

**NUCLEUS  
RESEARCH**

RESEARCH NOTE D30

ROI ANALYSIS YOU CAN TRUST™

# ROI Case Study: Microsoft Pocket PC Wagamama

## **THE BOTTOM LINE**

Using the Microsoft Pocket PC platform to upgrade its order-taking system enabled Wagamama to increase wait staff productivity while improving the customer experience and reducing costs.

**ROI: 233%**

**Payback: 8 months**

## **THE COMPANY**

Wagamama is a United Kingdom-based noodle restaurant chain that opened its first restaurant in 1992. Wagamama now has 18 restaurants in the United Kingdom, with franchises in Dublin, Amsterdam, and Sydney. The chain is committed to providing patrons with fresh and nutritious food along with speedy and efficient customer service.

## **THE CHALLENGE**

Since the first restaurant opening in 1992, Wagamama's wait staff has relied on mobile handheld technology to manage its table service operations at many locations. The original system used custom devices provided by a point-of-sale (POS) software vendor. However, by the late 1990s, the system was increasingly expensive to maintain (because the old handhelds were becoming obsolete) and posed other problems that were impacting Wagamama's business.

Whenever a security or kitchen PA system was used, the radio frequencies on the handheld system were interrupted, leading to a loss of connectivity. Since wait staff relied on handheld devices to deliver orders to the kitchen, such frequent disruptions in connectivity led to delayed or inaccurate orders, loss of wait staff productivity, and potentially dissatisfied customers. The lack of flexibility of the old technology also made installing the system in new restaurants difficult — proximity to security radio networks, construction features, and passing radio traffic could all affect the performance of the system.

Wagamama needed a cost-effective wireless handheld solution that could support its business in a more consistent and foolproof way.

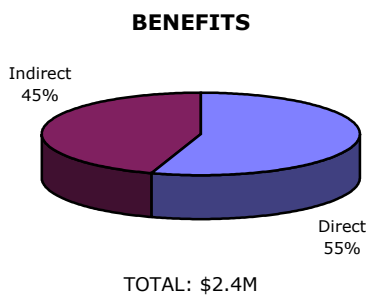
## **THE STRATEGY**

Wagamama began searching for a solution that would address its business and technical needs. The company eventually decided to deploy a new mobile solution based on Microsoft Windows Powered Pocket PC technology because of the existing base of Microsoft applications that were already being used at Wagamama and because the Pocket PC solution would allow for a smooth transition from Wagamama's existing wireless system.

Wagamama's existing POS solution vendor provided services to help emulate the POS terminal screen on the PC devices. In addition to those services, Wagamama signed a support contract with Compaq to provide ongoing 24 x 7 support for the system.

Wagamama carried out the migration to the Pocket PC platform over a 15-month period, deploying the solution simultaneously to 13 restaurants around the United Kingdom. As part of this migration, Wagamama also purchased nearly 200 Compaq handheld devices that would provide restaurant staff with uninterrupted connectivity and the ability to follow the table ordering system. Because the interface on the Pocket PC device was a scaled-down version of the interface on existing POS terminals, training requirements were minimal.

To deal with security concerns, Wagamama used 128-bit encoding to support secure data transmission through an 802.11B connection and used server firewalls and digital IDs to prevent intrusion into the system. The company has rolled out the system to 18 restaurants.



#### KEY BENEFIT AREAS

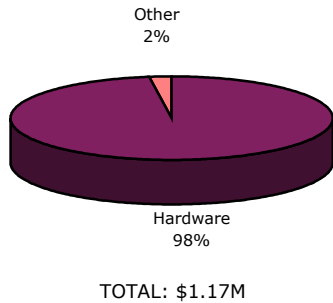
Migrating to the Microsoft Windows Powered Pocket PC platform to support its order-taking system has allowed Wagamama to maintain high levels of customer service while improving the productivity of its restaurant staff. Because Wagamama has built brand recognition as a healthy restaurant with friendly, knowledgeable staff, being able to provide customers with rapid — not rushed — service is a critical part of the experience supported by the wireless network. For example, if a customer orders a beer while asking questions about food choices, the wait staff can put in the drink order while answering questions about the menu. In the future, the wait staff will also be able to deliver detailed nutritional information to customers about their selections while the order is being processed by the kitchen.

The company has achieved the following key returns from the solution:

- Increased wait staff productivity. The new mobile ordering solution provides Wagamama's wait staff with uninterrupted access to detailed information about table orders, leading to an increase in employee efficiency and permitting wait staff to serve more customers in less time.
- Reduction in lost profit from errors. By providing wait staff with real-time access to order details, the Microsoft Pocket PC-based solution has eliminated such inefficiencies as incorrect errors and duplicate order entries, allowing Wagamama to eliminate the costs associated with inaccurate table ordering.
- Reduction in maintenance for old devices. With Microsoft Pocket PC, Wagamama no longer has to support its former wireless system and doesn't require ongoing external support to maintain its old system devices.

- Improved customer experience. Providing a higher level of service and interaction by reducing the amount of time Wagamama’s wait staff spends entering orders in the kitchen enables a high level of interaction and a better customer experience.

**COSTS**



**KEY COST AREAS**

Hardware costs, reflecting Wagamama’s investment in Compaq handheld devices, device maintenance, and wireless access points, constituted the majority of project costs. Wagamama also invested in custom pouches for wait staff to carry the devices to reduce the risk of damage.

**LESSONS LEARNED**

Wagamama found that it was able to start achieving returns from its Pocket PC deployment at an early stage because of the low training requirements for the new solution. Since the interface for the Pocket PC-based system was very similar to that of the earlier solution, users without experience on the old system were trained within the course of a quick meeting.

Although the user interface wasn’t a challenge for Wagamama, the company did find challenges in the evolving design of Pocket PC devices. In the beginning, changing designs (such as relocation of the USB port) from version to version meant a change in the way the wait staff used devices. As the handheld market continues to evolve, standardized design as well as improvements such as increased battery life will help Wagamama gain further returns from the devices.

**CALCULATING THE ROI**

Nucleus Research analyzed the costs of hardware and training over a 3-year period to quantify Wagamama’s investment in the Microsoft Windows Powered Pocket PC system. The restaurant chain’s main returns have come from direct reductions in the lost profits due to errors and from reduced maintenance support required for its old wireless devices. Indirect benefits quantified included the improved productivity of wait staff as a result of access to real-time information about table orders. Hours saved were multiplied by a correction coefficient to account for the inefficient transfer of time between time saved and additional time worked.

**SUMMARY**

Project:	<b>Microsoft Pocket PC</b>
Annual return on investment (ROI)	<b>233%</b>
Payback period (years)	<b>0.62</b>
Net present value (NPV)	<b>716,449</b>
Average yearly cost of ownership	<b>92,817</b>

<b>ANNUAL BENEFITS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	353,600	489,600	489,600
Indirect	0	294,840	398,034	398,034
<b>Total Benefits per Period</b>	0	648,440	887,634	887,634

<b>DEPRECIATED ASSETS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	170,000	59,500	0	0
<b>Total per Period</b>	170,000	59,500	0	0

<b>DEPRECIATION SCHEDULE</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	34,000	45,900	45,900
<b>Total per Period</b>	0	34,000	45,900	45,900

<b>EXPENSED COSTS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	11,375	15,750	15,750
Consulting	0	0	0	0
Personnel	0	0	0	0
Training	0	0	0	0
Other	0	0	6,075	0
<b>Total per Period</b>	0	11,375	21,825	15,750

<b>FINANCIAL ANALYSIS</b>	<b>Results</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes		577,565	865,809	871,884
Net cash flow after taxes		276,033	455,855	458,892
<b>Annual ROI - direct and indirect benefits</b>				<b>233%</b>
Annual ROI - direct benefits only				127%
<b>Net present value (NPV)</b>				<b>716,449</b>
<b>Payback (years)</b>	<b>0.62</b>			
Average annual cost of ownership		240,875	131,350	92,817
3-year cumulative ROI	421%			
3-year IRR	188%			

**FINANCIAL ASSUMPTIONS**

All government taxes	50%
Discount rate	15%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the application profiled in the accompanying case. Financial modeling tool, format, and methodology copyright Nucleus Research Inc., all rights reserved.