



## Whitepaper

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# Digital-driven Deduction Resolution & Dispute Management in CPG

Author: **Pankaj Chugh, Aditya Sanghvi, Nitin Sharma**

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## Abstract

Unrecovered and unidentified deductions are a major source of revenue leakage for CPG manufacturers. Lack of insights into root causes of deductions compounded with lack of process governance, disparate sources of information and high cost of manual efforts add to the operational overheads.

Transforming the function with digital levers such as AI/ML, Process orchestration, Intelligent automation and an overlaying analytics engine enables the A/R analysts to improve the overall management, reduce overall cost of analysis while also helping focus on high-value activities such as credit collections, closures and reconciliation.

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# 1. Introduction

Whether a product is sold to smaller retail outlets or to large retail chains, deductions are an inevitable part of the trading process. A deduction occurs when a customer pays a lesser amount than that mentioned in the invoice produced by a supplier.

**A typical Order-to-Cash lifecycle to any business transaction consists of the following:**



In an ideal scenario, retailers would raise a purchase order and the manufacturers would raise an invoice for equal quantity and amount for payments without issues. However, the trading process is susceptible to several potential challenges including, but not limited to disagreements related to pricing tiers, promotional discounts, quantity and quality of goods. In such scenarios, the buyer often chooses to make a short payment i.e. pay for an invoice but remit a lesser amount than what is due, resulting in the occurrence of a deduction.

**5 -15%**

invoices are affected by deduction



**4 - 10%**

Of open items in the A/R ledger

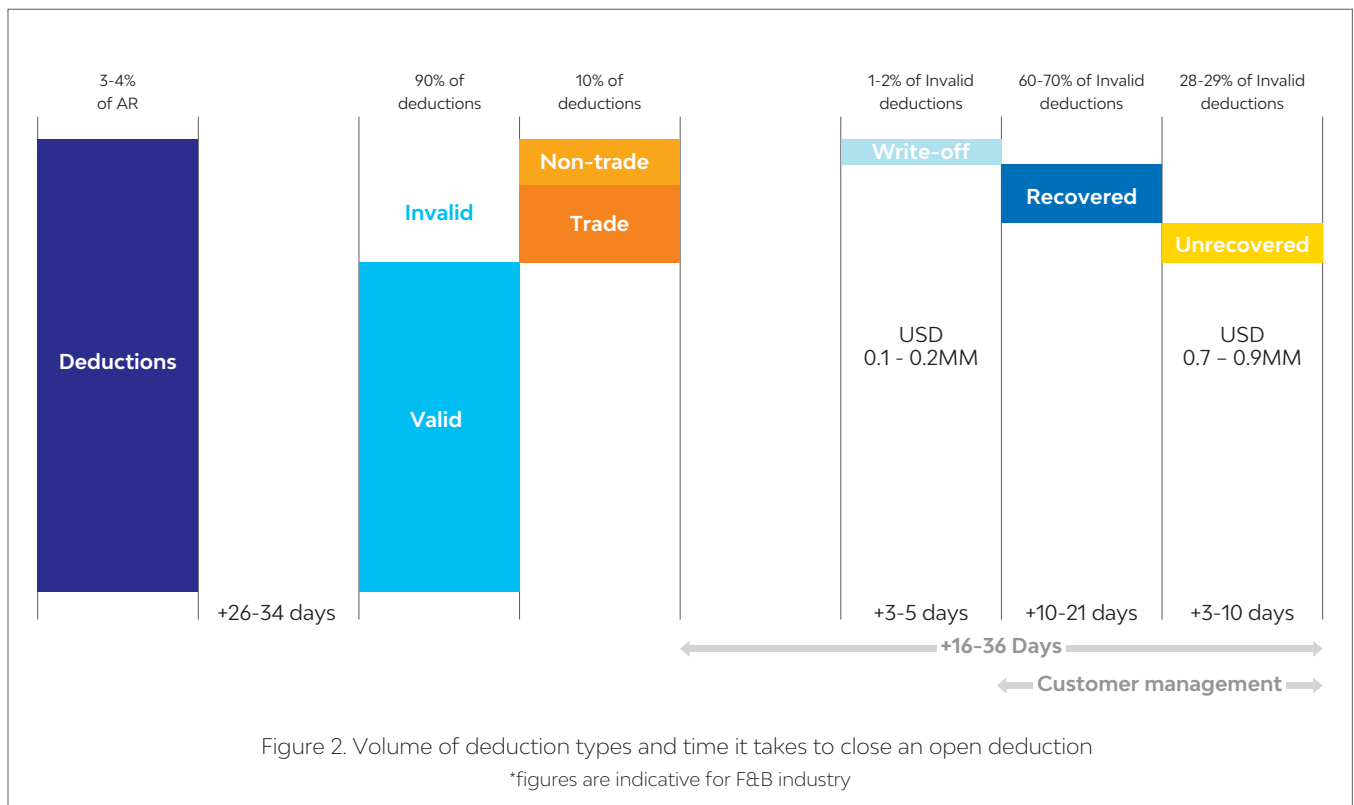
There are various reasons for which a customer may consider a particular order to be eligible for a discount and choose to make a short payment. Deductions, chargebacks or short payments are terms used interchangeably, but the end-result is still the same – erosion of the bottom line. While deductions may never be completely prevented, steps can be taken to reduce them to a large extent and in turn reduce the cost of doing business by streamlining the processing of deductions.

## 2. Landscape of Deductions

CPG manufacturers (interchangeably used with the term suppliers in this paper) tend to view deductions as a burden on their business operations rather than as an opportunity to identify areas of improvement. The number of deductions is on a rise as retailers continue making their vendor compliance rules stricter, and this is motivating suppliers across the globe to optimize their deduction analysis processes and technology infrastructure.

The average number of deduction line items are generally in the range of 3000-4000/day for a CPG manufacturer with an annual revenue of USD 8 - USD 10 billion. With an increase in the number of retailers, the cost of analyzing certain deductions can exceed the potentially recoverable amount. In such cases, deductions are written-off, adding up to significant losses. Such deductions can be minimized by creating an autonomous resolution pipeline that doesn't need manual investigations.

We considered a group of five US CPG manufacturers in the food & beverage industry with annual revenues in the range of USD 5 - USD 10 billion to gauge the impact of manual deduction management. About 3% of the AR are deductions and out of those about 10-13% are invalid deductions amounting to an average of USD 2 - USD 3 million. There is an opportunity to free up the capital by analyzing and eliminating repeating deductions of high value.



Claims for a specific order and dispute against a deduction must be raised and resolved in a fixed amount of time, usually agreed upon in the contract between the manufacturer and retailer. CPG manufacturers often have a team of analysts and external brokers to manage and resolve deductions to meet these deadlines. This team gathers documents such as invoices, proof of deductions/performance from customer portals, emails and communicate with other departments to bring a closure to each open deduction.

As demonstrated in Figure 2, high volume of deductions and incremental time to recovery usually results in a loss of revenue. For companies of a comparable annual revenue, deductions that are written-off or unrecovered in addition to the incremental operation cost, present a total dollar value opportunity of more than USD 1 million or about 0.8 - 1% of total deductions in A/R. Even though deductions comprise a small percentage of total sales, the amount of deductions left unrecovered is significant enough to cause concern. Companies need to reduce their DDO – days of deductions outstanding that can impact the DSO (Days of Sales Outstanding) in order to maintain a strong cash flow.

An ERP, in conjunction with a trade promotion management platform (or a trade promotion module within the ERP), is used to manage the promotion cycles. However, these systems lack the ability to pin-point the root cause of deductions and the features needed by an analyst to close deductions. Using NLP to detect and classify deductions, bots to gather necessary proof documents from multiple source systems and a centralized data-backed analytics engine can augment the number of informed, actionable decisions and reduce manual efforts by 30-40%. A business process management layer to orchestrate the communication increases accountability, reduces the overall time to reconcile deductions and increase resolution rates. The approach proposed in this paper is based on the foundation of enabling a value-driven management of the deductions process and providing business leaders with real-time visibility of critical deductions metrics, enabling them to predict their working capital and control financial uncertainty.

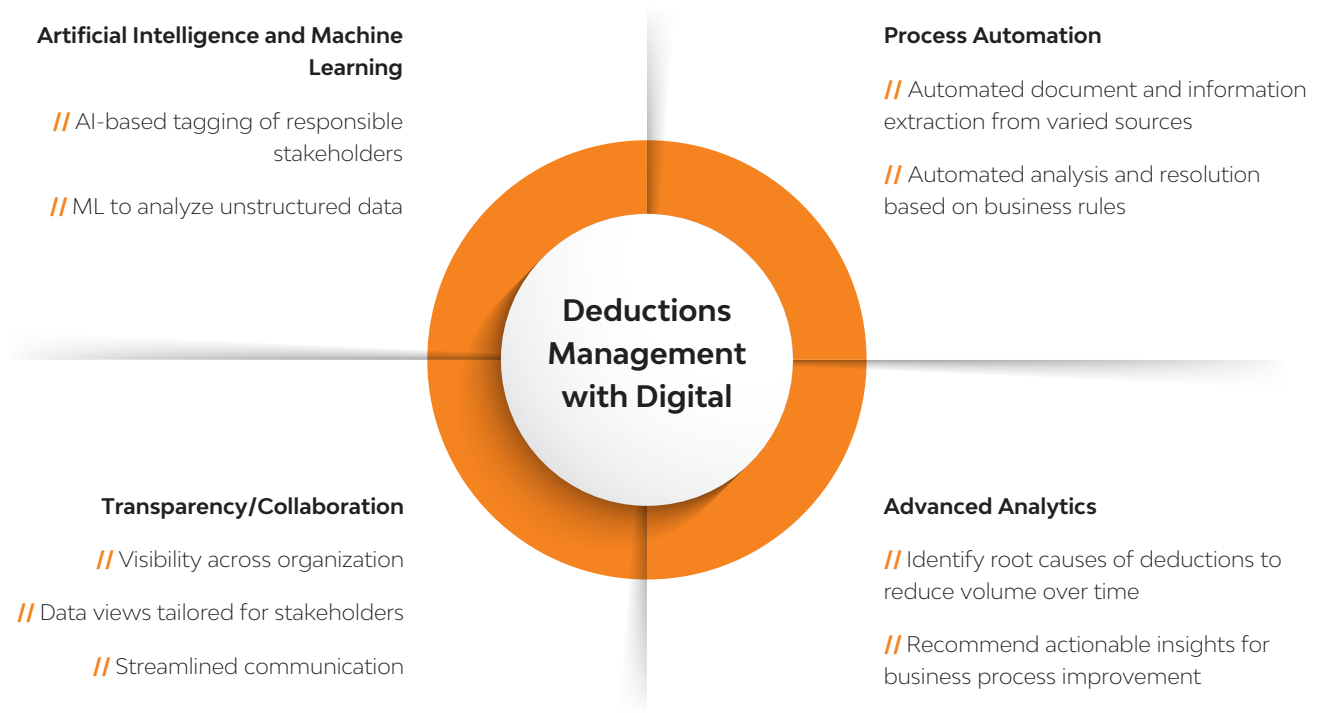
Identify	Gather	Collaborate	Analyze	Conclude
<p>Create a deduction case by matching remittance information and open invoices. A few customers provide deduction reason codes that indicates the type of deduction, else a reason code is tagged to each open line item..</p>	<p>Gather proof of performance, invoices, purchase orders, rebate details and contractual agreements from various systems.</p>	<p>Collaborate with multiple teams, departments to evaluate deduction cases, and gather more information.</p>	<p>Inspect deductions by comparing data in trade promotions management system, ERP, emails and document repository.</p>	<p>Determine validity of deductions-  <b>Valid:</b> Issue credit/rebate/write-offs with or without approval depending on pre-determined financial threshold for the amount.  <b>Invalid:</b> Communicate with the retailer, provide supporting documents and file a dispute.</p>

Typical journey of an A/R analyst / external agent

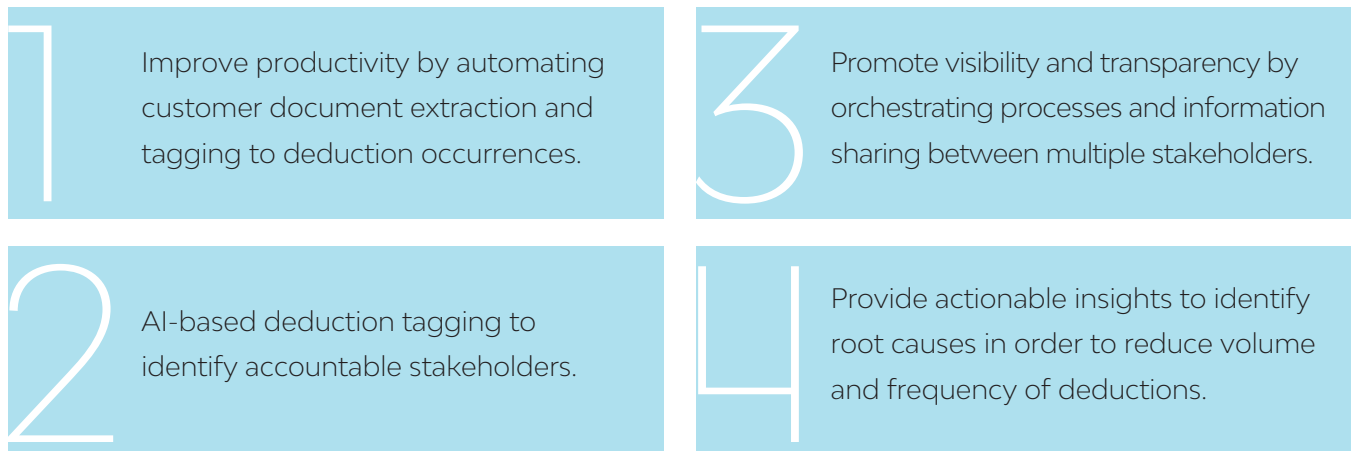
Disputing claims with retailers are a challenge because of a largely manual-driven process, coupled with non-intuitive systems. An A/R analyst / external agent usually analyzes the invoices affected by deduction and it can take up to 70 days to close one-line item depending on the reason. The operational cost of analyzing and recovering an amount could exceed the actual deduction amount in many cases. This paper takes a deep dive on how digital interventions can help with resolving deductions and resulting disputes between retailers and suppliers.

# 3. Deductions Management with Digital

Expediting deductions resolution is strategic for a manufacturer to maintain a steady cash flow and so is reducing cost of operations, which ultimately has a positive impact on the bottom line. However, to achieve maturity in deductions management, the goal should be to reduce deduction occurrences through optimal use of technology and business process improvement. A deductions management platform helps an organization achieve these goals by leveraging the following key areas -



## Four key levers for solving deductions management with digital interventions-





**Overall flow of our approach is based on the following key principles-**

Step	Solution
<b>Identify</b>	<ul style="list-style-type: none"> <li>■ Deductions Logic Engine hosts bots to identify remittance, deduction and claims information received from email, EDI mailbox, retailer websites, etc. and matches it with open invoices in ERP to create a deduction case in the deductions DB where each case is a line item.</li> <li>■ If this information is sent in an unstructured format such as email, fax, etc. character recognition and ML are used to extract details such as purchase order, invoice no., amounts, etc.</li> <li>■ Each deduction case either enters an automation or manual queue based on business rules.</li> <li>■ Cases are prioritized based on configurable parameters such as amount, ease of recoverability, ageing, etc.</li> </ul>
<b>Gather</b>	<ul style="list-style-type: none"> <li>■ Upon creation of a line item, documents (such as POD, BOL, proof of performance, etc.) and information relevant to the deduction/claim are collected from the supplier ERP, TPM, websites, email and EDI mailboxes, etc. and stored in the Network File System and deductions DB.</li> <li>■ This data is linked to the corresponding deduction case in the DB.</li> </ul>
<b>Collaborate</b>	<ul style="list-style-type: none"> <li>■ For deductions/claims in the manual queue, if collaboration of a different business unit is necessary, the analyst can assign a case to an individual or a group within the organization for more information, documents and approvals.</li> <li>■ This newly assigned individual(s) can view all the updates about the deductions case to study the it themselves and provide necessary inputs.</li> <li>■ AI-based tagging is used to auto-tag cases to relevant stakeholders.</li> </ul>
<b>Analyze</b>	<ul style="list-style-type: none"> <li>■ <b>Automated Analysis</b> <ul style="list-style-type: none"> <li>a. Cases in the automation queue are analyzed using configurable business rules.</li> </ul> </li> <li>■ <b>Manual Analysis</b> <ul style="list-style-type: none"> <li>a. Cases in the manual queue are presented to the analyst as line items for investigation. All the information collected using automation and collaboration about each line item is displayed on-click.</li> </ul> </li> </ul>
<b>Conclude</b>	<ul style="list-style-type: none"> <li>■ <b>Automated</b> <ul style="list-style-type: none"> <li>a. Valid case: Bots move the case to manual queue to let the analyst perform the final steps such as write-off deduction, provide rebate or issue credit to customer.</li> <li>b. Invalid case: Bots pick the most suited correspondence for the deductions case, compile necessary documents and send it to customer via email, EDI or website.</li> </ul> </li> <li>■ <b>Manual</b> <ul style="list-style-type: none"> <li>a. Valid case: Analyst either writes-off the deducted amount, provides rebate or issues credit to the customer via the presentation layer and logic engine’s backward integration with ERP.</li> <li>b. Invalid case: Analyst sends auto-generated correspondence with required documentation via customer’s preferred channel.</li> </ul> </li> </ul>
<b>Archive</b>	<ul style="list-style-type: none"> <li>■ All files and information are archived when the analysts or system marks a deduction case as resolved for convenient future retrieval in case of post-audit deductions.</li> </ul>



Our proposed deductions management solve is a combination of integrated systems that work in tandem to realize the components of the Deductions Management Platform. The key elements are:

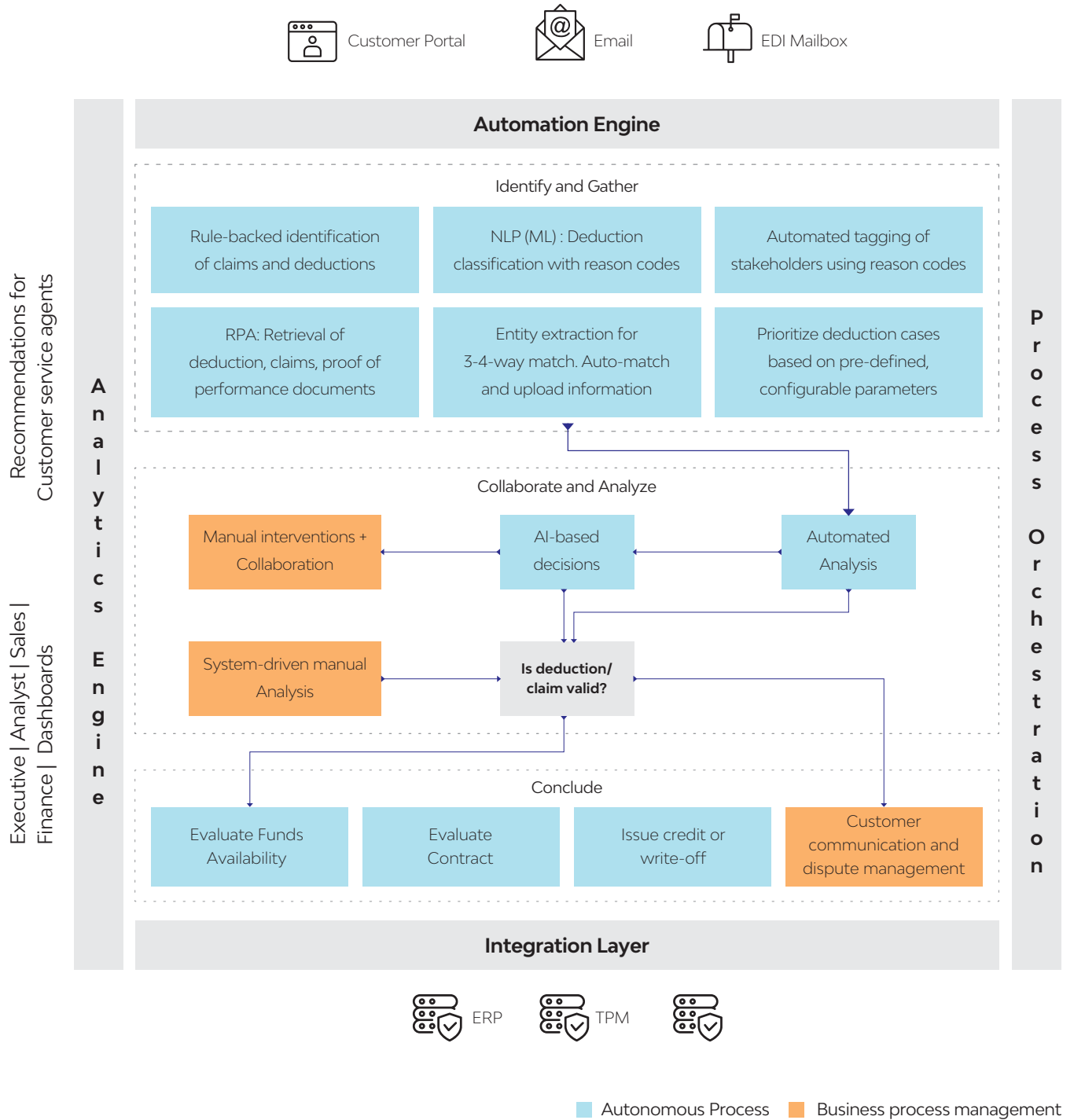


Fig. 5: N-tier Architecture with process flow

### 3.1 Cognitive Operations to Control Deductions

The Cognitive engine is a key component of the architecture in that it collects data at various points in the process flow and highlights areas of improvement using metrics in a dashboard. Following are some of the top reasons of deductions, metrics monitored and recommended actions:

Deduction reason	Metrics	Recommended Actions
Price/ discount mismatch	<ul style="list-style-type: none"> <li>■ % of POs that have a different price than supplier's ERP and TPM systems</li> <li>■ # of price mismatch occurrence per SKU</li> </ul>	<ul style="list-style-type: none"> <li>■ Alert sales team to communicate latest prices of SKUs with customers</li> </ul>
Shortages	<ul style="list-style-type: none"> <li>■ % of shortage deduction occurrences for all deliveries made by 3PL provider</li> </ul>	<ul style="list-style-type: none"> <li>■ Alert logistics provider to improve package monitoring</li> <li>■ Chargebacks</li> </ul>
Damage/ Unsalable	<ul style="list-style-type: none"> <li>■ % of damage deduction occurrences for all deliveries made by 3PL provider</li> <li>■ % of damage deduction occurrences for all products produced at a manufacturing site</li> </ul>	<ul style="list-style-type: none"> <li>■ Alert logistics providers to improve package monitoring</li> <li>■ Alert manufacturing team to focus on quality assurance</li> </ul>
Concealed shortages	<ul style="list-style-type: none"> <li>■ % of concealed shortage deduction occurrences per customer</li> </ul>	<ul style="list-style-type: none"> <li>■ Audit packaging systems</li> </ul>
Transportation/ Freight/ Routing	<ul style="list-style-type: none"> <li>■ % transportation/freight/routing deduction occurrences per customer</li> <li>■ Funds deducted due to transportation/freight/routing violations per customer</li> <li>■ % transportation/freight/routing deduction occurrences per 3PL</li> </ul>	<ul style="list-style-type: none"> <li>■ Ensure adherence to customer routing guide</li> <li>■ Contact customer to know if there have been updates to the routing guide</li> </ul>
Early/ Late delivery	<ul style="list-style-type: none"> <li>■ % early/late delivery deduction occurrences per 3PL</li> </ul>	<ul style="list-style-type: none"> <li>■ Work with logistics partners to ensure timely delivery</li> </ul>
EDI/ ASN Error	<ul style="list-style-type: none"> <li>■ % ASN deduction occurrences per 3PL</li> </ul>	<ul style="list-style-type: none"> <li>■ Audit ASN generation systems and processes</li> <li>■ Ensure ASNs are generated accurately and sent on time to the customer via the customer's preferred channel</li> </ul>

## Executive Dashboard

Creating a central repository for deductions data, a dashboard to view key insights is created for top level management. A few KPIs mapped to performance areas:



### Sales

- a. Net Sales
- b. Customer Lifetime Value, Growth
- c. Customer Churn Rate
- d. Profit margin per Customer



### Accounts Receivables

- a. DSO
- b. Average Days Delinquent
- c. Turnover ratio
- d. Number of revised invoices



### Overall deductions

- a. Deduction Amount (\$)
- b. Deductions as % of A/R, % of valid and invalid deductions
- c. % of trade and non-trade deductions
- d. Deduction reasons ranked by total amount (\$)
- e. Deduction cases grouped by concerned business unit, etc.



### Predictive Analytics

- a. Forecasted deductions per customer
- b. % change in overall deductions
- c. Overall deduction amount recoverable or unrecoverable

## 3.2 Automating and Orchestrating Processes to Improve Efficiencies



### Automated Identification

**IDENTIFY:** Deductions Logic Engine hosts bots to identify remittance, deduction and claims information received from email, EDI mailbox, retailer websites, etc. and matches it with open invoices in ERP to create a deduction case in the deductions DB, where each case is a line item.

**INTERPRET:** If this information is sent in an unstructured format such as email, fax, etc. character recognition and ML are used to extract details such as purchase order, invoice no., amounts, etc.

**CLASSIFY:** Each deduction case either enters an automation or manual queue and further classified based on business rules such as deduction reasons, customers, etc.

**PRIORITIZE:** Cases are prioritized based on configurable parameters such as amount, probability of recovery, ageing, etc.



### Automated Document Gathering

Upon creation of a line item, documents (such as POD, BOL, proof of performance, etc.) and information relevant to the deduction/claim are collected from the supplier ERP, TPM, websites, email and EDI mailboxes, etc. and stored in the Network File System and deductions DB.

This data is linked to the corresponding deduction case in the DB



### AI-based Tagging and Collaboration

For deductions/claims in the manual queue, if collaboration of a different business unit is necessary, the analyst can assign a case to an individual or a group within the organization for more information, documents and approvals.

This newly assigned individual(s) can view all the updates about the deductions case to study themselves and provide necessary inputs.

AI based tagging is used to auto-tag cases to relevant stakeholders



## Automated Analysis

**Automated Analysis:** Cases in the automation queue are analyzed using configurable business rules

**Manual Analysis:** Cases in the manual queue are presented to the analyst as line items for investigation. All the information collected using automation and collaboration about each line item is displayed on-click.



## Automated Conclusion

### Automated case

Valid case: Bots move the case to manual queue to let the analyst perform the final steps such as write-off deduction, provide rebate or issue credit to customer.

Invalid case: Bots pick the most suited correspondence for the deductions case, compile necessary documents and send it to customer via email, EDI or website.

### Manual case

Valid case: Analyst either writes-off the deducted amount, provides rebate or issues credit to the customer via the presentation layer and logic engine's backward integration with ERP.

Invalid case: Analyst sends auto-generated correspondence with required documentation via customer's preferred channel.



## Automated Case Archival

Upon creation of a line item, documents (such as POD, BOL, proof of performance, etc.) and information relevant to the deduction/claim are collected from the supplier ERP, TPM, websites, email and EDI mailboxes, etc. and stored in the Network File System and deductions DB.

This data is linked to the corresponding deduction case in the DB.

### 3.3 Other Recommendations

#### **Compliance Teams**

Compliance teams are dedicated to ensuring the quality of goods and services provided to customers. Such teams are widely implemented by companies in the Apparel, Footwear and Accessories business and

to some extent by Food & Beverages companies as majority deductions in such industries are trade related. Compliance teams are capable of significantly reducing deduction occurrences.

#### **Cross-functional Teams**

Deductions analysts are usually from the A/R or Compliance teams and are generally responsible for deduction resolution, they are not responsible for occurrence of deductions. Teams such as production, sales, logistics and delivery, IT and customer service are responsible for deductions. Creating cross-functional teams connected by a process orchestration platform is key to analyzing and swiftly approving non-trade deductions.

Resolutions are not only faster, but also trigger a continuous improvement initiative to avoid occurrences of similar nature. About 65% of suppliers supplying to major retail chains use cross-functional teams to resolve complex deductions cases, and 69% from these have reported a reduction in non-trade deductions by using cross-functional teams.

#### **Chargeback to concerned Business Unit**

In case a deduction is found to be valid, the deduction analysts either write it off or provide credit or rebate to the customer. However, charging back such deductions to the responsible business unit is becoming a common practice. This incentivizes the various business units to improve their processes by focusing on their respective cost accountability.

### **Monitor Vendor Agreements**

Vendor agreements lay down the terms and conditions that the retailer and supplier must abide to and the procedures followed in case of non-compliance. While the retailers are gaining leverage over suppliers, they are implementing stricter compliance policies to ensure on-shelf product availability at a lower price. With severe supply chain disruptions caused by the COVID-19 pandemic, it is with greater reason critical for suppliers to monitor changes in supplier agreements to avoid unexpected deductions and if they do occur, evaluate their correctness.

### **Focus on easy wins**

One of the key features of the proposed solution is identifying deduction reasons that are relatively easy to settle. By analyzing the time to resolution of deduction codes grouped by retailers, deduction cases are prioritized for resolution.

It is also critical to send early correspondence with regards to unknown/novel deduction codes, which is another feature this solution supports.

### **Monitor supplier score**

Various retailers have supplier scores such as OTIF (on-time in full) scores to monitor their supplier's performance. The higher the supplier score, the more leverage the supplier has in the trading process. Supplier scores are directly linked to the frequency and amount of deductions a supplier is subjected to, making it critical for suppliers to understand the various parameters on which they are evaluated by retailers to optimize their performance.

### **Streamline payment methods**

Streamlining payment methods is critical to reducing operational costs. Using EFT (Electronic Funds Transfer) is a relatively cost-efficient option to accept remittance. For example, suppliers accepting check payments typically use lockbox systems for payment processing. Lockbox systems usually charge customers on a per transaction basis and if your business receives high volume of small payments, the variable costs outweigh any potential benefits. In contrast, electronic funds transfer is a cheaper and faster alternative. Companies should evaluate their payment methods to reduce costs and turnaround times.



# 4. Scaling up the Maturity of Deductions Management

To achieve maturity in deductions management, the goal should be to reduce deduction occurrences through optimal use of technology and business process improvement. A deductions management platform helps an organization achieve these goals by leveraging the following key areas:

### A few KPIs to evaluate implementation

Digitizing deductions management and improving associated processes can provide both early and long-term gains. However, monitoring movement on specific indicators provides clarity on the tangible benefits the organization realizes and this helps build a business case to justify the cost of implementation. A few metrics that should be captured and monitored to secure buy-in from stakeholders –

Sr. No.	Metric
1	% reduction in cost of employing FTEs
2	% increase in working capital from claiming invalid deductions
3	% reduction in deductions management operating costs
4	% increase in volume of deductions cases resolved
5	% reduction in deduction cases
6	% reduction in DSO, DDO
7	% increase in delinquent accounts reviewed in a day
8	% increase in collections team’s productivity
9	% increase in number of collectors enabled to work from home
10	% reduction in write-offs

## 5. Conclusion

With Digital, trade deductions are relatively easy to analyze and resolve. Managing them with automation, process orchestration and data backed insights, offers immediate and long-term value. The benefit of this investment can be easily identified by observing reductions in operating costs and increases in working capital. Non-trade deductions are complex to handle but should be viewed as opportunities to improve in multiple areas. Digital interventions can help identifying root causes of non-trade deductions and set uniform KRAs for the departments accountable for continuous improvement.

## Sources

This paper has data collected from the following sources:

Search LTI - Digital Consulting and Advisory internal benchmarks and interviews



Search <https://www.attainconsultinggroup.com/2018-benchmarks-survey-results/>



Search <https://supplypike.com/blog/what-are-the-most-common-walmart-deductions-codes/>



# Authors



## Pankaj Chugh

VP – CPG Retail and Distribution

Pankaj Chugh is the leader for Consumer Goods, Retail and Distribution segments for LTI. Pankaj has a track record of leveraging digital technologies in generating successful organizational transformations. His work includes helping clients launch new business models to harnessing digital in operational changes across the value chain. Pankaj looks at the impact of digital interventions holistically – to various personas, across the value chain and through the entire spectrum of technology innovations.



## Aditya Sanghvi

Director - Digital transformation, Consulting & Advisory Practice

Aditya helps clients through transformations across the value chain by enabling organizational agility and realizing sustainable value from technologies like automation, machine learning, blockchain and advanced analytics. He has served Fortune 100, Global 2000 clients and works extensively with our start-up partners to create a connected ecosystem. He has successfully institutionalized transformation programs to improve operational efficiencies, user experience and streamline core business processes for our clients.



## Nitin Sharma

Senior Consultant, Consulting & Advisory Practice

Nitin Sharma is a Consultant with the Digital Consulting practice of LTI. He has consulting experience in diverse domains such as Manufacturing, Life Sciences, BFSI, Human Resource Management and CPG-Retail in roles such as Business Analyst, Product Manager and Digital Consultant. Nitin has worked with multiple customers to achieve revenue and cost optimizations by leveraging digital technologies such as RPA, Intelligent Analytics, AI/ML and Digital Integration and Mobility.

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