



Key Benefits and ROI associated with QSR Drive-Thru Order Confirmation Technology

Introduction

Drive-thru order accuracy is a primary contributor to profitability for today's QSR operator. Accurate order-taking and order-input is often a delicate verbal transaction between crew and customer, but vital to *guest satisfaction* and *profitability*. Communication and accuracy can be enhanced by installing Order Confirmation System (OCS) technology in the drive-thru. The OCS provides a real-time visual recap of the customer's order using sunlight-readable LCD technology. Delphi's research confirms that speed-of-service and order accuracy are improved when the OCS is used properly. Customers will quickly recognize mistakes, overcome language barriers and have less anxiety during the ordering process. Store profitability will be enhanced by faster service times, reduced employee theft, increased sales and increased check averages through clear communications and attractive digital promotion and up-sell messaging.

This white paper provides a perspective on the benefits of installing drive-thru OCS technology and the associated return on investment (ROI) that can be expected as a result. Because all significant capital expenditures are scrutinized and assessed for their investment value, we understand that the length of time to breakeven is a question inherent in virtually every pre-purchase decision our customers face. To this end, below are some case studies and research that may help address this question.

Case Studies

1. In 1996, a major QSR chain conducted a field test in a major metro area in the western US piloting Delphi's OCS in 30 corporate stores in addition to 30 matched "control stores". Overall, the test resulted in a total store sales increase of approximately 2%, and a projected payout within nine months. In addition, the chain recorded statistically significant improvements in "order accuracy", "speed-of-service" and "average ticket". Further, many stores believe that employee theft fell as order confirmation ensured higher accuracy in the financial accounting of each order. Based on this research, the chain elected to expand Delphi OCS's to all stores (approximately 1500) during the ensuing 18 months.
2. In 2001, another national QSR chain installed 30 units in a major metro market representative of the total US. Overall, the test resulted in a sales increase in the drive-thru of *over 2%*, with both transactions and average check increasing 1%, respectively. It is noteworthy that Delphi's performance was higher on each of these metrics vis-à-vis other OCS suppliers also involved in this test. This was attributed to the reliability of the equipment and clarity of the display. Further, in the test stores (versus control stores without OCS's), incoming customer complaints via the company toll-free number were substantially reduced. Mystery shopper scores at stores with an OCS versus stores without an OCS showed:
 - A 21.8% increase in "order accuracy"



- A 6.4% increase in “hospitality”
- A 3.4% increase in “speed-of-service”

And finally, store operators observed lower food costs/less food waste, presumed to be due to fewer incorrect orders. It was estimated that the per-store payout of the OCS equipment and associated installation costs achieved breakeven in approximately one year. As a result, this chain elected to include OCSs in all new/remodeled stores from that point forward; Delphi was named their Preferred Supplier and incorporated into the build plans for the chain.

3. In 2002, following extensive lab testing, a national QSR chain chose Delphi as the exclusive supplier of Order Confirmation Systems. This chain embarked on a limited store test of Delphi OCSs versus control stores to determine to what extent the equipment should be expanded to other stores. After less than two months into the test, this chain decided to end the test and chose to rollout Delphi OCS's to all corporate and franchise stores over the next two years. While preliminary business metrics were positive, the decision was based on the subjective notion that order confirmation in the drive-thru is "simply a cost of doing business". The CEO commented that an OCS is an important tool to help improve the Company's ranking in the QSR Drive-Thru Study. At this juncture, Delphi OCSs are in all company-owned stores and we are in the midst of installing equipment in all remaining franchise stores. Delphi continues to manage the project turnkey.
4. In 2003, Delphi commissioned independent research to better understand consumer attitudes and usage regarding OCS's. The research was conducted with 525 fast food consumers who patronize a broad mix of QSR concepts. Results from the study were deemed statistically significant. The research was conducted by g3/Sparagowski, the firm that polls the QSR Drive-Thru Study. Overall, major findings were as follows:
 - 79% of consumers “like OCBs a lot” because they “make sure their order is accurate/heard correctly”
 - 60% of consumers have used an OCB to correct a wrong order
 - 81% said that a restaurant with an OCS has an advantage over one that does not because:
 - “OCBs make sure the order is accurate” (39%); and
 - “... helps avoid mistakes, catches errors immediately” (33%)
 - 63% of respondents said that, if given a choice, they were more likely to go to a restaurant with an OCS versus one without.
5. In 2003, nearly 100 QSR equipment-purchasing decision-makers from both the corporate and franchise ranks were surveyed about the effectiveness of the OCS. Their overall business results were as follows:
 - 64% thought that Speed-of service improved
 - 88% thought that order accuracy improved
 - 67% thought that it helped improve communications between store and customer
 - 93% felt customer satisfaction improved



- 80% felt customer complaints were reduced
6. In 2006, the QSR Magazine Drive-Thru Study showed several benefits of OCS technology.
- *Reduced Wait Time (from entering Drive-Thru to Order Point)* - Most dramatic impact and benefit of OCS on Wait Time is when multiple cars are in lane, which is most likely during the restaurant's business times (7% and 12%, respectively for 3–5 and more than 6 cars in line).
 - *Reduced Service Time (from Order Point to Pickup Window)* – Overall, stores utilizing OCS technology experiences significantly reduced service times of nearly 15 seconds (188.6 w/ OCS vs. 203.5 w/o OCS). This result was even more impressive, given the stores measured with OCS technology installed had on average more cars in the queue (1.63 w/ OCS vs. 1.24 w/o OCS). Looking at average Service Time based on number of vehicles in line, the majority of stores averaged shorter service time with an OCS than those without:
 - 0-2 vehicles: 170.88 w/ OCS vs. 187.81 seconds w/o OCS (or -9.0%)
 - 3-5 vehicles: 243.26 vs. 283.05 (-14.1%)
 - 6+ vehicles: 252.05 vs. 290.49 (-13.2%)
 - *Reduced Total Time (Wait + Service Time)* – Overall, stores utilizing OCS technology experiences significantly reduced total service times of over 21 seconds (185.15 w/OCS vs. 206.55 w/o OCS). Again, stores w/OCS had more cars on average in the cue (1.30 vs. 1.10), which makes this improvement even more impressive. Looking at Total Time based on number of vehicles in the queue, the results show much shorter times when OCS technology was used vs. those without:
 - 0-2 vehicles: 180.63 vs. 197.67 seconds w/o OCS (17 seconds or -8.6%)
 - 3-5 vehicles: 312.79 vs. 357.61 (45 seconds or -12.5%)
 - 6+ vehicles: 426.48 vs. 488.4 (61.9 seconds or -12.7%)
 - *Number of corrections per Order* - The number of corrections made (based on the utilization of OCS technology during the ordering process) showed that in some major chains, over 6% of orders were corrected. Corrected orders means less food waste associated with remaking orders, improved speed of service due to elimination of remaking orders and improved customer satisfaction.
7. In 2007, the QSR Magazine Drive-Thru Study continued to show similar benefits of OCS technology. Additionally, customer surveys results were as follows:
- 80% said that Order accuracy is important
 - 70% said that Speed-of-service is important
 - 68% preferred accuracy than speed
 - 61% said that an OCS is important
 - Up to 15% of customers will stop going to a restaurant because of just one bad experience



ROI Calculations

Order Confirmation technology can generate a significant return on investment (ROI) based on improvements in both operational efficiency and marketing. There are three primary contributors to increased profits as a result of installing Order Confirmation technology in the drive-thru.

Sales Increase

First, sales increase (lift) can be expected due to daypart-based product merchandising, up-sell and cross-sell messaging. Additionally, by displaying a running total of the customer's order (including tax) as it is being placed, it has been shown that the customer will tend to spend more by rounding up to the next dollar amount.

Reduction in Food Waste

The second contributor to increased profits is the reduction of food waste. The Order Confirmation System (OCS) confirms the customer's order in real time as it is being placed with the drive-thru order taker. This significantly reduces errors in the order entry process, which results in fewer inaccurate orders. Improvements in order accuracy insure that orders are filled correctly the first time, ultimately reducing food waste associated with rejected orders.

Improved Speed of Service Time

The third primary contributor to increased profitability is improved speed of service times. The data collected from the 2006 annual QSR Drive-Thru Study shows significant improvement in total service time as a result of installing Order Confirmation technology in the drive-thru. Improvement in speed of service reduces the overall number of cars in the queue during peak dayparts, which reduces the number of "drive-offs" (lost customers) – further adding to sales.

There are other contributors to profitability such as reduction in employee theft and increased customer satisfaction that are less quantifiable on an industry wide basis. However, many of our customers have provided data indicating that Order Confirmation technology reduces theft and improves customer satisfaction – resulting in increased customer loyalty.

The ROI model shown in Figure 1 below shows that a store that generates \$1MM in annual sales, with 60% of its business in the drive-thru, will have a payback estimated to be approximately 6-7 months, depending whether the installation is for a new store or retrofit to an existing store. Retrofit costs are typically higher than new store installations due to the general contracting work necessary to pour concrete footings and run power and data conduits to the drive-thru OCS location. Looking at the data from an ROI perspective and adjusting for a 60 day startup period to account for installation, training and integration into operating procedures, the ROI for the first 12 months of operation is significant at 76% for a new store and 35% for an existing store retrofit. Sales lift and food waste reduction estimates are based on survey information and industry data. While these estimates can not be guaranteed, the payback period and ROI will typically exceed internal minimum hurdle requirements for significant capital expenditures.



Please visit Delphi's web site at www.DelphiDisplay.com/roicalculator.html where you can enter store-specific sales, profitability and operational metrics to see how Delphi's Order Confirmation technology can increase profitability in your drive-thru.

Conclusion

In summary, the data presented should provide compelling evidence that the ROI for purchasing Order Confirmation technology is significant. Additionally, the majority of QSR brands have already concluded that the OCS is truly a cost of doing (good) business in today's ultra-competitive market. Furthermore, the majority of QSR customers surveyed have concluded that OCS technology is preferred in the drive-thru to reduce their anxiety during the ordering process which ultimately improves their loyalty and satisfaction. As the recognized industry leader for ruggedized display technology, Delphi continues to provide innovative new technology and product features such as daypart-specific promotions, "intelligent" suggestive/upsell messaging (text and graphic) and custom IT configurations such as support for dual IP addresses and middleware content distribution software applications. Delphi's innovation ensures the OCS equipment "works harder and smarter" for the store operator to further improve ROI.

For further information, please contact Delphi (sales@delphidisplay.com) with any questions or visit us on the web at: www.DelphiDisplay.com



Example Scenario

Total Annual Sales	\$ 1,000,000
Drive Thru % of Sales	60%
Total Annual Drive Thru Sales	\$ 600,000
Gross Margin on Food Sales	60%
Gross Profit from Drive-Thru Sales	\$ 360,000

Profit Contribution from Sales Lift

Sales Increase % due to OCS	1.75%
Annual Sales Increase	\$ 10,500
Annual Margin Contribution w/ OCS	\$ 6,300

Profit Contribution from Reduction in Food Waste

Food Waste Reduction % due to OCS	0.75%
Annual Food Waste Reduction Savings	\$ 4,500
Annual Food Waste cost savings w/ OCS	\$ 1,800

Profit Contribution from Improved Speed of Service

Peak Daypart Duration (min)	90
Average total Service Time (3-5 cars in queue) w/o OCS (sec)*	358
Total Vehicles served during peak daypart w/o OCS	15.1
New total service time w/ OCS (sec)*	313
Total Service Time Reduction w/ OCS (3-5 cars in queue)	12.5%
Increase in Vehicles Served during peak daypart w/ OCS	2.2
Average Check	\$ 6.00
Total Sales during peak daypart w/o OCS	\$ 90.50
Increase in Sales during peak daypart w/ OCS	\$ 12.93
Peak dayparts per year (assuming 2 per day, 365 days / year)	730
Annual Savings due to Reduces Total Service Time w/ OCS	\$ 9,438
Annual Margin Contribution due to Reduced Total Service Time w/ OCS	5,663

Total Annual Margin Contribution due to OCS	\$ 13,763
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Maximum Cost of OCS Installed (new store installation)	\$ 6,500
Payback in Months	5.7
ROI, first 12 months - assuming 60 day startup period	76%
Maximum Cost of OCS Installed (existing store retrofit)	\$ 8,500
Payback in Months	7.4
ROI, first 12 months - assuming 60 day startup period	35%

* Speed of service data from 2006 QSR Drive-thru Study

Figure 1 - ROI Calculations