

A Forrester Total Economic Impact™
Study Commissioned By Microsoft
September 2018

The Total Economic Impact™ Of Microsoft Azure SQL Database Managed Instance

Executive Summary

Cost Savings And Business Benefits
Enabled By Microsoft Azure SQL
Database Managed Instance

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Project Director:
Anish Shah

ABOUT FORRESTER CONSULTING

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Executive Summary

3-Year Key Benefits



Avoided hardware, network, storage, and ongoing maintenance costs

\$1.8 million



40% improved productivity for in-house DBAs

\$688k



20% improved productivity for IT team

\$698K

Microsoft Azure SQL Database Managed Instance is a new deployment option that provides organizations the ability to migrate their on-premises SQL Server applications and databases onto a fully managed SQL Server in Azure cloud. Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Azure SQL Database Managed Instance. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Microsoft on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed several customers who have migrated their SQL Server data onto a managed instance. Azure SQL Database Managed Instance is a PaaS (Platform-as-a-Service) with built-in intelligence that enables easy migration onto Azure cloud and offers high availability and a transparent pay-per-use pricing model that allows customers to reduce annual hardware capital expenses and boost employee productivity. In addition, organizations can quickly scale up and down capacity, integrate with other Azure services, automatically back-up data and receive security patches and version upgrades without any additional charge.

Prior to migrating to Azure SQL Database Managed Instance, interviewed organizations were managing their SQL Server database environment on-premises. This model involved annual capital investment in purchasing new hardware and an increase in both storage and networking costs to align with business growth and capacity requirements. This model also increased the burden on in-house database administrators (DBAs) and IT team to constantly provision, deploy, and manage their SQL database environment. In addition, developers would not have to spend time re-architecting applications and organizations could use instance level capabilities without changing their application design. A director of storage systems at a large technology service provider stated that “We operate in multiple countries and our objective is to keep our data at a local-level. With managed instance not only is it much faster to deploy and manage our databases, but we have also saved a lot from building out our data centers.”

Ultimately, the four interviewed organizations indicated key benefits of increasing capacity without large infrastructure costs and improving IT productivity among others. Interviewed customers noted that Azure SQL Database Managed Instance was in line with their business objective to transition applications and workloads onto the cloud and to have a more flexible solution that allows them to quickly scale based on their business need without putting extensive burden on their IT teams.

Key Findings

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



ROI
212%



Benefits PV
\$3.2 million



NPV
\$2.2 million



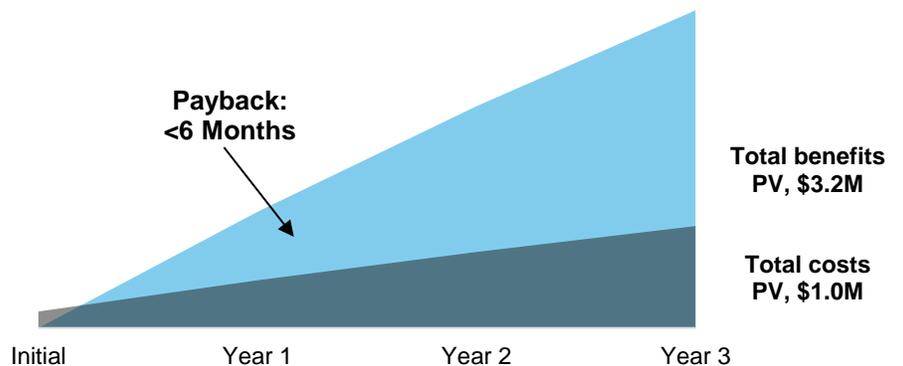
Payback
<6 months
post migration

- › **\$1.8 million of avoided hardware, network, storage, and ongoing maintenance costs.** Migrating SQL Server data and workloads onto a managed instance has significant CAPEX and OPEX benefits. Organizations noted that they avoided capital expenses in new servers and hardware and reduced associated networking, storage, and maintenance costs. Conservatively, organizations estimated approximately \$800,000 in avoided costs, resulting in a three-year present value (PV) savings of \$1.8 million.
- › **40% improvement in DBA productivity.** In moving to SQL Database Managed Instance, organizations were able to drive significant efficiencies for their 8 in-house DBAs who were constantly managing and provisioning new infrastructure and capacity. Customers noted that they were able to see 40% improvement in DBA productivity by moving to Azure SQL Database Managed Instance, resulting in a three-year present value (PV) benefits of \$688,000.
- › **20% increase in IT productivity.** Customers noted that with the key features of SQL database Managed Instance such as automatic data backups, automated security patching, application compatibility, version upgrades, and integration with other PaaS services, they were able to see a 20% increase in productivity across their IT management and security teams. In addition, developers did not have to spend time re-architecting applications which resulted in three-year present value (PV) benefits of \$698,000.

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

- › **Annual license costs.** As a PaaS product, Azure SQL Database Managed Instance is priced based on a vCore-based usage model. This gives organizations the flexibility to scale their compute, memory, and storage needs to meet their capacity requirements. Over the course of three years, the estimated average license cost is approximately \$25,000 per month that results in three-year present value (PV) cost of \$858,000.
- › **Migration and deployment costs.** In moving to Azure SQL Database Managed Instance, organizations need to migrate their existing on-premises SQL Server data. Typical deployment lasts 4-6 months which includes migration, integration, and testing. These are one-time initial costs, resulting in a present value (PV) cost of \$165,000.

3-Year Financial Summary: Microsoft Azure SQL Database Managed Instance



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 Microsoft Azure SQL Database Managed Instance.

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 Microsoft Azure SQL Database Managed Instance can have on an organization:



DUE DILIGENCE

Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Azure SQL Database Managed Instance



CUSTOMER INTERVIEWS

Interviewed four organizations using Microsoft 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 Microsoft Azure SQL Database Managed Instance'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 Microsoft and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Microsoft Azure SQL Database Managed Instance.

Microsoft reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

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

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.