

The Total Economic Impact Of Microsoft Office 365 For Manufacturing Organizations

Manufacturing organizations are using cloud technologies to transform their business and lower IT costs. Forrester Consulting looked at ways manufacturers benefit from Microsoft Office 365 and found it lowered the solution's total cost of ownership (TCO), increased user productivity and efficiency, achieved greater focus on strategic priorities, and improved collaboration. Specifically, manufacturing organizations shared how Office 365 helped them improve:

- Research and design for custom quoting and specifications.
- Inventory and logistics.
- Quality control.
- Capacity planning across plants.
- Outsourced manufacturing relationship management.
- Communication and collaboration of desk-less workers.

To explore the potential benefits of using Office 365 in a manufacturing organization, Forrester created a composite organization that had the characteristics of the interviewed and surveyed manufacturing companies. The composite organization was a metal manufacturer, and it moved 2,250 users from an on-premises 2010 version of Microsoft solutions to Office 365 in the cloud. The Total Economic Impact™ study looks at the financial impacts to the composite organization.

Key Findings

Forrester's study yielded the following key findings for the composite organization:



The Five Benefit Pillars And Results Summary

Forrester looked at business and IT benefits across five broad areas. These pillars, as Microsoft defines them, encompass business transformation, cost savings, and user productivity gains. In each pillar, we explored the various ways that the interviewed and surveyed manufacturing companies have benefited from moving users to Office 365. We also included at least one example from each pillar in the ROI analysis portion of the study. All of the responding companies experienced benefits across the areas highlighted in Figure 1.

METHODOLOGY

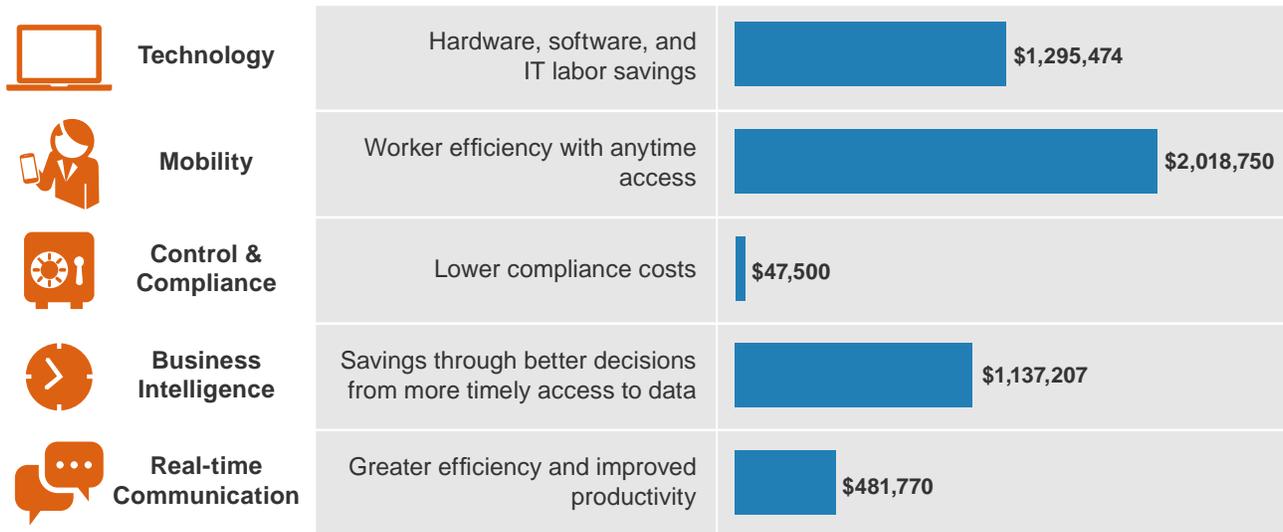
Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study to provide business and IT leaders with an understanding of how manufacturing can benefit by moving from an on-premises Microsoft Office solution to Microsoft Office 365.

To achieve these objectives, Forrester conducted two in-depth phone interviews and an online survey with 35 manufacturing organizations that have migrated to Office 365.

Forrester then designed a composite organization based on the characteristics of these companies. A representative financial model was constructed using the TEI methodology.

Lastly, Forrester risk-adjusted the financial model based on issues and concerns the surveyed organizations highlighted. Some cost and benefit categories included a broad range of responses or had a number of outside forces that might have affected the results. For that reason, some cost and benefit totals have been risk-adjusted and are detailed in each relevant section.

Figure 1
Microsoft Office 365 Benefit Pillars And Risk-Adjusted Financial Benefits



Source: Forrester Research, Inc.

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, IRR, NPV, and payback period for the composite organization’s investment in Microsoft Office 365.

The table below shows the risk-adjusted ROI, IRR, NPV, and payback period values.

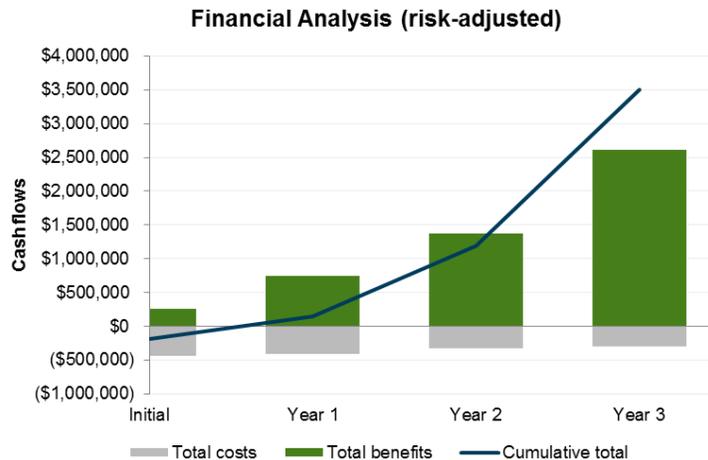
Results Summary

	Initial	Year 1	Year 2	Year 3	Total	PV
Costs	(\$442,363)	(\$413,448)	(\$328,376)	(\$295,339)	(\$1,479,525)	(\$1,311,501)
Benefits	\$257,430	\$739,357	\$1,375,787	\$2,608,127	\$4,980,701	\$4,026,111
Net benefits	(\$184,934)	\$325,910	\$1,047,412	\$2,312,789	\$3,501,176	\$2,714,610
ROI	207%					
IRR	298%					
Payback period	7 months (after go-live)					

Source: Forrester Research, Inc.

The graph below shows the risk-adjusted cash flow.

Risk-Adjusted Cash Flow



Benefits

For each of the above pillars, the interviewed companies and online survey respondents spoke to multiple benefits. In each area, Forrester quantified at least one benefit that is specifically highlighted and comprises the ROI analysis component of this study.

In addition, we also examined how Microsoft Office 365 supports improved business processes. This can be found in the Appendix, which quantifies benefits defined in Microsoft's Value Discovery Workshop methodology.

Technology Benefits

In interviewing and surveying manufacturing organizations, Forrester uncovered that these organization realized the following benefits by moving to Office 365 compared with an on-premises solution:

- › 13.5% reduction in Microsoft licensing costs.
- › 13% reduction in third-party license and software costs, e.g., other email packages.
- › 11.4% reduction in IT support costs for legacy systems.

In addition, Forrester quantified four benefit areas within the technology pillar:

- › **The manufacturing organization avoided adding new infrastructure hardware.** The move from the 2010 version of the Microsoft solutions to the Office 365 cloud-based solution meant that new infrastructure did not need to be purchased, installed, or maintained for the different manufacturing facilities. In total, 22 highly virtualized physical servers were not added over the life of the study, and storage area network (SAN) requirements were reduced by half. The total three-year risk-adjusted savings to purchase, maintain, and host the hardware amounted to \$538,133.
- › **Server licenses for various Microsoft solutions were no longer needed.** An on-premises solution comparable to Office 365 would have required 113 Windows Server licenses, nine Exchange Server licenses, three Skype for Business Server licenses, and five SharePoint licenses. The total three-year risk-adjusted avoided-purchase-cost plus annual maintenance totaled \$42,675.
- › **The implementation effort was 45% less than for a comparable on-premises solution.** Had a traditional on-premises deployment of Microsoft 2013 solutions been implemented within the manufacturing organization, the internal effort and professional services fees would have been 50% and 40% greater, respectively. This total three-year risk-adjusted savings across all phases equaled \$189,667.
- › **The manpower required to support the solution was reduced significantly.** The total number of resources required to maintain and grow the Microsoft solutions — Office Professional Plus, Exchange, Skype, SharePoint, Yammer, and OneDrive — was reduced significantly. Much of this was in the form of avoiding additional hires as well as redeploying an existing system administrator who could focus on other, higher-value activities. The total three-year risk-adjusted associated savings was \$525,000.

In the interviews, Forrester heard more specifics about some of the technology benefits achieved, such as consistency across outsourced manufacturing facilities. As one organization told us: "The most important thing is consistency. Using the cloud model means that everyone has access to the same software, the same applications — you don't have to worry about what people have on their computers." We also heard that "One advantage of these cloud apps is you don't have to worry about what people are running on their computers anymore. The toolset is defined, everyone has the same applications, everyone has the same updates, and everyone will be at the same level. Having a common backbone of applications breaks down barriers to ensure we can get the work done."

Table 1 below highlights the total quantified technology benefits for our composite manufacturing organization.

Table 1
Total Risk-Adjusted Technology Benefits

Ref.	Benefit Category	Initial	Year 1	Year 2	Year 3
Atr	Avoided backend hardware	\$122,738	\$73,350	\$172,935	\$169,110
Btr	Avoided Microsoft server licenses	\$10,692	\$5,106	\$14,875	\$12,002
Ctr	Reduced implementation effort	\$124,000	\$65,667	\$0	\$0
Dtr	Reduced IT support effort	\$0	\$125,000	\$200,000	\$200,000
Total Technology Benefits		\$257,430	\$269,123	\$387,810	\$381,112

Source: Forrester Research, Inc.

Mobility Benefits

Anytime, anywhere access via mobile devices was an interesting benefit for these manufacturing facilities. While not everyone within the organization is accessing the applications from their mobile device, there are many roles, such as manufacturing managers, that use Office 365 from their mobile device often. As we learned from our interviews, one example of this is the manufacturing managers using Office 365 in order to better understand their manufacturing operations, such as capacity planning and management and inventory management. For example, having mobile access to applications like SharePoint and Office Professional Plus enables manufacturing managers to better understand, in real time, inventory levels. Office 365 helps them to keep up-to-date information flowing across the supply chain and into distribution. This has helped improve delivery time and keep inventory costs low. It also has helped these manufacturers understand bottlenecks as well as understand where they may need more or less FTEs. We also heard that applications like Skype and Yammer improve the communication between the sales teams, customer relationship managers, and the manufacturing teams, improving overall employee and customer satisfaction.

Office 365 provides significant benefits to the manufacturing teams by giving them access to information and colleagues from practically anywhere. Fifty-five percent of the companies said mobile access has created greater end user productivity due to improved communications and knowledge-sharing, 58% said it has led to a decrease in the time it takes to do daily business, and 62% report that their mobile users are affected less by PC crashes as they can access all the material from their mobile device.

For the financial analysis, Forrester looked at improved productivity for 200 mobile workers. This group comprises primarily the manufacturing team's managers across different manufacturing lines and plants. As the composite manufacturing organization continued to grow, additional mobile workers were added in years 2 and 3, resulting in a total of 300 mobile workers by Year 3. Their productivity is improved by reducing the time to access systems and information, since a VPN is no longer needed and they can access these systems from wherever they are, even at remote

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~CIO, manufacturing organization

sites, and by having a more seamless user experience with less downtime.

In Year 1 of the study, the daily time savings is a quarter of an hour. This increases to 1 hour per day by Year 3 as Skype and SharePoint are fully integrated and as users become more comfortable working in this new paradigm. This productivity gain can be used to support more customers, or it can be a source of cost savings through avoided additional hiring. Forrester discounted this benefit by 50% since not all productivity gains translate into additional work.

As there are a variety of forces that could affect productivity outcomes within a manufacturing facility, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit resulting over the three years was \$2,018,750. Table 2 highlights how this benefit was calculated.

Table 2
Increased Team Member Productivity

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	Number of workers		200	250	300
E2	Hours per day saved with use of Office 365 on mobile devices		0.25	0.50	1.00
E3	Average hourly salary		\$40	\$40	\$40
E4	Number of work days per year		250	250	250
E5	Percent of benefit realized		50%	50%	50%
Et	Increased team member productivity	$E1 * E2 * E3 * E4 * E5$	\$250,000	\$625,000	\$1,500,000
	Risk adjustment	↓15%			
Etr	Increased team member productivity (risk-adjusted)		\$212,500	\$531,250	\$1,275,000

Source: Forrester Research, Inc.

Control And Compliance Benefits

Control and compliance includes regulatory compliance, eDiscovery, audit, policy management, and other similar activities. Fifty-five percent of survey respondents said that it is easier to manage policies across all devices, and 24% reported lower costs because of best practices built into Office 365. Further analysis of the online survey findings showed that, on average, the respondents reduced compliance costs by 12.3% and reduced time spent on eDiscovery efforts by 10.5%.

“Using Office 365 meant that we had the proper document management and control in place to get accredited.”

~President, manufacturing organization

Our interviewed manufacturing organizations were particularly concerned with meeting the document management requirements of ISO 9001. As one organization told us: “Testing procedures, manufacturing process sheets, the liability process sheets: these are all the things that are the backbone of controlled manufacturing. You can’t get ISO 9001 certification if you can’t explain these things. Using Office 365 meant that we had the proper document management and control in place to get accredited.” It is important to note that, based on the type of

manufacturing work, there may be many additional standards that must be met.

In the customer interviews, Forrester learned that many of the capabilities included in Office 365 would have needed to be added separately had the companies remained with an on-premises solution. For the composite manufacturing organization, Forrester calculated the avoided labor costs of implementing these solutions. Specifically, we looked at projects for encrypted email, data leakage, and rights management. Table 3 shows how this was calculated.

There may be additional savings for removed third-party systems or ongoing support that did this work in the past; since these can vary greatly depending on the individual requirements of the manufacturing facilities, these potential savings were excluded. Readers should take the other potential cost avoidances into consideration when evaluating the ROI of Office 365 for their organization.

While the nature of additional projects required to backfill features included in Office 365 can vary, Forrester believes that most organizations would need to do some of them. To compensate for this variance, this benefit was risk-adjusted and reduced by 5%. The risk-adjusted total benefit over the three years was \$47,500.

Table 3
Avoided Control And Compliance Projects

Ref.	Metric	Calculation	Year 1
F1	Encrypted email: number of months		2.0
F2	Encrypted email: number of FTEs		1.5
F3	Data leakage: number of months		1.0
F4	Data leakage: number of FTEs		1.5
F5	Rights management: number of FTEs		1.0
F6	Rights management: number of FTEs		1.5
F7	Monthly average fully burdened cost	\$100,000/12	\$8,333
Ft	Avoided control and compliance projects	$((F1*F2)+(F3*F4) + (F5*F6))*F7$	\$50,000
	Risk adjustment	↓5%	
Ftr	Avoided control and compliance projects (risk-adjusted)		\$47,500

Source: Forrester Research, Inc.

Business Intelligence Benefits

The importance of business intelligence and the value of data within an organization have become more important over the past several years. The manufacturing organizations we spoke with are excited about the role big data will play going forward. Sixty-five percent of survey respondents said that employee performance has improved because of anytime, anywhere access to information. Thirty-eight percent said that due to better access, the time-to-decision has decreased. Interviewed companies described how the elimination of multiple repositories and the ability to find information more quickly has resulted in demonstrable benefits. Twenty-seven percent of respondents reported that corporate memory and knowledge have improved because information is no longer “lost” on local computers or various systems.

One organization we spoke with shared: “We converted our company intranet to SharePoint and gave access to all of our manufacturing decision-makers, and because it’s on the cloud, they’ve all got access to it from any device, anywhere. It really helps make sure everyone is on the same page.” This has enabled the organization to have a central location for information and help others access that data more quickly.

For the composite manufacturing organization, Forrester looked at the increased productivity of 100 users (increasing to 225 by Year 3) who spend a good portion of their day making decisions or completing analyses, such as manufacturing output, inventory levels, and quality control measures. These include executive leadership, manufacturing managers, and business/ manufacturing analysts. In Year 1, these workers see an average savings of 9 minutes per day. As the decision-makers become more comfortable working with the Office 365 features and utilize Office 365 more to aid their decision-making process, this increases to 30 minutes per day by Year 3. This time savings can be used to complete additional value-add work as well as avoid the need for new hires. It can lead to faster time-to-market and higher customer satisfaction, as impactful decisions are being made more quickly. Because not all time savings result in added work, Forrester discounted this benefit by 50%. Table 4 shows how this was calculated.

Since the number of decision-makers as a proportion of all employees varies greatly from one organization to another, this benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$1,137,207.

Table 4
Reduced Decision-Making Time

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
G1	Number of affected workers		100	175	225
G2	Hours saved per day		0.15	0.25	0.50
G3	Workdays per year		250	250	250
G4	Total man-days saved	$G1 * G2 / 8 \text{ hours} * G3$	469	1,367	3,516
G5	Average daily salary	$\$125,000 / 250 \text{ workdays}$	\$500	\$500	\$500
G6	Total potential savings	$G4 * G5$	\$234,375	\$683,594	\$1,757,813
G7	Percent of benefit realized		50%	50%	50%
Gt	Reduced decision making time	$G6 * G7$	\$117,188	\$341,797	\$878,906
	Risk adjustment	↓15%			
Gtr	Reduced decision making time (risk-adjusted)		\$99,609	\$290,527	\$747,070

Source: Forrester Research, Inc.

Real-Time Communications Benefits

The way individuals live their personal lives in terms of using online social interaction services and other real-time communication tools is affecting how people communicate and collaborate in the workplace. A major component of Office 365 is enabling these interactions to improve knowledge-sharing, collaboration, and productivity. Interviewed manufacturers reported that the real-time communication tool features improve their workplace and company performance. These features have improved company culture, created greater business agility from better access to data, and provided management with greater insight to their employees.

“We greatly cut down our review time for engineering drawings because we do it in real time with Skype.”

~President, manufacturing organization

The interviewed organizations shared with us the variety of ways they are using these features to improve their business. For example, we heard: “We greatly cut down our review time for engineering drawings because we do it in real time with Skype. We’re doing it online, interactively with them.” We also heard: “We started an engineering and manufacturing Yammer group. So if they have issues, they post the issue on Yammer and people in the community will respond back, so they don’t have to wait for support — the community solves the problems.”

There are many ways that the real-time communication features of Office 365 can have an impact on an organization. For the quantified portion of the real-time communication benefits pillar, Forrester looked directly at the improvement of creating quotes for custom manufacturing work due to better collaboration as well as the direct cost savings for eliminated communication technologies. However, it is important to note that these features have the potential to affect a variety of tasks and processes across a manufacturing organization, which can lead to savings or additional revenue for the company. While those returns can be huge, for the purpose of this analysis, we took a much more conservative approach to evaluating the benefits associated with real-time communication. Readers should take the other potential savings and additional revenue into consideration when evaluating the ROI of Office 365 for their organization.

Additionally, the investment in Office 365 eliminated the need for the composite manufacturer to continue to invest in webconferencing solutions provided by other vendors. These organizations previously relied on long-distance phone calls to connect with globally disperse vendors, clients, and manufacturing facilities. With Office 365, the composite organization was able to reduce long-distance and teleconference solution costs, as users have more scheduled and ad hoc meetings using Skype and Yammer.

These benefits should be realizable by all organizations previously using other solutions for webconferencing or audioconferencing. Because the amount of long-distance phone usage varies based on geographic reach, this benefit was risk-adjusted and reduced by 10%. The risk-adjusted total benefit over the three years was \$162,000.

Table 5
Eliminated Communication Technology

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
H1	Eliminated webconferencing solutions		15,000	20,000	25,000
H2	Eliminated long-distance phone charges		30,000	40,000	50,000
Ht	Eliminated communication technology	H1+H2	\$45,000	\$60,000	\$75,000
	Risk adjustment	↓10%			
Htr	Eliminated communication technology (risk-adjusted)		\$40,500	\$54,000	\$67,500

Source: Forrester Research, Inc.

With the use of real-time communication features, the composite manufacturing organization was able to save time creating quotes for custom manufacturing work. The model assumes that each year, the composite organization creates quotes for custom manufacturing work for a certain number of prospective clients. These custom quotes require a number of individuals, such as sales, manufacturing engineers, and procurement, to work together to gather all the pertinent information to create the quote. Prior to the implementation of Office 365, these individuals would spend over a week on each custom quote, emailing the files back and forth, waiting on others for feedback, and hunting for the additional information to include

in the quote. Now, with Office 365, they are able to quickly find the details they need and collaborate in real time to produce the quote. Office 365 also allows them to have multiple people working on the same file at the same time, cutting down dramatically on the time spent to create these quotes.

The model assumes that in Year 1, the composite organization creates 50 of these custom manufacturing quotes; as the company grows, by Year 3 the composite manufacturer is creating 70 of these quotes a year. Similar to the experiences of the interviewed organizations, in Year 1, the composite organization’s sales team cut the time spent on creating these quotes to 20 hours, and by Year 3 it had the process down to a single day as users became more comfortable working with the collaboration and real-time communication features.

To compensate for the variety of adoption challenges and other variations experienced by different organizations, the benefit was risk-adjusted and reduced by 15%. The risk-adjusted total benefit over the three years was \$319,770. Table 6 highlights how this benefit was calculated.

Table 6
Reduced Time Spent Creating Quotes For Custom Manufacturing Work

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
I1	Number of custom manufacturing requests per year		50	60	70
I2	Average hourly salary	$\$110,000 / (250 \text{ workdays}^* \text{ 8 hours per day})$	\$55.00	\$55.00	\$55.00
I3	Hours spent creating custom manufacturing quotes before Office 365		50	50	50
I4	Hours spent creating custom manufacturing quotes after Office 365		20	10	8
I _t	Reduced time spent creating quotes for custom manufacturing work	$I1 * I2 * (I3 - I4)$	\$82,500	\$132,000	\$161,700
	Risk adjustment	↓15%			
I _{tr}	Reduced time spent creating quotes for custom manufacturing work (risk-adjusted)		\$70,125	\$112,200	\$137,445

Source: Forrester Research, Inc.

Total Quantified Benefits

The total quantified benefits, as well as present values (PVs) discounted at 10%, are shown in the table below. Over three years, the composite manufacturer expects risk-adjusted total benefits to be a PV of over \$4 million.

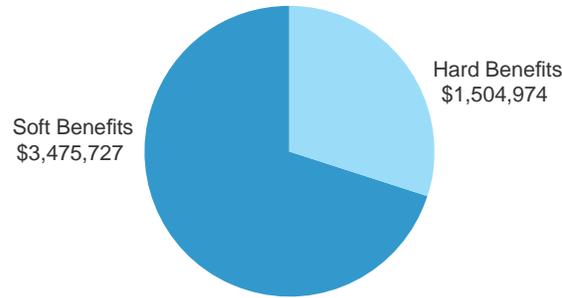
Table 7
Total Quantified Benefits (Risk-Adjusted)

Ref.	Benefit Category	Initial	Year 1	Year 2	Year 3	Total	Present Value
Atr	Avoided backend hardware	\$122,738	\$73,350	\$172,935	\$169,110	\$538,133	\$459,396
Btr	Avoided Microsoft server licenses	\$10,692	\$5,106	\$14,875	\$12,002	\$42,675	\$36,644
Ctr	Reduced implementation effort	\$124,000	\$65,667	\$0	\$0	\$189,667	\$183,697
Dtr	Reduced IT support effort	\$0	\$125,000	\$200,000	\$200,000	\$525,000	\$429,189
Etr	Increased team member productivity	\$0	\$212,500	\$531,250	\$1,275,000	\$2,018,750	\$1,590,158
Ftr	Avoided control and compliance projects	\$0	\$47,500	\$0	\$0	\$47,500	\$43,182
Gtr	Reduced decision-making time	\$0	\$99,609	\$290,527	\$747,070	\$1,137,207	\$891,944
Htr	Eliminated communication technology	\$0	\$40,500	\$54,000	\$67,500	\$162,000	\$132,160
Itr	Reduced time spent creating quotes for custom manufacturing work	\$0	\$70,125	\$112,200	\$137,445	\$319,770	\$259,742
^V	Total benefits (risk-adjusted)	\$257,430	\$739,357	\$1,375,787	\$2,608,127	\$4,980,701	\$4,026,111

Source: Forrester Research, Inc.

While all of the benefits included in the ROI analysis are very important, Forrester looked at the soft benefits versus hard benefits delivered by Office 365. Hard benefits include specific, external cost savings such as reduced license payments to Microsoft and discrete labor savings such as reduced implementation time. Soft savings include general process efficiency gains that can improve the productivity of many workers; this included Etr, Gtr, and Itr in Table 7 above. Approximately 30% of the benefits included fall into the hard category.

Hard Versus Soft Benefits



Source: Forrester Research, Inc.

Costs

The quantified costs include:

- › **Internal implementation labor.** The full deployment of Office 365 was undertaken in two phases. Phase 1, completed in the initial period, consisted of standing up the Office 365 solution, migrating all email accounts and users to Exchange Online from Exchange 2010 on-premises, moving all users to Office 365 Professional Plus from Office Professional Plus 2010 local clients, and deploying OneDrive for all users. Phase 2, completed in Year 1, consisted of a completely new deployment of Skype and Yammer, as well as migrating from SharePoint 2010 on-premises to the latest version of SharePoint Online. The total internal implementation labor cost was \$311,667.
- › **Professional services.** The composite organization used Microsoft Professional Services during all phases of deployment. Professional services were used to properly set up the solutions and help with any especially challenging areas. The total professional services cost was \$138,000.
- › **Training.** Training was required for the IT team on the new and updated solutions being deployed, as well as some training on the differences in administering Office 365 compared with on-premises versions. Sixty days of IT training took place in the initial period, with additional training, involving significantly fewer man-days, in years 1 and 2. Additionally, one internal employee provided user training to the rest of the composite organization. In total, the external training charges for IT and the internal costs for user training amounted to \$293,700.
- › **Ongoing system administration.** The Benefits section describes the number of system administrator positions that did not need to be added or could be reassigned. The remaining system administration team consisted of one full-time equivalent (FTE) in Year 1, and the team grew to two FTEs by Year 3 to handle additional requirements with the overall greater usage and additional users. The three-year associated costs were \$450,000.
- › **Incremental Microsoft licenses.** For individual user licenses, Office 365 was compared with the Software Assurance (SA) pricing model to provide the best apple-to-apple comparison of a solution that always has users on the latest version of Microsoft technologies. Office 365 cost \$24.12 more per year for each user compared with the Software Assurance licenses. The accumulated additional cost over three years was \$139,293.
- › **Federation hardware.** The composite organization desired to use identity federation for improved single sign-on (SSO) internally and with partner/customer companies. This required the installation and ongoing maintenance of two Active Directory Federation Services (ADFS) servers. The three-year cost to purchase, maintain, and host the servers was \$41,265.
- › **Additional bandwidth.** Moving to Office 365 resulted in a net increase of bandwidth required. Some areas, such as Exchange, saw a reduction, while other areas, such as a new deployment of Skype, saw an

increase. There was also additional bandwidth required during the initial data migrations. Over three years, \$105,600 in additional bandwidth was required.

Total Costs

The total costs, as well as present values (PVs) discounted at 10%, are shown in the table below. Over three years, the composite manufacturer expects risk-adjusted total costs to be a PV of \$1.3 million.

Table 8
Total Costs (Risk-adjusted)

Ref.	Cost Category	Initial	Year 1	Year 2	Year 3	Total	Present Value
Jtr	Internal implementation labor	(\$220,000)	(\$91,667)	\$0	\$0	(\$311,667)	(\$303,333)
Ktr	Professional service fees	(\$69,000)	(\$69,000)	\$0	\$0	(\$138,000)	(\$131,727)
Ltr	Training costs	(\$102,300)	(\$95,700)	(\$95,700)	\$0	(\$293,700)	(\$268,391)
Mtr	Ongoing system administration	\$0	(\$100,000)	(\$150,000)	(\$200,000)	(\$450,000)	(\$365,139)
Ntr	Incremental Microsoft licenses	(\$12,663)	(\$25,326)	(\$44,321)	(\$56,984)	(\$139,293)	(\$115,128)
Otr	Federation hardware	(\$25,200)	(\$5,355)	(\$5,355)	(\$5,355)	(\$41,265)	(\$38,517)
Ptr	Additional bandwidth	(\$13,200)	(\$26,400)	(\$33,000)	(\$33,000)	(\$105,600)	(\$89,266)
Total costs (risk-adjusted)		(\$442,363)	(\$413,448)	(\$328,376)	(\$295,339)	(\$1,479,525)	(\$1,311,501)

Source: Forrester Research, Inc.

About Microsoft Office 365

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

Office 365 is the same Office you already know and use every day — and then some. Because Office 365 is powered by the cloud, you can get to your applications and files from virtually anywhere — such as a PC, Mac, and select mobile devices — and they're always up-to-date. Same goes for updates to features — you get them automatically. Business-class email and calendaring put you in sync and help you avoid communication glitches. With business-class email and shared calendars that you can get to from virtually anywhere, people stay in sync and on schedule

Specific feature-related benefits include:

- › **Online conferencing puts everyone on the same page.** With online conferencing, distance really isn't an issue. Need to get everyone together? Host an online meeting complete with real-time note-taking and screen sharing.
- › **Extend your reach with simple, more secure file sharing.** Office 365 makes it easy to more securely share files with coworkers, customers, and partners. Work together on documents that are always current and accessible from virtually anywhere.
- › **Build your online presence, minus the hosting fees.** More effectively market your business with a public website that's easy to set up and update. It's DIY with online tools and absolutely zero hosting fees.
- › **You get one familiar experience, even on the go.** Office 365 mobile apps let you view and edit your Word, Excel, and PowerPoint files and more on your mobile device. And when you get back to your desk, there they are, with content and formatting intact.
- › **Create docs from any browser.** With the touch-friendly applications of Office Online, you can create, edit, and share your Office files from any browser. You can even share and work on docs at the same time as others and avoid versioning hassles later.
- › **You get security, compliance, and privacy you can trust.** Security, compliance, and privacy in the cloud? Yes. And Microsoft is continually making improvements in Office 365 to earn and maintain your trust.

DISCLOSURES

- › The study is commissioned by Microsoft and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.
- › Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Microsoft Office 365.
- › Microsoft reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

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. 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 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.

Return on investment (ROI): A measure of a project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits minus costs) by costs.

Internal rate of return (IRR): The interest rate that will bring a series of cash flows (positive and negative) to an NPV of zero.

ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit forrester.com/consulting.

ABOUT TEI

Total Economic Impact™ (TEI) 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. The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks, and flexibility. <http://www.forrester.com/marketing/product/consulting/tei.html>

Appendix — Value Discovery Workshop

According to Microsoft, the Value Discovery Workshop is “a tool to help [companies] make the business case for Office 365. This tool will help create a step-by-step assessment of process improvement opportunities tied to business objectives/needs, identify the relevant Office 365 capabilities, and automatically generate the right set of customized workshop content.”¹ Forrester surveyed more than 500 organizations across multiple industries to assess how these processes have improved and define specific KPI and financial impacts. Specifically, Forrester looked at the impact that Office 365’s capabilities have on the time and labor involved with each process. Below is a summary of the findings.

For manufacturing organizations, Microsoft specifically investigated the research & development staff, operations manager, field services staff and sales staff roles. Microsoft identified benefits across 10 process areas. Tables 9 through 12 show the mean results for each process improvement by role.

Table 9
Summary Value Of Discovery Workshop Improvements — Research and Development Staff

Process	Hours Per Week Before Office 365	Percent Reduction In Hours	Number Of FTEs Before Office 365	Percent Reduction In FTEs	Financial Impact (Risk-Adjusted)
Discover insights to identify trends	19.1	17.9%	137	20.1%	\$1,170,638
Discover content and context to quickly make informed decisions	15.6	13.8%	89	15.4%	\$488,836
Conduct meetings from anywhere, anytime to get work done	18.7	12.4%	149	8.0%	\$703,220
Communicate securely to ensure privacy	19.3	12.4%	89	22.3%	\$713,338
Manage client privacy and security	15.8	15.1%	119	15.6%	\$693,035
Secure access to work from anywhere	15.7	16.1%	95	17.9%	\$603,559
Collaborate in real time on document development and review	10.9	12.2%	99	17.6%	\$388,047
Find and leverage collective intelligence to produce higher-impact deliverables	18.6	18.0%	94	18.3%	\$750,442
Protect sensitive client information to ensure compliance	13.5	9.9%	175	14.9%	\$716,597
Maximize sales to have an impact on your bottom line	22.5	21.1%	75	23.0%	\$861,259

Source: Forrester Research, Inc.

Survey respondents shared the following specific statements about how processes improve:

- › “Significantly improved employee turnover margins and helped reduce workload identification.”
- › “All international employees use the same system and so we are able to connect from anywhere.”
- › “Reaffirms compliance policy requirements.”
- › “Engineering changes are released thru this process and MS platform is used to track all approvals and rejections.”
- › “We work on military contracts so data security is a must.”

¹ More information on Microsoft’s Value Discovery Workshop methodology and deliverables can be found at www.valuediscoveryworkshop.com.

Table 10
Summary Value Of Discovery Workshop Improvements — Operations Manager

Process	Hours Per Week Before Office 365	Percent Reduction In Hours	Number Of FTEs Before Office 365	Percent Reduction In FTEs	Financial Impact (Risk-Adjusted)
Discover insights to identify trends	20	14.3%	125	20.5%	\$961,951
Discover content and context to quickly make informed decisions	13	16.8%	89	14.9%	\$407,868
Conduct meetings from anywhere, anytime to get work done	12.1	11.3%	82	6.8%	\$207,629
Communicate securely to ensure privacy	10.4	19.8%	158	9.6%	\$545,584
Manage client privacy and security	16	18.0%	125	20.5%	\$840,592
Secure access to work from anywhere	8.1	5.7%	133	8.7%	\$180,855
Collaborate in real time on document development and review	11.5	16.8%	175	13.0%	\$671,039
Find and leverage collective intelligence to produce higher-impact deliverables	18.2	18.5%	242	21.2%	\$1,902,628
Protect sensitive client information to ensure compliance	9.6	12.9%	164	16.8%	\$523,379
Maximize sales to have an impact on your bottom line	20.8	12.4%	60	18.7%	\$433,685

Source: Forrester Research, Inc.

Survey respondents shared the following specific statements about how processes improve:

- › “Enables to quickly and easily move between different areas of research and data in order to make the best informed decisions.”
- › “It helps me to stay better connected with co-workers to collaborate and share ideas, as well as maintaining effective communication during special projects.”
- › “Increasingly higher time spent on supporting sales due to smooth running office.”
- › “It makes my work easier and all people in my company that meet more than 2 hours a day.”

Table 11
Summary Value Of Discovery Workshop Improvements — Field Services Staff

Process	Hours Per Week Before Office 365	Percent Reduction In Hours	Number Of FTEs Before Office 365	Percent Reduction In FTEs	Financial Impact (Risk-Adjusted)
Discover insights to identify trends	7.8	22.2%	160	15.3%	\$513,882
Discover content and context to quickly make informed decisions	21.6	16.8%	140	19.7%	\$1,211,840
Conduct meetings from anywhere, anytime to get work done	10.7	7.8%	185	6.1%	\$320,845
Communicate securely to ensure privacy	14.2	13.3%	162	12.2%	\$663,195
Manage client privacy and security	19.8	14.6%	215	23.6%	\$1,786,342
Secure access to work from anywhere	20.9	16.9%	165	21.8%	\$1,457,959
Collaborate in real time on document development and review	9.9	13.5%	107	10.0%	\$283,298
Find and leverage collective intelligence to produce higher-impact deliverables	13.3	16.5%	115	22.5%	\$651,661
Protect sensitive client information to ensure compliance	11.9	13.9%	162	21.1%	\$746,402
Maximize sales to have an impact on your bottom line	3.5	8.0%	103	12.8%	\$86,079

Source: Forrester Research, Inc.

Survey respondents shared the following specific statements about how processes improve:

- › “Communicating with other colleagues about what’s trending in their markets.”
- › “[Office 365 helps us] follow up with customers.”
- › “We are all over the US and other countries help us to support each other securely.”

Table 12
Summary Value Of Discovery Workshop Improvements — Sales Staff

Process	Hours Per Week Before Office 365	Percent Reduction In Hours	Number Of FTEs Before Office 365	Percent Reduction In FTEs	Financial Impact (Risk-Adjusted)
Discover insights to identify trends	3.8	7.8%	45	7.7%	\$30,762
Discover content and context to quickly make informed decisions	7.1	14.8%	208	18.0%	\$537,351
Conduct meetings from anywhere, anytime to get work done	8.1	5.7%	111	11.4%	\$178,579
Communicate securely to ensure privacy	4	3.1%	145	9.0%	\$82,782
Manage client privacy and security	15.3	7.1%	108	13.7%	\$395,576
Secure access to work from anywhere	11.9	12.0%	145	11.2%	\$455,341
Collaborate in real time on document development and review	3.8	11.7%	145	14.3%	\$161,841
Find and leverage collective intelligence to produce higher-impact deliverables	12.9	7.7%	125	10.3%	\$335,007
Protect sensitive client information to ensure compliance	4	5.3%	125	2.5%	\$46,289
Maximize sales to have an impact on your bottom line	14.4	6.7%	151	12.1%	\$472,286

Source: Forrester Research, Inc.

Survey respondents shared the following specific statements about how processes improve:

- › “It simplifies the data that I create.”
- › “It allows us to share and research data and link with our sales platform.”
- › “A huge time saver relieving employees of hours of travel. Instead of weekly meetings and corresponding flights, we have eliminated them.”
- › “Strong security allows us to not have to worry about sales people sending info they should not.”
- › “We use share point to modify files quickly at the end of month that we share in a group on customers.”
- › “Being able to track spreadsheets of where I am at. Set me reminders through my proposals to follow up on which has better new business.”