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Power Platform Insights
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Microsoft Power Platform

Measuring Success of Low-code Development

Have any questions you would like us to answer in future newsletters?

Send them to lgreszler@hitachisolutions.com

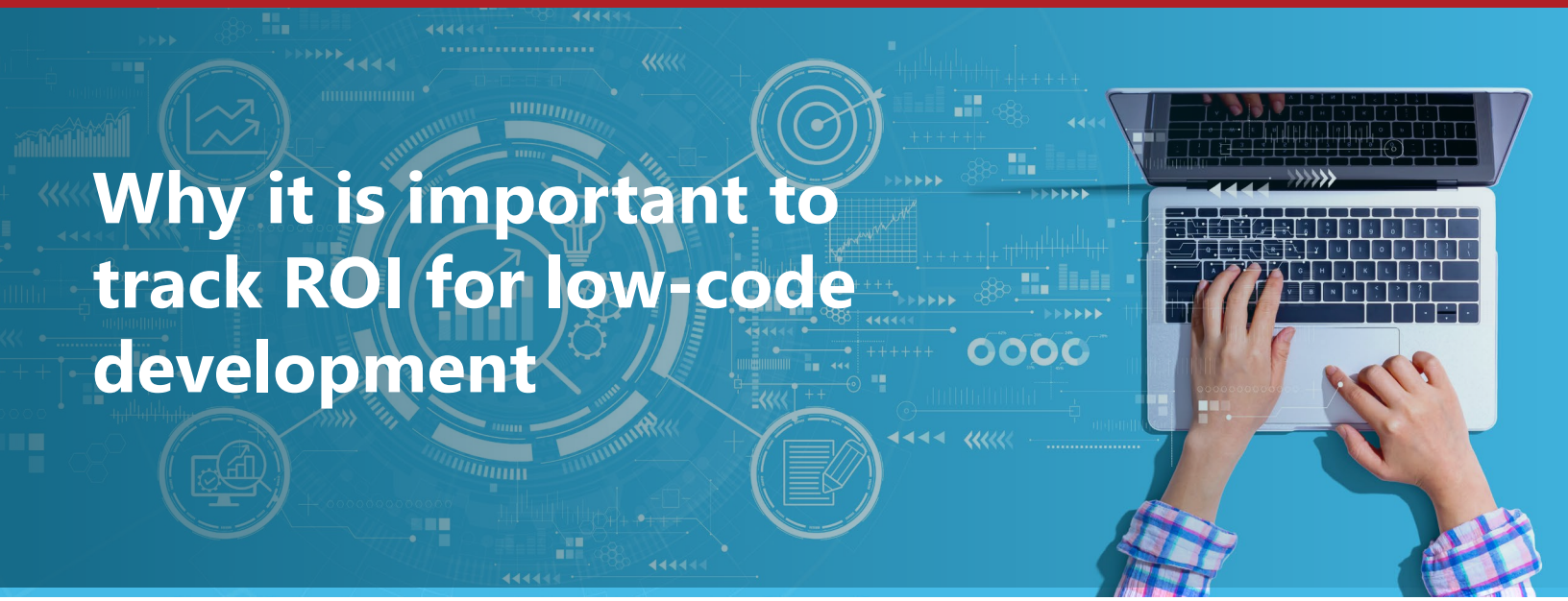
INTRODUCTION

Any company building applications and automations with Microsoft Power Platform will always be constrained by time and resources. Because while low-code makers and developers can be experts at creating solutions for inefficient processes or manual tasks, business leaders often need a significant amount of convincing before they are ready to commit enough resources to comprehensively solve business problems.

So how do you communicate the benefits to stakeholders and justify resources spent developing and maintaining low-code solutions? It's simple. The best avenue is to measure various key performance indicators (KPIs) — the most vital of which are return on investment (ROI) and total cost of ownership (TCO).

In this issue, we will cover the importance of ROI and TCO for low-code applications, how to analyze them, and how to use the insights you glean to shape future app development decisions.

Why it is important to track ROI for low-code development



Justify the investment, including premium licenses: Low-code tools often require an initial investment in licenses, training, and infrastructure. Premium licenses may offer additional features, higher limits, or better performance, but also come at a higher cost. By measuring ROI, you can determine if the added value generated by the app justifies the additional expense of the premium licenses. For example, a company was building an application to extend their manufacturing resource planning (MRP) system, which required premium licenses to create a custom connector. The ROI analysis demonstrated that the benefits outweighed the extra costs, making the investment warranted.

Demonstrate the impact and value of your apps: Low-code platforms are designed to speed up development and reduce the time and resources required. Knowing ROI helps determine whether these goals are being met and helps optimize the development process for future projects. Evaluating efficiency can be key to determining whether to use low-code or pro-code development, especially when comparing the cost and time to build the application. Even after development is complete, ROI is a valuable tool for teams seeking to communicate the success of projects to stakeholders and enabling senior leadership to celebrate this success using quantitative metrics.

Inform future decisions: By understanding the ROI of different applications, you can prioritize projects and resources, focusing on those with the highest potential returns.

Monitor adoption: Tracking ROI can provide insights into user adoption and engagement, which can help you identify areas for improvement and opportunities for further investment. This provides a baseline for expected adoption against which you can compare future results.

Continuous improvement: Learn from your app usage, feedback data, and estimated value to inform future development. Evaluating ROI and TCO helps identify areas for cost reduction and efficiency improvements, promoting a culture of continuous improvement.

How to measure TCO and ROI for low-code apps and automations

TCO is a financial estimate that helps determine the direct and indirect costs of a product or system over its life cycle. TCO for apps and automations built with low-code tools includes factors like the cost of the licenses, the expense of developing the application, and ongoing support.

ROI is a financial metric that measures the profitability of an investment. It's calculated by comparing the benefits (or returns) of the investment to the costs. A positive ROI indicates that the investment has generated more value than it cost.

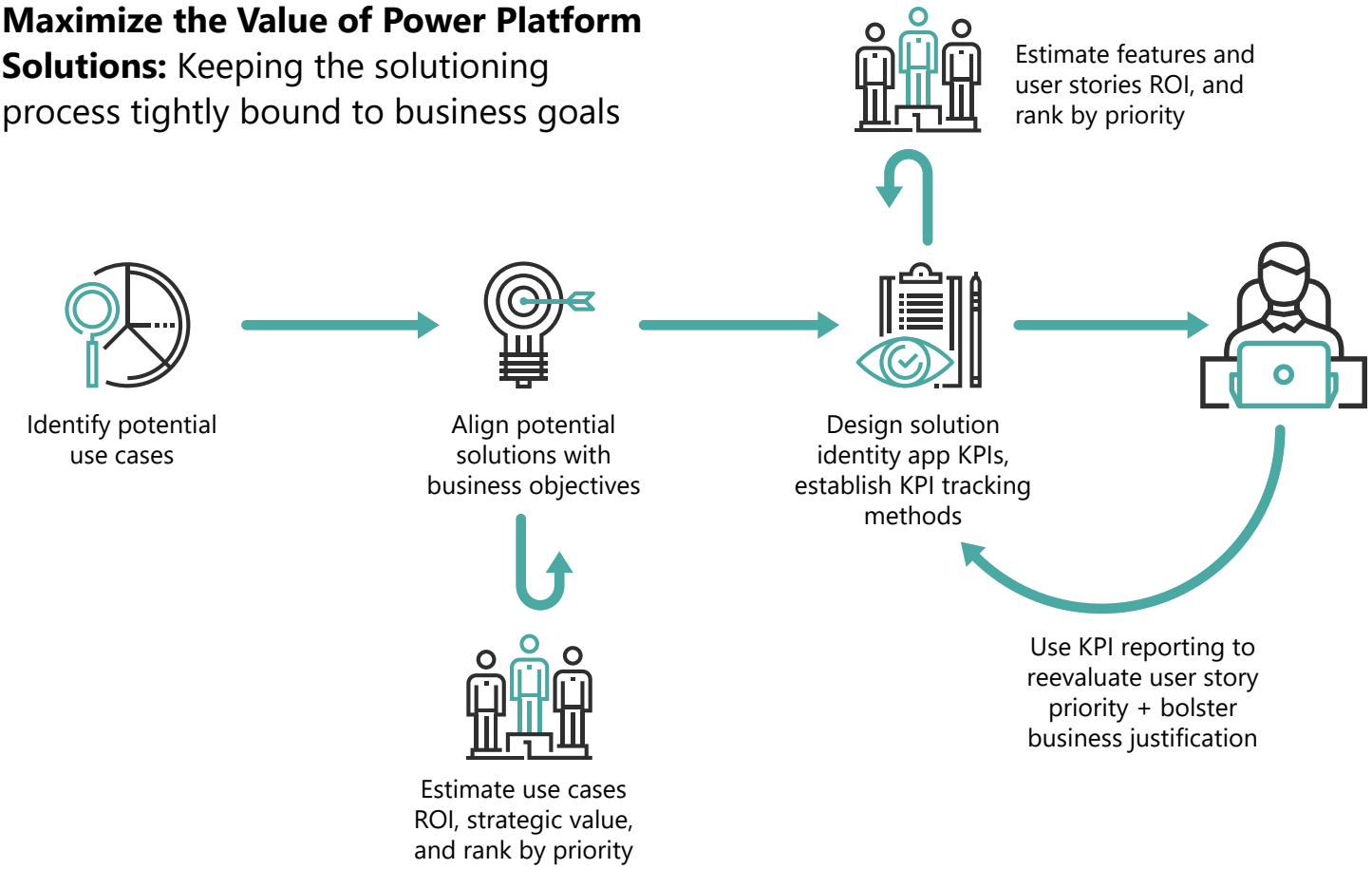
To measure TCO and ROI, follow these steps:

Define objectives and success criteria	Determine the business outcomes and benefits that you want to achieve.
Identify Costs	Calculate the total cost of ownership, considering license fees, infrastructure costs, training, support costs, and any additional integrations or customizations. This is your TCO.
Estimate Benefits	Identify the benefits of the app or automation, such as time saved, increased productivity, reduced error rates, reduced FTEs, improved customer satisfaction, and money saved from replacing legacy platforms. Quantify these benefits wherever possible.
Utilize time-saving tools	The right tools can be big time savers when estimating costs or benefits. Power Platform comes equipped with tools to improve efficiency, such as the process advisor for Power Automate. Use capabilities like process mining to save time when discovering inefficiencies, mapping processes, and measuring metrics such as the task's duration.
Calculate ROI	Divide the total benefits by the total costs and multiply by 100 to get the ROI percentage. A positive ROI indicates the investment has generated more value than it cost.
Feature evaluation	Estimate the ROI for features and stories to rank and prioritize them to create the most valuable MVP possible.

What other metrics should become KPIs for a Power Platform solution?

1	Identify the key aspects of the app you want to measure — including user behavior, user satisfaction, app functionality (errors, latency), app value (revenue, cost savings, productivity).
2	Don't neglect qualitative data such as feedback, ratings, etc. and find patterns.
3	Set targets and thresholds for metrics.

Maximize the Value of Power Platform Solutions: Keeping the solutioning process tightly bound to business goals



Measure success by verifying ROI after deployment

Your application is live and in production now. Congratulations! But how do you know the results you are getting from the application match the benefits you expected? How can you use this to make your next app?

Monitor KPIs: Track KPIs over time to assess the success of the project. Consider building Power BI dashboards that make it easy for you to quantify these KPIs and verify results. By comparing actual results with your initial projections, you can identify discrepancies and make necessary adjustments to improve ROI. Using Power BI dashboards also enables you to visualize your data in a more comprehensible way. This makes it easier to share insights with stakeholders and generate data-driven decisions.

Gather user feedback: Collect feedback from users to identify areas for improvement and understand the impact of the app on daily work. This information can help you refine the app to better meet user needs and expectations, which in turn, can lead to better ROI.

Conduct regular reviews: Schedule periodic reviews of the application to monitor its performance and user adoption, identify areas for optimization, and ensure it continues to meet the evolving needs of the organization. Regularly reviewing the app's performance helps identify inefficiencies and areas for improvement, which can positively impact ROI.

Learn from past projects: Identify best practices and lessons learned from past projects to optimize the development process and improve future outcomes. By understanding what worked well and what didn't, you can make better decisions for future app development, increasing the likelihood of success and higher ROI.

Adapt to user needs: Use feedback and insights from previous projects to create apps that are better suited to users' needs and expectations, thereby increasing adoption and engagement. Higher user satisfaction often translates to better ROI.

Continuous improvement: Use data-driven insights to refine existing apps and processes, promoting a culture of continuous improvement and innovation. By striving for ongoing improvement, you can maximize the return on your low-code application investments.

Transforming qualitative feedback into quantitative metrics

Qualitative feedback is a great tool for teams seeking to have the highest chance of realizing their estimated ROI in the real world. Depending on the number of users, feedback from surveys, interviews, or reviews can easily be lost in the crowd or not fully utilized. Qualitative feedback should be analyzed and used to inform future development iterations. For example, if a team calculates ROI based on the assumption that a Power App could cut an eight-hour process down to four hours, and users provide feedback that there is still room for improvement in the UI or items that should be in the backlog, the app is either saving less hours than expected or has the potential to save even more. What are some best practices that you could use to analyze qualitative feedback of your own app?

Collect quality data

Be sure to gather feedback from a representative sample of your user base and be mindful of different personas using the app in different ways. Understanding the varied feedback between different groups of users can help you accurately understand the user experience and avenues for further improvement in the app.

Transform qualitative data into qualitative metrics

Utilize scoring whenever possible in feedback surveys, such as a 1-5 rating for user satisfaction. There are many cases where feedback should come in the form of a sentence or paragraph and the best avenue for transformation is Microsoft Power Automate's AI Builder. Using AI Builder's sentiment analysis model, you can quickly summarize positivity or negativity. Key phrase extraction is a useful tool for pulling out main themes in your feedback, which can then be listed and ranked to identify topics that the most users are talking about.

Use your analysis to maximize ROI

Once you have gathered your qualitative data and integrated visualizations of your app's feedback into your KPI dashboard, you have created a wholistic view into your app's successes and failures. This drives continuous improvement towards and maximizes returns.

Low-code ROI examples

The following are some examples of ROI calculations for Power Platform. While each scenario is different, these illustrate real-world use cases.

Microsoft Power Virtual Agents

You are considering implementing a Power Virtual Agents (PVA) chatbot to improve your helpdesk operations. The monthly cost of the chatbot is $500, and the one-time implementation cost is $50,000. By implementing the chatbot, you will avoid hiring one additional level-three helpdesk technician with an average salary of $60,000 per year (based on three years of experience). The firm employs 450 employees with an average salary of $75,000 per year. Each employee uses the chatbot once every three months, and it saves them 30 minutes compared to the current manual process of calling or emailing the helpdesk and waiting for a response.

ROI Calculation

Annual cost savings from not hiring one additional technician: $60,000
Monetary value of time savings for all employees: $32,454
Annual cost of the chatbot: $6,000
Net annual benefit: $86,454
Total cost of implementing the chatbot: $56,000
ROI percentage: 154.38%

In this scenario, the ROI of implementing the PVA chatbot is approximately 154.38%. This means that in one year, the chatbot implementation would return about 1.54 times the initial investment if you consider the cost savings from not hiring one additional technician and the time savings for employees using the chatbot.

Power Apps

A company uses a Power App to improve the employee onboarding process. The process involves 1 person in HR, 1 in Legal, 2 in IT, the manager of the department, and the person being onboarded (a level-three IT helpdesk resource). The application costs $40,000 to develop and requires per-user licenses costing $20/user/month. Approximately 1/12 of onboarding paperwork is incorrect and has to be redone.

The company hires 100 employees per year. The low-code application reduces the onboarding time from 3 weeks to 2 weeks, increases the efficiency of the non-new hire employees by 5%, and eliminates the need for rework.

ROI Calculation

Annual salary assumptions: $50,000 (HR) + $70,000 (Legal) + $60,000 (IT) * 2 + $75,000 (Manager) = $315,000 total manual onboarding cost (8% of each person's time): $315,000 * 0.08 = $25,200/year

Tangible benefits per employee: $1,260/year (increased efficiency) + $175/year (reduced rework) = $1,435/year

Cost savings from reduced onboarding time: $100,000/year

Total benefits: $1,435/year * 100 employees (tangible) + $5,000/year (intangible) + $100,000/year (reduced onboarding time) = $248,500/year

Total investment: $40,000 (initial) + $1,200/year (ongoing)

Net benefits: $207,300 (1st year) and $247,300/year (subsequent years)

Cumulative net benefits after 3 years: $701,900

ROI after 3 years: 1703.9%

Automation

Scenario

A medium-sized manufacturing company is currently using a UI Path RPA bot to automate a particular process. The bot costs $12,000 per year, and the company is considering replacing it with an unattended Power Automate bot that costs $150 per month. The new bot will run 20% faster, allowing the company to increase its production capacity of a particular product by 10%.

ROI Calculation

Cost savings: The annual cost of the UI Path RPA bot is $12,000, while the cost of the Power Automate bot is $1,800 per year ($150 x 12 months). This results in a cost savings of $10,200 per year ($12,000 - $1,800) for the company.

Increased production capacity: The 20% increase in speed of the new bot will allow the company to increase its production capacity by 10%. For example, if the company was producing 100 units per day, they can now produce 110 units per day with the same resources. This increase in production capacity will result in additional revenue for the company.

ROI: Assuming the company sells each unit for $100, and they were previously producing 100 units per day, the additional production capacity of 10 units per day will result in an additional daily revenue of $1,000 ($100 x 10 units). This results in an annual revenue increase of $260,000 ($1,000 x 260 working days in a year).

Therefore, the total ROI for the company can be calculated as follows:

ROI = (Annual Cost Savings + Additional Annual Revenue) / Cost of New Bot x 100 ROI = ($10,200 + $260,000) / $1,800 x 100 ROI = 16,111%.

Reporting

Scenario

A medium-to-large-sized organization is experiencing "Excel Hell." Many disparate Excel reports are spread across all departments and at every level of the organization. By replacing their manual Excel reports with automated Power BI reports, annual costs will be reduced by $706,000 or 90%.

2023 Assumptions

- Departments: 11
- For each department:
  - Existing reports: 9
  - New reports: 2
- Hourly rate: $30

Cost type	Excel Hours per Report	Power BI Hours per Report [1]	Total Excel Cost	Total Power BI Cost
Report Creation Costs			[Excel hours] * [Departments] * [New reports] * [Hourly rate]	
Report hours	160	16	$106,000	$10,000
IT hours	20	1	$13,000	$1,000
Data governance overhead	16	0	$11,000	$0
	196	**9**	**$130,000**	**$11,000**
Report Ownership Costs			[Excel hours] * [Departments] * [Existing reports] * [Hourly rate]* [52 weeks]	
Hours per week [2]	4	0.05	$618,000	$7,000
Support hours, per week	0.25	0.05	$39,000	$7,000
	4.25	**0**	**$657,000**	**$7,000**
Power BI Costs				
Power BI premium license				$60,000
Power BI developer licenses [3]				$3,000
Power BI training				$5,000
				$68,000
Total			**$787,000**	**$81,000**

[1] *Assumes a data warehouse exists*

[2] *Factors in pulling of data, template data loading, quality assurance checks, error-handling & troubleshooting, distribution*

[3] *Assumes 2 developers per department*

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Microsoft Power Platform

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