A Forrester Total Economic Impact™ Study Commissioned By KPISOFT October 2019

# The Total Economic Impact<sup>™</sup> Of KPISOFT (Middle East)

Cost Savings And Business Benefits Enabled By KPISOFT



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**Project Director:** YiQin Teow

## **Highlighted Benefits**



Improvement in appraisal writing time for employees: **75%** 



Cost savings from retirement of legacy solution: **\$11,296,058** 



Average printing and follow-on cost avoidance per appraisal form: **\$1.02** 

## **Executive Summary**

A common challenge across enterprises today is not the absence of performance management processes but the lack of an integrated approach for organizational performance management across the enterprise. Corporate, operational, and people performance solutions often reside in disparate systems, resulting in disconnected efforts toward improving organizational performance.

KPISOFT provides an enterprise performance management (EPM) solution, embedded with augmented analytics capabilities, that helps its customers centralize the management of business performance within the organization. KPISOFT commissioned Forrester Consulting to conduct a Total Economic Impact<sup>™</sup> (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying KPISOFT. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of KPISOFT on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed a government user, which is on a road map to roll out KPISOFT across its multiple entities.

Prior to using KPISOFT, there were inconsistent performance management processes across the different entities. Even though there was a legacy enterprise resource planning (ERP) performance management tool in place, the limited functionalities and poor user experience led to low adoption levels. Bigger entities were using a combination of the legacy solution and manual methods (e.g., spreadsheets and pen and paper), while smaller entities that are less digitally-savvy and have fewer employees heavily relied on manual methods. This led the government to look for a solution that could enhance the efficiency and improve the alignment of performance management processes.

The advent of the change started with the principles of Smart Government being enunciated by the government. The principles relevant to this area include "paperless transactions," "land of talent," and "transparency in how we conduct business," With these three Smart principles, the government sought to revamp its systems.

With the implementation of KPISOFT, the government initiated a governmentwide transformation in performance management processes, putting in place a more standardized and systematic approach across the different government entities. There is now greater clarity around performance goals resulting in improved employee experience. The government also achieved better linkage of employees' key performance indicators (KPIs) to government strategy and a less manual and more efficient performance appraisal process.

The success achieved in transforming the performance management processes provided the government a good head start in rolling out other talent management solutions. The complete technology road map includes other modules such as learning and development, careers and succession planning, rewards planning, workforce planning, and talent analytics. These various solutions, when integrated, equip the government with a holistic strategy for managing employees that contributes toward improved organizational performance.

### **Key Findings**

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

- Performance management productivity gains for managers (\$2,819,251). This benefit focuses on the improved efficiency gained by performance managers due to the availability of an intuitive and userfriendly platform that automatically calculates and generates an overall rating for each employee on an online scorecard. Also, the more objective and transparent performance appraisal process enabled by KPISOFT eliminates any unnecessary debates between performance managers and employees over awarded ratings. As such, performance managers have experienced a 90% productivity improvement in appraisal review with the use of KPISOFT.
- Performance management productivity gains for employees (\$12,530,006). This benefit focuses on the improved efficiency gained by employees in filling up their appraisal forms during the performance appraisal period. Instead of having to toggle between various systems to find, print, and affix attachments to physical copies of their appraisal forms as justifications for their achievements, employees can now easily complete the entire task within the KPISOFT platform. This results in a 75% productivity improvement for employees, enabling them to put the hours saved back into their productive work.
- Cost savings from retirement of legacy solution (\$11,296,058). With the adoption of KPISOFT, the government retired the traditional performance management solution that was part of a broader ERP solution, resulting in direct cost savings due to lower license fees.
- Reduced operational expenses (\$106,679). This benefit showcases the hard savings in digitalizing operations, which aligns with the government's initiative of going paperless by 2021. A typical performance appraisal form averages about four pages. With 1) paper and printing cost savings and 2) storage, misprinting, and missing document cost savings from the deployment of KPISOFT, the government avoids an operational expense of \$1.00 per appraisal form.

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

- Improved employee satisfaction and engagement. A more transparent performance management process eliminates any ambiguity over scorecard ratings and clarifies the employees' effort required to achieve set objectives and targets. Performance review conversations with managers are more structured and efficient since the KPIs and ratings are laid out in a systematic and detailed manner. With a clearer path to career progression, the government has achieved fewer complaints and greater employee satisfaction and retention.
- Better linkage of employee KPIs with government strategy. The implementation of KPISOFT has enabled the government to deploy a more standardized process for objective and scorecard setting. Not only is there greater alignment across teams and entities, but individual employees' KPIs are also better tied to overall government strategy.

**Costs.** The interviewed organization has experienced the following riskadjusted PV costs:

KPISOFT solution cost (\$9,483,471). This study's cost model is built based on an annual license fee model. As the exact license cost will differ based on an organization's needs, user base and contract terms<sup>2</sup>,





**Financial Summary** 

KPISOFT can provide a more tailored quote upon request.

- Initial setup cost (\$230,577). This cost mainly accounts for costs associated with the setup and deployment of KPISOFT. The cost includes professional support fees and internal labor hours for the HR and IT staff deployed to support the implementation. Each of these two staff spent about 25% to 50% of their time per week over a five-month period in setting up the KPISOFT platform within the government.
- Training cost (\$3,481,380). The government adopted a train-the-trainer approach in rolling out training across the government entities. The KPISOFT support team first identified and trained 100 KPISOFT champion users; these champion users were then responsible for providing training to the remaining employees via 2-hour sessions. Employee training cost is calculated based on a user base of 18,948<sup>3</sup> in Year 1. For Years 2 and 3, an organic growth of 3% and an annual attrition rate of 10% are factored in against Year 1's employee size of 60,000 people.

Forrester's interview with an existing customer and subsequent financial analysis found that the interviewed organization has experienced benefits of \$26,751,994 over three years versus costs of \$13,195,428, adding up to a net present value (NPV) of \$13,556,566 and an ROI of 103%.

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**Benefits (Three-Year)** 

TEI Framework And Methodology

From the information provided in the interview, Forrester has constructed a Total Economic Impact<sup>™</sup> (TEI) framework for those organizations considering implementing KPISOFT.

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 KPISOFT can have on an organization:

### DUE DILIGENCE

Interviewed KPISOFT stakeholders and Forrester analysts to gather data relative to KPISOFT.



### CUSTOMER INTERVIEW

Interviewed one organization using KPISOFT to obtain data with respect to costs, benefits, and risks.



### 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 KPISOFT'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 KPISOFT 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 KPISOFT.

KPISOFT 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.

KPISOFT provided the customer name for the interview but did not participate in the interview.

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



## **The KPISOFT Customer Journey**

### **BEFORE AND AFTER THE KPISOFT INVESTMENT**

### Interviewed Organization

For this study, Forrester interviewed three government employees involved in the implementation of KPISOFT across the government entities. The implementation of KPISOFT across all government entities is planned to be completed within two years for civilian employees, with 20 entities targeted to be onboarded by the end of the first year.

### Key Challenges

The interviewed government experienced the following key challenges before deploying KPISOFT:

- Cumbersome performance appraisal process. While there was a legacy solution in place to support employee performance management, many entities still depended on manual methods such as creating spreadsheets or using pen and paper to carry out the performance appraisal process. Performance managers often created scorecards for individual employees on spreadsheets before entering them into the legacy system. The HR department would print out the appraisal form for each employee to fill up, which typically required employees to thereafter manually find and print out attachments to affix to their appraisal forms for evaluation by their performance managers. Not only was there a heavy use of paper and print in the process, but the linear and tedious approach meant that the performance appraisal cycle often stretched across months.
- Inconsistent performance management standards across different entities. Without a consistent governmentwide standard toward performance management, individual government entities were carrying out their performance management processes in different manners. Also, there was no standardized performance program rules across the government entities. As such, there were ambiguity and poor transparency in how the performance scorecards for employees in different entities were being set up or evaluated.
- Inability to perform analytics and derive useful insights. The legacy solution offered limited and basic functions in supporting the performance management processes. The HR department was not able to track and monitor scorecard completion rate or organizational performance on a single platform. Efforts required by employees to achieve both individual- and organizational-level objectives could not be effectively forecasted either.

### Solution Requirements

The interviewed government searched for a solution that could:

- Increase efficiency and transparency in the performance appraisal process.
- » Improve linkage between employee KPIs and government strategy.
- Provide a more comprehensive talent management solution, covering not just performance management, but also learning and development,

"KPISOFT's intuitive and userfriendly platform was one of the main reasons why we chose them over other vendors."

CEO, Government office

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succession planning, career development, manpower planning, and rewards and recognition.

- > Integrate seamlessly with the current ERP system.
- Provide adequate flexibility to meet the different business requirements of all government entities.

After an extensive tender process evaluating multiple vendors, the interviewed organization chose KPISOFT and took a phased approach toward implementing KPISOFT over a span of two years.

## Key Results

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

- Improved performance appraisal process. With KPISOFT, the government has enabled a standardized and streamlined performance appraisal process across all entities. In addition to better aligning employees' KPIs to government strategy, HR staff are also able to achieve greater control and transparency over the process. The government has achieved greater visibility over the performance management process, as employees are able to view their objectives and expectations on a single platform and are clear of the efforts required to achieve their targets. Performance review conversations are also more structured and efficient since the KPIs and ratings are laid out in a systematic and detailed manner. There is thus less back-and-forth between the HR staff, performance managers, and employees in reviewing and amending the scorecards. What took around three months for scorecard setting and performance review previously is now completed within two weeks.
- Performance management productivity gains. The implementation of an automated and user-friendly digital platform has brought about productivity improvements across the government entities. Performance managers have seen a 90% improvement in productivity with a non-spreadsheet and paperless approach toward appraisal review. Individual employees, on the other hand, have experienced a 75% improvement in appraisal writing time without having to find and print attachments or toggle between various systems to complete the task. These productivity gains mean that employees are able to put these extra hours back into productive work.
- Reduced operational expenses that cover new technology spend. To facilitate the annual performance review process, HR staff would traditionally have to type, print, and store the appraisal forms for all employees. Furthermore, if printing errors were spotted or documents were lost, these appraisal forms would have to be reprinted. As such, a typical appraisal form of four pages generated \$1.00 of operational expenses. With the implementation of KPISOFT, the government entities were not only able to avoid these costs, but also better able to support the government's 2021 objective of going paperless.

"With KPISOFT, the strategy of the individual government entities is now better tied to the overall government strategy."

KPISOFT implementation manager

"I am now able to review 40 appraisals in less than a day. Previously, that would have taken me at least 4 to 5 hours per day over five working days."

Director of government resource planning

## **Analysis Of Benefits**

### QUANTIFIED BENEFIT DATA

Total	Benefits					
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Performance management productivity gains for managers	\$445,055	\$1,487,300	\$1,577,877	\$3,510,232	\$2,819,251
Btr	Performance management productivity gains for employees	\$1,978,022	\$6,610,223	\$7,012,786	\$15,601,031	\$12,530,006
Ctr	Cost savings from retirement of legacy solution	\$1,851,429	\$6,006,960	\$6,187,169	\$14,045,557	\$11,296,058
Dtr	Reduced operational expenses	\$17,091	\$56,454	\$59,211	\$132,756	\$106,679
	Total benefits (risk- adjusted)	\$4,291,596	\$14,160,937	\$14,837,042	\$33,289,576	\$26,751,994

## Performance Management Productivity Gains For Managers

Each government employee is appraised against various objectives reflected in the form of a scorecard. Prior to KPISOFT, performance managers had to manually calculate the ratings for each individual employee using a combination of spreadsheets and pen and paper, which was a tedious process subject to errors. As such, reviewing a single appraisal form took on average 30 minutes to complete.

Since deploying KPISOFT, performance managers no longer have to perform manual calculations of employees' scorecard ratings as the platform automatically calculates and generates an overall rating for each employee. Also, the more objective and transparent process enabled by KPISOFT has eliminated any unnecessary debates between performance managers and employees over the awarded ratings. This has resulted in a 90% improvement in review time per appraisal form, which means that performance managers are able to review 10 times more appraisal forms than before.

Forrester adjusts productivity formulas with a productivity conversion ratio to be realistic and conservative in modeling. Productivity conversion considers that not every minute gained in productivity is put directly back into productive work: Employees could use the time to take a longer break, leave work on time, etc. The productivity conversion ratio for this study is 80%.

Companies should also consider the potential impact of productivity and what it could allow employees to achieve (e.g., review one more appraisal form). Forrester does not suggest speculating on the values of these potential actions and incorporating them into an ROI model, but companies should consider these as potential and flexibility factors.

The model accounts for risks that could impact the value of benefits:

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 expects risk-adjusted total benefits to be a PV of nearly \$27 million.



Performance management productivity gains for managers: 11% of total benefits



- > Variance in salaries by role.
- > Variance in appraisal review time of performance managers.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$2,819,251.

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Number of government employees	Year 1: provided by customer Years 2 and 3: A1 <sub>py</sub> *103%	60,000	61,800	63,654
42	Number of government entities	Provided by customer	63	63	63
43	Average number of employees per government entity (rounded value shown)	A1/A2	952	981	1,010
44	Proportion of entities onboarded onto KPISOFT	Provided by customer	32%	100%	100%
45	Number of entities onboarded onto KPISOFT (rounded value shown)	A2*A4	20	63	63
A6	Number of employees onboarded onto KPISOFT	A3*A5	19,048	61,800	63,654
A7	Pre-KPISOFT review time per appraisal (hours)	Provided by customer	0.5	0.5	0.5
A8	Post-KPISOFT review time improvement per appraisal	Provided by customer	90%	90%	90%
A9	Post-KPISOFT review time per appraisal (hours)	A7*(1-A8)	0.05	0.05	0.05
A10	Productivity value for performance managers (rounded hours shown)	A6*(A7-A9)	8,571	27,810	28,644
A11	Average manager fully loaded salary	Year 1: assumption Years 2 and 3: A11 <sub>py</sub> *103%	\$150,000	\$154,500	\$159,135
A12	Productivity conversion	Assumption	80%	80%	80%
٩t	Performance management productivity gains for managers	(A11/2,080)*A10 *A12	\$494,505	\$1,652,556	\$1,753,19
	Risk adjustment	↓10%			
Atr	Performance management productivity gains for managers (risk-adjusted)		\$445,055	\$1,487,300	\$1,577,877

# Performance Management Productivity Gains For Employees

Across all government entities, employees are required to first fill out their appraisal forms before submitting them to their performance manager for review and scoring. Before the use of the KPISOFT platform, employees had to toggle between various systems to find, print, and affix attachments to physical copies of their appraisal forms as justifications for their achievements. This cumbersome task often took up

to a working day for the average employee to complete.

The KPISOFT performance management platform is well-integrated with other key employee systems, relieving employees of such manual tasks. The amount of time spent on writing appraisal forms has thus significantly decreased by 75%, down to just 2 hours. Furthermore, the 24x7 availability of the system means that employees can make a request to amend their scorecards anytime as required, instead of having to wait until the annual performance review period to do so.

Forrester applies a productivity conversion ratio of 80% in the calculation of this benefit, with the assumption that only 80% of the time saved will actually be converted into productive output.

The model accounts for risks that could impact the value of benefits:

- » Variance in salaries by role.
- » Variance in appraisal writing time of employees.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$12,530,006.

Performance management productivity gains for employees: **47%** of total benefits

Perfor	Performance Management Productivity Gains For Employees: Calculation Table								
REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3				
B1	Number of employees onboarded onto KPISOFT	A6	19,048	61,800	63,654				
B2	Pre-KPISOFT appraisal writing time per employee (hours)	Provided by customer	8	8	8				
B3	Post-KPISOFT appraisal writing time improvement per employee	Provided by customer	75%	75%	75%				
B4	Post-KPISOFT appraisal writing time per employee (hours)	B2*(1-B3)	2	2	2				
B5	Productivity value for employees (hours)	B1*(B2-B4)	114,286	370,800	381,924				
B6	Average employee fully loaded salary	Year 1: assumption Years 2 and 3: B6 <sub>py</sub> *103%	\$50,000	\$51,500	\$53,045				
B7	Productivity conversion	Assumption	80%	80%	80%				
Bt	Performance management productivity gains for employees	(B6/2,080)*B5*B7	\$2,197,802	\$7,344,692	\$7,791,984				
	Risk adjustment	↓10%							
Btr	Performance management productivity gains for employees (risk-adjusted)		\$1,978,022	\$6,610,223	\$7,012,786				

## Cost Savings From Retirement Of Legacy Solution

Prior to the introduction of KPISOFT, the government was using a performance management solution that was part of a broader ERP solution. However, the functions that were available were very basic and only allowed for employee performance management processes to be done in a traditional way that did not support the changing business requirements. As such, employees often used spreadsheets or pen and paper in combination with the legacy solution. Performance managers calculated the scorecard ratings for employees manually before entering

# \$12.5 million three-year benefit PV 47% Performance

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them into the system, which was highly inefficient.

This prompted the government to source for an alternative performance management solution that not only automated the current manual processes but also provided a more holistic suite of talent management solutions that covered the end-to-end employee lifecycle. When the government entities migrated over to KPISOFT, they retired the traditional performance management tool that then no longer needed to be upgraded, maintained, and supported.

To estimate the associated system cost savings, Forrester assumes:

- The legacy performance management solution is retired at the go-live date of KPISOFT, i.e., the beginning of Year 1.
- No increase is made in the costs of the legacy performance management solution across the three-year period.

The model accounts for a risk adjustment that could impact the value of benefits. Below are risks to keep in mind:

- » Variance in the type and composition of legacy solutions used<sup>1</sup>.
- » Variance in adoption level of legacy solution across different entities.
- » Uncertainty of avoided upgrade and maintenance costs.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$11,296,058.



Cost savings from retirement of legacy solution: **42%** of total benefits

Cost Sa	Cost Savings From Retirement Of Legacy Solution: Calculation Table									
REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3					
C1	Number of employees onboarded onto KPISOFT	A6	19,048	61,800	63,654					
C2	Cost of legacy solution per employee	Provided by customer	\$108	\$108	\$108					
Ct	Cost savings from retirement of legacy solution	C1*C2	\$2,057,143	\$6,674,400	\$6,874,632					
	Risk adjustment	↓10%								
Ctr	Cost savings from retirement of legacy solution (risk-adjusted)		\$1,851,429	\$6,006,960	\$6,187,169					

### **Reduced Operational Expenses**

During the annual performance review period, the HR department had to type and print appraisals for each employee, incurring additional operational expenses. Largely, each appraisal form averages about four pages. Based on this average value, the model leverages industry figures and assumptions for four categories of operational expenses.

At \$0.06 per page, the total paper and printing cost is \$0.24 per appraisal form. The storage cost per page is \$0.03 to account for filing cabinets needed. Due to the manual nature of the task, HR staff might at times misprint or mistype the details on the appraisal forms (e.g., incorrect job title, misspelling of names). Misprinting cost is calculated by taking a 10% frequency and a 15-minute rework figure to account for time and effort needed to retype and reprint the appraisal form. Different from misprinting, the 15% of time that documents go missing, the copy needs to be reprinted. The total storage, misprinting, and missing document cost per appraisal form is \$0.76.



expenses: 0.4% of total benefits

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The model accounts for risks that could impact the value of benefits:

- Variance in printing, storage, misprinting, or missing document assumptions.
- > Variance in salaries by role.
- > Variance in number of pages per appraisal form.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of \$106,679.

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
D1	Number of employees onboarded onto KPISOFT	A6	19,048	61,800	63,654
D2	Average number of pages per appraisal form	Provided by customer	4	4	4
D3	Paper and printing cost per page	Assumption	\$0.06	\$0.06	\$0.06
D4	Storage cost per page	Assumption	\$0.03	\$0.03	\$0.03
D5	Misprinting frequency	Provided by customer	10%	10%	10%
D6	HR rework time due to misprinting (mins)	Assumption	15	15	15
D7	Missing document frequency	Provided by customer	15%	15%	15%
D8	Total paper and printing cost per appraisal form	D2*D3	\$0.24	\$0.24	\$0.24
D9	Total storage, misprinting and missing document cost per appraisal form (rounded value shown)	(D2*D4)+(D5*(D 6/60)*(B6/2,080)) +(D2*D3*D7)	\$0.76	\$0.77	\$0.79
D10	Total cost per appraisal form (rounded value shown)	D8+D9	\$1.00	\$1.01	\$1.03
Dt	Reduced operational expenses	D1*D10	\$18,990	\$62,726	\$65,790
	Risk adjustment	↓10%			
Dtr	Reduced operational expenses (risk-adjusted)		\$17,091	\$56,454	\$59,211

### 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 KPISOFT and later realize additional uses and business opportunities, including:

Extending the deployment of KPISOFT to military employees. For the interviewed government, the performance law is different for civilian and military employees with completely different calculation mechanisms. That said, the KPISOFT platform is designed in a way that enables adherence to both laws in a single performance program. While the two-year implementation of KPISOFT across the 63 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.

government entities is mainly focused on the civilian employees, the design of the system allows for the easy onboarding of military employees at a later date.

- Deploying KPISOFT platform for other talent management processes. On top of performance management, the government can utilize the KPISOFT platform for other talent management use cases, such as learning and development, succession planning, career development, manpower planning, and rewards and recognition. These various solutions can be well-integrated to support the end-toend management of employees across the employee lifecycle.
- Integrating KPISOFT with other systems. The strong technical capabilities of the KPISOFT platform allow for seamless integration with other systems that can help to better support performance management. For instance, KPISOFT can be integrated with online learning platforms to provide employees recommendations on learning courses based on their performance scorecard results. Also, integration with project management tools helps to constantly predict and track employees' project performance against their KPIs.

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

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# **Analysis Of Costs**

QUANTIFIED COST DATA

Total	Total Costs									
REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE			
Etr	KPISOFT solution cost	\$0	\$1,650,000	\$5,060,000	\$5,060,000	\$11,770,000	\$9,483,471			
Ftr	Initial setup cost	\$230,577	\$0	\$0	\$0	\$230,577	\$230,577			
Gtr	Training cost	\$21,154	\$1,002,038	\$2,665,403	\$461,152	\$4,149,746	\$3,481,380			
	Total costs (risk- adjusted)	\$251,731	\$2,652,038	\$7,725,403	\$5,521,152	\$16,150,323	\$13,195,42			

## **KPISOFT Solution Cost**

The KPISOFT solution cost is primarily calculated based on an annual license fee model. As the exact license cost will differ based on an organization's needs, user base and contract terms<sup>2</sup>, KPISOFT can provide a more tailored quote upon request. For this study, we model with a license cost of \$1.5 million in the first year and a subsequent cost of \$4.6 million per year for Years 2 and 3.

The model accounts for risks that could impact the value of costs:

- Variance in organizational needs and expectations for talent management solution.
- > Variance in user base.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$9,483,471.

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 \$13 million.



KPISOFT Solution Cost: Calculation Table									
REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3			
E1	KPISOFT annual license cost	Provided by customer		\$1,500,000	\$4,600,000	\$4,600,000			
Et	KPISOFT solution cost	E1		\$1,500,000	\$4,600,000	\$4,600,000			
	Risk adjustment	10%							
Etr	KPISOFT solution cost (risk- adjusted)		\$0	\$1,650,000	\$5,060,000	\$5,060,000			

## **Initial Setup Cost**

The initial setup cost mainly accounts for costs associated with the implementation and deployment of KPISOFT, which comprises the upfront costs for the implementation services rendered by KPISOFT and the internal labor costs.

The government engaged the KPISOFT support team to provide professional support during the five-month setup and deployment period, incurring a one-time cost of \$200,000. This includes performing the system setup, data integration, consulting (solution architecture, design consulting), training for champion users, and overall project management. As the exact professional support cost will differ based on an organization's needs, user base and contract terms, KPISOFT can provide a more tailored quote upon request.

In addition, two internal staff supported the setup and deployment for about 25% to 50% of their working hours per week. The HR staff was responsible for gathering the HR policy guidelines and business requirements from the different business entities. The IT staff, working closely with the KPISOFT support team, supported the technical evaluation, security assessment, and technology implementation. In all, the internal deployment cost came up to \$9,615.

The model accounts for risks that could impact the value of costs:

- » Complexity of environment and deployment.
- > Variance in business requirements from different government entities.
- > Variance in salaries by role.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$230,577.



**Two FTEs** spent 25% to 50% of their time on setup and deployment support.

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

### Initial Setup Cost: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
F1	KPISOFT implementation cost	Provided by customer	\$200,000			
F2	Number of employees involved in deployment planning and readiness	Provided by customer	2			
F3	Deployment planning and readiness hours per employee	Assumption	200			
F4	Average employee fully loaded salary	Assumption	\$50,000			
F5	Internal deployment cost	F2*F3*(F4/2,08 0)	\$9,615			
Ft	Initial setup cost	F1+F5	\$209,615	\$0	\$0	\$0
	Risk adjustment	10%				
Ftr	Initial setup cost (risk-adjusted)		\$230,577	\$0	\$0	\$0

### **Training Cost**

The government adopted a train-the-trainer approach in rolling out training across the government entities. The government identified 100 champion users across 20 entities to attend training by the KPISOFT support team during the initial setup period. These champion users, equipped with the working knowledge of KPISOFT, were then responsible for providing training to the remaining employees.

Training for the 100 champion users was conducted in the form of a workshop, covering two key areas — overview of the KPISOFT platform and the know-hows in using the platform for performance management.

As for the remaining new users, the government rolled out training alongside the implementation of the KPISOFT platform for their entities. Training sessions were typically conducted in batches of 50 employees, with each session lasting about 2 hours. For this study, we modeled with 18,948 employees<sup>3</sup> across 20 entities in Year 1, with training provided for the remaining new users in Year 2. A yearly organic growth in employees count of 3% and an annual attrition rate of 10% for replacement of full-time equivalents (FTEs) are also factored into the calculation of new users for Years 2 and 3.

The model accounts for risks that could impact the value of costs:

- » Variance in training needs and standing knowledge of KPISOFT.
- » Variance in employee organic growth and attrition assumptions.
- > Variance in salaries by role.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$3,481,380.

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Five months Total setup and deployment time

Trainin	g Cost: Calculation Table					
REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
G1	Number of KPISOFT champion users	Provided by customer	100			
G2	Training hours per KPISOFT champion user	Provided by customer	8			
G3	Total training hours for KPISOFT champion users	G1*G2	800			
G4	Number of employees onboarded onto KPISOFT	A6		19,048	61,800	63,654
G5	Annual attrition rate	Assumption		10%	10%	10%
G6	Training hours per new user	Provided by customer		2	2	2
G7	Total training hours for new users	Year 1: (G4- G1 <sub>initial</sub> )*G6 Years 2 and 3: ((G4*G5)+(G4 <sub>cy</sub> -G4 <sub>py</sub> ))*G6		37,895	97,865	16,439
G8	Average employee fully loaded salary	Initial and Year 1: assumption Years 2 and 3: G8 <sub>py</sub> *103%	\$50,000	\$50,000	\$51,500	\$53,045
Gt	Training cost	Initial: G3*(G8/2,080) Years 1, 2 and 3: G7*(G8/2,080)	\$19,231	\$910,943	\$2,423,094	\$419,229
	Risk adjustment	10%				
Gtr	Training cost (risk-adjusted)		\$21,154	\$1,002,038	\$2,665,403	\$461,152

## **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 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	(\$251,731)	(\$2,652,038)	(\$7,725,403)	(\$5,521,152)	(\$16,150,323)	(\$13,195,428)			
Total benefits	\$0	\$4,291,596	\$14,160,937	\$14,837,042	\$33,289,576	\$26,751,994			
Net benefits	(\$251,731)	\$1,639,559	\$6,435,534	\$9,315,891	\$17,139,252	\$13,556,566			
ROI						103%			
Payback period						< 3 months			

## **KPISOFT: Overview**

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

KPISOFT, incorporated in 2010, is a global leader in augmented analytics and enterprise performance management solutions. Our cloud-based, mobile-first, AI and machine learning-powered platform helps organisations perform better by connecting enterprises, people, and performance, with a strong focus on a human-centered approach.

Headquartered in the US, and with KPISOFT leadership team members strategically located in some of the top tech-savvy markets around the globe, the team is revolutionizing enterprise performance for clients across all industries. These include insurance, telecommunications, manufacturing, retail, transportation and logistics, chemicals, pharmaceuticals, healthcare, education, and government agencies. Example use cases include:

- **Insurance.** Drive channel sales by pushing actionable data-driven insights to agents and agency leaders.
- Telecom. Elevate Net Promoter Score (NPS) by delivering behavior-changing insights to field service employees powered through a nudge framework.<sup>4</sup>
- Banking. Improve branch performance by leveraging goal science, rewards, and analytics.
- **Professional services.** Increase margins by acting on AI-recommended plan for resource allocations and utilizations.

Key features of KPISOFT include:

- KPISOFT automatically tracks and analyzes KPIs and metrics in an enterprise from any source and format of data available.
- KPISOFT delivers automated and hyperpersonalized insights to employees using machine learning algorithms.
- Insights are curated based on consumption preferences by each employee to ensure they are highly contextual and actionable.
- The KPISOFT platform enables enterprises to embrace performance practices required to succeed in a mobile-first digital world by using principles of gamification, data democratization, and social collaboration.

KPISOFT customers share the following goals:

- Real-time performance awareness is primary to high performance.
- Automated and personalized insights for everyone is a fundamental culture.
- Engage in frequent data-rich performance conversations where data is the core of the truth.
- Collaborate in real time to ensure better employee engagement.
- Focus on what matters most to all stakeholders.

## **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.



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.



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%.



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**

<sup>1</sup> Readers should note that legacy solution cost savings reflected in this report are based off representative figures shared by the interviewed customer. Actual cost savings from retirement of legacy solution may differ across users, depending on the type and composition of the legacy solution used.

<sup>2</sup> Readers are to be aware of contract terms that might affect the year-on-year annual license cost, e.g. contract

period. <sup>3</sup> The employee figure of 18,948 used in calculating the training cost for Year 1 excludes the 100 champion users.

<sup>4</sup> Net Promoter and NPS are registered service marks, and Net Promoter Score is a service mark, of Bain & Company, Inc., Satmetrix Systems, Inc., and Fred Reichheld.