A Forrester Total Economic Impact™
Study Commissioned By AppDirect
December 2018

The Total Economic Impact™ Of AppDirect AppMarket

Cost Savings And Business Benefits Enabled By AppMarket

FORRESTER®

Table Of Contents

Project Director:
Sam Conway

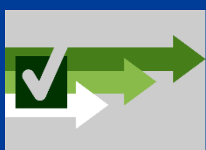
ABOUT FORRESTER CONSULTING

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.

FORRESTER®

AppMarket Benefits

Application marketplace revenue:
$30,320,060



Avoided investment in application marketplace development:
$2,754,893

“We would not have been able to enter the public cloud market and realize the strong growth rate there without our investment in AppDirect.”

VP cloud business marketplace, telecommunications

Executive Summary

According to Forrester Research, “In this era of SaaS-first and SaaS-only strategies, business executives can get overwhelmed with choices — which creates redundancy, cost overruns, and new risks. At the same time, technology organization executives in sourcing and application development and delivery (AD&D) roles have struggled to build policies and governance to balance the business agility that SaaS promises with risk mitigation and control. SaaS marketplaces promise to solve these issues by simplifying the buying experience for business executives while creating more consistency and control for the technology organization.”[1]

AppDirect provides a commerce platform that enables its customers to directly sell cloud services while avoiding the pitfalls and costs of developing their own solutions. AppDirect commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying AppMarket. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the AppMarket on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed several customers with years of experience using AppMarket. These customers leveraged the AppMarket marketplace to sell proprietary solutions and independent software vendor (ISV) offerings.

Prior to using AppMarket, the customers lacked a platform to offer software-as-a-service (SaaS), platform-as-a-service (PaaS), and infrastructure-as-a-service (IaaS) products; instead, customers had to purchase ISV offerings on alternative marketplaces. Interviewed organizations explored internally building platforms but quickly recognized their developmental deficiencies and the daunting capital investments required for success.

Key Findings

Quantified benefits. The following risk-adjusted present value (PV) quantified benefits are representative of those experienced by the companies interviewed:

› **Application marketplace revenue of $30.3M.** The creation of an application marketplace provided a new revenue stream for organizations. With their AppMarket commerce platforms, organizations could sell new cloud services to existing customers and previously underserved segments.

› **Avoided investment in application market development.** AppDirect provided organizations with an out-of-the-box commerce platform that integrated to their core back-end systems, allowing them to avoid intensive capital investments in internal development and ongoing maintenance.

Unquantified benefits. The interviewed organizations experienced the following benefits, which are not quantified for this study:

› **Improved time-to-market.** Organizations greatly reduced the time-to-market for new cloud service offerings.

FORRESTER®

ROI
109%

Benefits PV
$33.1 million

NPV
$17.3 million

Payback
<3 months

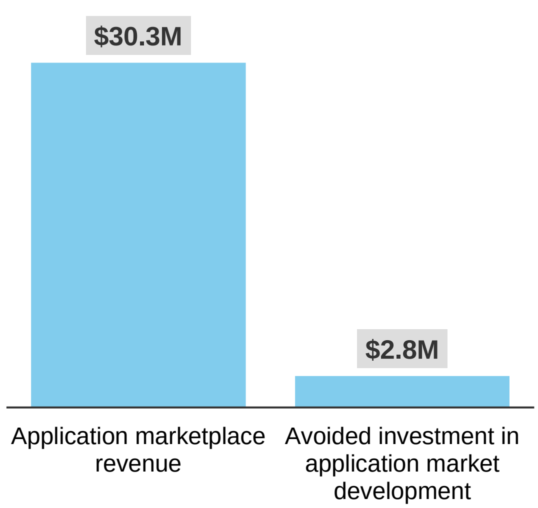
- **Ability to attract new partners.** Organizations leveraged their new commerce channel and AppDirect's relationships with major software vendors to build a robust partner ecosystem.
- **Increased total addressable market.** The cost efficiencies obtained by using AppMarket for automating sales and provisioning allowed organizations to sell services to small and medium-size businesses (SMBs), which were previously unprofitable segments.
- **Maintained relevance with customer base.** Having an application marketplace allowed organizations to follow customer preferences shifting toward SaaS and IaaS consumption.
- **Streamlined billing and provisioning process**. AppMarket seamlessly integrated with organizations' back-office systems and ensured that customers received unified invoices.

Costs. The interviewed organizations experienced the following risk-adjusted PV costs:

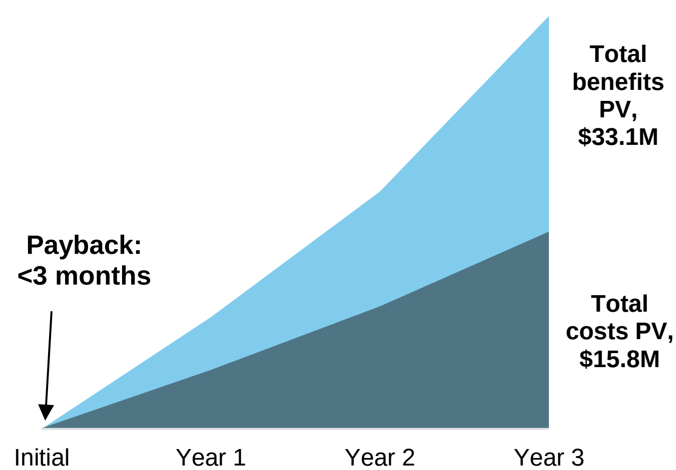
- **AppDirect revenue sharing, licensing and professional services fees of $3.7M.** Organizations paid AppDirect for access to the AppMarket platform and separate individual geographic instances, and they shared a portion of revenue generated through the marketplace.
- **Selling, general, and administrative (SG&A) costs of $9.7M.** Organizations incurred nominal SG&A costs, paid into market development funds, and staffed a business development team to support products and services sold on the platform.
- **Marketing spend of $2.4M.** Organizations spent 4% to 5% of gross sales on additional marketing related to their application marketplaces.

Forrester's interviews with three existing customers and subsequent financial analysis found that an organization based on these interviewed organizations experienced benefits of $33.1 million over three years versus costs of $15.8 million, adding up to a net present value (NPV) of $17.3 million and an ROI of 109%.

Benefits (Three-Year)



Financial Summary



FORRESTER®

Cloud Services Marketplace Enabled By AppDirect: Proforma Three-Year Risk-Adjusted Analysis (USD)

REF.	METRIC	CALC	Year 1	Year 2	Year 3
PL1	Gross subscription revenue	A3	$15,000,000	$20,000,000	$30,000,000
PL2	Less channel discounts	A3*A4*A5	$600,000	$800,000	$1,200,000
PL3	**Total marketplace revenue**	PL1-PL2	**$14,400,000**	**$19,200,000**	**$28,800,000**
PL4	**Gross profit**	Atr	**$8,208,000**	**$11,491,200**	**$17,784,000**
PL5	**Gross profit margin**	PL4/PL3	**57%**	**60%**	**62%**
PL6	AppDirect fees and revenue sharing	Ctr	$1,134,000	$1,417,500	$1,858,500
PL7	Sell, general, and administrative	Dtr	$3,228,750	$3,806,250	$4,830,000
PL8	Marketing expenditures	Etr	$787,500	$945,000	$1,260,000
PL9	**Total operating expenses**	PL6+PL7+PL8	**$5,150,250**	**$6,168,750**	**$7,948,500**
PL10	**Operating income**	PL4-PL9	**$3,057,750**	**$5,322,450**	**$9,835,500**
PL11	**Operating profit margin**	PL10/PL3	**21%**	**28%**	**34%**

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 Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing AppDirect AppMarket.

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 AppDirect AppMarket can have on an organization:

DUE DILIGENCE
Interviewed AppDirect stakeholders and Forrester analysts to gather data relative to AppMarket.

CUSTOMER INTERVIEWS
Interviewed three organizations using AppMarket 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 AppDirect AppMarket's impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI 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.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by AppDirect 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 AppDirect AppMarket.

AppDirect 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.

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

The AppMarket Customer Journey

BEFORE AND AFTER THE APPMARKET INVESTMENT

Interviewed Organizations

For this study, Forrester conducted three interviews with AppDirect AppMarket customers. Interviewed customers include the following:

INDUSTRY	REGION	REVENUE	APPLICATIONS ON MARKETPLACE
Telecommunications	Europe	$75 billion	30
IT services	Europe	$2 billion	80
Business and financial software	United States	$5 billion	9

Key Challenges

Prior to investing in AppMarket, organizations faced a number of key challenges:

- **Inability to develop a cloud service marketplace internally.** Organizations explored developing their own SaaS, PaaS, and IaaS marketplaces internally but quickly recognized that they lacked the competency required to build their own platforms. Furthermore, organizations had no appetite for large capital investments in projects that promised to be time-consuming with no foreseeable terminus. A VP of cloud business in telecommunications said: "One assumption is that we can't develop it on our own. I mean, like a lot of telcos, we have a long history of developing things on our own, and we were never really good at it. We're not a proper development company; that's why we directly say, work with a partner."

- **Evolving consumer preferences.** Organizations recognized that the buying preferences of their core customers were shifting to cloud-based offerings. A managing director of business strategy in IT services said: "For me, the big picture is that the whole IT industry is getting turned upside-down right now. It's not happening overnight, but I think we're somewhere right in the beginning to the middle of that transformation. We're already seeing it just in customers that would have spent millions of euros some years ago on creating data centers and on-premises infrastructure, already procuring and buying infrastructure from public cloud companies. And because we started the marketplace initiative early enough, we're now in a position where customers always recognize us as a trusted provider of those third-party services."

"One assumption is that we can't develop it on our own. I mean, like a lot of telcos, we have a long history of developing things on our own, and we were never really good at it. We're not a proper development company; that's why we directly say, work with a partner."

VP cloud business marketplace, telecommunications

". . . customers that would have spent millions of euros some years ago on creating data centers and on-premises infrastructure, already procuring and buying infrastructure from public cloud companies. And because we started the marketplace initiative early enough, we're now in a position where customers always recognize us as a trusted provider of those third-party services."

Managing director of business strategy, IT services

- **A need to address underserved customer segments.** Organizations investigated selling cloud services to penetrate customer segments that would otherwise be unprofitable. The SMB segment proved difficult to enter with legacy products as the cost of sales inflated prices beyond what the segment could afford. A VP of cloud portal and platform management said: "The fully automated booking chain is a huge benefit. You can't really spend a lot of money selling small batches of applications to very small companies. You can't send sales agents to sell to a small company with two or three employees. But if you can automate the sales process, you can make these kinds of sales."

Solution Requirements

The interviewed organizations searched for a solution that could:

- Seamlessly integrate with existing back-end business systems.
- Enable sales of new cloud services.
- Provide access to major software vendors and ISVs to expand the product catalog.
- Facilitate cross-selling of third-party services and add-ons to compliment core offerings.
- Enhance product stickiness and increase customer lifetime value of the existing base.

Key Results

The interviews revealed that key results from the AppMarket investment include:

- **Launching a new cloud services portfolio, creating additional revenue stream.** Organizations used their AppMarket marketplaces to deliver new cloud services to customers. Interviewees highlighted that without the AppMarket platform, they would not have been able to launch their new offerings and recognize the associated revenue. A senior product manager said: "We have really started a new business where AppDirect is the key enabler, and I think without this enabler, we couldn't do the whole business. We wouldn't have been able to enter the public cloud market and realize the strong growth rate there without our investment in AppDirect."
- **Greatly reducing the time-to-market for new product offerings.** AppDirect provided organizations with an out-of-the-box alternative to homegrown platforms; it would have required years of planning and development to produce a minimum viable product. Furthermore, AppMarket integrated smoothly with core business units, eliminating barriers that would slow the time-to-market of additional offerings.
- **Enhancing the stickiness of product offerings and improving the lifetime value of the existing customer base.** Interviewed organizations found that adding new cloud services to existing offerings increased retention rates and lifetime value among their existing customers. A business and financial software organization found that small businesses adding an application to their account from the marketplace saw a 249% lift in overall lifetime value.

"The fully automated booking chain is a huge benefit. You can't really spend a lot of money selling small batches of applications to very small companies. You can't send sales agents to sell to a small company with two or three employees. But if you can automate the sales process, you can make these kinds of sales."

VP cloud portal and platform management, telecommunications

"In the past, selling and provisioning products would be a struggle and would require very complex manual processes. With AppDirect, it's literally just a couple of clicks, and the end customer immediately gets the product."

VP cloud portal and platform management, telecommunications

"AppDirect never tried to sell us licenses or consulting or implementation of man-hours or man-days. They didn't try to sell us a big project. It was all about a mutual risk-sharing business case where AppDirect would participate in our success if we would eventually succeed. So, that was the first thing that we really liked a lot."

Managing director of business strategy, IT services

FORRESTER®

- **Increasing the total addressable market.** Having an application marketplace allowed interviewees to sell to customer segments that were previously unaddressable. AppMarket enabled large telecom and IT service providers to profitably provide products to SMBs that traditionally sat outside required average deal sizes.
- **Avoiding costly investment required to develop and maintain platform internally.** In buying an out-of-the-box, ready-to-use platform, organizations avoided investing significant time and capital into developing such a platform themselves. Furthermore, organizations eliminated future costs related to updating and maintaining the platform.
- **Attracting new strategic partners.** Organizations leveraged AppDirect's existing relationship with established software vendors to build new strategic partnerships. Furthermore, the listing platform and integration hub provided visibility to third-party developers and aided in the onboarding of new offerings.

Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an associated ROI analysis that illustrates the areas financially affected. The composite organization is representative of the three companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization that Forrester synthesized from the customer interviews has the following characteristics:

- The composite organization is a European-based telco with global operations. The organization sells cloud services and applications to SMBs through its application marketplace. Prior to having the marketplace, the organization did not sell SaaS offerings.
- While the organization primarily operates in the European market, it also has a footprint in North America.
- The organization's annual revenue is $10 billion.
- The organization sold 15 applications on the marketplace in Year 1, growing to 30 applications by Year 3. The average annual revenue per application is $1 million, with 20% of sales facilitated by channel partners.
- The composite organization started with two AppMarket modules, expanding to three with rollouts in new geographies.
- Average gross margins on new cloud services were 60% in Year 1, growing to 65% in Year 3 with a maturing salesforce and strategic catalog curation.

Key assumptions

- European-based telco
- 30 applications on AppMarket
- $1 million in average revenue per application
- 20% of sales made through channel
- 2 AppMarket modules
- 60% average gross margins on new cloud services
- 15 business development staff

A business and financial software organization found that small businesses adding an application to their account from the marketplace saw a **249% lift in overall lifetime value**.

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	Application marketplace revenue	$8,208,000	$11,491,200	$17,784,000	$37,483,200	$30,320,060
Btr	Avoided investment in application marketplace development	$1,638,750	$688,750	$926,250	$3,253,750	$2,754,893
	Total benefits (risk-adjusted)	$9,846,750	$12,179,950	$18,710,250	$40,736,950	$33,074,953

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of nearly $33.1 million.

Application Marketplace Revenue

The composite organization used the AppMarket platform to launch its own application marketplace, offering cloud services to new and existing customers. The organization launched its marketplace with an initial rollout of 15 applications, targeted at SMB customers. The composite organization utilized channel partners to supplement its direct selling efforts on the AppMarket. Channel partner sales represented 20% of application market revenue.

By Year 3, the organization grew its application catalog to 30 offerings. The streamlined provisioning and frictionless integration with core business units allowed the composite to quickly onboard new applications, greatly reducing the time-to-market when compared to its traditional product rollouts. Furthermore, when applications did not resonate with customers and underperformed, the organization could quickly remove them.

A VP of cloud portal and platform management in the telecom industry said: “The strategy is more to work on processes which allow us to bring partners onboard for very limited investment. And if it’s not working, we can offload as well. Because the probability that the partnership goes really well, I would say, is around 20%, just because there are hundreds of reasons why it can fail. The customers are not interested in the product; the sales units are seen as too complicated, too plain, or whatever; or there is something they don’t like. And we’ve also learned that we couldn’t put the level of effort in reading the crystal ball and reducing our cost with onboarding partners. We worked in our processes that we can basically onboard and offboard with very marginal effort.”

Interviewed organizations found that their application marketplaces had an immediate impact on their ability to penetrate the SMB segment. AppDirect’s relationships with major software vendors provided them with an attractive catalog of applications from day one, along with their internally developed offerings. A senior product manager in the telecommunications industry said: “To give you a simple example, even if you have the best platform, it’s worth nothing if you don’t have the content on the platform. At the time, AppDirect was already able to show us a really bold track record with existing vendor relationships. At the time, a lot of well-known software vendors from the Silicon Valley were already in the catalog, and that was really convincing to us.”

“To give you a simple example, even if you have the best platform, it’s worth nothing if you don’t have the content on the platform. At the time, AppDirect was already able to show us a really bold track record with existing vendor relationships. At the time, a lot of well-known software vendors from the Silicon Valley were already in the catalog, and that was really convincing to us.”

Senior product manager, telecommunications

FORRESTER®

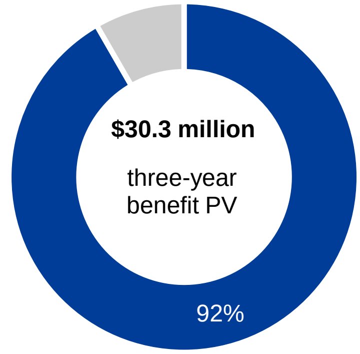
In modeling the impact of AppMarket on application marketplace revenue, Forrester assumed:

- The composite organization initially offered 15 applications, which grew to a catalog of 30 over three years.
- The average annual revenue per application was $1 million.
- The composite organization generated 20% of its revenue through channel partners, which received an average discount of 20%.
- Average gross margins were 60%, which grew to 65% over the three-year period.

Application marketplace revenues will vary significantly across companies, countries, and industry verticals. Specific risk considerations include:

- Maturity of product market and prevailing gross margin rates.
- Existing channel partner relationships.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of $30,320,060.



Application marketplace revenue: **92%** of total benefits

Application Marketplace Revenue: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Applications on marketplace		15	20	30
A2	Average revenue per application		$1,000,000	$1,000,000	$1,000,000
A3	Total application market revenue	A1*A2	$15,000,000	$20,000,000	$30,000,000
A4	Revenue generated through channel		20%	20%	20%
A5	Average channel discount		20%	20%	20%
A6	Sales net of channel discounts	A3-(A3*A4*A5)	$14,400,000	$19,200,000	$28,800,000
A7	Gross margins		60%	63%	65%
At	Application marketplace revenue	A6*A7	$8,640,000	$12,096,000	$18,720,000
	Risk adjustment	↓5%			
Atr	Application marketplace revenue (risk-adjusted)		$8,208,000	$11,491,200	$17,784,000

Avoided Investment In Application Market Development

By buying an out-of-the-box platform from AppDirect, the composite organization avoided the significant investments required to develop its own marketplace. Not only did the organization avoid the capital investments required to stand up an application marketplace, but it also avoided the delayed time-to-market any new platform would experience if performing testing, development, and production internally. AppDirect provided the organization with a ready-to-use platform, which easily integrated with existing back-end systems and allowed it to sell new cloud services as soon as possible.

Organizations interviewed for this study found that the AppMarket integration process was fast, easy, and far more pain-free than the

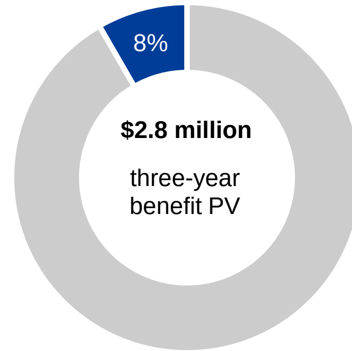
"The big benefit that AppDirect really brings us is having a platform to support our customers in consuming public cloud services. That's what it's all about for us."

VP cloud business marketplace, telecommunications

FORRESTER®

alternative of building it themselves. A senior manager of business development and partnerships said: “[AppMarket] has helped us create indispensable connections for our ecosystem in a faster time than we could have done it ourselves, way more efficiently than we could have done it ourselves. We’re able to test and inform how we think about that much broader strategy moving forward.”

The composite organization further negated spending on the development and testing of future upgrades, as well as ongoing platform maintenance. New applications could be onboarded easily, and interviewees highlighted that this process was far simpler than with past offerings. A managing director of business strategy in IT services said: “In the past, selling and provisioning products would be a struggle and would require very complex manual processes. With AppDirect, it’s literally just a couple of clicks, and the end customer immediately gets the product.”



Avoided investment in application market development: **8%** of total benefits

For the composite organization, Forrester assumed:

- Initial development of a minimum viable platform required an investment of $1.5 million.
- Integration and onboarding cost $50,000 per new application.
- Ongoing management, maintenance, and hosting costs represented 15% of the original capital investment.

Avoided investments in application market development will vary with:

- Size and scope of operations.
- Complexity of back-office systems.
- Availability and skill sets of internal development teams.

Impact risk is the risk that the business or technology needs of the organization may not be met by the investment, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for benefit estimates.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of $2,754,893.

Avoided Investment In Application Market Development: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
B1	Testing, development, and production of application marketplace		$1,500,000	$250,000	$250,000
B2	Integration and onboarding costs per application			$50,000	$50,000
B3	Applications added			5	10
B4	Ongoing management, maintenance, and hosting costs	$B1_{Y1}$*0.15	$225,000	$225,000	$225,000
Bt	Avoided investment in application market development	B1+(B2*B3) +B4	$1,725,000	$725,000	$975,000
	Risk adjustment	↓5%			
Btr	Avoided investment in application market development (risk-adjusted)		$1,638,750	$688,750	$926,250

Unquantified Benefits

Interviewees also identified a variety of benefits achieved with AppMarket that could not be quantified in this study. Organizations:

- **Achieved faster time-to-market.** Organizations greatly reduced the time-to-market for new cloud services. A large European telecommunications company estimated that AppMarket reduced the time-to-market for new products by nine to 20 months.
- **Increased total addressable market.** Large organizations had previously found the SMB segment difficult to penetrate with legacy offerings. These customers were previously too small to sell to profitably and could not afford expensive enterprise-level offerings. AppMarket enabled interviewed organizations to address this market with lower-cost cloud offerings, expanding their addressable customer base.
- **Streamlined billing and provisioning.** Using AppMarket, organizations streamlined their billing and provisioning operations, providing customers with a single invoice. Payment integration and simplified billing improved the experiences of new and existing customers, reducing churn. Prior to using AppMarket, the interviewed organizations reported that the provisioning of products could be very complex and take three to four weeks to complete. The complexity and time required to provision new users was one of the reasons the interviewed organizations found it unprofitable to sell to smaller companies before AppMarket.
- **Attracted new strategic partners.** Organizations leveraged their new commerce channel and AppDirect's relationships with major software vendors to build a robust partner ecosystem. AppMarket provides detailed insights into customer actions and product performance, enabling organizations to recruit strategic partners.
- **Maintained relevance with customer base.** Having an application marketplace allowed organizations to address the changing demands of IT customers. Organizations highlighted that customers were shifting away from legacy products toward SaaS-based offerings, and AppMarket played an integral role in following this paradigm shift.

"Usually we have a production lead time of 12 to 24 months to roll out service lines with all our really complex legacy platforms and containers and so on. And with AppMarket, we were able to bring this down, depending on the service, to just three to four months. We greatly improved time-to-market security."

VP cloud business marketplace, telecommunications

Flexibility

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement AppMarket and later realize additional uses and business opportunities, including the ability to:

- **Expand to new geographies.** With AppMarket, organizations can offer their products in new geographic markets by launching additional portals. AppMarket currently supports over 20 currencies.
- **Rapidly investigate and launch new products.** Due to the ease of onboarding and offboarding cloud services on the marketplace, organizations have the freedom to experiment with new offerings.
- **Bundle new cloud services with existing legacy products.** Organizations can explore bundling new cloud offerings with their legacy core products.

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

""The strategy is more to work on processes which allow us to bring partners onboard for very limited investment. And if it's not working, we can offload as well. There are hundreds of reasons why it can fail — the customers are not interested in the product; the sales units are seen as too complicated, too plain, or whatever; or there is something they don't like. We've learned that we couldn't put the level of effort required into reading the crystal ball and reducing our cost with onboarding partners. Now we can basically onboard and offboard with very marginal effort."

Senior product manager, telecommunications

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a 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.

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
Ctr	AppDirect revenue sharing, licensing, and professional services	$52,500	$1,134,000	$1,417,500	$1,858,500	$4,462,500	$3,651,215
Dtr	Selling, general, and administrative costs	$0	$3,228,750	$3,806,250	$4,830,000	$11,865,000	$9,709,739
Etr	Marketing spend	$0	$787,500	$945,000	$1,260,000	$2,992,500	$2,443,557
	Total costs (risk-adjusted)	$52,500	$5,150,250	$6,168,750	$7,948,500	$19,320,000	$15,804,511

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of more than $15.8 million.

AppDirect Revenue Sharing, Licensing, And Professional Services

The composite organization paid an upfront professional services fee to launch the AppMarket and integrate it with core systems. The organization paid an annual platform fee that covered use of the application marketplace, maintenance, support, and upgrades. Additionally, the organization paid for platform modules, which expanded support for sales in more geographies. Organizations told Forrester that they paid a range of revenue-share percentages, based on product margins and prepayment agreements.

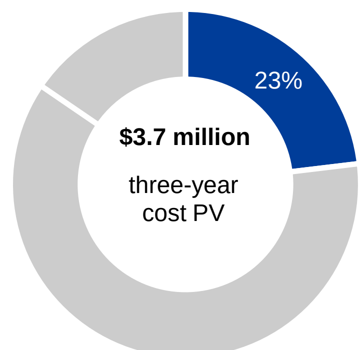
In modeling the fees paid to AppDirect, Forrester assumed:

- The composite had two AppMarket modules in Year 1, growing to four by Year 3 as geographic operations expanded.
- There was an average revenue share of 3% on applications sales.

Implementation risk is the risk that a proposed investment may deviate from the original or expected requirements, resulting in higher costs that anticipated. The greater the uncertainty, the wider the potential range of outcomes for cost estimates. Specific risks include:

- Types of services sold on the marketplace and prevailing industry margins.
- Size and scope of business operations.
- Specific terms and conditions of the AppDirect revenue-sharing agreement.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of $3,651,215.



Revenue sharing, licensing, and professional services: **23%** of total costs

FORRESTER®

AppDirect Revenue Sharing, Licensing, And Professional Services: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
C1	AppDirect professional services fee for implementation		$50,000			
C2	AppMarket annual platform fee			$390,000	$390,000	$390,000
C3	AppMarket modules			2	3	4
C4	AppMarket annual fee per module			$120,000	$120,000	$120,000
C5	Revenue sharing	A3*.03		$450,000	$600,000	$900,000
Ct	AppDirect revenue sharing, licensing, and professional services	C1+C2+(C3*C4) + C5	$50,000	$1,080,000	$1,350,000	$1,770,000
	Risk adjustment	↑5%				
Ctr	AppDirect revenue sharing, licensing, and professional services (risk-adjusted)		$52,500	$1,134,000	$1,417,500	$1,858,500

Selling, General, And Administrative Costs

The composite organization incurred selling, general, and administrative costs directly related to the generation of application marketplace revenue. While the streamlined billing system reduced administrative costs, interviewed organizations still employed business development staff to cultivate relationships with key channel partners and developers. The composite also maintained funds for market development and volume discounts.

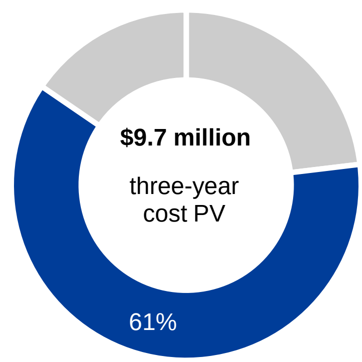
In modeling the selling, general, and administrative costs, Forrester assumed:

- The organization started with a business development team of 15 in Year 1, which grew to 20 FTEs by Year 3. With maturity this team gained efficiencies, but as the organization grows, it will require dedicated staff for larger vendors.
- The fully burdened business development staff compensation was $125,000.
- SG&A costs represented 5% of revenue, declining to 4% by Year 3.
- The organization set aside 3% of gross revenue for market development funds and volume discounts.

Selling, general, and administrative costs will vary based on:

- Vendor partner portfolio.
- Size and scope of operations.
- Individual go-to-market and sales development strategies.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of $9,709,739.



SG&A: **61%** of total costs

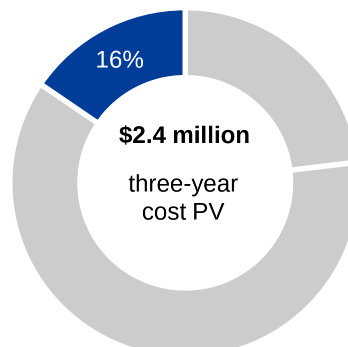
15 FTEs
dedicated to business development

FORRESTER®

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
D1	Business development staff			15	17	20
D2	Average business development staff fully loaded salary	100K+25% benefits		$125,000	$125,000	$125,000
D3	Gross sales	A3		$15,000,000	$20,000,000	$30,000,000
D4	Selling, general, and administrative costs as a percentage of gross sales			5%	4.5%	4%
D5	Volume discounts and market development funds			3%	3%	3%
Dt	Selling, general, and administrative costs	(D1*D2)+(D3*D4)+(D3*D5)	$0	$3,075,000	$3,625,000	$4,600,000
	Risk adjustment	↑5%				
Dtr	Selling, general, and administrative costs (risk-adjusted)		$0	$3,228,750	$3,806,250	$4,830,000

Table: Selling, General, And Administrative Costs: Calculation Table

Marketing Spend



Marketing spend: **16%** of total costs

The composite organization invested in additional marketing to promote its application marketplace and the services within. Additionally, the composite organization leveraged the name recognition of and marketing content produced by the vendors whose products resided on the market.

In modeling marketing spend, Forrester assumed:

- The composite had an annual marketing spend of between 4% and 5% gross sales. This rate declined over the three-year period as products matured and the organization relied on new marketing material less frequently.

Marketing spend may vary based on:

- Internal marketing capabilities.
- Size and scope of operations.
- Individual go-to-market and sales development strategies.
- Availability of and ability to leverage existing partner content.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of $2,443,557.

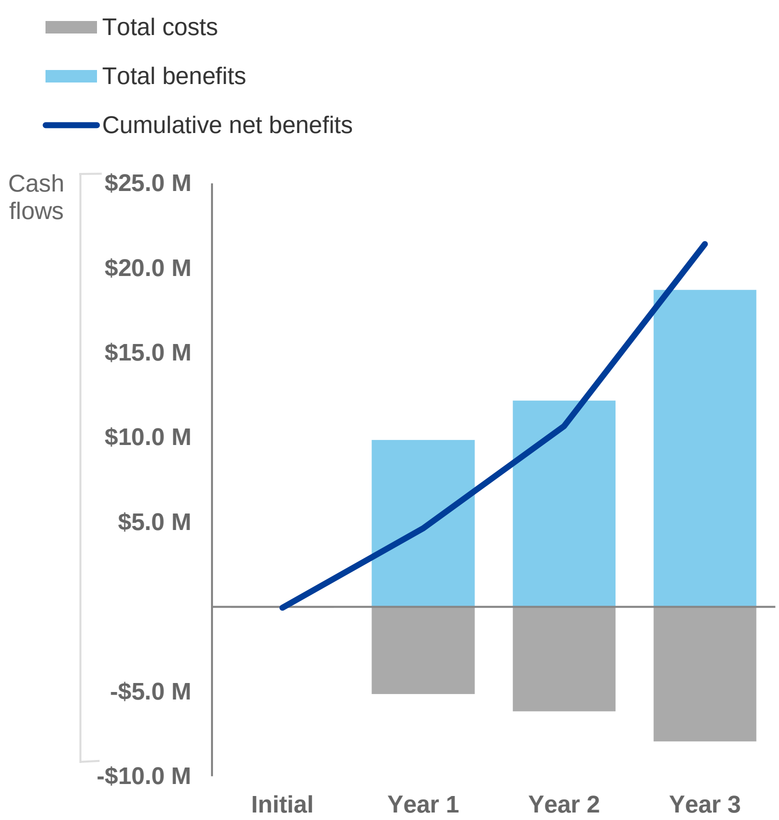
REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
E1	Gross sales	A3		$15,000,000	$20,000,000	$30,000,000
E2	Additional marketing spend as a percentage of gross sales			5.0%	4.5%	4.0%
Et	Marketing spend	E1*E2		$750,000	$900,000	$1,200,000
	Risk adjustment	↑5%				
Etr	Marketing spend (risk-adjusted)		$0	$787,500	$945,000	$1,260,000

Table: Marketing Spend: Calculation Table

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 Table (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	($52,500)	($5,150,250)	($6,168,750)	($7,948,500)	($19,320,000)	($15,804,511)
Total benefits	$0	$9,846,750	$12,179,950	$18,710,250	$40,736,950	$33,074,953
Net benefits	($52,500)	$4,696,500	$6,011,200	$10,761,750	$21,416,950	$17,270,442
ROI						109%
Payback period						<3 months

FORRESTER®

AppDirect AppMarket: Overview

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

Today's business technology buyers expect to be able to find, buy, and manage the software they need online. However, building a robust digital marketplace or ecosystem can take years, and costs can quickly go over budget. With AppMarket, organizations can quickly launch a marketplace to sell their own services, third-party services (Microsoft, Google, Amazon Web Services), or build their own software ecosystem. AppMarket simplifies complex aspects of selling cloud products with automated billing, provisioning, and subscription management.

Key AppMarket Features:

- **Storefront Builder:** Create the optimal customer experience with the flexibility to enhance and modify every aspect of your public-facing marketplace.
- **Checkout Toolkit:** Customize your checkout experience with a stateful shopping cart that can support nearly any combination of digital services (SaaS, PaaS, IaaS; broadband), professional services (training, migrations, support), and physical products.
- **Billing & Payment Management:** API-driven billing to generate orders and invoices and process payments.
- **Revenue Share Management:** Streamline reconciliation and payouts to third-party software vendors.
- **Developer Center:** Onboard new services quickly and easily by allowing your own teams or outside developers to create marketing profiles (videos, images, content), packaging and pricing, and automated provisioning directly in the marketplace. With a built-in workflow, the marketplace administrator can review and approve/deny all submitted services.

AppMarket Benefits:

A platform at scale
AppMarket powers millions of end user subscriptions, worldwide.

Massive pre-integrated SaaS and PaaS catalog
Choose from today's leading providers such as Microsoft, Google, Symantec, DocuSign, and over 300 others.

Flexibility to adapt to changing market needs
Customers are often unsure which offers will resonate with SMBs. AppMarket delivers flexibility to change products and pricing or create bundles with your own or third-party services to quickly find the right offers.

Life-cycle management
Recurring software relationships are different: They require instant provisioning, upgrades/downgrades, adding new seats/users or services, and cross-selling additional services. AppMarket provides all the tools and capabilities to allow end customers to self-serve or, for telesales, to easily manage the full customer life cycle.

Integration with legacy technology
With a rich set of APIs, prebuilt integrations, and web hooks, AppMarket is designed to seamlessly work alongside your existing infrastructure.

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] Source: "Vendor Landscape: SaaS Marketplaces Take Off," Forrester Research, Inc., September 26, 2017.