the event starts. These unapproved events cause significant manual follow-ups. In fact, about thirty percent of available time is spent following up on the unapproved events. Using email for workflow reduces transparency and hampers effective follow-ups.
- **Manual data gathering:** Proof of performance data is gathered manually from external third-party point of sales data providers such as Nielsen, IRI, RSI, PSRA and Feature Vision. Internal data such as bill of lading (BOL) and warehouse shipping details are manually requested from warehouses. Order and shipment data are consolidated in spreadsheets.

- **Manual trade promotion claim validation:** In most of the CPG clients that IBM works with, the process to submit and manage trade promotion deduction claims is extremely manual. The manual steps delay resolution and are not cost-effective. The analysts must review the claim details (can be hundreds of lines) and then reconcile the claim against the TPM contract and the proof of performance data to make a judgment if the claim was valid.

Trade promotion data are fragmented in various subsystems and ledgers, as well in unstructured form in various emails and texts. Because of the number of data locations and owners, reconciliation becomes a very frustrating process and increases the cycle times to reconcile (frequently 60-to-90 days or more).

Optimizing trade promotions management with blockchain

Blockchain enables a single source of truth, creating greater trust and end-to-end transparency, while redefining benchmarks for cost and processing time.

Based on a variety of client engagements, IBM estimates that using a blockchain solution for trade promotions can help improve margins by improving productivity up to 50-to-60 percent, enhancing controls and providing better insights on trade promotion spend effectiveness.

Blockchain-enabled TPM processes could benefit both the CPG companies and the retailers they partner with. From a retailers’ perspective, the platform can potentially drive up to 30-to-40 percent reduction in the administrative efforts associated with managing deductions. In addition, the retailers and CPG companies can reinvest the savings accrued from overall TPM efficiency into additional promotions to drive incremental revenue.

The IBM TPM platform has three components that systematically address the issues in the trade promotion process:

1. **Trade promotion contract management and reconciliation module:** Leveraging proprietary blockchain smart contracts design, IBM has designed an innovative solution to reconcile TPM contract versions between suppliers and retailers.

2. **Third-party data consolidation:** IBM has designed a component that consolidates input from the point-of-sale and advertisement providers.
3. **Proof of performance:** Leveraging proprietary blockchain smart contracts design, IBM has designed a solution that automatically reconciles claims against contracts and proof of performance. Based on IBM's internal analysis, this can reduce human involvement in the process by over 50 percent.
4. Reduce write-offs up to 30-to-40 percent
5. Enhance real-time cognitive insights on effectiveness of trade promotion spend
6. Simplify complex processes such as disputes, reconciliations, helpdesks, and workflow automation
7. Reduce operation costs and overpayments
8. Enable real-time reporting

Leveraging a blockchain TPM solution can enable significant benefits for clients:

1. Enable the supplier to proactively work with the retailers to drive trade promotion efficiency and reinvest to drive incremental demand
2. Provide a single transparent platform that links multiple ERP and planning systems, without disruption to those existing applications
3. Improve productivity up to 50-to-60 percent from a reduction in manual efforts

Getting started with blockchain

Blockchain technology can radically alter finance processes. Using blockchain for transaction processing operations, enterprises can streamline processes, reduce operational costs and drive improvements in working capital.

To start your blockchain journey, take the following steps:

- **Get educated on blockchain:** Blockchain represents a paradigm shift for businesses. Organizations should become familiar with the language of blockchain and strategize where blockchain can have the most dramatic impact on business process transformation.

Global consumer package goods (CPG) company

Driving consensus and trust proactively will drive value in the trade deduction process

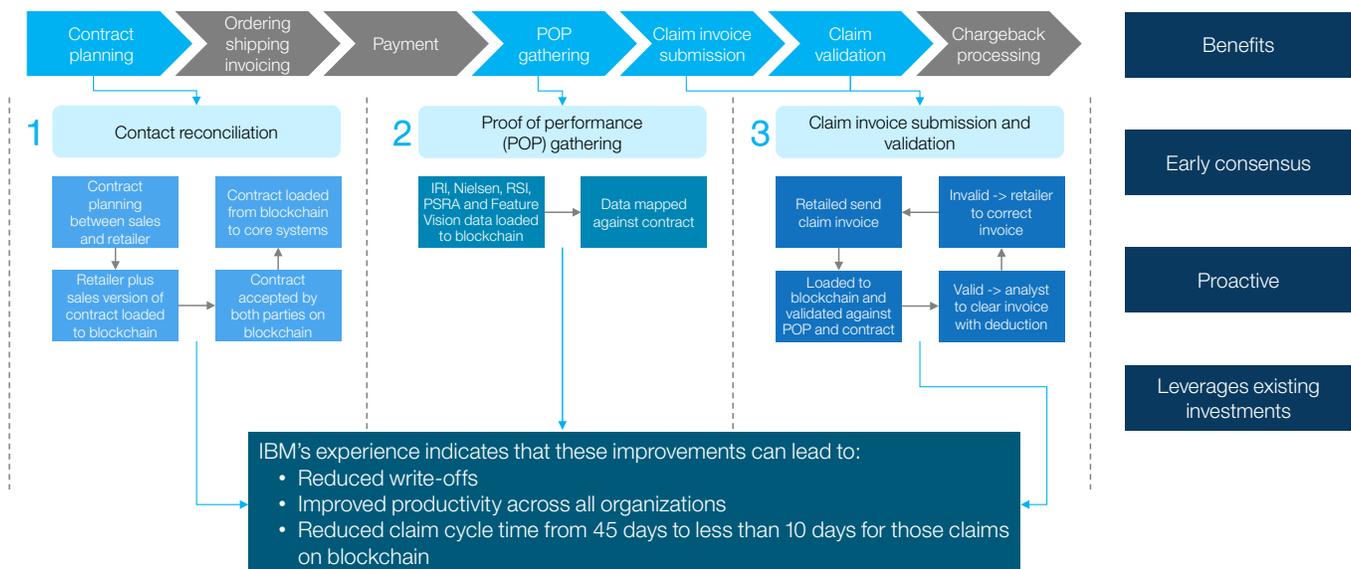


Figure 1. Here is a blueprint for using blockchain to drive value in the trade deduction process.

- **Identify opportunity areas for a pilot:** Identifying realistic business cases is key to defining and achieving your transformation goals. Evaluate each participant, asset and business process area.
- **Build blockchain platforms:** Blockchain implementations require close integration between business and IT. IBM Design Thinking workshops are a powerful way to ideate, design and execute a blockchain proof of concept (PoC) or pilot in an agile way. With a proven PoC/pilot, companies can then successfully integrate and scale the solution with their business ecosystem.

IBM can help clients accelerate the journey from a PoC to full-scale production of reinvented finance processes. IBM does this by leveraging a portfolio of preconfigured assets such as selected operational blockchain solutions and PoCs, smart contract component and process model libraries, technical architecture models, system integration standards and tools, onboarding methods, ecosystem selection criteria, and so on.

Why IBM?

IBM is actively working with hundreds of clients to develop blockchain business cases across industries. IBM is a premier member of Hyperledger, a Linux Foundation project and a cross-industry collaborative effort to create a standard blockchain suitable for business. It is permissioned, open-sourced, openly governed, and allows for regulatory transparency.

Through the open-source contributions and resources for blockchain software developers, IBM is advancing the science of blockchain, helping to remove complexity and making it more accessible and open.

By choosing IBM as your blockchain solution provider, you can:

- Build a blockchain platform for your finance process leveraging the Hyperledger Fabric, a blockchain framework from Hyperledger and IBM® Bluemix® Garage
- Team with IBM Blockchain specialists, who are available around the world to build, pilot and implement blockchain solutions

- Integrate cognitive capabilities such as IBM Watson®, ingest unstructured data into blockchain platform and enable better business insights
- Leverage IBM's global delivery infrastructure and digital talent to enable as-a-service business model and to scale the business

“Blockchain is so profound it will do for trusted transactions what the Internet did for information.”

— Ginni Rometty, President, Chairman and CEO of IBM, FinTech Ideas Festival Keynote, 2017

Cognitive Process Transformation

The IBM Cognitive Process Transformation (CPT) growth platform, under IBM Global Business Services® (GBS), hosts the capabilities required to help clients digitize and automate their processes, transform their talent and culture and enable them to embed cognitive use cases in every decision, process and experience—whether for clients, suppliers or employees.

IBM provides consulting services infused with process redesign, cognitive technology, analytics, Lean Sigma, blockchain, business modeling, neuroscience-led talent change and design thinking. IBM delivers Business Process-as-a-Service in the areas of finance, procurement, talent and engagement and in mortgage processing.

For more information

For more information about IBM Blockchain or cognitive process solutions, please contact your IBM representative or visit ibm.com/blockchain.

IBM Blockchain in action

The IBM Global Financing facilitates credit among 4,000 plus suppliers and partners worldwide and handles 2.9 million invoices a year. It is using blockchain technology to reduce dispute times from over 40 days to under 10 days and free up about USD100 million in capital that is otherwise tied up at any time.

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^{1,3} Forrester: *Market Overview: Trade Promotion Management*, April, 2015

^{2,4} *Promotion Optimization Institute Issues Trade Promotion Vendor Panorama 2016/2017 Mid-Cycle Update*, January, 2017



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