Cornerstone Capital Group

# Flagship Report

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## Global Thematic Research

# The Economics of Automation: Quick Serve Restaurant Industry

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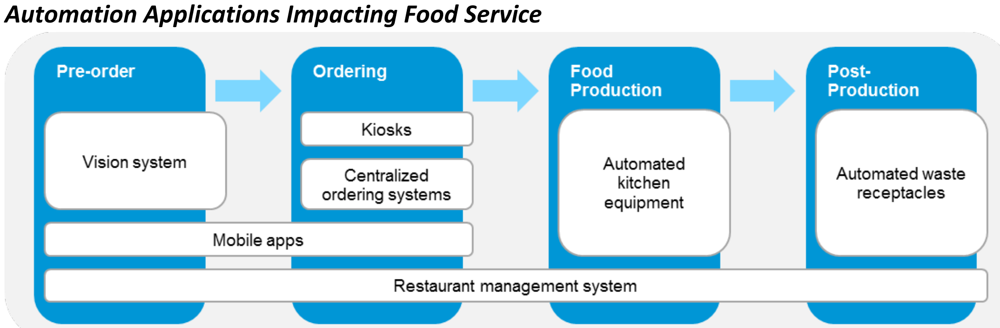
- **Increasing cost pressure.** Labor and food represent a significant portion of restaurants' cost structure. While these inputs have been relatively predictable in the past, the twin threats of rising wages and increasingly volatile food prices suggest a more challenging environment ahead. It's not clear that cost inflation can be consistently offset by raising menu prices, so companies are considering new strategies to protect margins.
- **Is automating an option?** The foodservice industry has been a relative laggard in adopting automation, a factor which may help explain the sector's modest productivity gains. But converging technologies are yielding faster, cheaper, and more dynamic applications in foodservice. We examine these applications and conduct proprietary analysis to determine their potential impact – both in timing and scale.
- **An acceleration is ahead.** The key reasons for automating are to drive sales growth, to reduce labor costs, or a combination thereof. Our assessment suggests that automation is currently complementing labor, particularly in the ordering process. Should wage pressure intensify, however, the focus will likely shift and companies will look to replace labor.
- **Investment implications.** From an industry perspective, we believe automation will have a positive impact, both by driving sales growth and managing labor costs. All else equal, companies that are focused on integrating automation technology with an already well-compensated and productive labor force are less vulnerable to rising wages.

***Automation Applications Impacting Food Service***




***Source:*** Cornerstone Capital Group

## Executive Summary

The quick-serve restaurant industry is undergoing a transformation as it addresses the risk of increasing cost pressures. It's unclear to what extent companies can offset cost inflation by raising menu prices. Meanwhile, converging technologies are creating opportunities to automate foodservice tasks.

In this report, we assess the quick-service restaurant segment's current and potential automation initiatives in the context of cost management (including human capital) and profitability. We conclude that automation will have a positive impact on operating margins both by driving sales growth and keeping labor costs in check. Moreover, those companies that focus on integrating automation technology with an already well-compensated and productive labor force are less vulnerable to rising wages.

### Key Questions

#### *Which Factors Are Driving the Automation Conversation?*

We identify three factors that create the potential for rapidly escalating costs. First, income distribution trends are increasingly a point of social and political contention, as are the calls for a higher federal minimum wage. Next, restaurant operators broadly agree that the impact of the Affordable Care Act (ACA) is uncertain, making it difficult to forecast health care costs. Finally, the three Cs – corn fuel, China, and climate change – have the industry questioning whether the pronounced recent spike in food price volatility is structural in nature.

With labor and food costs representing 60-70% of industry revenues, these three factors present a significant threat to an industry operating on already slim profit margins.

#### *Can Restaurants Raise Prices to Offset Cost Pressure?*

Raising prices to offset food costs is an option, although the success of this strategy is contingent on the nature of food inflation and the overall level of inflation in the economy. Furthermore, research studies on the price elasticity of demand for fast-food arrive at conflicting conclusions, reflecting their extreme sensitivity to a few critical factors, such as the assumed average wage rate of workers.

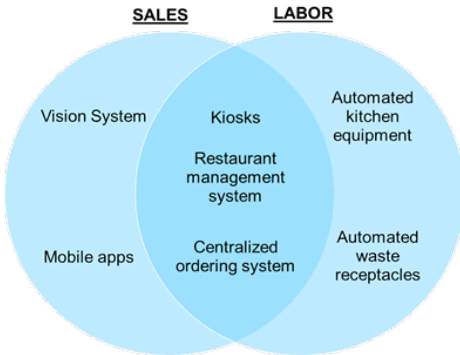
Taken together, it's not clear that raising prices to offset cost pressure is a sustainable strategy. As a precautionary measure, we believe the industry will investigate alternative strategies, and that automation will be one avenue of inquiry.

#### *Can Restaurants Automate to Offset Cost Pressure?*

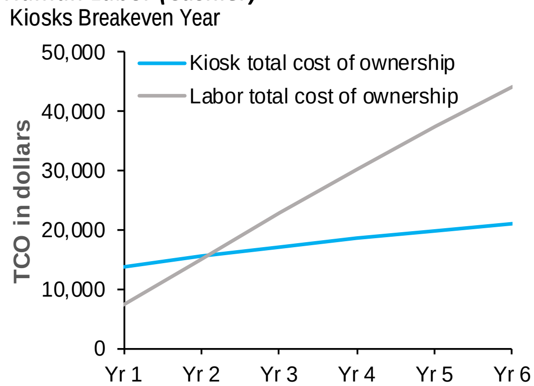
We identify seven automation applications that will impact the quick-serve industry. Counter to conventional wisdom, our research indicates that automation is currently complementing labor, particularly in the ordering process. Should wage pressure intensify, however, the focus will likely shift and companies will seek to replace labor.

Our proprietary analysis on kiosks supports this notion. Today, kiosks are delivering revenue benefits to operators by maximizing throughput, increasing average check amount, and enhancing customer loyalty. However, kiosks will be viewed as a potential substitute for labor if operators are faced with materially higher labor costs.

*Driving Sales or Reducing Labor?*




***Estimates of Total Cost of Ownership of Kiosk vs. Human Labor (Cashier)***




***Source:*** Cornerstone Capital Group

### *What Are the Investment Implications?*

We believe automation will have a positive impact on the industry by driving sales growth and keeping labor costs in check. In assessing the impact of increasing wage pressure on companies, we consider the following:

- **Labor productivity and cost structure –** Companies with higher productivity (average sales per employee) and lower labor costs (labor as a percentage of revenues) will be impacted to a lesser extent by rising wages.

- **Current compensation policy –** Companies that offer employees competitive compensation are less exposed to regulatory-driven wage hikes. To assess this, we compare cashiers' weighted average hourly rates relative to peers.

- **Technology initiatives** – In order to assess a company's propensity to automate, we identify technologies that are being considered or have been implemented.

All else equal, companies that employ a low-cost, inefficient labor force and underinvest in automation technology are most at risk in a rising wage environment. In contrast, companies that are focused on integrating automation technology with a well-compensated, productive labor force will have more flexibility in addressing this scenario. This additional flexibility is critical because companies can redeploy capital that would otherwise be spent on labor into other strategic initiatives such as improving food quality.

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*We extend our thanks to Juan Martinez, PhD, a 31-year foodservice veteran for his contributions to this report. A licensed professional engineer, Martinez is Principal and Founder of PROFITALITY®, an industrial engineering consultancy that helps multi-unit foodservice brands improve their "unit economics" to support brand growth by streamlining capital and operating costs, while delivering better customer service and product quality and consistency.*

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