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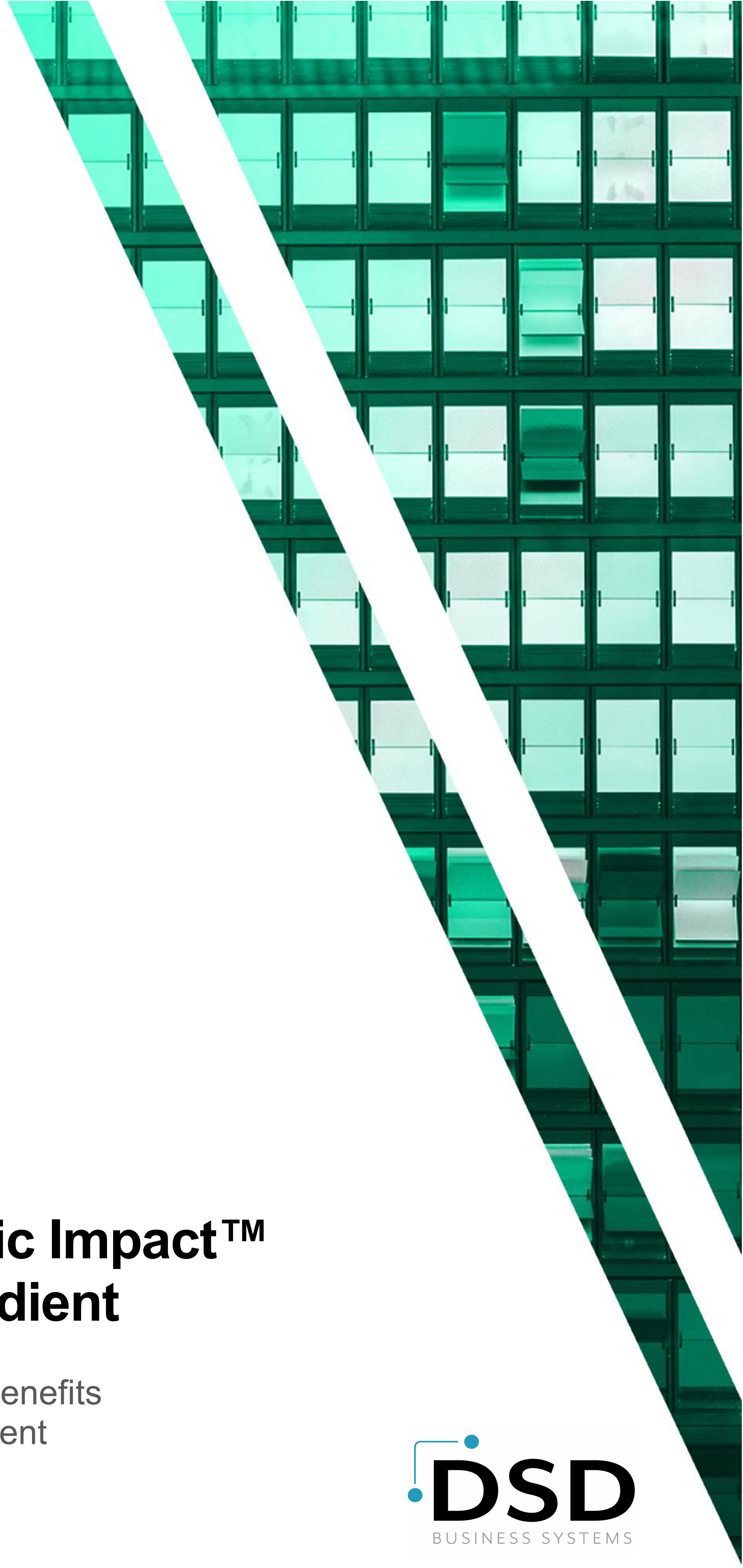

The Total Economic Impact™ Of YayPay By Quadient

Cost Savings And Business Benefits Enabled By YayPay By Quadient

JULY 2021

DSD BUSINESS SYSTEMS

A FORRESTER TOTAL ECONOMIC IMPACT™ STUDY COMMISSIONED BY YAYPAY

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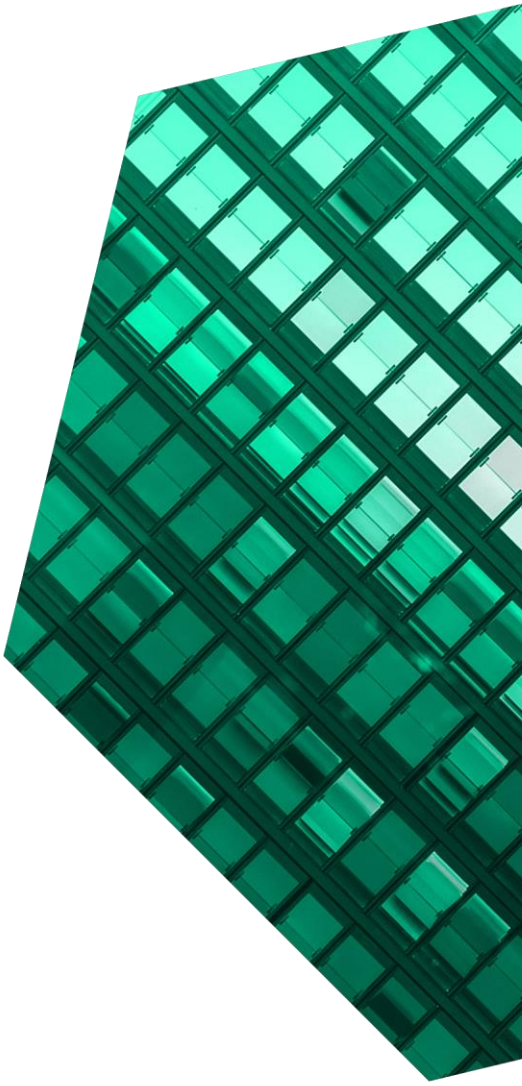


Executive Summary

According to Forrester, next-generation digital operations platforms will play an important role in delivering quality customer experiences for modern businesses.[1] Organizations with a large influx of invoices each month can benefit from an effective accounts receivable (AR) platform that can make it easier to manage the lifecycle of these invoices catering to specific customer profiles. YayPay by Quadient, an AR management platform powered by AI, helps organizations streamline and simplify their AR processes, playing a strategic role in improving customer experience.

YayPay by Quadient is an accounts receivable (AR) management platform that uses automation, a user-friendly dashboard, and system integrations to help organizations stay ahead of their accounts receivable workloads. It can help reduce days sales outstanding (DSO), improve the customer experience, accurately predict cash flow, and recoup lost revenue.

Quadient commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying YayPay.[2] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of YayPay on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with experience using YayPay. For the purposes of this study, Forrester aggregated the experiences and results of the interviewed customers into a single composite organization.

Prior to using YayPay, some customers used spreadsheets exported from ERP modules to manage their accounts receivable processes, particularly around collections and ensuring invoices were being paid. Some were using legacy AR systems. These manual systems left customers unable to deal with rapid increases in the number and complexity of invoices each year. These limitations led to high DSO, a growing number of write-offs from uncollected invoices, and strained AR team resources.

KEY BENEFITS

Reduced write-offs

25%

Reduction in AR-related support contacts

10%

After investing in YayPay, customers were able to automate key AR processes and reduce the burden on their AR staff. Key benefits include: reducing the amount of time spent managing each invoice; avoiding having to hire additional AR staff; recovering revenue through reduced write-offs; and reduced legacy costs.

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits for a company with total revenue of $300 million include:

- **Improved AR workflow automation and team efficiency by 25%.** YayPay's AR platform saves AR teams time on each invoice through automated email reminders, workflows, and targeted self-service links. The platform allows AR teams to prioritize late-paying accounts, while the built-in automation ensures that even smaller accounts are engaged. YayPay also helps enable 10% fewer payment support calls as agents free up time to work on more advanced and strategic support calls. Self-service options save time for customers as well, creating a better overall customer experience. This benefit total equated to $424,000 over three years.

- **Avoided having to hire seven additional AR staff.** Interviewed organizations experienced a rapidly growing number of invoices each year. To meet this demand, organizations would have had to hire significantly more AR resources to accommodate the slower, manual way of managing invoice fulfillment they were using before YayPay. With YayPay's automation and scalable platform, they can postpone hiring plans until Year 3, saving $391,000 on avoided additional staff hires over three years.
- **Collected 25% through reduced write-offs with YayPay.** Organizations with complex sales cycles or many customers might struggle to ensure that each invoice is being paid before those invoices age out and become uncollectible. YayPay's customizable automation ensures that relevant communications and reminders are sent out to each customer at the appropriate time in the payment cycle, including smaller customers that might be more easily overlooked by busy AR teams. The composite organization recovers $234,000 in present value revenue through reduced write-offs over three years.
- **Reduced legacy costs by $52,000 over three years.** As organizations transitioned to YayPay, they were able to retire costly payment

KEY STATISTICS

Return on investment (ROI)
403%

Net present value (NPV)
$882K

"Around 10% to 15% of requests have been eliminated because of some of the stuff that's just made out of the box with YayPay."

— CFO, manufacturing and distribution

processors, ERP modules, and management resources associated with their legacy systems. YayPay's services were able to either eliminate the need for these services or replace them entirely in a more efficient, integrated manner, allowing the composite organization to save between $18,000 and $30,000 each year.

Unquantified benefits. Benefits that are not quantified for this study include:

- **Reduced DSO by 25%.** YayPay's ability to allow AR teams to prioritize accounts at risk of late payment and the platform's automated payment reminders helped interviewed organizations significantly reduce their DSO.
- **Improved customer service experience.** Interviewed organizations said that their customers appreciated having invoice, payment, and statement links in every email as well as self-service options. This helped reduce support calls and allowed more time for advanced support tickets.
- **A value-added partner to sales.** Before YayPay, sales teams would prevent the AR team from contacting customers with collections requests; sales would deal with AR conversations themselves. With YayPay, AR is a more valued resource with convenient and secure payment, invoice, and contact information.

"Our collections team was focusing all our energy on our top five customers. But that meant we were ignoring our smaller businesses, and it might literally have been a year before we were calling them."
Billings and collections manager, life sciences

"The standout benefit of YayPay is that during this hyper-growth period, we didn't have to hire any additional employees. We were able to postpone headcount in our AR department for two years."
Director of finance, software vendor

- **Payment card industry (PCI) compliance.** YayPay provides credit card payment services and helps guide customers to manage their credit card numbers responsibly and securely. Organizations no longer need to worry about receiving plain-text credit card numbers from their customers via email and staying PCI-compliant.

Costs. Risk-adjusted PV costs include:

- **YayPay annual costs.** This cost includes YayPay's yearly licensing fee for the platform, as well as some incremental added tasks for AR staff to use YayPay.
- **YayPay implementation costs.** YayPay's deployment for interviewed organizations was quick. Connecting the base YayPay platform to their ERP systems did not take long and required only minimal training due to the platform's ease of use.

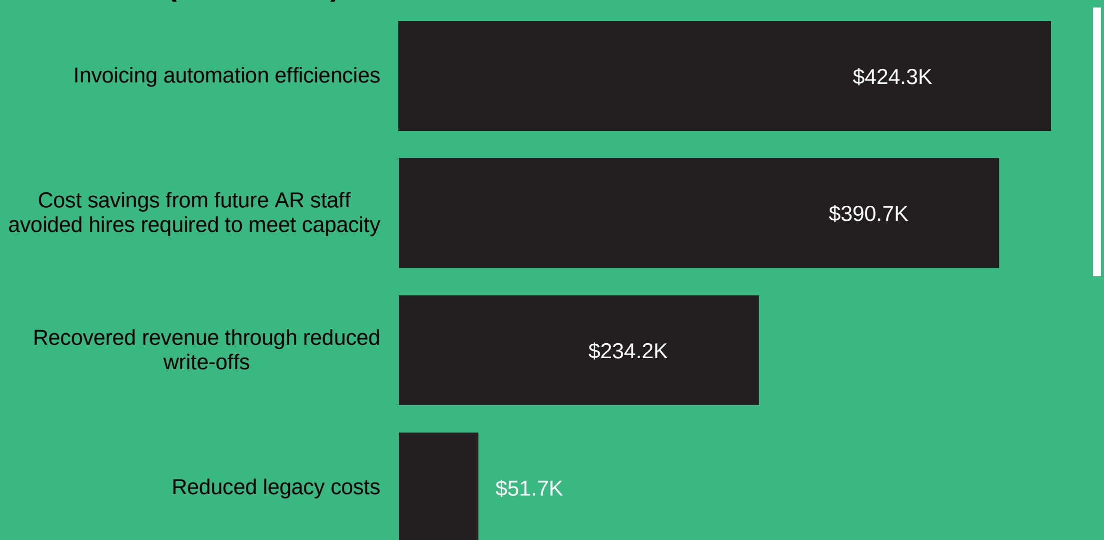
The customer interviews and financial analysis found that a composite organization experiences benefits of $1.10 million over three years versus costs of $219,000, adding up to a net present value (NPV) of $882,000 and an ROI of 403%.

ROI
403%

BENEFITS PV
$1.10M

NPV
$882K

Benefits (Three-Year)



AR-related cost savings add up to $815,000.

"Our working capital cost savings pay for the product [YayPay], in our case four times over. And you get incredible clarity."

— CFO, manufacturing and distribution

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in YayPay by Quadient.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that YayPay by Quadient can have on an organization.

DUE DILIGENCE

Interviewed YayPay stakeholders and Forrester analysts to gather data relative to YayPay by Quadient.

CUSTOMER INTERVIEWS

Interviewed four decision-makers at organizations using YayPay by Quadient to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed organizations.

FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.

CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by YayPay 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 study to determine the appropriateness of an investment in YayPay by Quadient.

YayPay 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.

YayPay provided the customer names for the interviews but did not participate in the interviews.

YayPay By Quadient Customer Journey

Drivers leading to the YayPay by Quadient solution investment

Interviewed Organizations			
Industry	**Headquarters**	**Interviewee**	**Revenue**
Online services	North America	Director of payment support	$1B
Manufacturing and distribution	North America	CFO	$75M
Software	North America	Director of finance	$422M
Life sciences	North America	Billings and collections manager	$50M

KEY CHALLENGES

Interviewed organizations struggled to keep up with a rising number of invoices each year, increasingly complex sales cycles and invoicing, and forgotten invoices. Due to the COVID-19 pandemic, interviewed organizations also faced challenges managing their AR teams remotely.

The interviewed organizations struggled with common challenges, including:

- **Manual AR processes unable to accommodate fast growth.** Interviewed organizations were experiencing rapid growth in the number of invoices that needed to be fulfilled each year. The increasing demand put a growing strain on overutilized AR teams, as legacy systems involving spreadsheets and non-automated processes made it difficult for these teams to effectively scale their AR operations. Emailed invoice payment reminders were sent to customers manually, and a ballooning number of payment support calls took up a significant portion of AR teams' bandwidth.

  The director of payment support at the online services provider noted the obstacles their organization faced in efficiently processing invoices: "We were doing manual uploading of invoices into our system on a daily basis, and that would break every couple months."

- **Complex sales cycles with complicated invoices.** Certain organizations used more complicated invoice-processing procedures than others, as their sales cycles were more nuanced due to certain regulatory environments or industry standards. These realities made it even more difficult for AR teams to effectively manage the entire invoice lifecycle without invoices being forgotten before they aged out. They also made it more difficult for invoices to be tracked and delayed payments, leading to higher DSOs.

"I'd say [our AR team] was probably spending 25% to 33% of their time doing collection before YayPay, which is a really sad statement."
CFO, manufacturing and distribution

> **"YayPay has drastically changed how the organization looks at the finance team. We're not the harbingers of doom anymore. We're doing something to help the organization."**
> *Billings and collections manager, life sciences*

The billings and collections manager at the life sciences organization spoke to the challenges their organization faced due to a complicated sales cycle: "Before YayPay, our DSO was 78 days. We had over a million [dollars] in AR that was 150 days old. Basically, we couldn't keep up."

- **Difficulty using legacy systems.** Interviewed organizations expressed frustration from having to manage AR processes through a system of spreadsheets alongside inflexible ERP modules. These systems lacked a strong user experience for the AR teams using them, as well as the custom fields and automations that organizations craved to effectively scale their AR operations to accommodate customers with varying profiles. The technical specifications associated with these legacy systems also required the help of special consultants, slowing down the AR team and costing the organization money.

  Additionally, these legacy systems did not act as payment processors, meaning AR agents had to manually input credit card numbers to process invoice payments, slowing down the team and putting the organization at risk for breaches in PCI compliance.

  The director of finance at the software vendor commented on the lack of flexibility offered by their legacy system before YayPay was deployed: "What we found with our ERP module add-on was that it was extremely restrictive. Not only did we have to have an external resource — a consulting resource help us implement this ERP add-on module — but it was [constrained] to a very specific template that they were trying to push us to use. They also wanted us to use [an] account-level system, when actually we what we wanted was to have much more flexibility."

INVESTMENT OBJECTIVES

The interviewed organizations searched for a solution that:

- Had a dynamic product roadmap.
- Was from a vendor that would consult with customers on feature development.
- Was integrable with their ERP system.

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected.

Key assumptions

- **$300 million annual revenue**
- **3,000 invoices per month with 30% YoY growth**
- **AR team of 15 people**
- **45 minutes to process each invoice**

The composite organization is representative of the four companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The technology products and services company headquartered in North America has an annual revenue of $300 million. It is currently delivering 3,000 invoices per month, with an expected year-over-year growth of 30%. The average invoice amount is $5,000, while its percentage of total unrecoverable AR revenue before YayPay is 0.2%.

The composite organization's AR team comprises 15 full-time employees. Their duties include working on invoicing, billing, collections, dispute resolution, and payment support.

Deployment characteristics. For the composite organization, a team of four employees works half of their weekly hours to implement the YayPay base platform and integrate it with its ERP system. The ERP system is a popular, established solution with few customizations related to accounts receivable. Negligible training investments were required to get the AR team up to speed with the new platform.

Analysis Of Benefits

Quantified benefit data as applied to the composite

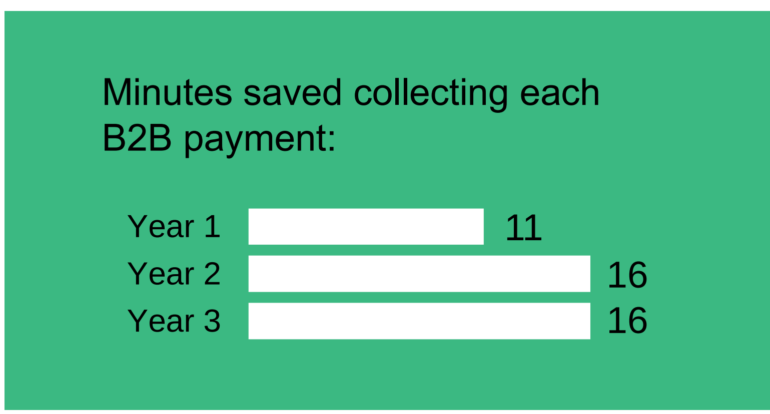
Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	AR workflow automation efficiencies	$101,250	$184,275	$239,558	$525,083	$424,322
Btr	Cost savings from future AR staff avoided hires required to meet capacity	$0	$208,000	$291,200	$499,200	$390,684
Ctr	Recovered revenue through reduced write-offs	$72,000	$93,600	$121,680	$287,280	$234,230
Dtr	Reduced legacy costs	$16,200	$20,250	$27,000	$63,450	$51,748
	Total benefits (risk-adjusted)	$189,450	$506,125	$679,438	$1,375,013	$1,100,984

AR WORKFLOW AUTOMATION EFFICIENCIES

Evidence and data. With YayPay's automation features and detailed reporting, AR employees complete AR tasks more quickly and successfully. Invoice delivery and other standard communications can be automated, saving time that would have been spent sending repetitive messages (or losing time due to forgetting to send an invoice). Invoices are delivered with a secure link to the customer's statement, significantly reducing AR-related support calls. Examples from interviewed organizations include:

- The software vendor can leverage YayPay's automation tools to completely handle collections for many invoices, with automated reminders and responsive customers. "At least 40% or 50% of our invoices don't require a touch by us at all because automation is handling it and our agents can focus their time on the rest," said the director of finance for the software vendor.
- YayPay automation helped the online service provider keep up with the demand for increased online business during the COVID-19 pandemic. The director of payment support said, "YayPay definitely played a huge role in our ability to adjust and be efficient through the pandemic."

Modeling and assumptions. The composite organization is a vendor with an AR team of 15 FTEs. Before YayPay, that team was stretched thin. With YayPay, particularly due to the platform's automation features like timed reminders and statement links in each message, it has been able to keep up with work, while also finding time for value-added tasks like assisting sales to answer customer questions and providing proactive customer support. Inputs to measure efficiency improvements include:



- An invoice took 45 minutes to process before YayPay (including follow-ups and support).
- With YayPay, invoices are completed between 25% to 35% more quickly, for a savings of 11 minutes per invoice in Year 1, and 16 minutes per invoice in Years 2 and 3.
- An average of 3,000 invoices are processed each month.
- While the AR team saw a gradual increase in invoices in the past, the total number of invoices is expected to grow significantly, at a rate of 30% year over year.
- The average hourly salary of AR agents focused on invoice processing is $25.
- Forrester's productivity realization factor is 25%, to account for hours saved that aren't used for additional work (i.e., taking work breaks, going home on time, etc.).

Risks. Productivity benefits can easily be overemphasized based on the time saved or the number of people who benefit. Forrester has applied a 20% downward risk adjustment to account for this.

Results. The three-year, risk-adjusted total PV (discounted at 10%) of improved invoice automation is $424,000.

AR Workflow Automation Efficiencies

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Number of invoices to be processed each month	Composite	3,000	3,900	5,070
A2	Total invoices per year	A1*30%	36,000	46,800	60,840
A3	Average time to process an invoice before YayPay (minutes)	Interview data	45	45	45
A4	Reduction in collections management effort enabled by YayPay	Interview data	25%	35%	35%
A5	Average time to process an invoice with YayPay (minutes)	A3*A4	34	29	29
A6	AR agent hourly salary, fully burdened	Assumption	$25	$25	$25
A7	Productivity realization factor	Assumption	75%	75%	75%
At	AR workflow automation efficiencies	A2*(A3/60)* A4*A6*A7	$126,563	$230,344	$299,447
	Risk adjustment	↓20%			
Atr	AR workflow automation efficiencies (risk-adjusted)		$101,250	$184,275	$239,558
	Three-year total: $525,083		**Three-year present value: $424,322**		

COST SAVINGS FROM FUTURE AR STAFF AVOIDED HIRES REQUIRED TO MEET CAPACITY

Evidence and data. In addition to efficiencies for current AR employees, interviewed decision-makers reported that they were able to delay planned AR hiring, saving significant added salary costs. Examples include:

- The software vendor did not have to add any AR resources, even in the middle of a rapid growth phase. The director of finance said, “We were able to postpone headcount in our AR department for two years.”
- The manufacturing and distribution company, with a team of only four accountants and AR managers, would have had to hire another accountant.

Modeling and assumptions. For the composite organization, the team of 15 AR employees can keep up with the expected invoicing growth for two years and will need to add a few more people (though still less than originally planned) in Year 3. Assumptions include:

- Based on the number of average monthly invoices from the previous benefit, the organization processes 36,000 invoices in Year 1, 46,800 in Year 2, and 60,840 in Year 3.
- Without YayPay, AR employees were working at about an 85% utilization rate, meaning the team of 15 FTEs would be able to keep up with invoice processing in Year 1 (though at capacity). In Year 2, the team would have needed to grow to 20 FTEs, and to 26 FTEs in Year 3.
- With YayPay, the AR team of 15 can meet demand in Years 1 and 2 without any additional help, even with significant growth. In Year 3, it would need to add four people for a new team total of 19 FTEs.
- With YayPay, the composite organization avoids five hires in Year 2 and seven hires in Year 3.
- Based on the assumption that agents responsible for invoice processing earn $25 per hour, the average fully-burdened AR agent salary is $52,000.

Risks. To account for resource or salary underestimation, Forrester applied a 20% downward risk adjustment.

Results. The three-year, risk-adjusted total PV of avoided AR hires is $391,000.

7 AR staff avoided hires with YayPay

Cost Savings From Future AR Staff Avoided Hires Required To Meet Capacity					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
B1	Total invoices per year	A2	36,000	46,800	60,840
B2	Number of agents before YayPay required to keep up with invoice volume	Composite	15	20	26
B3	Number of agents required with YayPay	Composite	15	15	19
B4	Agent hires avoided with YayPay	B2-B3	0	5	7
B5	AR agent annual salary, fully burdened ($25/hour)	Assumption	$52,000	$52,000	$52,000
Bt	Cost savings from future AR staff avoided hires required to meet capacity	B4*B5	$0	$260,000	$364,000
	Risk adjustment	↓20%			
Btr	Cost savings from future AR staff avoided hires required to meet capacity (risk-adjusted)		$0	$208,000	$291,200
	Three-year total: $499,200		**Three-year present value: $390,684**		

RECOVERED REVENUE THROUGH REDUCED WRITEOFFS

Evidence and data. Automated messaging and other customer reminders help ensure that customers don't forget or misfile an invoice and that merchants don't forget to send an invoice. Examples from interviewees include:

- The billings and collections manager at the life sciences firm reported DSO of more than 70 days before YayPay, with accounts receivable aged 150 days or older totaling more than $500,000. Only months after deploying YayPay, outstanding invoices aged 150 days or older had reduced significantly to less than $30,000.[3]
- The director of payment support for the online services provider said, "The longer a customer goes without communication or engagement, the more likely we don't collect payment from them. YayPay allows us to quickly and regularly communicate with our customers automatically."

Modeling and assumptions. For the composite organization, assumptions include:

- The average invoice amount of $5,000.

Reduction in write-offs due to collections with YayPay:

25%

- The rate of written-off revenue from aged-out invoices is about 0.2%.
- With YayPay, that rate has reduced by 25%.

This totals $90,000 of recovered revenue in Year 1, $117,000 in Year 2, and $152,000 in Year 3.

Risks. The frequency and amount of write-offs can be highly variable based on factors that include individual customer needs, credit rates, and the current economic outlook.

Results. To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of $234,000.

Recovered Revenue Through Reduced Write-offs					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
C1	Average invoice amount	Composite	$5,000	$5,000	$5,000
C2	Total annual AR amount	C1*A2	$180.0M	$234.0M	$304.2M
C3	Percentage of AR total written off as unrecoverable before YayPay	Composite	0.2%	0.2%	0.2%
C4	Annual invoiced revenue written off before YayPay	C2*C3	$360,000	$468,000	$608,400
C5	Percentage of written-off revenue now collected with YayPay	Composite	25%	25%	25%
Ct	Recovered revenue through reduced write-offs	C4*C5	$90,000	$117,000	$152,100
	Risk adjustment	↓20%			
Ctr	Recovered revenue through reduced write-offs (risk-adjusted)		$72,000	$93,600	$121,680
	Three-year total: $287,280		**Three-year present value: $234,230**		

REDUCED LEGACY COSTS

Evidence and data. Investment in YayPay uncovered opportunities to reduce or retire duplicate systems for some organizations that had invested in more than spreadsheet tracking in the past. Implementation also created opportunities for organizations to leverage YayPay's expertise and knowledge for further savings. Examples from interviewees include:

- The software vendor was able to reduce costs with its existing ERP system as YayPay replaced an existing collections module that was hard to use and more expensive. "We had to have an external consulting resource help with implementation and updates," said the director of finance.

- The life sciences firm benefitted from YayPay's experience and replaced an expensive payment processor with a more cost-effective one offering the same services. Without YayPay's involvement, the billings and collections manager said, payment process review "would not have come up if we weren't trying to find ways to get YayPay to begin with."

Modeling and assumptions. The composite organization saved an estimated $18,000 in legacy or redundant costs in Year 1, growing to $22,500 in Year 2, and $30,000 in Year 3.

Risks. As legacy cost savings is highly variable based on individual organizations' prior situation, a 10% downward risk adjustment has been applied.

Results. The three-year, risk-adjusted total PV of legacy cost savings is $52,000.

Reduced Legacy Costs					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
D1	Reduced legacy costs	Interviews	$18,000	$22,500	$30,000
Dt	Reduced legacy costs	D1	$18,000	$22,500	$30,000
	Risk adjustment	↓10%			
Dtr	Reduced legacy costs (risk-adjusted)		$16,200	$20,250	$27,000
	Three-year total: $63,450		**Three-year present value: $51,748**		

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Reduced DSO.** The billings and collections manager at the life sciences organization illustrated the significant impact that YayPay's AR platform has had on their organization's reduction in DSO. Before YayPay, DSO was more than 70 days, and a significant number of invoices were aged 150 days or more. With YayPay, she said, "Our DSO is now 37 days, with most of our invoice payments now current because of the standing notifications and processes that were much more automated."

  The manufacturing and distribution firm also reduced DSO and saved money. The additional working capital from closing invoices more quickly means it can take advantage of more opportunities and can avoid costs related to credit, including interest and transaction fees. The CFO said, "It's thousands of dollars a month in savings considering capital costs and interest rates."

- **Better AR team visibility.** YayPay's automated communication includes links to invoices, statements, and payment options. This means communications are more helpful, proactive, and timely — and less often seen as annoying or intrusive. Before YayPay, sales departments at organizations would often block AR from contacting customers to talk about collections, but today AR is seen as a valued partner, and sales reps often ask an AR agent to contact customers with invoice and payment information. The billings and collections manager at the life sciences organization said, "We're not the harbingers of doom anymore. We're doing something to help the organization."

- **Improved customer experience.** The payment support director at the online services provider commented on the value timely and helpful communication has also had on their organization's relationship with customers: "Customer experience is a high priority for our organization. YayPay gives us stability to scale our collections and to be really sophisticated with the way we communicate with our customers." With YayPay's automation and time savings, the online services provider has been able to invest in outbound customer support resources to further manage and improve customer experience.

- **Improved PCI compliance.** The billings and collections manager at the life sciences organization noted: "PCI compliance is huge; credit card payments can be taken away from you if you're not PCI-compliant. The self-service module means our customers securely input credit card information, and we do not have to worry about handling that information."

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement YayPay and later realize additional uses and business opportunities, including:

- **Credit assessment module.** Most interviewees had not integrated credit assessment at the time of Forrester's interviews, but they were considering it for future investment. This could lead to reduced sales costs, write-offs, and licensing fees for current credit solutions.
- **Payments.** Interviewees have implemented the YayPay payments and cash app integration, but a high percentage of organizations were still managing payments separately. With more incentives for customers to use the platform's built-in payment options, organizations hope to see fewer payment-related support requests and spend less time on payment logistics.

"YayPay gives us stability to scale our collections and to be really sophisticated with the way that we communicate with our customers."
Payment support director, online services

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs							
Ref.	**Cost**	**Initial**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Etr	YayPay annual costs	$0	$86,250	$86,250	$86,250	$258,750	$214,491
Ftr	YayPay implementation costs	$4,320	$0	$0	$0	$4,320	$4,320
	Total costs (risk-adjusted)	$4,320	$86,250	$86,250	$86,250	$263,070	$218,811

YAYPAY ANNUAL COSTS

Evidence and data. Investment in YayPay includes two main areas of annual cost:

- **YayPay service subscription costs.** For the composite organization, this includes the base YayPay platform plus advanced analytics.
- **Incremental tasks.** While significant AR efficiencies are gained, there are some new tasks related to managing and using YayPay, such as pulling reports and spending time analyzing data that wasn't available in the past.

Results. For the composite organization, this adds up to an annual cost of $86,250, including a 15% upward risk adjustment to allow for underestimates in resource time or in YayPay subscription costs or required modules. This totals a three-year, risk-adjusted total PV (discounted at 10%) of $214,000.

YayPay Annual Costs						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	YayPay subscription cost and add-ons	Composite		$75,000	$75,000	$75,000
Et	YayPay annual costs	E1	$0	$75,000	$75,000	$75,000
	Risk adjustment	↑15%				
Etr	YayPay annual costs (risk-adjusted)		$0	$86,250	$86,250	$86,250
	Three-year total: $258,750		**Three-year present value: $214,491**			

YAYPAY IMPLEMENTATION COSTS

Evidence and data. Implementation of the base YayPay platform was not difficult for interviewed organizations. YayPay includes easy integration for many ERP solutions, and interviewed organizations had all deployed commonly used ERP solutions. Implementation included setting up the YayPay account, connecting to the ERP solution, setting up custom fields, and brief training to manage the solution and create reports.

Implementation for the composite organization took five days. During that period, four people each spent about four hours per day to complete implementation tasks.

Results. To allow for underestimation, a 20% upward risk adjustment was applied. The risk-adjusted total implementation cost adds up to $4,320 in the initial period before deployment and AR team use.

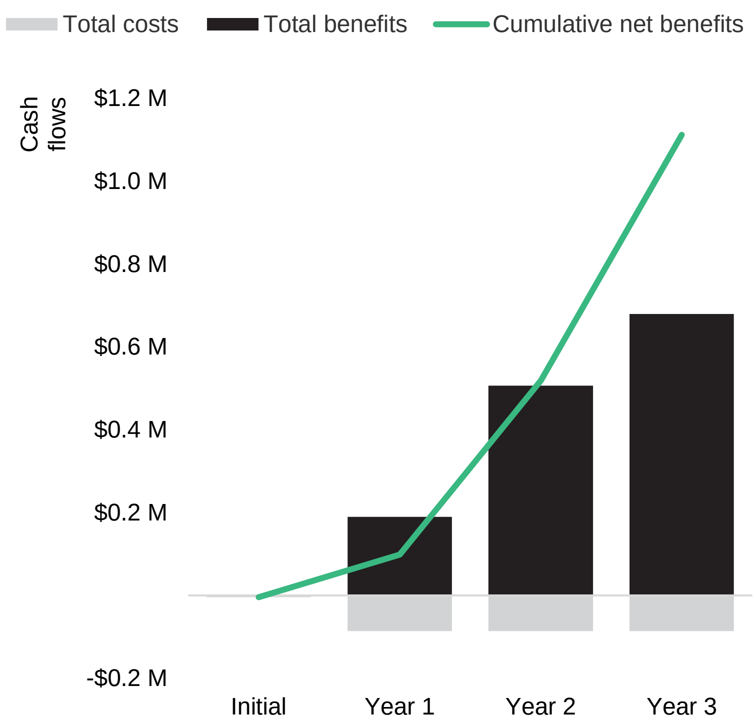
YayPay Implementation Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
F1	Days for implementation		5			
F2	Number of people involved		4			
F3	Average hours per day needed		4			
F4	Average hourly salary (fully burdened)		$45			
Ft	YayPay implementation costs	F1*F2*F3*F4	$3,600	$0	$0	$0
	Risk adjustment	↑20%				
Ftr	YayPay implementation costs (risk-adjusted)		$4,320	$0	$0	$0
	Three-year total: $4,320		**Three-year present value: $4,320**			

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($4,320)	($86,250)	($86,250)	($86,250)	($263,070)	($218,811)
Total benefits	$0	$189,450	$506,125	$679,438	$1,375,013	$1,100,984
Net benefits	($4,320)	$103,200	$419,875	$593,188	$1,111,943	$882,173
ROI						403%

Appendix A: Total Economic Impact

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.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places 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.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in 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.

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.

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.

RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.

DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.

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.

Appendix B: Endnotes

1 “Beyond ERP — How Digital Operations Platforms Make Or Break The Customer Experience,” Forrester Research, Inc., December 15, 2019.

2 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

3 The life sciences organization does have some unique regulations that affect DSO and accounts receivable. For example, a purchase order for surgical services cannot be opened until after the surgery is completed, which often means opening a purchase order — let alone sending an invoice — is easily forgotten.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