A Forrester Total Economic Impact™ Study Commissioned By DeepZero | iPinYou July 2020

The Total Economic Impact™ Of DeepZero | iPinYou AlphaData™

Intelligent Decision Making And Business Growth Driven By The AlphaData



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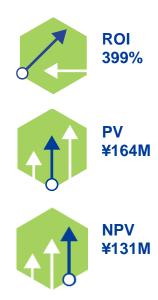
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Executive Summary

DeepZero | iPinYou AlphaData is a one-stop solution that provides an intelligent enterprise data management platform to help enterprises realize digital transformation. It features high availability, scalable technical architecture, full data governance, intelligent analysis, and closed loop capabilities.

For large and mid-sized Chinese enterprises, third-party data can hardly cover the entire customer journey of the target audience. Using enterprises' own high-quality data to establish both a unique first-party data management platform (DMP) and a customer data platform (CDP) gradually becomes a predominant task for marketers. The interviewed company in this study has encountered challenges that are intertwined, including sophisticated sales chains, data silos, and the underutilization of marketing resources. To address these challenges, the DeepZero iPinYou AlphaData serves as a one-stop solution to break data silos, integrate data resources, and reconstruct the marketing model. It aims to achieve data-driven decision making, attract and gain insights from intended customers, increase valid leads, reduce delivery costs, and improve the efficiency of decision making. DeepZero | iPinYou commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying the DeepZero | iPinYou AlphaData. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the solution on their organizations.

To better understand the benefits, costs, flexibility, and risks associated with this investment, Forrester interviewed an automobile manufacturing company with around two years of experience using the DeepZero | iPinYou AlphaData. Based on the information provided by the interviewed company, Forrester discovered that AlphaData brought multiple benefits, including cost savings, improved productivity, and business value. Forrester then built a financial model to show the quantified and unquantified benefits of using the DeepZero | iPinYou AlphaData.

Key Findings

Quantified benefits. The interviewed company experienced the following risk-adjusted present value (PV) quantified benefits:

> Number of valid leads increased by 50%. With label management and 360° user persona functions provided by the DeepZero | iPinYou AlphaData, the interviewed company was able to identify key intended customers more efficiently. Identifying, tracking, understanding, and cultivating customers increased valid leads and consequently boost sales revenue and benefits.



Key Benefits



Increased effective sales leads bring in sales revenue:

¥43M



Lower lead acquisition cost:

¥121M

Customer acquisition costs reduced by 20%. After using the DeepZero | iPinYou AlphaData, thanks to segment management and user persona functions, the interviewed company managed to accurately identify and reach high-potential customers and save cost on low-quality leads. In the meantime, the lead scoring function helped improve media management, facilitating the interviewed company to progress from subjective marketing perception to rational decision making. The comprehensive model of the AlphaData also productively identified lowquality traffic like abnormal exposure and visits, which further reduced the lead acquisition cost.

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

- Integrated data across the customer life cycle and improved decision-making efficiency. After using the DeepZero | iPinYou AlphaData, the interviewed company could break data silos and integrate data resources of the entire customer lifecycle. As a result, the company had better control over the pace of marketing campaigns and became more efficient in making decisions, which was also constructive for future decision-making efforts.
- > Refined marketing brought change to the marketing mindset. The interviewed company used AlphaData to integrate the marketing lifecycle and opted for refined and systematic management of marketing campaigns over the loose management of the legacy approach. The marketing goal shifted from increasing click-through rate to increasing sales growth. A change in the marketing mindset was obvious.
- Reduced marketing costs and optimized marketing resource allocation. With AlphaData, the interviewed company closed the loop of marketing campaigns and had better control over campaign quality. This led to reduced marketing costs and optimized allocation of marketing resources.
- Faster evaluation of media delivery effectiveness. After using AlphaData to manage marketing campaigns, the interviewed company only waited one to two weeks after delivery to check on the effectiveness of marketing materials and gain well-timed customer insights to seize market opportunities.

Costs. The interviewed company using DeepZero | iPinYou AlphaData experienced the following risk-adjusted PV costs:

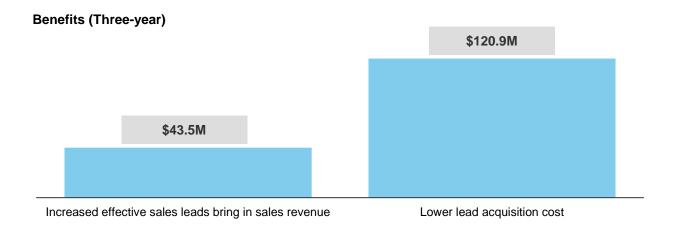
- Software costs. Software costs included fees for standard subscriptions of data asset, label management, segment management, user persona, reporting center, BI tools, marketing automation, and retention marketing modules; these costs accounted for 13% of the overall cost
- Costs of custom development and data storage. The interviewed company required customized development based on standard function modules of AlphaData. The cost of deployment, custom development, and data storage together represented about 19% of the overall cost.
- Costs of ongoing support. The costs of ongoing support refer to the expenses related to operation and maintenance, business value operation, data usage, personnel engaged in iterations, internal learning, and additional human resources; these costs accounted for 68% of the overall cost.

Flexibility. There are multiple scenarios in which a customer might choose to implement DeepZero | iPinYou AlphaData and later realize additional



uses and business opportunities, including:

- Expanding application of AlphaData to more product lines. When the technical platform was well-established, and a new internal workflow came into being, the interviewed company might use AlphaData in more product lines and sales channels to spread effect on a large scale.
- Integration, modeling, and activation of existing data for effective customer retention. The interviewed company integrated CRM and DMS data into the Customer Data Platform (CDP) of AlphaData, with a model established to evaluate the possibility of existing customers replacing old cars for new ones. The interviewed company could then identify and track such customers to increase the effectiveness of retention marketing.



TEI Framework And Methodology

From the information provided in the interview, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing DeepZero | iPinYou AlphaData.

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 DeepZero | iPinYou AlphaData can have on an organization:

The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.



DUE DILIGENCE

Interviewed DeepZero | iPinYou stakeholders and Forrester analysts to gather data relative to AlphaData.



CUSTOMER INTERVIEW

Interviewed four organizations using DeepZero | iPinYou AlphaData 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 interview using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organization.



CASE STUDY

Employed four fundamental elements of TEI in modeling DeepZero | iPinYou AlphaData'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 DeepZero | iPinyou 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 DeepZero | iPinyou Enterprise Data Management Platform.

DeepZero | iPinyou 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.

DeepZero | iPinyou provided the customer names for the interviews but did not participate in the interviews.



Customer Journey Of DeepZero | iPinYou AlphaData

BEFORE AND AFTER THE INVESTMENT IN DEEPZERO | IPINYOU ALPHADATA

Interviewed Company

For this research, Forrester conducted in-depth interviews with an automobile manufacturing company using the DeepZero | iPinYou AlphaData. And as a result, Forrester established a financial model based on the interviews. The basic information of the interviewed company is as follows:

INDUSTRY	SIZE	TIME OF USE	USE CASE
Automobile manufacturing	Annual revenue: >¥100 billion FTEs: >10,000	Two years	The interviewed company invested in customized development of the following modules: data asset, label management (first-party customer data), segment management, user persona, reporting center, BI tools, marketing automation, and retention marketing.

Key Challenges

Prior to using DeepZero | iPinYou AlphaData, the interviewed company faced challenges in the course of market expansion and digitization of marketing models, which manifested mainly in three aspects:

- > The current marketing model could not effectively support market expansion in the digital age. Facing intensified competition, the interviewed company tried to develop new products, expand its customer base, and glean better consumer insights. Nevertheless, the company's own data was too fragmented to provide comprehensive customer understanding and support marketing and sales research. Uncertainties in the competition both troubled marketing campaigns from time to time and urged the company to upgrade its marketing model.
- Lack of data to support business operation and marketing decision making. The interviewed company did not accumulate and utilize data during daily operation, so marketing decisions always lacked the backing of data. Some of the scarce legacy data was scattered in different systems and could not be effectively used. The interviewed company was in urgent need to integrate the marketing lifecycle data and give it full access.
- Measurement of marketing effectiveness lacked feasible indicator system, and it could not provide guidance for decision making. The interviewed company found it difficult to measure the effectiveness of marketing campaigns, or use data to guide the planning, implementation, evaluation, and improvement of future campaigns.

"Fierce competition and market uncertainties urged our sales and marketing staff to sit down together and reflect on the extensive delivery method we adopted and how we could have better use of marketing resources."

Head of digital marketing, the automobile manufacturing company



• Underutilized marketing and IT resources. When collecting leads, the interviewed company had limited understanding of sales channels, media and locations, and could not accurately spot fake personal information in media channels. In the meantime, large marketing campaigns always required backup servers and additional marketing resources, which wasted marketing and IT resources.

Solution Requirements

To address the above challenges, the interviewed company searched for a solution that could:

- Integrate massive data to improve customer insights of marketers.
- > Enhance marketing efficiency and effectiveness with marketing tools.
- Provide customized services for closed-loop marketing.
- Provide reporting and data analysis capabilities to optimize marketing decision making.

Key Results

The interviewed company revealed that key results from an investment in DeepZero | iPinYou AlphaData included:

- > Systematic marketing mindset and measurement architecture.
- Close-looped marketing data and improved decision-making efficiency and effectiveness.
- > Increased lead acquisition rate of digital channels.
- > Reduced lead acquisition cost.
- > Lower media delivery cost.
- » Higher quality contents.
- » Improved system stability.

"Our industry features a long marketing cycle. Clicks from customers is only the first step. We want to manage the entire marketing lifecycle, from clicking to placing orders."

Head of digital marketing, the automobile manufacturing company



Analysis Of Benefits

QUANTIFIED BENEFIT DATA

Total Benefits							
REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE	
Atr	Increased sales from expanded valid sales leads	¥12,571,500	¥20,304,749	¥20,304,749	¥53,180,998	¥43,464,679	
Btr	Lower lead acquisition cost	¥29,750,000	¥59,500,000	¥59,500,000	¥148,750,000	¥120,922,239	
	Total benefits (risk-adjusted)	\$42,321,500	\$79,804,749	\$79,804,749	\$201,930,998	\$164,386,918	

Increased effective sales leads bring in sales revenue

Prior to using DeepZero | iPinYou AlphaData, the interviewed company was challenged by low marketing efficiency, limited understanding of target audience, and difficulty in mining of high-quality leads. After deploying AlphaData, the interviewed company marks consumers with dynamic labels as they visit the website, tracks and gains insights into potential customers, and gradually cultivates more customers. Having set target user personas in the campaign planning, the interviewed company can identify key intended customers through classified labels of user attributes, personal preferences, consumption habits, etc. In this way, the company managed to gain more valid leads and consequently boost sales revenue and benefits. The interviewed company said the number of valid leads increased by 50% after using AlphaData.

Forrester made the following assumptions about the interviewed company:

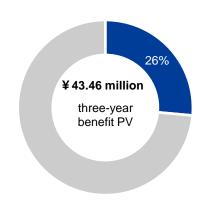
- Leads will increase by 100% in the Year 2, because the use of AlphaData expands from one single car model to multiple models.
- > Lead-to-sales conversion rate is 4%.
- Due to complex sales chain of cars, final sales are subject to many factors, such as customer service, car performance, and dealers. Therefore, Forrester attributes 10% of the sales increase to AlphaData.
- > The average ex-factory price is an assumption based on public data.
- Earnings before interest, tax, depreciation, and amortization (EBITDA) are from the interviewed company's annual report.

The benefit may vary due to:

- Customized development of the interviewed company means that the increase rate of leads can change among use cases of different industries and company sizes.
- Lead conversion rate differs among sales chains and actual operations.
- » Different enterprises may choose divergent modules of the AlphaData.

To account for these risks, Forrester adjusted the benefit from increased leads downward by 15%, yielding a three-year, risk-adjusted total PV of ¥43.46 million.

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 interviewed organization expected risk-adjusted total benefits to be a PV of more than ¥160 million.



Increased effective sales leads bring in sales revenue: **26%** of total benefits

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.



REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Number of leads generated before using the DMP	Year 1: Provided by the customer Year 2: Assumed increase of 100% Year 3: Same as last year	500,000	1,000,000	1,000,000
A2	Increase rate of leads after using the DMP	Provided by the customer	50%	50%	50%
А3	Increase in leads after using the DMP	A1*A2	250,000	500,000	500,000
A4	Lead conversion rate	Assumption	4%	4%	4%
A5	Sales converted from leads after using the DMP	A3*A4	10,000	20,000	20,000
A6	Average ex-factory price	Public data	170,000	137,287	137,287
A7	EBITDA margin	Annual report	8.7%	8.7%	8.7%
A8	Percentage of increased sales attributed to the DMP	Assumption	10%	10%	10%
At	Increased effective sales leads bring in sales revenue	A5*A6*A7*A8	¥14,790,000	¥23,887,940	¥23,887,940
	Risk adjustment	↓15%			
Atr	Increased effective sales leads bring in sales revenue (risk-adjusted)		¥12,571,500	¥20,304,749	¥20,304,749

Lower Lead Acquisition Cost

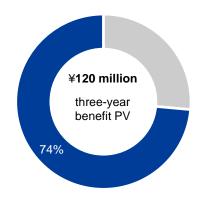
Thanks to segment management and user persona functions of the DeepZero | iPinYou AlphaData, the interviewed company managed to identify and reach high-potential customers and collect high-quality leads. In other words, the company saved expenses for low-quality leads and the overall lead acquisition cost.

The lead scoring function helped optimize media management. The AlphaData used models to analyze channels, media, locations, leads, conversion rate, and costs. It facilitated the interviewed company to identify intended customers, high-quality media, and efficient ways of collecting leads. When spotting suspicious low-quality leads, the interviewed company can immediately reach the media to improve traffic and leads, in order to ensure the effectiveness of delivery. In this regard, the company has progressed from subjective perception of marketing effectiveness to rational decision making.

The comprehensive model of AlphaData could productively detect lowquality traffic like abnormal exposure and visits and repeated records of personal information, in order to better optimize the delivery portfolio and reduce lead acquisition costs.

The interviewed company stated that after using AlphaData, they saved 20% on the costs in acquiring a single lead.

Forrester made the following assumptions about the interviewed company:



Lower lead acquisition cost: **74%** of total benefits



The average cost of acquiring a single lead (a single online lead of the automobile industry) is different from the cost of acquiring a customer in the entire sales chain. The average cost of acquiring a single lead is ¥700.

The benefit may vary due to:

- The cost of acquiring a single lead varies among enterprises.
- Enterprises may select different function modules of AlphaData.

To account for these risks, Forrester adjusted the benefit from lower lead acquisition cost downward by 15%, yielding a three-year, risk-adjusted total PV of ¥120 million.

Increased Sales From Expanded Valid Sales Leads: Calculation Table						
REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3	
B1	Average cost of acquiring a single lead in the market	Data published by media	¥700	¥700	¥700	
B2	Cost of acquiring the increased leads after using AlphData	A3*B1	¥175,000,000	¥350,000,000	¥350,000,000	
В3	Percentage of cost reduction in customer acquisition after using AlphData	Provided by the customer	20%	20%	20%	
Bt	Lower lead acquisition cost	B2*B3	¥35,000,000	¥70,000,000	¥70,000,000	
	Risk adjustment	↓15%				
Btr	Lower lead acquisition cost (risk-adjusted)		¥29,750,000	¥59,500,000	¥59,500,000	

Unquantified Benefits

The interviewed company revealed that DeepZero | iPinYou AlphaData not only brings increased number of leads and lower lead acquisition cost but it also yields benefits that cannot be quantified in the short term. Those unquantified benefits include:

- Integrated data across the customer lifecycle and improved decision-making efficiency. Prior to the deployment of AlphaData, team data would be scattered after marketing campaigns forcing to not be analyzed altogether. After using AlphaData, the interviewed company broke data silos that existed across the entire marketing department. Marketers could check on campaign effectiveness through models and reports, and they would then present campaign information like related data, prices, and duration in multiple forms. As a result, the interviewed company had better control over the pace of marketing campaigns, and became more efficient in decision making, which was also constructive for future strategies.
- Refined marketing brought change to the marketing mindset. Before using AlphaData, the interviewed company had a rather loose management around their marketing campaigns. Many communication and evaluation stages were missed out. Increasing the click-through rate used to be the sole pursuit. After using AlphaData, the company opted for refined and systematic management of marketing campaigns, and their goal shifted to sales growth. A change in marketing mindset was obvious.

"We literally integrated the data from scratch. . . . Before using [AlphData], we only looked at highlighted data to get a rough idea, but now we are able to make more rational, data-driven judgments."

Digital marketing manager, the automobile manufacturing company



- Reduced marketing costs and optimized marketing resource allocation. Before adopting AlphaData, the interviewed company invested a great deal in marketing campaigns, but it lacked feasible measurement of effectiveness and could not anticipate budget for the next move, so the cost always stayed at a high level. After using AlphaData, the company managed to close the loop of marketing campaigns from planning, scheduling, execution, analysis, to guidance for the next campaign. This better controls campaign quality and costs, allowing the interviewed company to optimize allocation of marketing resources.
- > Faster evaluation of media delivery effectiveness. Before using AlphaData, the interviewed company would have to wait until the end of campaign to conduct systematic analyses on the performance of media materials, but it needed to make faster market responses. After using AlphaData to manage marketing campaigns, the interviewed company only waited one to two weeks after delivery to check on the effectiveness of marketing materials, gain well-timed insights from customers, and seize market opportunities.

"Our overall marketing mindset has evolved. In the past, we always pursued performances that were hard to measure. Now with a new marketing model, we gradually learn to analyze measurable results and make improvement accordingly."

Head of digital marketing, the automobile manufacturing company

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 DeepZero | iPinYou AlphaData and later realize additional uses and business opportunities, including:

- > Expanding application of AlphaData to more product lines. In the preliminary stage of deploying DeepZero | iPinYou AlphaData, the interviewed company required customization according to its sales chain, and it needed to upgrade the marketing team and skills to adapt to a data-driven marketing mindset. When the technical platform was well-established and a new internal workflow came into being, the interviewed company might to use AlphaData in more product lines and sales channels to better scale the effect.
- Integration, modeling, and activation of existing data for effective customer retention. Today's automobile industry is nearly mature. The market share of gaining new customers is gradually shrinking. Therefore, retaining existing customers for either repeat purchases or through the replacement of old cars will become a focus of the interviewed company in its future development. As the company expands the use of the AlphaData, the Customer Data Platform (CDP) will integrate existing customer data that is scattered across different systems such as the CRM and DMS, in order to put idle data into use. The AlphaData is then functional for both acquiring new customers and retaining existing customers, with a model established to evaluate the possibility of existing customers replacing old cars for new ones.

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

"It used to take a whole month after the campaign to evaluate the effectiveness. Now once we have sufficient samples, we can make a judgment within one or two weeks of execution, a lot timelier than before."

Digital marketing manager, the automobile manufacturing company

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

Total Costs							
REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Ctr	Software cost	¥0	¥1,650,000	¥1,650,000	¥1,650,000	¥4,950,000	¥4,103,306
Dtr	Costs of custom development and data storage	¥6,097,200	¥120,000	¥120,000	¥120,000	¥6,457,200	¥6,395,622
Etr	Cost of ongoing Support	¥0	¥8,553,413	¥9,247,380	¥9,364,749	¥27,165,542	¥22,454,167
	Total costs (risk-adjusted)	¥6,097,200	¥10,323,413	¥11,017,380	¥11,134,749	¥38,572,742	¥32,953,095

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 interviewed organization expects risk-adjusted total costs to be a PV of more than ¥32.95 million.

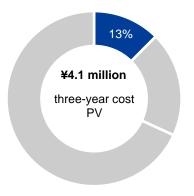
Software Cost

The software cost of the interviewed company using DeepZero | iPinYou AlphaData included fees for standard subscriptions of data asset, label management (first-party customer data), segment management, user persona, reporting center, BI tools, marketing automation, and retention marketing modules; these costs accounted for 13% of the total costs.

Software cost may change due to:

Varying subscriptions fees, as enterprises may select different function modules of AlphaData.

To account for this risk, Forrester adjusted the software cost upward by 10%, yielding a three-year, risk-adjusted total PV of ¥4.1 million.



Software cost: **13%** of total costs

Software Cost: Calculation Table						
REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
C1	Total platform procurement cost	Provided by the customer		¥7,500,000	¥7,500,000	¥7,500,000
C2	Percentage of standard subscription fees in total cost	Provided by the customer		20%	20%	20%
Ct	Software cost	C1*C2		¥1,500,000	¥1,500,000	¥1,500,000
•	Risk adjustment	† 10%				
Ctr	Software cost (risk adjusted)		¥0	¥1,650,000	¥1,650,000	¥1,650,000

Costs Of Custom Development And Data Storage

The interviewed company required customized development based on standard function modules of AlphaData. In the initial stage of deployment, two company employees were fully engaged in the project for three months. Data storage costs after the AlphaData were also included in this cost item. The cost of deployment, custom development, and data storage together represented about 19% of the overall costs.

Forrester made the following assumptions about the company:

- Data storage costs of using AlphaData is ¥100,000 per year.Costs of initial deployment and data storage are subject to the following risks:
- Data security issues appear as marketing and sales information goes digital. In this regard, the internal IT team of the interviewed company has taken preventive measures, whereas the DeepZero | iPinYou has been granted security certification. So far, no security problems have taken place.
- Limited choices of marketing technologies and partners in the future. In this aspect, DeepZero| iPinYou provides a data interface for customers to both establish analysis models and upgrade on their own, or to connect to other solutions.
- Enterprises may select different function modules and customization levels of AlphaData.

To account for these risks, Forrester adjusted the custom development and data storage costs upward by 20%, yielding a three-year, risk-adjusted total PV of ¥6.4 million.



Costs of custom development and data storage:

19% of total costs

Costs Of Custom Development And Data Storage: Calculation Table						
METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3	
Cost of custom development and deployment	Provided by the customer	¥5,000,000				
Number of FTEs engaged in deployment	Provided by the customer	2				
Time of deployment (months)	Provided by the customer	3				
Monthly salary of FTEs	Public data	¥13,500				
Personnel cost in development and deployment	D2*D3*D4	¥81,000				
Data storage cost	Assumption		¥100,000	¥100,000	¥100,000	
Cost of custom development and data storage	D1+D5+D6	¥5,081,000	¥100,000	¥100,000	¥100,000	
Risk adjustment	↑ 20%					
Cost of custom development and data storage (risk adjusted)		¥6,097,200	¥120,000	¥120,000	¥120,000	
	Cost of custom development and deployment Number of FTEs engaged in deployment Time of deployment (months) Monthly salary of FTEs Personnel cost in development and deployment Data storage cost Cost of custom development and data storage Risk adjustment Cost of custom development and data	Cost of custom development and deployment Number of FTEs engaged in deployment Provided by the customer Destroyment Monthly salary of FTEs Public data Personnel cost in development and deployment Data storage cost Assumption Cost of custom development and data storage Risk adjustment 1 20% Cost of custom development and data	METRICCALC.INITIALCost of custom development and deploymentProvided by the customer¥5,000,000Number of FTEs engaged in deploymentProvided by the customer2Time of deployment (months)Provided by the customer3Monthly salary of FTEsPublic data¥13,500Personnel cost in development and deploymentD2*D3*D4¥81,000Data storage costAssumptionCost of custom development and data storageD1+D5+D6¥5,081,000Risk adjustment† 20%Cost of custom development and data¥6,097,200	METRIC CALC. INITIAL YEAR 1 Cost of custom development and deployment Provided by the customer ¥5,000,000 + Number of FTEs engaged in deployment Provided by the customer 2 - Time of deployment (months) Provided by the customer 3 - Monthly salary of FTEs Public data ¥13,500 + Personnel cost in development and deployment D2*D3*D4 ¥81,000 + Data storage cost Assumption ¥100,000 Cost of custom development and data storage D1+D5+D6 ¥5,081,000 ¥100,000 Risk adjustment ↑ 20% ★6,097,200 ★120,000	METRICCALC.INITIALYEAR 1YEAR 2Cost of custom development and deploymentProvided by the customer\$\frac{2}{5},000,000\$\$\frac{1}{5}\$\$\frac{1}{5}\$Number of FTEs engaged in deploymentProvided by the customer2\$\frac{1}{5}\$ <t< td=""></t<>	

Cost Of Ongoing Support

Cost of ongoing support after using of DeepZero | iPinYou AlphaData mainly includes expenses related to operation and maintenance, business value operation, data usage, personnel engaged in iterations, internal learning, and additional human resources. Specifically, the business value operation fee is referred to as the service fee for custom development provided by data analysts, project managers, etc., in order to meet customer needs in different scenarios. Personnel costs during this iteration include two FTEs of the interviewed company playing as points of contact with DeepZero | iPinYou throughout the year. Major upgrades took place every two to three months, whereas small updates happened every one to two weeks. In addition, the interviewed company mentioned that refined management after using AlphaData required additional job positions for the new workflow. The cost of ongoing support takes up about 68% of the solution's total costs.

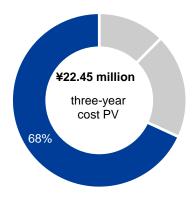
Forrester made the following assumption about the interviewed company:

After using AlphaData, changes in the marketing process requires more personnel. It is estimated that the interviewed company recruit five more people each year in the first two years and stay unchanged in the third year.

The cost of internal learning and ongoing support may vary according to the following risk factors:

- > Difference selection of functional modules among enterprises.
- Difference selection of additional services among enterprises.
- Varied learning cost due to complex internal business and different people using the AlphaData.

To account for these risks, Forrester adjusted the ongoing support cost upward by 15%, yielding a three-year, risk-adjusted total PV of ¥22.45 million.

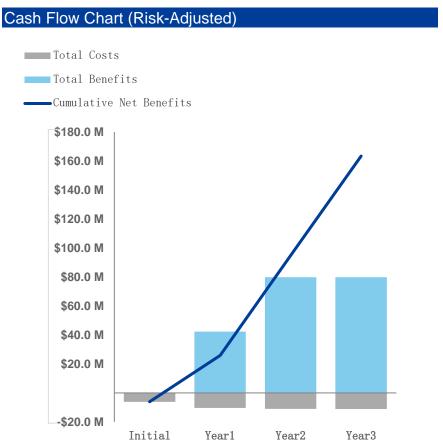


Cost of ongoing support: **68%** of total costs

Cost Of	Ongoing Support: Calculation	n Table				
REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
E1	Percentage of operation and maintenance fees in the total cost	Provided by the customer		20%	20%	20%
E2	Operation and maintenance fees	C1*E1		¥1,500,000	¥1,500,000	¥1,500,000
E3	Percentage of business value operation fee in the total costs	Provided by the customer		40%	40%	40%
E4	Business value operation fee	C1*E3		¥3,000,000	¥3,000,000	¥3,000,000
E5	Percentage of data usage fee in the total cost	Provided by the customer		20%	20%	20%
E6	Data usage fee	C1*E5		¥1,500,000	¥1,500,000	¥1,500,000
E7	Personnel cost in version upgrades	Provided by the customer		¥324,000	¥340,200	¥357,210
E8	Internal learning cost	Provided by the customer		¥303,750		
E9	New personnel cost	Provided by the customer		¥810,000	¥1,701,000	¥1,786,050
Et	Cost of ongoing support	E2+E4+E6+E7+E8 +E9	¥0	¥7,437,750	¥8,041,200	¥8,143,260
	Risk adjustment	† 15%				
Etr	Cost of ongoing support (risk-adjusted)		¥0	¥8,553,413	¥9,247,380	¥9,364,749

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the interviewed company's investment in DeepZero | iPinyou Enterprise Data Management Platform. 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.

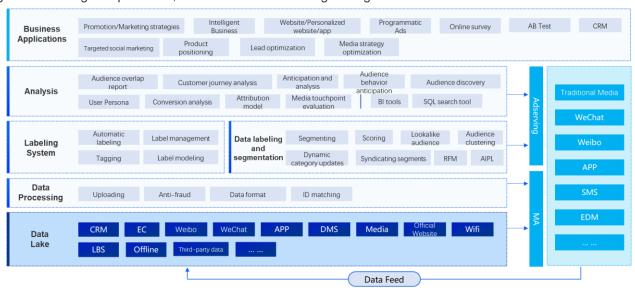
	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	¥-6,097,200	¥-10,323,413	¥-11,017,380	¥-11,134,749	¥-38,572,742	¥-32,953,095
Total benefits	¥0	¥42,321,500	¥79,804,749	¥79,804,749	¥201,930,998	¥164,386,918
Net benefits	¥-6,097,200	¥31,998,088	¥68,787,369	¥68,670,000	¥163,358,257	¥131,433,823
ROI						399%

DeepZero | iPinYou AlphaData: Overview

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

DeepZero | iPinYou AlphaData

The AlphaData is a data-driven intelligent marketing decision-making system developed by DeepZero | iPinYou for enterprise customers based on years of technical precipitation and data capability. The system has served 200+ large and mid-sized enterprises in a range of industries, including automobile, retail, FMCG, beauty, home appliances, and education. DeepZero | iPinYou has built a unique structure of dual middle platforms — "data middle platform + business middle platform." In 2019, the newly developed modules of CDP, user lifecycle management, the lead evaluation model, and the anticipation model, the AlphaData facilitated data-driven decision making first in the automobile industry and the pharmaceutical industry. The solution is now used in multiple business scenarios, including activation of idle data assets, one-stop intelligent data management, real-time intelligent decision making, and intelligent lead management, helping enterprises break data silos, improve digital and intelligent operations, and boost sales and long-term growth.



Key Modules Of DeepZero | iPinYou AlphaData

> User Life Cycle Management



The module helps enterprise customers conduct data modeling for the entire user lifecycle. Functions include giving definitions and automatic judgment at different stages. It also provides effective analysis and tools to collect timely insights into users through user attributes and behavior data, in order to facilitate intelligent marketing decision making and help make well-timed adjustment of marketing focus.

> Label Management



The module is the core of the user persona. With years of development in segment labeling capability, DeepZero | iPinYou built this functional module for user data management. The module includes definitions of multilevel label structures, definitions of label logics, and different ways of label generation. It also provides label libraries for different industries, empowering enterprises to establish a comprehensive label library and create user persona in a timely manner.

The AlphaData is equipped with a well-developed open interface to receive external raw data or output processed user persona data to external systems. At the same time, the data structure is highly flexible and scalable to exchange segmenting data with other systems. As a middle platform, the AlphaData performs non-stop data collection and exchanges, manages data of the entire marketing lifecycle, and maximizes the value of customer's data assets.



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.



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.



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: "From data management to intelligent decision-making" a commissioned study conducted by Forrester Consulting, July 2019