

A Forrester Total Economic
Impact™ Study
Commissioned By
Lexmark

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The Total Economic Impact™ Of Lexmark Managed Print Services

Cost Savings And Business Benefits
Enabled By Lexmark Managed Print
Services

FORRESTER®

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Executive Summary

Lexmark commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential benefits enterprises may realize by deploying Lexmark Managed Print Services (MPS). The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Lexmark Managed Print Services on their organizations.

To better understand the benefits, costs, and risks associated with a Lexmark Managed Print Services investment, Forrester interviewed Whirlpool Corporation, a Lexmark customer with five years of experience using Lexmark Managed Print Services. Whirlpool is the No. 1 major appliance manufacturer in the world, with approximately \$20 billion in annual sales and 100,000 employees located in manufacturing and technology research centers throughout the world.

Previous to its investment in Lexmark Managed Print Services, Whirlpool was in need of an overall print output strategy. It had an unmanaged global print environment with no standard vendors or devices and many leases with varied expirations, and personal desktop devices were ubiquitous. Overall, printing was a costly bottleneck to accomplishing tasks and getting work done. See the Whirlpool Interviews section for more information.

LEXMARK GENERATES SAVINGS ON DEVICES, CONSOLIDATION, CONSUMABLES, AND SUPPORT LABOR

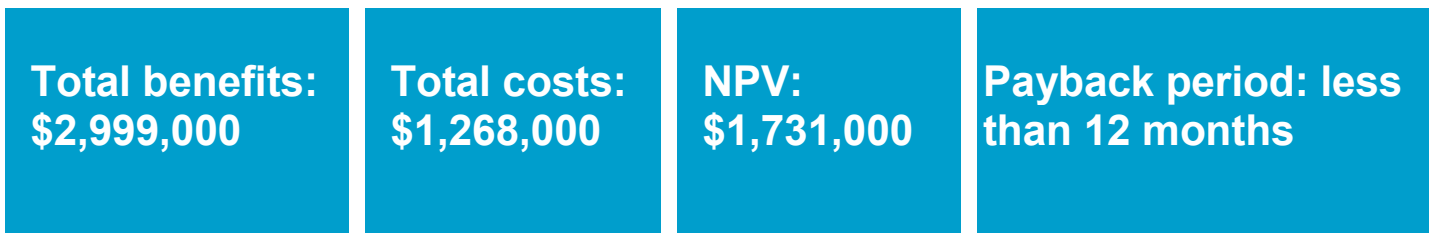
Our interviews with Whirlpool and subsequent financial analysis found that it experienced the risk-adjusted benefits and costs shown in Figure 1. The analysis points to benefits of \$2,999,000 million versus costs of \$1,268,000, adding up to a net present value (NPV) of \$1,731,000. The payback period, or breakeven point, was less than 12 months.

An investment in Lexmark's Managed Print Services allowed Whirlpool to project five years of cost savings and benefits totaling \$2,999,000 in the following areas (risk- and present value-adjusted):

- Savings on device cost reduction and consolidation: \$ 1,607,000.
- Savings on device consumables: \$483,000.
- Labor cost savings for device support: \$909,000.

FIGURE 1

Financial Summary Showing Five-Year Risk-Adjusted Results



Source: Forrester Research, Inc.

If a risk-adjusted NPV of benefits still demonstrates a compelling business case, it raises confidence that the investment in Lexmark Managed Print Services is likely to succeed, because the risks that may threaten the project have been taken into consideration and quantified.

- › **Benefits.** Whirlpool experienced the following risk- and present value-adjusted benefits totaling **\$2,999,000 over five years**. The benefits are further described in the Benefits section and include:
- **Savings on device cost reduction and consolidation — \$1,607,000.** Whirlpool reported a per-device cost savings as well as consolidation of required devices, resulting in fewer total devices. See Table 2.
 - **Savings on device consumables — \$483,000.** Whirlpool reported a 20% savings on consumables compared with its pre-Lexmark environment. See Table 3.
 - **Labor cost savings for device support — \$909,000.** With the standardization onto Lexmark devices, Lexmark took responsibility for on-site support, saving Whirlpool-employed technicians time and effort. See Table 4.
- › **Costs.** Whirlpool experienced the following costs adjusted for present value totaling **\$1,268,000 over five years**. Whirlpool leases the Lexmark devices, and this study ignores lease rates. The aggregate costs and net savings attributed to standardizing on Lexmark devices are reflected in the Benefits section of this study. Other costs are further described in the Costs section (Table 6) and include:
- **Labor to preplan and manage implementation — \$8,000.** This is the labor to preplan the standardization to Lexmark, including the time it took the team to research vendors, conduct a technical evaluation, and negotiate the contract.
 - **Ongoing labor to manage Lexmark relationship — \$120,000.** One Whirlpool employee spends 15% of their time managing the ongoing relationship with Lexmark.
 - **Lexmark service fees — \$1.59 million.** Lexmark service fees include: licensing, maintenance, development, training, parts, warranty, on-site labor and support, and proactive consumables management. They also include the Asset Lifecycle full reporting package, which consists of monthly, quarterly, and annual reviews with a global perspective.

Disclosures

The reader should be aware of the following:

- › The study is commissioned by Lexmark and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.
- › Forrester makes no assumptions as to the potential benefits that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in Lexmark Managed Print Services.
- › Lexmark reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and did not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.
- › Lexmark provided the customer names for the interviews but did not participate in the interviews.

TEI Framework And Methodology

INTRODUCTION

From the information provided in the interviews, Forrester has constructed a Total Economic Impact (TEI) framework for those organizations considering investing in Lexmark Managed Print Services. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Other objectives include helping organizations understand how to take advantage of specific benefits, reduce costs, and improve the overall business goals with Lexmark Managed Print Services.

APPROACH AND METHODOLOGY

Forrester took a multistep approach to evaluate the impact that Lexmark Managed Print Services can have on a customer, Whirlpool (see Figure 2). Forrester employed four fundamental elements of TEI in modeling Lexmark Managed Print Services: benefits, costs, flexibility, and risks. Specifically, we:

- › Interviewed Lexmark marketing, sales, operations, and product management to gather data relative to Lexmark Managed Print Services and the marketplace for the Lexmark services.
- › Interviewed an organization (Whirlpool) currently using Lexmark Managed Print Services to obtain data with respect to costs, benefits, flexibility, and risks.
- › Constructed a financial model representative of the interviews using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interviews.
- › Risk-adjusted the financial model based on information provided by Whirlpool in interviews. Risk adjustment is a key part of the TEI methodology. While Whirlpool provided cost and benefit estimates, some categories included a range of estimates or had a number of outside forces that might have affected the results. For that reason, some benefit totals have been risk-adjusted and are detailed in each relevant section.

Given the increasing sophistication that enterprises have regarding benefits analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

FIGURE 2
TEI Approach



Source: Forrester Research, Inc.

Analysis

WHIRLPOOL INTERVIEWS

For this study, Forrester conducted in-depth interviews with Whirlpool's global leader for end user services and a senior financial analyst. The interviews and our analysis are focused on Whirlpool's use of Lexmark Managed Print Services across 25,000 users globally. Prior to Whirlpool investing in Lexmark Managed Print Services, its print environment could be described as follows:

- › No overall output strategy.
- › No standardization; 10 different vendors in multiple geographies.
- › Personal desktop devices everywhere.
- › Unmanaged global environment.
- › No visibility into the device fleet.
- › “Consumables chaos” — procurement and waste challenges.
- › Many leases with varying expiration dates.
- › Multiple maintenance agreements with multiple vendors.
- › No view of total costs or the “who, what, when, and where” of printing, i.e., no transparency.
- › A bottleneck to accomplishing tasks and getting work done.

Whirlpool had the following business objectives or goals when it considered investing in Lexmark Managed Print Services:

- › Re-invest every dollar it saves in print in Whirlpool innovation.
- › Deploy multifunction printers (MFPs) to have more shared functionality in one device.
- › Have the ability to reroute printing if a device is not operating (print redundancy).
- › Standardize the vast majority of devices on one vendor.
- › Eliminate desktop printers.
- › Reduce cost by achieving a higher transparency as to who is printing and what is being printed.
- › Achieve device utilization awareness.
- › Differentiate color versus monochrome and reduce costs.
- › Automatic toner replenishment.

“Our end user satisfaction is at an all-time high with Lexmark because it’s managed, it’s visible, and they’re experts in a service that we’re not, and we’re leveraging that. The long-term impact is cost savings.”

~ Global leader for end user services, Whirlpool

Previous to its investment in Lexmark Managed Print Services, Whirlpool was in need of an overall print output strategy. It had an unmanaged global print environment with no standard vendors or devices and many leases with varied expirations, and personal desktop devices were ubiquitous.

WHIRLPOOL INTERVIEW HIGHLIGHTS

The interviews revealed the following:

TABLE 1
Interview Highlights — Whirlpool Data

Ref.	Category	Calculation/ source	Year 1	Year 2	Year 3	Year 4	Year 5
A1	Number of Lexmark MFP devices	Interviews	497	681	747	759	799
A2	Number of Lexmark printers	Interviews	580	801	877	850	860
A3	Total number of Lexmark devices	A1+A2	1,077	1,482	1,624	1,609	1,659
A4	Number of Whirlpool locations with Lexmark devices	Lexmark	55	74	82	89	94
A5	Total print pages (in millions)	Lexmark data	41.5	60.6	75.6	72.6	75.1
A6	Black-and-white pages (in millions)	Lexmark data	35.9	47.2	63.1	61.8	63.6
A7	Color pages (in millions)	Lexmark data	5.6	13.4	12.4	10.7	11.5
A8	Color pages as percent of total	A7/A5	13.5%	22.1%	16.4%	14.8%	15.3%
A9	Average cost of consumables per Lexmark device	Lexmark	\$418	\$428	\$407	\$384	\$407
A9	Uptime for Lexmark-serviced devices	Lexmark	99.73%	99.89%	99.90%	99.25%	97.52%

Source: Forrester Research, Inc.

BENEFITS

Whirlpool experienced a number of quantified benefits attributable to Lexmark Managed Print Services.

Savings On Device Cost Reduction And Consolidation With Lexmark MPS

Table 2 calculates savings on device cost reduction and consolidation that Whirlpool attributes to its investment in Lexmark. We compare the lower costs of Lexmark MPS with the higher costs of Whirlpool continuing its legacy environment, which, as a reminder, included: no standard vendors or devices in an unmanaged global print environment with many leases with varied expirations, and personal desktop devices were ubiquitous.

Row B1 represents the projected costs of the legacy device environment continuing without the benefits of Lexmark MPS. Row B2 represents the actual Lexmark fees associated with transitioning the legacy environment to Lexmark MPS. Row B3 is the non-risk-adjusted savings on device cost reduction and consolidation attributed to Lexmark MPS.

Forrester risk-adjusted the savings downward by 10% to reflect the conservative stance of Whirlpool. The risk-adjusted savings on device cost reduction and consolidation attributed to Lexmark Managed Print Services is \$2.16 million over five years. See the section on Risks for more information.

TABLE 2
Savings On Device Cost Reduction And Consolidation With Lexmark MPS (Dollars In Thousands)

Ref.	Metric	Year 1	Year 2	Year 3	Year 4	Year 5	Total
B1	Costs of legacy device environment continuing <i>without</i> the benefits of Lexmark MPS	\$1,130	\$2,084	\$2,289	\$1,955	\$2,087	\$9,544
B2	Actual cost of legacy device environment being replaced <i>with</i> the benefits of Lexmark MPS	\$846	\$1,560	\$1,713	\$1,463	\$1,562	\$7,144
Bt	Device cost reduction and consolidation savings with Lexmark MPS (B1 – B2)	\$284	\$524	\$576	\$492	\$525	\$2,400
	Risk adjustment — ↓ 10%						
Btr	Savings on device cost reduction and consolidation (risk-adjusted)	\$256	\$472	\$518	\$442	\$472	\$2,160

Source: Forrester Research, Inc.

Savings On Device Consumables

Whirlpool's global leader for end user services reported a 20% savings in consumables costs with Lexmark Managed Print Services. Previous to Lexmark, ordering and stocking consumables was decentralized across the globe. Each location had its own inventory, its own vendors, and disparate, nonstandard devices. Consumables were often purchased not knowing a device might be scheduled to be replaced or eliminated. According to Whirlpool's senior financial analyst, once the transition to Lexmark was completed, Whirlpool "filled a conference room" with the leftover toner cartridges from previous shared and standalone printers.

With Lexmark MPS, Whirlpool reduced its consumables cost by 20% with duplex printing, a default to black-and-white printing, and automated replenishment of paper and cartridges delivered right to the device. In addition, there's the positive sustainability impact of printing fewer pages.

Prior to investing in Lexmark MPS, Whirlpool was not tracking its consumables cost worldwide, so there's some estimation relative to these savings. To compensate on the conservative side, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted consumables cost savings benefit is \$646,000 over five years (see Table 3). See the section on Risks for more information.

TABLE 3
Savings On Device Consumables (Dollars In Thousands)

Ref.	Metric	Calculation/ source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
C1	Previous five years' cost of consumables (pre-Lexmark)	Interviews	\$563	\$794	\$826	\$773	\$845	\$3,800
C2	Cost of consumables (Lexmark)	Lexmark	\$450	\$635	\$661	\$618	\$676	\$3,040
Ct	20% cost savings from previous five years	C1-C2	\$113	\$159	\$165	\$155	\$169	\$760
	Risk adjustment	↓ 15%						
Ctr	Savings on device consumables (risk-adjusted)		\$96	\$135	\$140	\$131	\$144	\$646

Source: Forrester Research, Inc.

Labor Cost Savings For Device Support With Lexmark MPS

With Whirlpool's standardization onto Lexmark devices, Lexmark took responsibility for local support, saving Whirlpool-employed technicians time and effort. According to Whirlpool's global leader for end user services, there are a total of 80 support technicians (40 in U.S. facilities and 40 in non-U.S. facilities). Prior to standardizing on Lexmark devices, a significant portion of the 80 support technicians' jobs was to maintain and fix print devices. With Lexmark assuming responsibility for local support, the average technician saves 8% of their time, which is now freed up to perform other value-added tasks. Forrester used an average annual, global labor cost of \$45,000 per support technician (with inflation adjusted upward over five years).

Whirlpool reported variable service quality in the international rural areas where Lexmark outsourced maintenance support; therefore, this benefit was risk-adjusted and reduced by 20%. The risk-adjusted benefit over five years totaled \$1,203,000. See Table 4. See the section on Risks for more information.

TABLE 4
Labor Cost Savings For Device Support (Dollars In Thousands)

Ref.	Metric	Calculation/source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
D1	Number of support technicians in the U.S.	Interviews	40	40	40	40	40	-
D2	Number of support technicians — non-U.S.	Interviews	40	40	40	40	40	-
D3	Total number of support technicians worldwide	D1+D2	80	80	80	80	80	-
D4	Average annual labor cost of support technician (inflation-adjusted)	Industry global average	\$45	\$46	\$47	\$48	\$49	-
D5	Percent of time saved with Lexmark MPS	Interviews	8%	8%	8%	8%	8%	-
Dt	Labor cost savings for device support with Lexmark MPS	D3*D4*D5	\$288	\$294	\$301	\$307	\$314	\$1,504
	Risk adjustment	↓ 20%						
Dtr	Labor cost savings for device support with Lexmark (risk-adjusted)		\$230	\$236	\$241	\$246	\$251	\$1,203

Source: Forrester Research, Inc.

Total Benefits

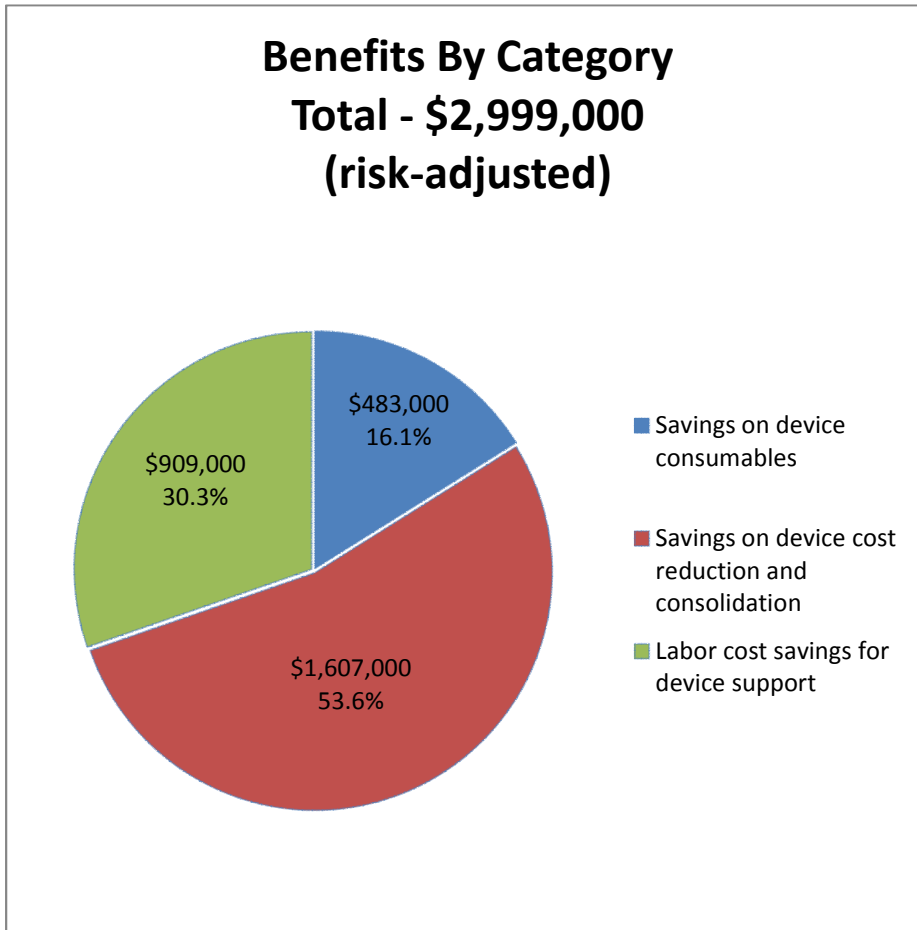
Table 5 shows the total of all benefits across the areas listed above, as well as present values (PVs) discounted at 10%. Over five years, Whirlpool expects risk-adjusted total benefits to be a PV of \$2,999,000 million.

TABLE 5
Total Benefit Cash Flows (Risk-Adjusted) (Dollars In Thousands)

Ref.	Benefit Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
Btr	Savings on device cost reduction and consolidation	\$256	\$472	\$518	\$442	\$472	\$2,160	\$1,607
Ctr	Savings on device consumables	\$96	\$135	\$140	\$131	\$144	\$646	\$483
Dtr	Labor cost savings for device support	\$230	\$236	\$241	\$246	\$251	\$1,203	\$909
	Total benefits (risk-adjusted)	\$582	\$842	\$899	\$819	\$867	\$4,010	\$2,999

Source: Forrester Research, Inc.

FIGURE 3
Total Benefit Cash Flows By Category



Source: Forrester Research, Inc.

COSTS

Whirlpool experienced the following costs associated with Lexmark Managed Print Services:

- › **Labor to preplan and manage implementation — \$8,000.** The labor to preplan the standardization to Lexmark devices totaled 140 hours, including the time it took the team to research vendors, conduct a technical evaluation, and negotiate the contract. At an average fully loaded annual cost of \$120,000 (\$57.14 per hour), the internal labor cost to preplan the migration to Lexmark devices was about \$8,000.
- › **Ongoing labor to manage Lexmark relationship — \$120,000.** One Whirlpool employee spends 15% of their time managing the ongoing relationship with Lexmark. At a fully loaded annual cost of \$160,000, the time dedicated to Lexmark equates to \$24,000 annually, or \$120,000 over five years of our analysis.
- › **Lexmark service fees — \$1.59 million.** Whirlpool is leasing the Lexmark devices, and the aggregate per-device savings (independent of lease rates) is reflected in the Benefits section of this study. Lexmark service fees vary by region. In the U.S., Lexmark has a fixed charge per device, and in other regions it has a price per page. Lexmark's aggregate service fees are presented in Table 5 and include: licensing, maintenance, development, training, parts, warranty, on-site labor and support, and proactive consumables management. The fees also include the Asset Lifecycle full reporting package, which consists of monthly, quarterly and annual reviews with a global perspective. Total fees are \$1.59 million over five years.

“We have clear visibility to what devices are utilized, and what’s not; what needs service and what doesn’t; and we have SLAs that we can report on.”

~ Global leader for end user services,
Whirlpool

Whirlpool was able to consolidate and reduce the number of printers in most departments or buildings. In some cases that meant strategically relocating printers and incurring costs to drop new power and network lines to the new printers. This occurred in years 1 and 2 with the initial consolidation, and also occurred as Whirlpool added and renovated facilities. The actual costs to drop power and network lines were not tracked, and these costs were not exclusive to the consolidation to Lexmark devices. Forrester suggests readers of this study take into consideration the labor and equipment costs of installing devices in new places.

Table 6 shows the total costs as well as associated present values, discounted at 10%. Over five years, Whirlpool expects costs to total a net present value of \$1,268,000. Forrester did not risk-adjust costs because 93% of the costs were actual costs paid to Lexmark.

TABLE 6
Costs Associated With Lexmark Managed Print Services (Dollars In Thousands)

Ref.	Metric	Calculation/ Source	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	PV
E1	Labor to preplan and manage the implementation	Interviews	\$8	\$0	\$0	\$0	\$0	\$0	\$8	-
E2	Ongoing labor to manage Lexmark relationship	Interviews	\$0	\$24	\$24	\$24	\$24	\$24	\$120	-
E3	Lexmark service fees	Lexmark	\$103	\$6	\$281	\$447	\$400	\$353	\$1,590	-
Et	Total Lexmark costs	E1+E2+E3	\$111	\$30	\$305	\$471	\$424	\$377	\$1,718	\$1,268
	Risk adjustment	0%								
Etr	Total Lexmark costs		\$111	\$30	\$305	\$471	\$424	\$377	\$1,718	\$1,268

Source: Forrester Research, Inc.

FLEXIBILITY

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the “right” or the ability to engage in future initiatives but not the obligation to do so. There are several scenarios in which an organization chooses to implement Lexmark Managed Print Services and later realizes additional uses and business opportunities. Flexibility is described in more detail in Appendix A.

Forrester asked the global leader for end user services the following question: “Now that you have invested in Lexmark’s Managed Print Services, what other things can your organization do cheaper, better, or faster as a result of this initial investment?” The following represents the future options available to Whirlpool, or any other Lexmark customer.

Print Release — Cost Savings And Security

Unclaimed printouts sitting on output devices are a security issue and a tremendous waste of money. Confidential documents piling up in office print centers and copy rooms can be easily misplaced or land in the wrong hands.

According to Lexmark, its Print Release improves the efficiency of the output environment by helping to reduce unnecessary printing. The solution delivers secure access control and usage reporting, and at the same time, provides greater mobility and productivity for employees. Print Release lets employees send print jobs from anywhere — including their desktop, tablet, or smartphone — and then release the jobs for printing whenever and wherever they’re ready. This means confidential information stays protected, and print jobs don’t pile up endlessly on office printers. All documents are held in the print queue until their owner releases them. Documents can be released at any enabled printer, whether the device is located across the room, in another building, or thousands of miles away. To release documents, users simply swipe their existing ID card and then select the documents they need to print.

Reduced pages and consumables usage lead to considerable cost reductions and support Whirlpool’s sustainability goals.

Whirlpool is in the early adoption phase of Print Release; therefore, it was unable to quantify any future flexibility option benefits. Whirlpool’s global leader for end user services estimates a 3% to 7% savings in consumables in the future with Print Release. In some situations, there are some licensing and badge hardware costs associated with using Print Release.

Paper-Based Business Process Improvement

Whirlpool is currently using manual steps to bridge the gap between paper and digital information. It is evaluating Lexmark's paper-based business process improvement solutions. According to Lexmark, its solutions for manufacturing connect employees to the processes and information they need by streamlining day-to-day logistics operations by making offline and online information more readily available, as follows:

- › Transform paper-based, time-intensive tasks into electronic, time-saving processes.
- › Eliminate additive inefficiencies with people and processes through intelligent data control.
- › Synchronize supply and demand with current, accurate data.
- › Get a crystal-clear view of operations to improve processes and see what's coming next.

Whirlpool is in the early stages of adoption of these opportunities; therefore, it was unable to quantify the future flexibility options benefits.

RISKS

Forrester defines two types of risk associated with this analysis: "implementation risk" and "impact risk." Implementation risk is the risk that a proposed investment in Lexmark Managed Print Services may deviate from the original or expected requirements, resulting in higher costs than anticipated. Impact risk refers to the risk that the business or technology needs of Whirlpool may not be met by the investment in Lexmark Managed Print Services, resulting in lower overall benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

TABLE 7
Benefit And Cost Risk Adjustments

Benefits	Adjustment
Savings on device cost reduction and consolidation	↓ 10%
Savings on device consumables	↓ 15%
Labor cost savings for device support	↓ 20%
Costs	Adjustment
Labor to preplan and manage the implementation	↑ 0%
Ongoing labor to manage Lexmark relationship	↑ 0%
Lexmark service fees	↑ 0%

Source: Forrester Research, Inc.

Quantitatively capturing implementation risk and impact risk by directly adjusting the financial results provides more meaningful and accurate estimates and a more accurate projection of the benefits. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates. The risk-adjusted numbers should be taken as "realistic" expectations since they represent the expected values considering risk.

The following impact risks that affect benefits are identified as part of the analysis:

- › Forrester risk-adjusted device cost reduction and consolidation savings downward by 10% (see Table 2) to reflect uncertainty and the conservative stance of Whirlpool in quantifying this benefit.
- › Forrester risk-adjusted device consumables savings downward by 15% (see Table 3). Whirlpool was not tracking its consumables cost worldwide, so there's some estimation relative to these savings. To compensate on the conservative side, this benefit was risk-adjusted and reduced by 15%.
- › Forrester risk-adjusted labor cost savings for device support by 20% (see Table 4). Whirlpool reported variable service quality in the international rural areas where Lexmark outsourced maintenance support.
- › Forrester did not risk-adjust costs because 93% were actual costs paid to Lexmark.
- › Table 7 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates for Whirlpool. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

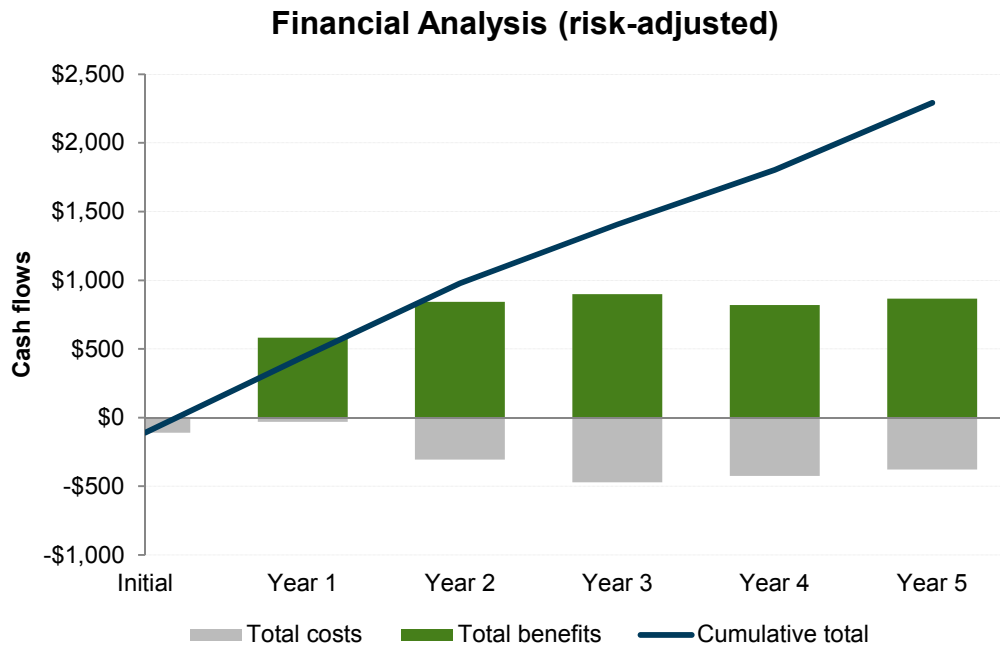
“One of the big things is that you feel valued as a customer with Lexmark. They don’t take the relationship for granted. The team we work with on a day-to-day basis is great. They're quick to respond, and they're not about just selling their products.”

~ Global leader for end user services, Whirlpool

Financial Summary

The financial results calculated in the Benefits and Costs sections can be used to determine the NPV and payback period for Whirlpool's investment in Lexmark Managed Print Services. Figure 4 is a five-year cash flow chart.

FIGURE 4
Cash Flow Chart (Risk-Adjusted)



Source: Forrester Research, Inc.

Table 8 below shows the risk-adjusted costs, benefits, NPV, and payback period values. These values are determined by applying the risk-adjustment values from Table 7 in the Risks section to the unadjusted results in each relevant cost and benefit section.

TABLE 8
Cash Flow (Risk-Adjusted) (Dollars In Thousands)

Summary	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present Value
Total costs	(\$111)	(\$30)	(\$305)	(471)	(\$424)	(\$377)	(\$1,718)	(\$1,268)
Total benefits	\$0	\$582	\$842	\$899	\$819	\$867	\$4,010	\$2,999
Total	(\$111)	\$552	\$537	\$428	\$395	\$490	\$2,292	\$1,731
Payback period								Less than 12 months

Source: Forrester Research, Inc.

If a risk-adjusted present value of benefits still demonstrates a compelling business case, it raises confidence that the investment in Lexmark Managed Print Services is likely to succeed, because any risks that may threaten the project have been taken into consideration and quantified.

WHIRLPOOL AND LEXMARK — GOING FORWARD

This study represents the first five years of the business relationship between Whirlpool and Lexmark. Whirlpool has recently renewed its relationship with Lexmark for another four years. Whirlpool's global leader for end user services predicts an additional overall savings of 20% with Lexmark MPS over the next four years.

For example, Whirlpool recognizes the potential for additional cost savings that can come by leveraging the existing fleet of Lexmark MFPs to automate paper-based business processes. Whirlpool is engaged in discussions with Lexmark to identify the highest-impact processes to address.

About Lexmark Managed Print Services: Overview

The following information is provided by Lexmark. Forrester has not validated any claims and does not endorse Lexmark or its offerings.

According to Lexmark, its Managed Print Services takes a holistic approach to improving the enterprise print architecture. Lexmark aligns devices with the business mission and takes care of customers' day-to-day management with proactive and predictive service to ensure optimal uptime. Once in place, the managed environment becomes a conduit to unify print and digital information for streamlined processes. Customers benefit with fewer devices, fewer pages, lower cost, and improved knowledge worker productivity.

Lexmark uses a proven three-step approach to deploying MPS, starting with optimizing output infrastructure. Lexmark's industry-specific assessments take customers quickly from discovery to rollout with placement of smart multifunction products (MFPs) in the right places based on the worker and the job at hand. Intuitive icon-driven processes can be initiated right from the MFP touchscreen, creating a bridge between necessary hard copy and the customer's core business processes.

The next step is proactive management, which provides visibility, continuity, and control of the customer's entire fleet of devices, anywhere in the world. Thanks to usage data and analytics, the need for consumables is automatically detected and the appropriate workflow is started. Lexmark's system ensures devices are up and running when and where its customers need them.

Finally, Lexmark uses analytics, best practices, and a combination of output, content, and process management technology to create automated workflow solutions that streamline cumbersome paper-dependent processes, resulting in improved access to information, enhanced productivity, and the reduction of print.

With Lexmark MPS, customers see tremendous upfront operational savings by having a single-system view that spans the entire organization — across countries and continents. This approach provides a whole new level of control over support costs and consumables inventory.

With a 96% MPS contract renewal rate, Lexmark MPS is a leader in planning, deploying, and supporting large fleets of devices designed to work the way employees work. Lexmark has performed more than 900 assessments specifically in the manufacturing industry.

FRAMEWORK ASSUMPTIONS

Table 9 provides the model assumptions that Forrester used in this analysis.

The discount rate used in the PV and NPV calculations is 10%, and the time horizon used for the financial modeling is five years. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult with their respective company's finance department to determine the most appropriate discount rate to use within their own organizations.

TABLE 9
Model Assumptions

Ref.	Metric	Value
F1	Hours per year (M-F, 9-5)	2,080
F2	Support technician cost (inflation adjusted)	\$45,000 to \$49,000
F3	Staff cost to preplan and manage implementation (annual fully loaded cost)	\$120,000
F4	Staff cost for ongoing labor to manage Lexmark relationship (annual fully loaded cost)	\$160,000

Source: Forrester Research, Inc.

Appendix A: Total Economic Impact™ Overview

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders. TEI assists technology vendors in winning, serving, and retaining customers.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, flexibility, and risks.

BENEFITS

Benefits represent the value delivered to the user organization — IT and/or business units — by the proposed product or project. Often, product or project justification exercises focus just on IT cost and cost reduction, leaving little room to analyze the effect of the technology on the entire organization. The TEI methodology and the resulting financial model place equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization. Calculation of benefit estimates involves a clear dialogue with the user organization to understand the specific value that is created. In addition, Forrester also requires that there be a clear line of accountability established between the measurement and justification of benefit estimates after the project has been completed. This ensures that benefit estimates tie back directly to the bottom line.

COSTS

Costs represent the investment necessary to capture the value, or benefits, of the proposed project. IT or the business units may incur costs in the form of fully burdened labor, subcontractors, or materials. Costs consider all the investments and expenses necessary to deliver the proposed value. In addition, the cost category within TEI captures any incremental costs over the existing environment for ongoing costs associated with the solution. All costs must be tied to the benefits that are created.

FLEXIBILITY

Within the TEI methodology, direct benefits represent one part of the investment value. While direct benefits can typically be the primary way to justify a project, Forrester believes that Organizations should be able to measure the strategic value of an investment. Flexibility represents the value that can be obtained for some future additional investment building on top of the initial investment already made. For instance, an investment in an enterprisewide upgrade of an office productivity suite can potentially increase standardization (to increase efficiency) and reduce licensing costs. However, an embedded collaboration feature may translate to greater worker productivity if activated. The collaboration can only be used with additional investment in training at some future point. However, having the ability to capture that benefit has a PV that can be estimated. The flexibility component of TEI captures that value.

RISKS

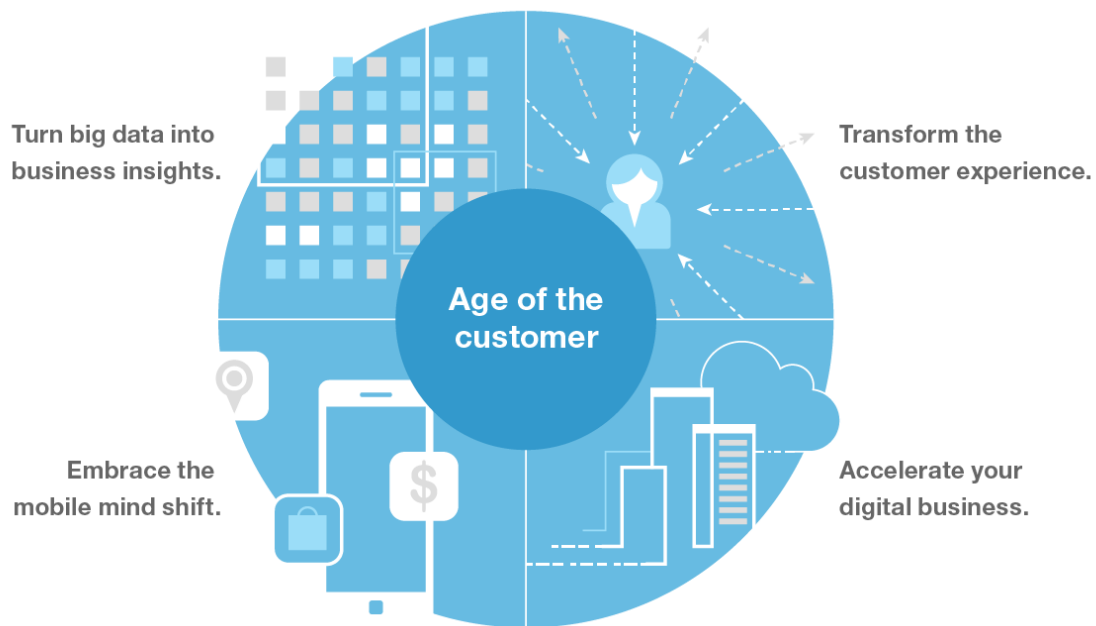
Risks measure the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: 1) the likelihood that the cost and benefit estimates will meet the original projections and 2) the likelihood that the estimates will be measured and tracked over time. TEI risk factors are based on a probability density function known as "triangular distribution" to the values entered. At a minimum, three values are calculated to estimate the risk factor around each cost and benefit.

Appendix B: Forrester And The Age Of The Customer

Your technology-empowered customers now know as much as you do about your products and services, pricing, and reputation. Your competitors can copy or undermine the moves you take to compete. The only way to win, serve, and retain customers is to become customer-obsessed.

A customer-obsessed enterprise focuses its strategy, energy, and budget on processes that enhance knowledge of and engagement with customers and prioritizes these over maintaining traditional competitive barriers.

CMOs and CIOs must work together to create this companywide transformation.



Forrester has a four-part blueprint for strategy in the age of the customer, including the following imperatives to help establish new competitive advantages:



Transform the customer experience to gain sustainable competitive advantage.



Accelerate your digital business with new technology strategies that fuel business growth.



Embrace the mobile mind shift by giving customers what they want, when they want it.



Turn big data into business insights through innovative analytics.

Appendix C: Glossary

Discount rate: The interest rate used in cash flow analysis to take into account the time value of money. Companies set their own discount rate based on their business and investment environment. Forrester assumes a yearly discount rate of 10% for this analysis. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult their respective organizations to determine the most appropriate discount rate to use in their own environment.

Net present value (NPV): The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.

Present value (PV): The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.

Payback period: The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

A NOTE ON CASH FLOW TABLES

The following is a note on the cash flow tables used in this study (see the example table below). The initial investment column contains costs incurred at “time 0” or at the beginning of Year 1. Those costs are not discounted. All other cash flows in years 1 through 3 are discounted using the discount rate (shown in the Framework Assumptions section) at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations are not calculated until the summary tables are the sum of the initial investment and the discounted cash flows in each year.

Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

TABLE [EXAMPLE]

Example Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3

Source: Forrester Research, Inc.