

### **Data-Related Trends in Banking**



#### **Regulatory Framework**

To gain insights from various bank records and manage regulatory compliance requirements.

#### **Mobile Banking**

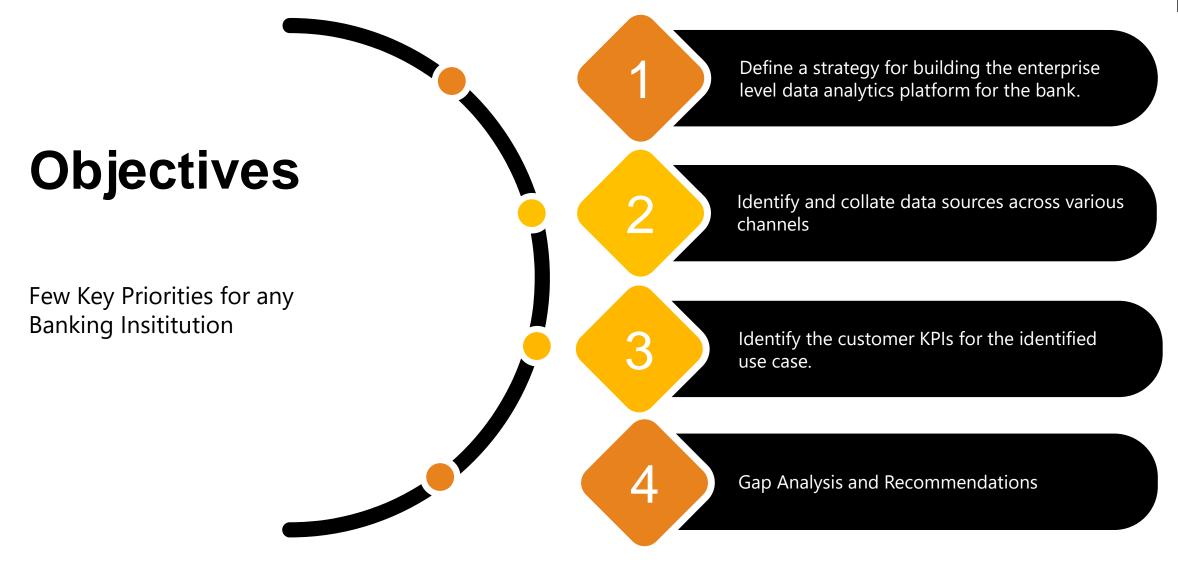
Ability to put temporary holds on cards, view recurring charges, or scanning a fingerprint to log into an account.

#### **Investment Banking**

With the rise of robo-advisors, artificial intelligence (AI) and robotic process automation are starting to infiltrate the money management space. Predictive analytics can help investors make wiser and more profitable decisions in realtime—while saving on costs.

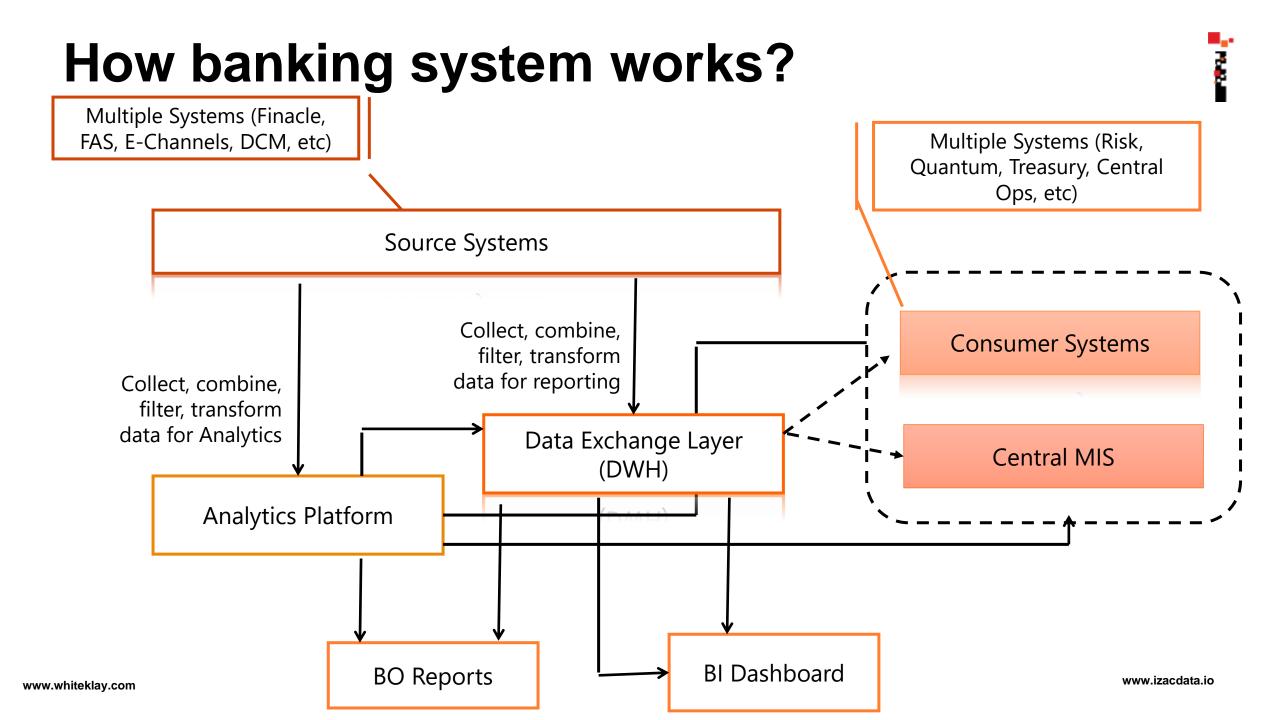
#### **Banking as a Service**

BaaS platforms enable fintechs and other third parties to connect with banks' systems via APIs to build banking offerings on top of the providers' regulated infrastructure.



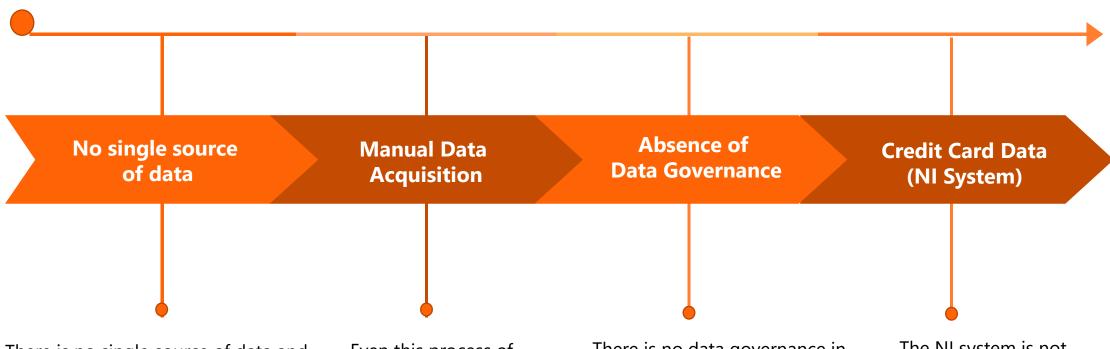
### **Data Sources**







#### **Current State**



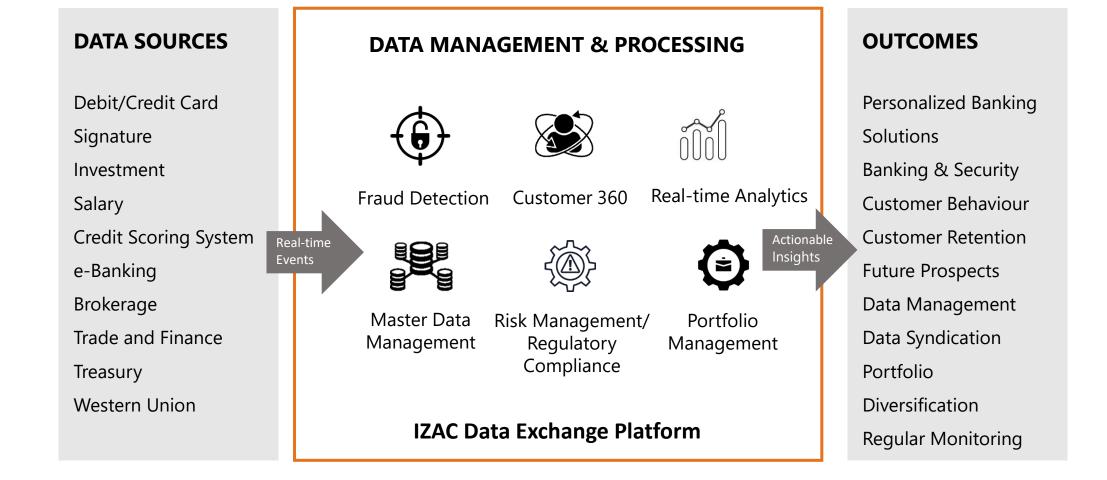
There is no single source of data and individual business units have to reach out to various teams to get data, combine, filter and massage it to meet their reporting needs Even this process of getting data isn't standardized via tools/documentation but is manually driven. There is no data governance in place currently The 3 pillars of Data Governance are Data Management, Data Security and Data Quality The NI system is not integrated with Finacle Core and Data availability is not real time

# **Data Challenges and Solution Highlights**

Challenges	Impacts	Solutions
Real-time Monitoring	<ul><li>Time sensitive</li><li>Post-event detection is ineffective</li></ul>	<ul><li>Real-time post new data</li><li>Real-time query response</li></ul>
Large-scale event/ Transaction handling	Billions or Trillions Scale	<ul><li>Scale out and up</li><li>High Compression</li></ul>
Insufficient data	Automating manual reports	<ul><li>Centralized data lake</li><li>Central source of data</li></ul>
Information exchange between departments	<ul><li>No collaboration for getting the data</li><li>Chances of data duplication are pretty high</li></ul>	• Event Sharing



# **IZAC** Architecture for Banking

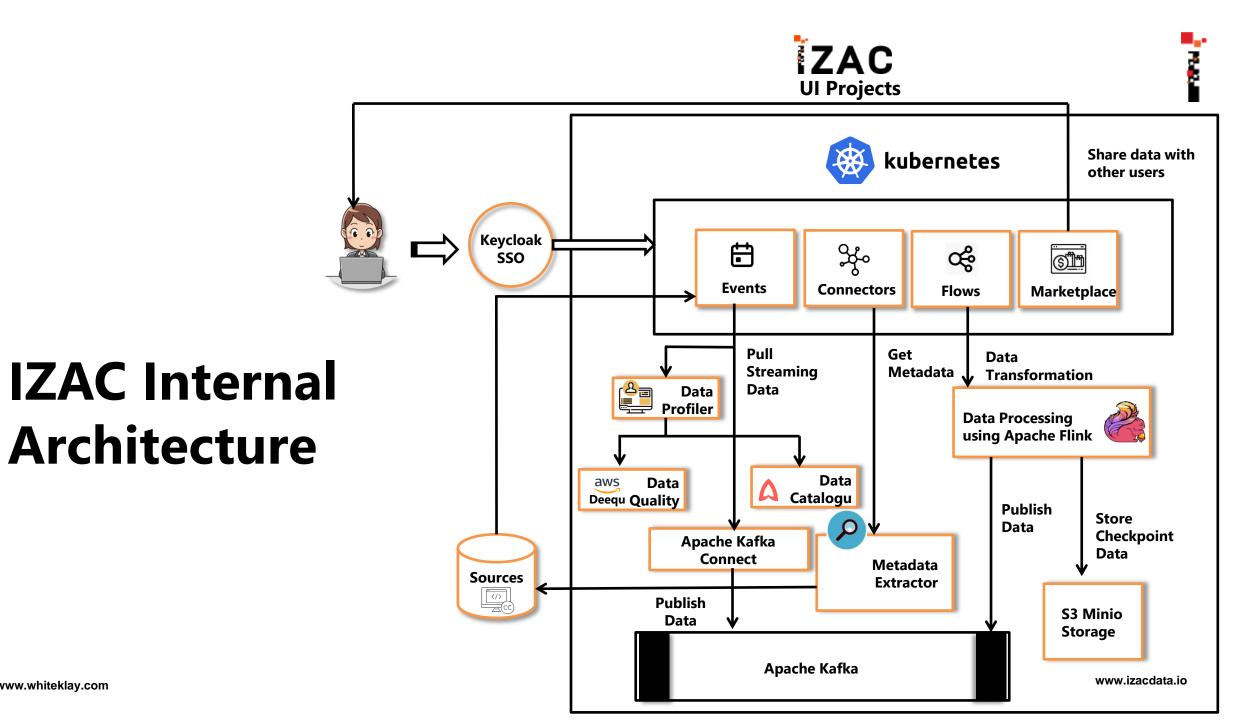


### **Real Time Analytics Platform**



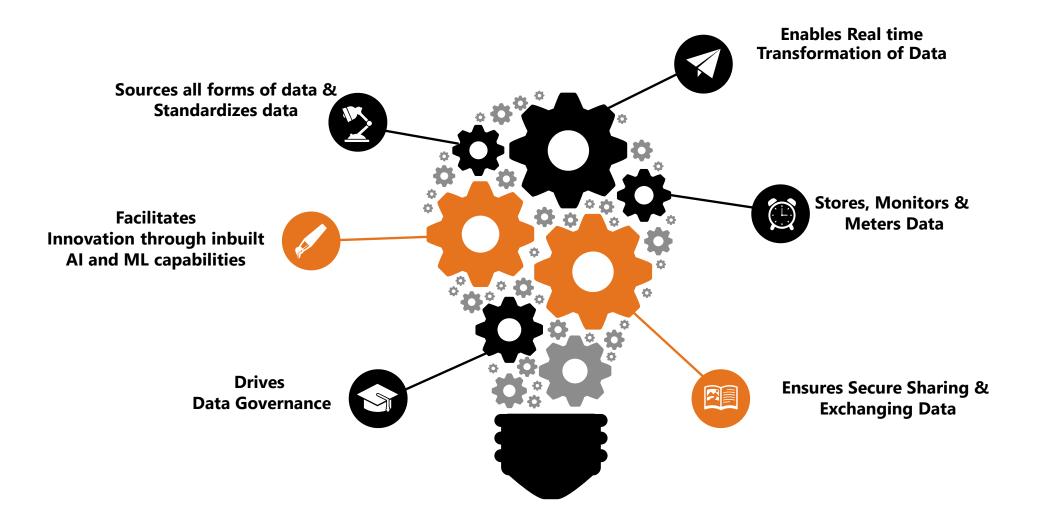
#### **IZAC Data Exchange Platform**

#### Banking



#### www.whiteklay.com

## **IZAC – Digital Transformation Enabler**





### **Needs & Challenges**

Needs	Challenges	
To get better visibility on customer needs to serve them better, increase customer loyalty and generate new revenue streams	Data complexity	
To improve operation effectiveness	Link and analyze different data sources	
To assist decisions regarding risk and fraud mitigation	Security and risk challenges, how to empower decision making based on facts	



### **Solution approach**

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To personalize financial services for their clients with a better visibility on their needs while still optimizing their operation

#### WHAT

Unified Platform for all types of information exchange to provide a full customer 360 view

#### WHO

The solution is applicable to all institutions looking for intelligent insights about their clients and take informed decisions



### IZAC platform for Customer 360 Overview



### **Customer 360 KPIs**

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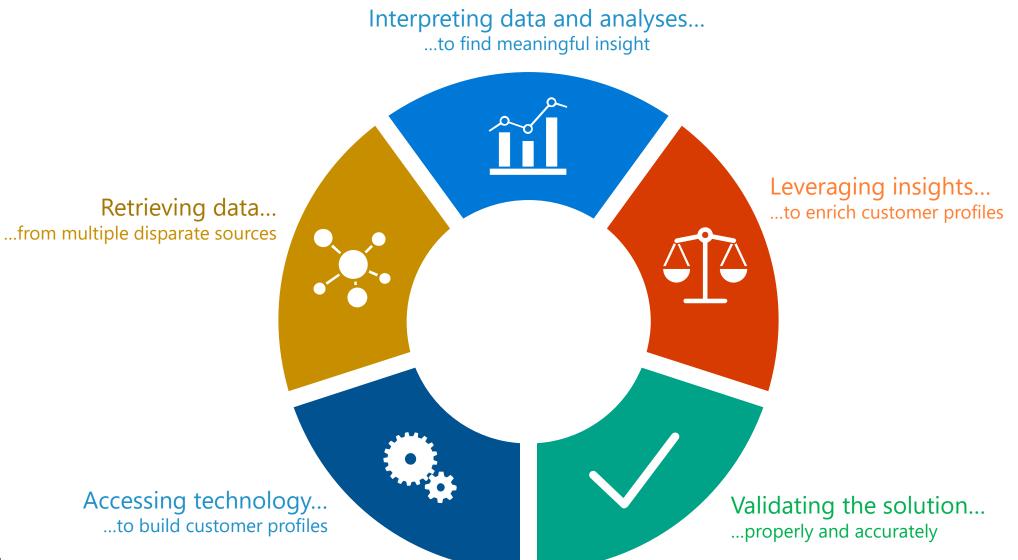
Sales & Marketing	Revenue	Profile	Risk	Service
# Total Customers Targeted with a	<ul> <li>% of active customers by period (monthly, quarterly, yearly)</li> </ul>	# of customers per age category	<ul> <li># of customers with high risk score</li> </ul>	% of completion of requests
Targeted with a campaign broken by new and old % Customers responded % Customers converted	<ul> <li># of customers per product/service availed for a given period</li> <li># of customers per product/service availed by age categories</li> <li># of customers per product/service availed by income category</li> <li># of customers per product/service availed by marital status</li> <li>Revenue generated per product/service</li> <li>Top 10 Highest Revenue Generators</li> </ul>	<ul> <li># of customers per income profile</li> <li># of customers per marital status</li> <li>Total family members</li> <li>Total number of dependents</li> <li>Total value of income and its sources</li> <li>Total value of expenditures and top 5 spendings</li> <li>Products and services Availed</li> </ul>	<ul> <li># of customers defaulting on Payments in a period</li> <li># total value of defaults</li> <li>Credit Score</li> <li>Risk Rating</li> </ul>	<ul> <li>requests</li> <li>Avg TAT of completion of requests</li> <li># of new service/products requests for a given period</li> <li># of new service/products requests realized for a given period</li> </ul>
		• Products and Services		

Availed Outside HBTF

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# Challenges in implementing customer 360



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### **Customer 360 Benefits**





### **Spend Analysis**

The process of collecting, cleansing, classifying, and analyzing expenditure data. Spend analysis shows you what's actually happening with your company's cash.





## Why Card Spend Analysis

Create an understanding of a card holder's spend structure

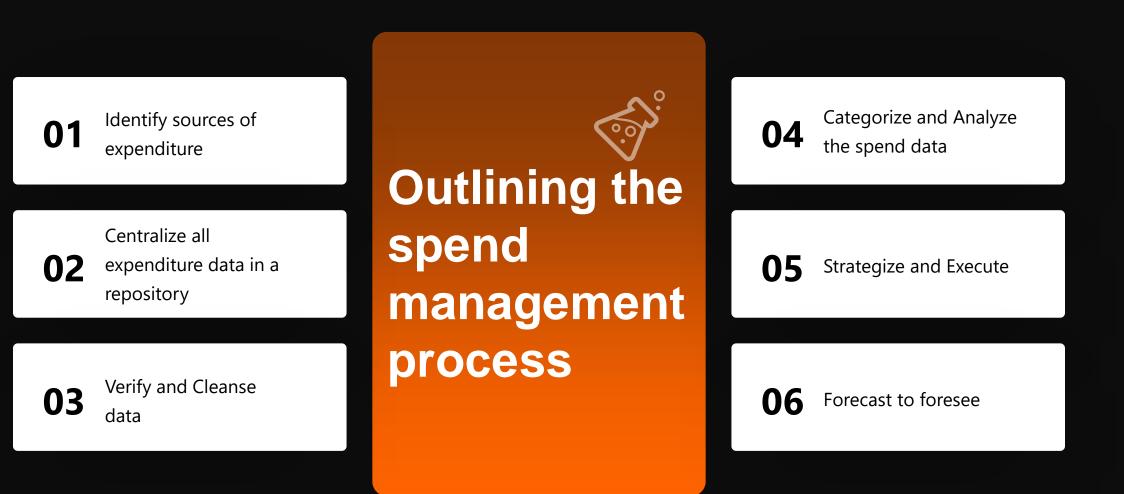
Enables actions to be based on facts rather than intuition

Create accurate spend forecasts

Spot fraudulent spending

Customer purchases using Debit/Credit Card Spend Analysis will automatically put each transaction into a category such as groceries, shopping, or entertainment or entertainment

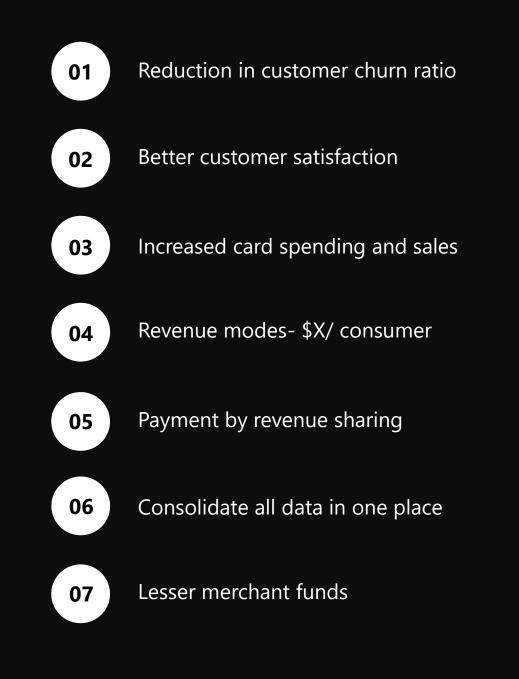
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# Find out where your spend data lives

Procurement Tools	Invoice processing	Your ERP
Company credit cards and the banks	Payroll tools	Other finance spreadsheets and documents

### Why spend tracking tool for Spend Analysis?





# What spend tracking tool has to offer?





# Spending by month and by spend category

WELCOME TO THE UPDATE	D STATEMENTS & ACTIVITY		What's Different?
CARD ACTIVITY Recent Transactions	Pending Charges (j)	Posted Charges (j) \$165 <sup>.06</sup>	Total Balance (i)
Previous Billing Periods PDF Billing Statements		e purchases into monthly payments wi	$\psi = 0$ th a fixed fee and no interest.
View By Year	Current Statement (Jun 13 -	Jul 13)	
Custom Date Range		Interact with charts made just for yo spending by businesses, tags, mont View Your Spending Report	

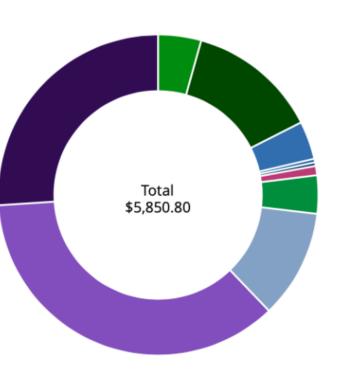
# What spend tracking tool has to offer?



### Spending by category summary

#### Spending by category Total \$5,850.80

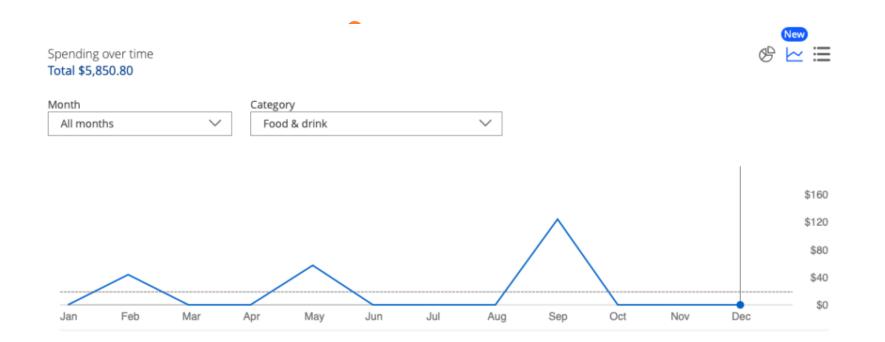
Month	Category		
All months $\checkmark$	All categories		$\sim$
Category	% of total	Total amount (\$)	
O Automotive	0.00%	0.00	
Bills & utilities	4.25%	252.50	
Education	0.00%	0.00	
Entertainment	13.24%	783.50	
Fees & adjustments	—	-76.91	
Food & drink	3.75%	224.37	
🔵 Gas	0.20%	11.99	
Gifts & donations	0.20%	12.00	
Health & wellness	0.79%	49.09	
Merchandise & inventory	3.75%	222.20	
O Miscellaneous	0.00%	0.00	
Office & shipping	10.97%	650.90	
Professional services	36.56%	2,167.11	
Repairs & maintenance	0.00%	0.00	
Travel	26.28%	1,554.05	



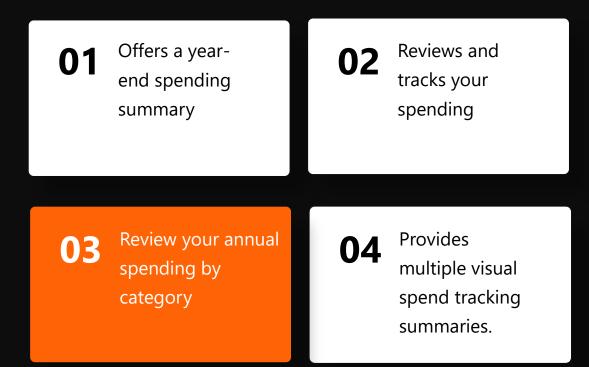
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### Spending over time



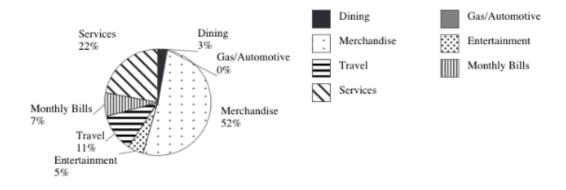
# What spend tracking tool has to offer?



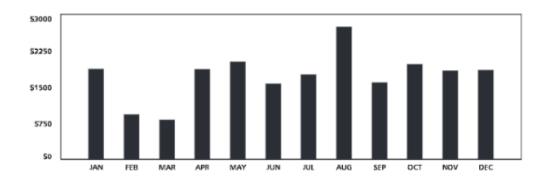


## Annual spending by category

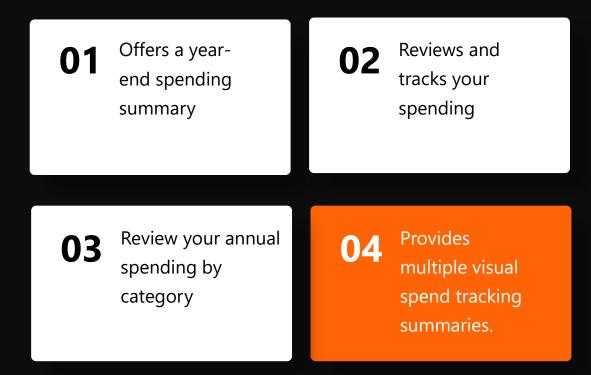
#### Annual expenditures by category



#### Total expenditures by month



# What spend tracking tool has to offer?



## Spend summary



Total \$1,515.17

47.04%	Merchandise	\$712.81	31.52%	Services	\$477.57
8.54%	Other Travel	\$129.44	6.19%	Health Care	\$93.86
2.82%	Restaurants	\$42.69	2.31%	Organizations	\$35.00
1.57%	Vehicle Services	\$23.80			

#### **Expense Tracking**

Phone-based fraud detection: frequency and duration of onedirectional calls

#### Performance

False positives: too many cases to investigate, block legitimate business False negatives: Fail to catch many fraud cases

#### Detection

Analysts manually write rules regarding features of nodes or their immediate neighbors (1 to 2 hops).

Machine Learning for Fraud Detection: Imbalanced Dataset Classification

Less than 1% of total call volume is related to confirmed phone scam activity

#### **Benefits**

Move towards a more data focused and driven enterprise

Repeatable and aims to be developed by gradual measurable steps rather than one big bang approach

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Allows to leverage the traditional reporting requirements via the existing warehouse and new age real time analytics platform

The architecture is capable of offloading existing expensive resource intensive ETL processes onto a cheaper faster capability

IZAC provides a basic technical capabilities to start with the governance process around data management, security and quality.

#### **Potential Use Cases**

Finance (MIS Team)	Retail (Products, E-Channels, Retail Products)	Risk Team	Treasury & Investment
Central Operations	Compliance and Marketing	Corporate Banking	Credit
Financial Institutions	PMO	Business Process Re-engineering	Administrations & Engineering
Digital Hub	Audit	Legal	Human Resources



# Thank You