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# ELEVATING RESTAURANT FINANCES

## THE TRANSFORMATIVE POWER OF SELF-ORDERING KIOSKS

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# ABSTRACT

We recently examined the financial benefits of incorporating self-ordering kiosks in restaurant operations by analyzing three separate examples of independently owned counter-service restaurants. The first is a Japanese-themed burger restaurant using two kiosks to facilitate ordering in a west coast city. The second example is a two-location taqueria, and the third is a three-location ramen restaurant with two kiosks, each of which have two kiosks per restaurant and are located in Midwestern cities. We will discuss the benefits and costs of implementing kiosks and examine the impact on these businesses, including reduced labor expenses, increased sales, and greater profitability. We will conclude by highlighting the potential impact on a restaurant owner's take-home pay

## 01 INTRODUCTION

The hospitality industry is evolving rapidly, and restaurant owners must adapt to changing consumer preferences and economic conditions. Many studies have demonstrated the customer benefits of ordering kiosks: more accurate orders, improved customer experience, and a more rapid ordering time. Trending data indicates customers actually prefer to order using a kiosk in counter service environments, having rapidly adopted this change during the pandemic. The phenomenon is consistent across age and cultural groups, contrary to prior industry predictions.

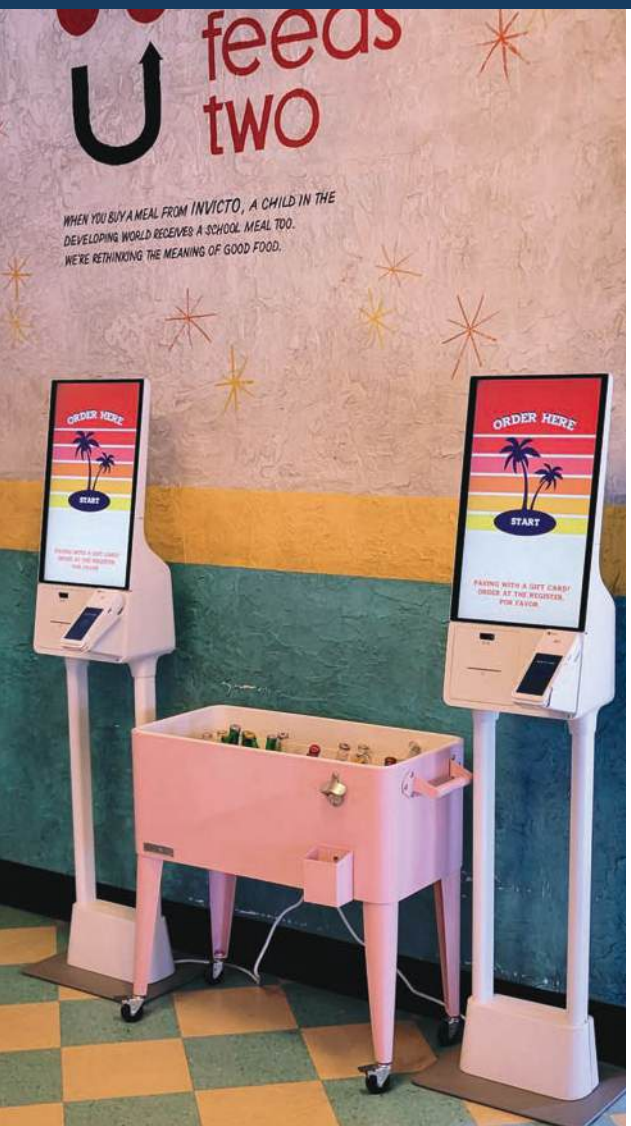
Those restaurants that survived the challenges of the pandemic, or that launched since, have faced similar challenges related to the cost of doing business in a rapidly changing world. Food prices have risen dramatically over the past two years and labor has been increasingly difficult to attract and retain. In many ways it is surprising that counter service restaurants have taken so long to embrace the self-service revolution, but the reasons for doing so are incredibly compelling today.

**In the United States the vast majority of fuel stations moved away from a full-service model to a self-service model decades ago, except in states and municipalities where that practice was not permitted. The primary driver behind this migration from full to self-service was cost, particularly in the unique circumstance of the fuel crisis of the late 1970s. It made little sense to pay the extra money to have another person do what you were perfectly capable of doing yourself. The world has never looked back.**

This white paper explores some of the numbers behind the introduction of self-service into this industry. Specifically, it examines the impact of self-ordering kiosks on the operational efficiency and financial performance of a two-location taqueria in a major metropolitan area, a west coast-based Japanese-themed burger restaurant, and a ramen restaurant with three locations in a medium-sized city. We selected three different restaurant formats with unique menu types in multiple cities to compare the performance in different environments. These kiosks have proven to be a valuable investment for the ownership of all three of these restaurants.

One of the businesses mentioned in this analysis elected to remain anonymous because of some of the wage and profit numbers included here and therefore, for consistency, we have not included names for any of the three restaurants.

All of the restaurants used in these examples are privately held and have multiple locations, but none are part of a large restaurant chain.


## 02
## SELF-ORDERING KIOSKS

All of the restaurants mentioned in this study implemented self-ordering kiosks in each of their locations. It is common for restaurants to employ two ordering kiosks regardless of order volume and each of the businesses analyzed here did so. This approach makes it more likely that at least one kiosk is available for a new customer who approaches, offering a better customer experience. The kiosks are designed to replace a staff member taking a customer's order at the counter and entering that order into the point-of-sale terminal directly. The direct ordering saves time, reduces errors, and increases customer satisfaction (those measures will be part of a future analysis).

**These kiosks, created by Nanonation using Samsung hardware and operating on the Clover POS system, cost a little less than $4,000 each, resulting in an initial investment per location of just under $8,000. There are ongoing monthly costs, including $69 per kiosk, $15 per month for the Flex device, and transaction fees. The transaction fees, since they occur regardless of a kiosk or non-kiosk transaction, are not included in these calculations.**

# 03
# KIOSK FUNCTIONALITY

Self-ordering kiosks offer several features to enhance the customer experience and are designed to be very easy to set up. Each of the restaurants purchased kiosks through their Clover sales channel (in this case they were purchased through an Independent Sales Organization) and signed up for the App in the Clover Marketplace. Once the restaurants acquired a login to the content management system, each of the kiosks automatically downloaded unique, customized menus and product pictures from Clover.

The kiosk software has a wide range of available features. Regardless of the specific features a restaurant will choose to use, each will allow customers to place orders in multiple languages, with customized suggestions for additional items. Those orders are then immediately transmitted to the kitchen display system for processing. Seasonal menu changes and featured specials are easily uploaded as needed, as are menu changes based on item availability or time of day.

## User-experience Enhancing Attributes

### CUSTOMIZED MENUS
Each kiosk will automatically download unique, customized menus and product pictures from Clover.

### MULTILINGUAL SUPPORT
Allows customers to place orders in multiple languages, with customized suggestions for additional items.


### KITCHEN DISPLAY SYSTEM INTEGRATION
Orders are immediately transmitted to the kitchen display system for processing.

## OF NOTE:

**Suggested selling is an optional feature, and here our focus was on analysis of restaurants that have that feature active. The taqueria set up their kiosk to suggest either chips and guacamole or a milkshake with each main course. The burger restaurant, on the other hand, focused their up-sell strategy on turning burger orders into combo meals. Boba tea and a variety of side items are suggested to customers of the ramen restaurant. In each case the goal was the same – to maximize the additional revenue in increased sales while offering a superior dining experience.**

# 04
## STAFFING STRUCTURE

The taqueria operates nine or ten hours a day, depending on the day of the week. They are open seven days a week, excluding holidays. Their entry level employees are paid an average of $14.24 per hour. When factoring in an 8% burden they measure their employee cost at $15.38 per hour. Employees typically float between tasks and staffing ranges from three to five total workers per shift, including the manager.

By using kiosks, they reduced their staffing on the five busiest shifts by one total shift worker. Their busiest shifts are now staffed with four employees rather than five. The taqueria is saving 25 total staff hours per week per location representing a cost savings of $385 per location per week. The change has also made scheduling moderately easier for the operators.

The ramen restaurant is also open seven days a week for ten hours per day. Their employees start at $12 per hour but average $15 per hour. The kiosks allowed them to change their staffing structure to eliminate one of their positions. Prior to installing the kiosks, they employed a staff member to manage the order terminal for the entire time they were open. Therefore, the savings they were able to realize through the installation of kiosks were even more profound. They have reduced labor costs by approximately $1,050 per week, not including burden.

The burger restaurant declined to share their hourly wage and total savings data for this analysis. The minimum wage in the community in which they operate is $19.97 per hour and we've estimated they save a similar number of labor hours to the taqueria based on their business structure. The estimated weekly savings for the burger restaurant is therefore $499.

The taqueria is saving 25 total staff hours per week per location representing a cost savings of $385 per location per week.

The ramen restaurant has reduced labor costs by approximately $1,050 per week, not including burden.

We estimated $499 as the weekly savings for the burger restaurant.

**AVERAGE MONTHLY LABOR SAVINGS OF $2,793 PER LOCATION.**

# 05
## SUGGESTIVE SELLING

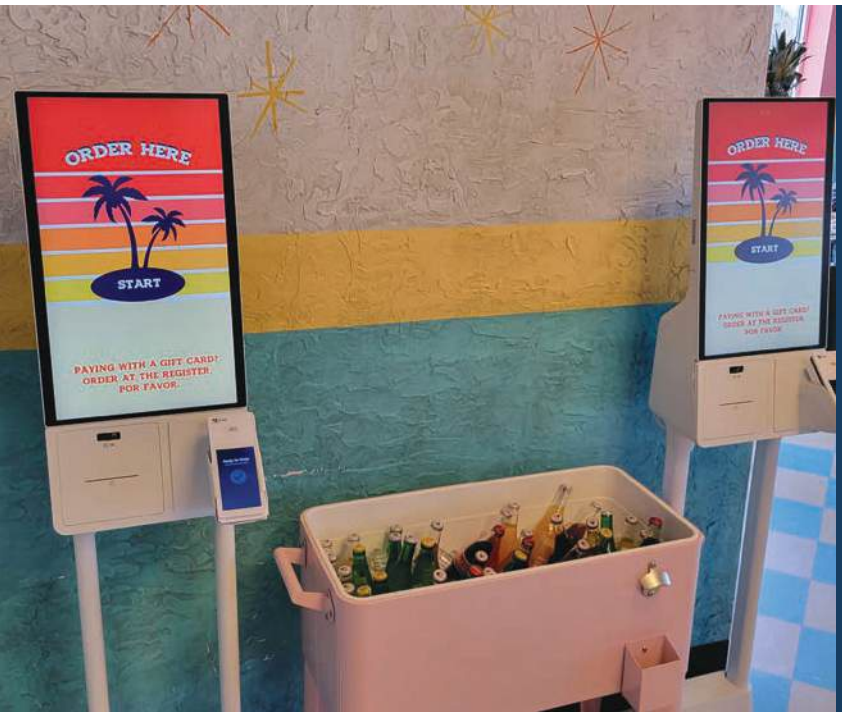
The taqueria utilizes the suggestive selling feature of the kiosk to offer additional products. Every time a customer orders an item from certain categories, the kiosk will suggest either chips & guacamole or a milkshake to the customer. We reviewed the data in detail in one of their locations and found the following.

APPROXIMATELY
**8.2%**
OF CUSTOMERS ADD A SUGGESTED ITEM TO THEIR BASKET

THE AVERAGE SUGGESTED ITEM ADDS
**$6.73**
TO THE TICKET PRICE

THE TAQUERIA RECEIVES AN AVERAGE OF
**179**
24
ORDERS PER DAY

THEY HAVE A COGS OF ABOUT 32%, SO EACH ADDITIONAL SUGGESTED ITEM ABOVE THE NORM ADDS
**$5.25**
TO THE BOTTOM LINE




**Perhaps most interesting is that since the implementation of the kiosks the overall ticket size has increased and bottom line has increased by 3% overall. The taqueria has seen a gross margin benefit beyond just the additions of the suggested items. More research is required to determine why customers are spending more with the kiosks, but the numbers they are seeing are significant.**

The burger restaurant aims to convert burger buyers into combo buyers with Nanonation's suggestive selling tools, although they do also offer the ability to just add fries. For each customer that orders one of the restaurant's Japanese-themed burgers they offer one of three different combo types. Success metrics included:

- **Over 38% of customers turned their burger order into one of three combo offerings**
- **An additional 1% added fries only**
- **The up-sell offerings added 12% to the overall sales number daily or $151.09 per day**
- **Collectively the combos have COGS of about 28%, so each additional suggested item above the norm adds $108.78 to the restaurant's daily profit**

The ramen restaurant aims to add a variety of high-margin items to main courses selected by their customers, including crab rangoons, pork buns, octopus balls, and dumplings. Suggestive selling has proved to be beneficial to their sales:

- **12.7% of customers elected to add additional items through suggested selling**
- **A basket with a suggested item was worth 30.6% more than the standard basket**
- **Overall suggested selling added 6.9% of additional revenue to total sales**
- **Weekly sales increased by $1,357.50 or $193.93 per day.**
- **With an estimated COGS of 30%, the daily profit increase for the ramen restaurant is $135.75**

## AVERAGE MONTHLY GROSS MARGIN INCREASES OF $3,575 PER LOCATION.

SUGGESTIVE SELLING
## IMPACT

Up-sell Revenue

Base Revenue

# 06
# ROI CALCULATION

To evaluate the return on investment (ROI) for the taqueria, we consider the initial investment (in this case two kiosks), the monthly costs, reduced labor expenses, and increased sales due to suggestive selling features.

## ROI CALCULATION

For single taqueria location

### INITIAL INVESTMENT: $7,720

- **Weekly Costs:** $38.77 (for two kiosks)
- **Reduced Labor Expenses:** Approximately $384.50 per week
- **Increased Profit:** Estimated weekly increase of $763.51
- **ROI:** Calculated as (Net Annual Benefit / Initial Investment) x 100
- **ROI for taqueria:** (57,697 – 2,016) / 7,720 = 747%

**In the Taqueria analyzed here, the data show the two kiosks paid for themselves in less than seven weeks!**

**Similarly, the costs for the burger restaurant show a similar investment.**

## ROI CALCULATION

For single burger restaurant

### INITIAL INVESTMENT: $8,040

- **Weekly Costs:** $38.77 (for two kiosks)
- **Reduced Labor Expenses:** Approximately $499.25
- **Increased Profit:** Estimated weekly increase of $761.49
- **ROI:** Calculated as (Net Annual Benefit / Initial Investment) x 100
- **ROI for taqueria:** (65,558 – 2,016) / 8,040 = 790%

**It also took less than seven weeks for this restaurant to make back their investment in kiosks.**


**Finally, the analysis for the ramen restaurant's ROI.**

## ROI CALCULATION

For the ramen restaurant

**INITIAL INVESTMENT: $8,140**

- **Weekly Costs:** $43.38 (for two kiosks)
- **Reduced Labor Expenses:** Approximately $1,050
- **Increased Profit:** Estimated weekly increase of $950.25
- **ROI:** Calculated as (Net Annual Benefit / Initial Investment) x 100
- **ROI for taqueria:** (104,013 – 2256) / 8,140 = 1,250%

**The ramen restaurant needed only four weeks to recoup the kiosk investment.**

# THE AVERAGE PAYBACK WAS UNDER 6 WEEKS!

# 07
# IMPACT ON THE BUSINESS

The implementation of self-ordering kiosks had a significant impact on each of these businesses. The combination of labor savings and increased margin meant more money to the bottom line which, based on the owners' preference, can have a positive impact on take home pay for the owners.

## Taqueria Calculation

| | |
|---|---|
| **Reduction in Employee Costs and Burden:** ($19,994 per location) | **$39,998** |
| **Increase in Gross Margin:** (Location 1: $39,703) (Location 2: $20,171) | **$59,874** |

## Burger Restaurant Calculation

| | |
|---|---|
| **Reduction in Employee Costs and Burden:** | **$25,961** |
| **Increase in Gross Margin:** | **$38,943** |

## Ramen Restaurant Calculation

| | |
|---|---|
| **Reduction in Employee Costs and Burden:** | **$54,600** |
| **Increase in Gross Margin:** | **$49,413** |

### IMPACT ON RESTAURANT OWNER'S TAKE HOME PAY

**Depending on the business, the restaurant owner's monthly income can increase significantly. In the two location taqueria example provided here, those numbers amounted to $8,322 per month or $99,862 annually. The Japanese-themed burger restaurant saw a similar impact. A single location has an estimated total annual impact of $64,904 ($5,409 monthly).**

**The ramen restaurant had the largest annual increase in take home pay of $104,013 from the single location measured here!**

## AVERAGE INCREASE IN TAKE HOME PAY OF $72,949 PER LOCATION!

# CONCLUSION

Self-ordering kiosks have proven to be a valuable investment for restaurant owners looking to increase their take-home pay. The implementation of these kiosks not only streamlines operations and reduces labor expenses but also boosts sales and profitability. Restaurant owners can expect a significant impact on their financial well-being through reduced costs and increased profits, ultimately improving their take-home pay. It's essential for restaurant owners to consider this innovative technology to stay competitive in the evolving hospitality industry.

While this data makes installation of ordering kiosks a smart business decision for existing owner-operated restaurants, inclusion of ordering kiosks in new franchise locations is even more compelling. Although requiring an increase in initial investment, the reduction in operating costs and additional revenue from the sales of high-margin add-on items can accelerate the break-even of new establishments. Franchise groups should strongly consider the large-scale impact of this technology related to emerging strategic goals and initiatives.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