



EY loss prevention
services for restaurants

Integrating machine and
human intelligence

Forensic & Integrity Services

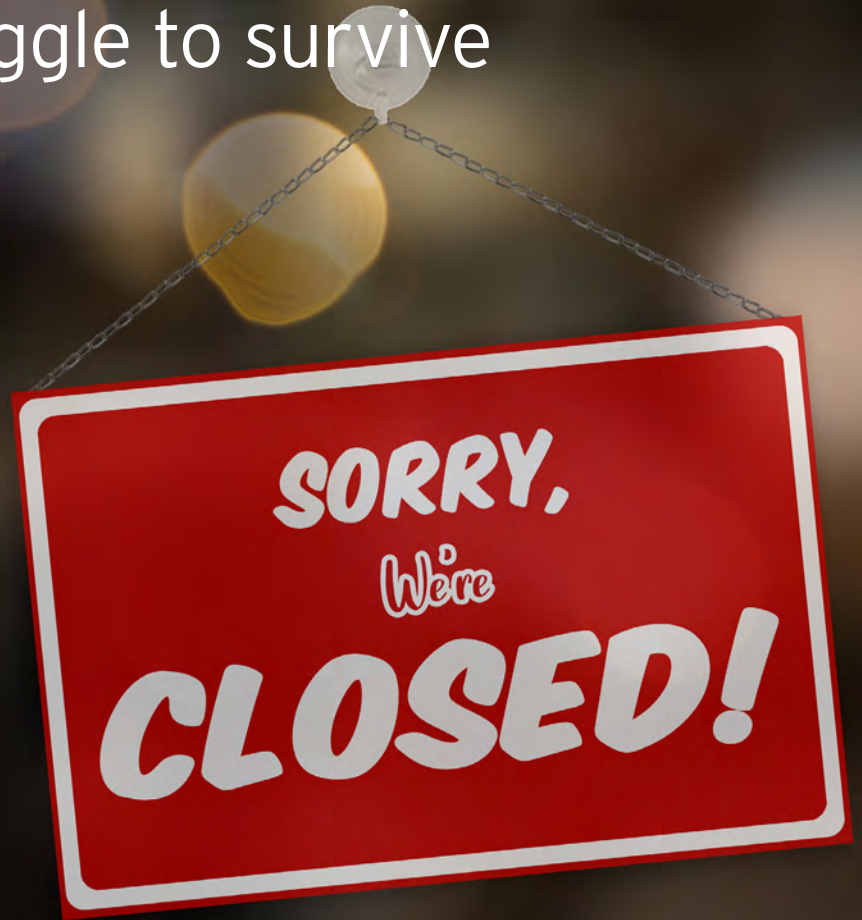
EY

Building a better
working world

Theft and fraud fuel losses as many restaurants struggle to survive

Dishonest workers cost the restaurant industry billions of dollars every year. Employee theft accounts for roughly 75% of inventory shortages and 4% of sales, according to the National Restaurant Association.¹ Even in the best of times, restaurants have slim profit margins, with the average ranging from 2.4% for fast food up to about 6% for full-service, fast-casual and casual restaurants.²

Even honest workers can create significant losses by making mistakes, especially new hires who are in training. Turnover estimates for fast-food restaurants range from 100% to 150%, which means many restaurants must train nearly every employee over the course of a year.³



¹ Mona Bushnell, "5 Restaurant Employee Scams That Will Cost Your Business Big," *business.com website*, www.business.com/articles/stop-employee-theft-restaurants/, accessed 3 June 2020.

² Patrick Gleeson, "The Average Profit Margin for a Restaurant," *Houston Chronicle website*, 4 February 2019, www.smallbusiness.chron.com/average-profit-margin-restaurant-13477.html, accessed 3 June 2020.

³ Eric Rosenbaum, "Panera is losing nearly 100% of its workers every year as fast-food turnover crisis worsens," *CNBC website*, www.cnbc.com/2019/08/29/fast-food-restaurants-in-america-are-losing-100percent-of-workers-every-year.html, accessed 3 June 2020.

The key to prevent losses is understanding how they happen so that systems and processes can be put in place to detect, monitor and remediate fraudulent activities. Employees may simply take cash from the register or use more sophisticated schemes, such as:

- ▶ **Check voids** – When a diner pays in cash, the server voids the check and takes the cash out of the register.
- ▶ **Coupon fraud** – An employee processes a cash transaction by claiming a coupon discount that the customer doesn't have and then pockets the difference.
- ▶ **Employee perks** – Up to 40% of all employee meal discounts are fraudulent.
- ▶ **Comp stacking** – A server provides free food or drinks in exchange for larger tips.
- ▶ **Walkouts** – While some customers do leave without paying, a server can pocket a cash payment and tell the manager it was a walkout.
- ▶ **Tip padding** – Since servers typically enter credit card tips written on receipts into a point-of-sale (POS) system manually, it's easy to steal small amounts from customers over time.
- ▶ **Wagon wheel** – A server transfers an item that has already been paid for to another table and pockets the difference.

Franchisors also face a fraud risk from their franchisees. It's estimated that 15% to 20% of franchisees underreport sales by at least 15%.⁴ Underreporting could increase with the growing use of third-party delivery services, especially during the COVID-19 crisis. If third-party aggregator apps aren't integrated with a restaurant's POS system, the franchisee may be able to exclude some delivery orders in its sales reports.

⁴ "Royalty Fee Leakage," *Audigence website*, www.audigence.com/franchise.html, accessed June 3, 2020.

Restaurant theft is contagious

Researchers studying millions of transactions at US chain restaurants over seven years found:

- ▶ Fifty-six percent of servers committed identifiable theft at least once.
- ▶ Servers are more likely to steal when working with peers who steal.
- ▶ If new hires work with dishonest peers in their first five months, they are likely to become habitual thieves.
- ▶ Managerial oversight reduces misconduct.

Source: *The Influence of Peers in Worker Misconduct: Evidence From Restaurant Theft*, Washington University in St. Louis, 2019.



EY approach to loss prevention

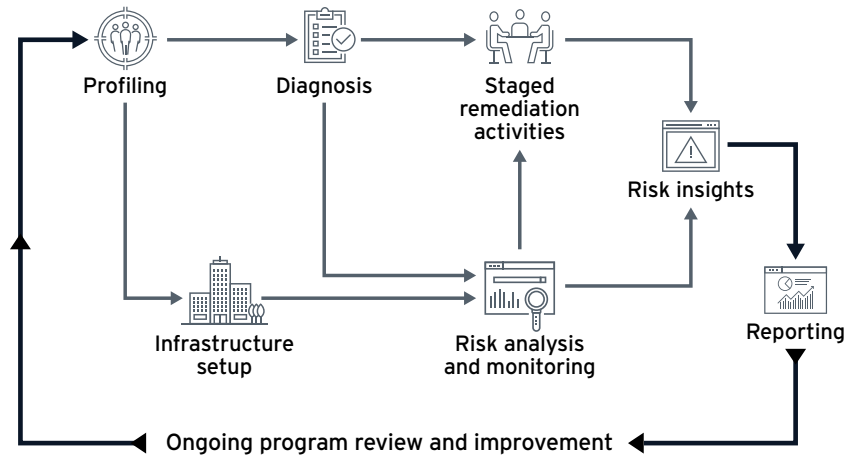


Consultative and collaborative

Capitalizing on decades of fraud detection and risk monitoring experience, EY teams work with businesses to develop a holistic loss prevention program. The consultative EY approach focuses on prevention, detection and mitigation measures from business, operations and technology perspectives. The broad range of EY services comprises profiling fraud and loss schemes; using artificial intelligence (AI) and analytics technologies for process and control evaluation; implementing workflows and escalation procedures; and developing risk monitoring control measures, loss calculations, return on investment tracking, and reporting and remediation procedures.

EY teams can help franchisors and chain restaurant owners create uniform loss prevention programs across all locations to generate cost efficiency and consistent risk controls. EY services help businesses mitigate theft and fraud risks on two levels: operating losses in individual restaurants, and underreporting by franchisees or restaurant managers.

Chart 1. EY loss prevention prescriptive methodology



Enhanced by data and analytics

Using interactive surveys or in-person workshops, EY professionals kick off each project by working with business stakeholders to evaluate existing processes and controls, as well as the fraud and loss scenarios for each restaurant. The resulting risk profile is used to build a business case and serves as the basis for loss diagnosis.

Using data from various systems (e.g., POS, billing), EY teams help determine the root causes for various loss categories (e.g., process errors, data manipulation) and quantify risks using AI and other advanced analytics technologies. In parallel, a data- and analytics-based infrastructure is built for ongoing risk analysis and monitoring.

Remediation efforts typically are carried out in a staged approach designed to provide early return on investment.

At the end of each stage, remediation results are assessed and used to plan for the next stage. Finally, insights gained from risk analysis and remediation efforts are combined into one comprehensive report and fed into an ongoing program review and improvement process.

The use of analytics is expanded to provide estimates for total losses from theft and fraud in a given restaurant or chain, by physical location, type of employee, promotion or other criteria. The loss quantification function also can be used to calculate losses from franchisee underreporting of revenue, training errors and accounting issues, such as inaccurate cost analysis of menu items and poor inventory management. Restaurants waste as much as 40% of their inventory according to the National Restaurant Association.⁵



⁵ Allen Waters, "8 Reasons Your Restaurant is Losing Money," *Single Platform website*, www.singleplatform.com/blog/restaurant-customer-experience/8-reasons-your-restaurant-is-losing-money/, accessed 3 June 2020.

Technology that supports EY services



Powered by Virtual Analytics Infrastructure (EY Virtual), EY loss prevention services for restaurants has the flexibility to be deployed on premises or via the cloud and the scalability to be implemented in multiple locations. EY teams work with a wide range of enterprise resource planning systems, POS systems and data management applications, as well as inventory, payroll and case management tools.

Access to data anywhere and at anytime

EY teams regard broad and sufficient data as the key to safeguard against theft and fraud. EY technology is specifically designed to ingest and analyze relevant data sources, structured and unstructured, to help companies



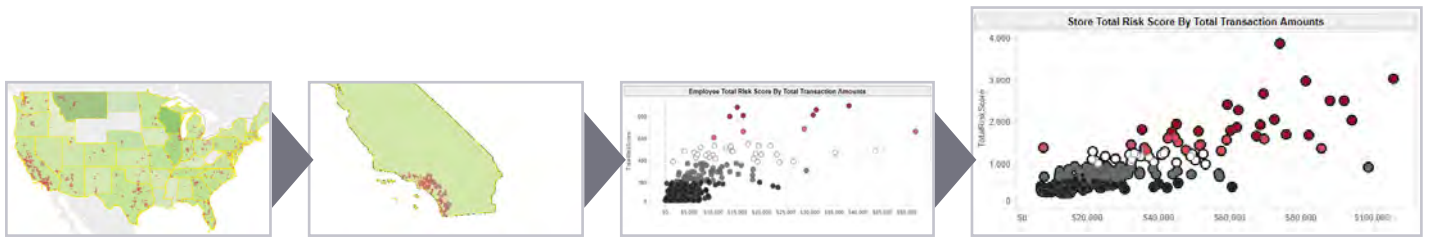
gain a consolidated view of their risk environment instead of resorting to sampling. While sampling may be helpful to assess the scale of the problem, it may not identify specific instances of theft. Typical sources included in the data ingestion process are POS transactions, payment types, promotions, discounts, employee performance records, shift schedules and inventory management.

The EY data-centric approach does not view a certain level of data quality as a prerequisite for a loss prevention project. Instead, data quality is viewed as a potential cause of loss that needs to be addressed in the same way as other losses.

Interactive and integrated case management capabilities

Through EY Virtual's built-in interactive case management tool, investigators have access to a view of anti-fraud schemes, which helps them to manage alerts and drill into specific risk areas in real time. Users also have the ability to automate certain escalation procedures using workflow tools. The case manager can integrate a wide range of

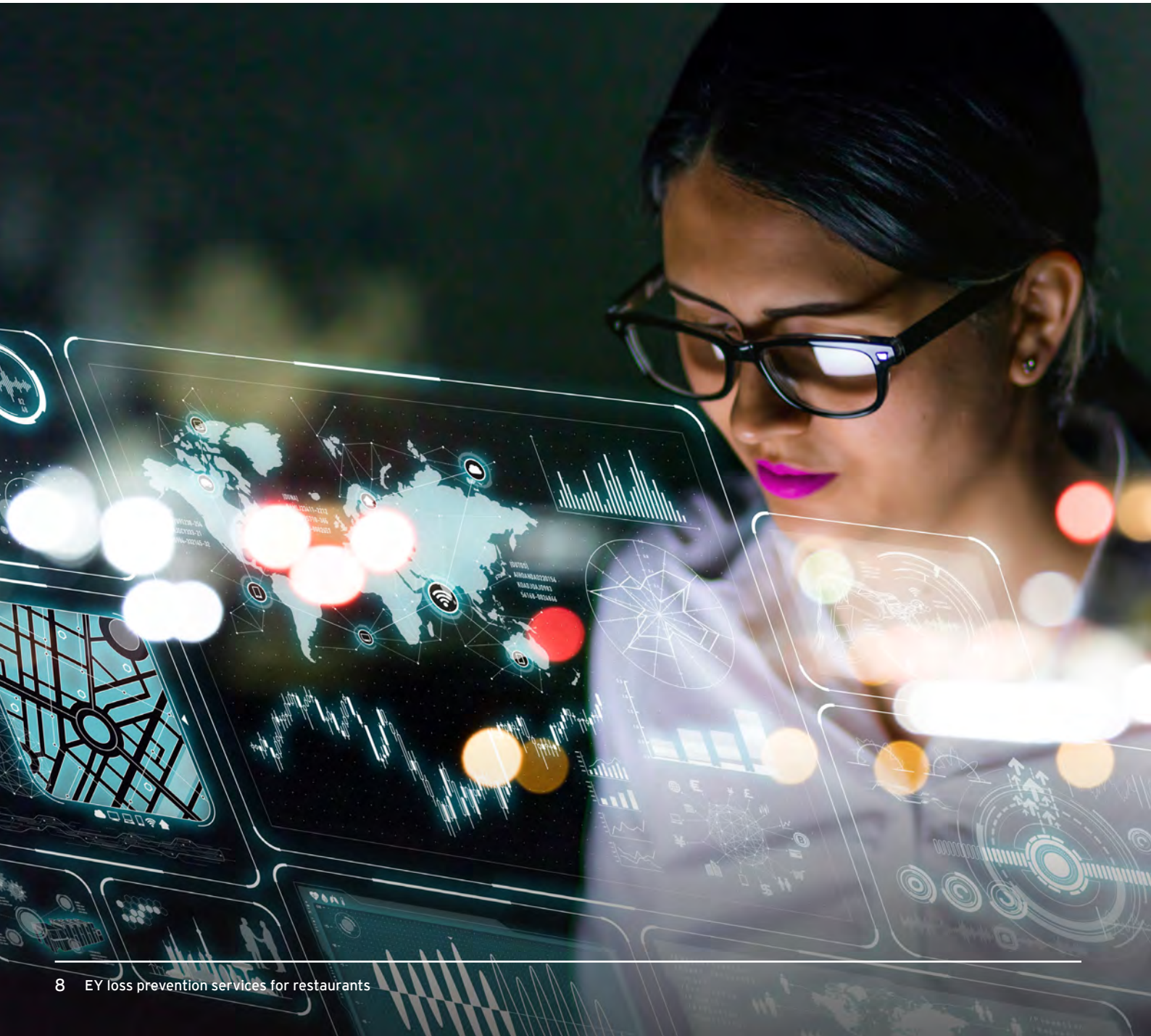
data sources, such as the POS system, shift schedules, the inventory management system and video feeds from in-store surveillance systems, so that relevant information needed for investigation is readily available at one central location.



Visual executive dashboard and robust reporting

The EY executive dashboard helps operational leaders to monitor the performance of multiple locations in one consolidated view in real time. The reports can be easily programmed with a configuration function showing key performance indicators and loss recoveries for identified

frauds, such as check voids, walkouts and comp stacking. Besides risk insights, business owners also can gain additional operational measurements, such as revenue performance and sales projections.



Risk assessment enhanced by advanced AI technologies on a continual basis

At the core of the EY offering is a library of proprietary, sector-specific anti-fraud schemes that draw on employee behavioral patterns from historical incidents. EY teams also work with clients to develop custom anti-fraud schemes based on their unique business model and risk profile. Each scheme is translated into machine learning scoring models that generate indicators predicting high-risk transactions and behavior, identifying the riskiest regions, stores, employees and promotions. The models also estimate monetary damages and the probability of recovery.

The results are used to determine appropriate remediation efforts with the goal of creating a culture of integrity and consistent customer experience across locations. Employees are trained on actual risk factors and receive targeted communications from all levels of management.

Remediation activities are monitored to gain further insights that are used to retrain machine learning algorithms, leading to continual improvement in detecting and preventing dishonest behavior.

Chart 2. Sample risk assessments



Multiple deployment options

Through managed services or preferred provider arrangements, EY teams forge long-term relationships with organizations that enable them to gain deep knowledge of their risks and potential for recovery. Effective loss prevention programs are developed with remediation measures that leverage both advanced technologies and nontechnical approaches.

1 EY cloud

Source data is hosted on a secure EY network with single and multiuser cloud options. Scalability and 24x7 availability is offered via an EY technology infrastructure used around the globe.

2 Enterprise deployment

All data traffic is maintained within the client network, without any outside access.

3 Client cloud

EY teams can integrate with many of the most common and popular cloud technologies.

EY teams in action

An EY team helped a global quick-service restaurant client significantly improve its loss recoveries – amounting to multimillion US dollars of bottom-line savings – by enhancing its traditional POS controls using forensic data analytics. Besides leveraging the EY proprietary anti-fraud library, the EY team developed custom anti-fraud schemes by collaborating with the client's internal investigators. The anti-fraud schemes took into account each store's unique business model and geographic risk profile and incorporated data from multiple data sources, including the POS system, employee performance records and shift schedules. EY professionals implemented anti-fraud schemes into risk-ranking predictive models using statistical modeling, machine learning and other forensic data analytics techniques. In addition, they incorporated a manual feedback loop into the predictive models to fine-tune and improve their accuracy over time.

The team also identified procedures to document the company's loss profile in order to measure loss recovery improvements and to demonstrate return on investment on an ongoing basis. The executive reports provided insights that helped regional and store managers to build POS controls to prevent and deter fraud. For example, the restaurant identified several types of high-risk transactions that now require manager approval. This proactive approach has helped to reinforce a culture of ethics and integrity within the organization.

Global presence

Americas:

- Atlanta
- Belo Horizonte
- Bogota
- Boston
- Buenos Aires
- Charlotte
- Chicago
- Cleveland
- Curitiba
- Dallas
- Houston
- Iselin
- Lima
- Los Angeles
- Mexico City
- New York City
- Quito
- Rio de Janeiro
- San Antonio
- San Francisco
- San Jose
- Santiago
- São Paulo
- Secaucus
- Toronto
- Washington, DC

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- Beijing
- Brisbane
- Hanoi
- Hong Kong
- Jakarta
- Kuala Lumpur
- Manila
- Melbourne
- Perth
- Seoul
- Shanghai
- Singapore
- Sydney
- Taipei
- Tokyo

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- Budapest
- Cologne
- Copenhagen
- Dublin
- Düsseldorf
- Frankfurt
- Istanbul
- London
- Madrid
- Manchester

- Milan
- Moscow
- Oslo
- Paris
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- Saarbrücken
- Stockholm
- Stuttgart
- Vienna
- Vilnius
- Warsaw
- Zürich

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- Abuja
- Cape Town
- Durban
- Johannesburg
- Nairobi

India:

- Chennai
- Hyderabad
- Mumbai
- New Delhi

Middle East:

- Dubai
- Tel Aviv



- Countries with EY presence
- Forensic labs
- Advanced security centers
- Forensic data centers
- Managed Document Review centers

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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About EY Forensic & Integrity Services

Embedding integrity into an organization's strategic vision and day-to-day operations is critical when managing complex issues of fraud, regulatory compliance, investigations and business disputes. Our international team of more than 4,000 forensic and technology professionals helps leaders balance business objectives and risks, build data-centric ethics and compliance programs, and ultimately develop a culture of integrity. We consider your distinct circumstances and needs to assemble the right multidisciplinary and culturally aligned team for you and your legal advisors. We strive to bring you the benefits of our leading technology, deep subject-matter knowledge and broad global sector experience.

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