Microsoft Power Cloud

The Fusion of Azure and Power Apps

Cloud Experts

Microsoft Power Cloud - The Fusion of Azure and Power Apps

"Power Cloud" refers to the integrated nature of the Microsoft product set that combines Cloud services with Power Apps customization.

The most compelling argument for the Microsoft products is the holistically integrated suite: Power Apps, Azure, Teams, Sharepoint and Dynamics aren't standalone, isolated technologies but rather can act as component parts of a whole solution building framework.

For example you can create an Azure Function app using .Net and call these using Logic Apps or create Power Apps from within Teams.

Modern Application Platform for the Cloud

The key pivot point is the interface between Power Apps and Azure, various modules and capabilities that link Low Code Development with Azure deployment.

This enables the rapid development of new apps using Low Code and then the deployment of them to the Cloud, where they can take advantage of hyper-scale hosting and the many other features such as adding data connections through Azure services with built-in API integrations.

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What this means is that organizations can harness the Cloud to drive a global scale of Digital Transformation, and do so via a high speed 'drag and drop' simplicity, managed through an end-to-end, integrated DevOps life-cycle, from code development to execution.

For example you can utilize GitHub Actions with Power Platform, enabling collaborative source control and Continuous Integration and Delivery (CICD).

In short Low Code represents an expansion of the volume of coders, and the Cloud integration the scope of what modules they can build upon. Before it used to only be their local computer resources now it is a vast Cloud estate of global-scale technologies.

Total Economic Impact of Microsoft Power Apps

In the Forrester report Total Economic Impact of Microsoft Power Apps they surveyed sixty customers who use the technology to distill an ROI business case.

Fundamentally the shift to low code development expands the capacity for new app development, addressing the backlog of IT project requirements that build up when only highly specialized programmers are available to create them.

Organizations realize additional value with other Power Platform and other Microsoft solutions such as Dynamics CRM and Teams. Interviewees described how these solutions, being part of the Microsoft stack, enable them to build on prior investments to create more value.

Key Benefits

- Reduced app development and costs: 74%.
- Revenue uplift linked to more and faster development efforts: 4.3%.
- Worker hours saved from streamlined and automated activities (Year 3): 132,000.
- Benefits PV $9.4 million.
- NPV $6.1 million.
- ROI 188%.
- Payback < 6 months.

Reduced App Development Costs

The average cost to develop an application is 74% less with Power Apps. For applications that can be developed using these new tools and included connectors, the internal development effort, professional services fees, and/or vendor applications purchase costs are much lower.

Total Economic Impact of Microsoft Power Apps

Additionally, the effort to maintain code and manage applications is less. Over the life of the study, the composite avoids $4.9 million in application development and management costs.

Developing additional applications in-house eliminates vendor license costs. Interviewees provided examples of external applications replaced by in-house developed applications using Power Apps. For the study, the composite replaces two applications with a total savings of $742,449.

Business Productivity

Power Apps increase activity efficiencies. The applications that are created digitize existing, manual, and often paper-based activities. The efficiency gains can vary widely by role, and mobile workers especially benefit from these improvements.

Overall, 1,650 users save 1.6 hours per week by Year 3 of the study. Applying a 50% productivity capture, because not all productivity gains translate into additional work, the composite achieves $3.7 million in efficiencies.

Better applications enable business transformation and improved business outcomes. Interviewees described many ways that their businesses have improved. This includes happier customers, reduced time-to-market, and increased revenue (4.3% according to the survey).

Employees can make better and faster decisions from better access to information. Much of the development work completed with Power Apps enables faster collection of information from first-line workers and transferal to decision makers in a more usable format. This, in turn, means that better decisions are made based on data sets that are larger and closer to real time.

Total Economic Impact of Microsoft Power Apps

Power Apps empowers users, which increases employee satisfaction. Both IT and business users can now more efficiently and effectively create applications that deliver business value. In many cases, these applications would never have been built without these tools. This gives users more control over their work and enables them to eliminate repetitive and annoying manual activities.

Digital Transformation

Power Apps streamlines activities and enables business transformation. Interviewees provided many examples of activities and of reworking old processes that no longer made sense in a mobile first world. This applies to Power Apps as a standalone solution, but it can be even greater when coupled with Power Automate.

Increased standardization also had a large impact. One interviewee said: "Low code is the best way to get something out quick and dirty. By far, the biggest benefit is productivity. We can digitize and try things we never could before."

IT organizations are now more responsive to business needs. Interviewees described how utilizing Power Apps helped them to create modern IT organizations that can deliver better and faster solutions to the business. One interviewee said: "We can now build once and deploy to different places. The organization didn't want to invest in traditional application development anymore. We can now make changes on the fly and support a very dynamic business."

Decision Criteria for Selecting Microsoft Power Apps - Pepsi Case Study

A number of important factors will shape which Low Code platform is the best fit for an organization.

A key decision criteria relevant to the value of the Microsoft approach is their end-to-end integrated suite: you can improve programming methods at the front end with Low Code, and link this to a life-cycle process that deploys it across Azure Cloud services too.

This effect is greatly magnified if the organization is already a big Microsoft adopter, Pepsi is a great case study example, as the value of their Office tool sets is the same horizontal integration, the Low Code movement simply evolves that same metaphor and further incorporates the Cloud era as well.

As the Pepsi case study explains, for the Microsoft Power Platform there's two key characteristics that are especially important:

- An existing Microsoft footprint.
- A small IT team with no developers.

It doesn't mean the tools aren't relevant to other organizations, those with very large developer teams or a mixed IT estate, but it does emphasize the key points:

Existing Microsoft footprint

Many organizations long ago made a commitment to Microsoft as their primary business IT supplier, wholly adopting the operating systems, devices, office apps and then Cloud services too. Power Apps is a natural evolution of this relationship and of course the different tools will all work in an integrated manner.

No developers

This 'no brainer' is further compounded for scenarios like Pepsi who had a mainly operational IT team, ie. they fixed all the equipment and supported users, devices etc., and even configured and connected Cloud apps, but they did no actual code development of any kind.

They saw the opportunity for technology improvements that would require that type of skill, so they turned to Low Code as the quickest and easiest way to bridge that skill gap.

Low Code will also find a role within teams that have many highly skilled developers, but a demonstration of it's most obvious and effective benefits is meeting a previously unmet skills need.

Digital Innovation and Process Automation

The G&J Pepsi IT team used Power Apps to create Store Audit, an app that enables better mobility and flexibility for field personnel. Previously, they'd record key information from a store audit on a piece of paper, then place it in a tray with little accountability and often no resolution. Now those in the field can inspect stores, collect data, provide an aggregated view to leadership, and better ensure customer satisfaction.

Similarly, they created a merchandiser app for better store tracking. If, for example, delivery personnel see displays that need to be fixed, they now know that submitting this information will trigger alerts to the supervisor and upwards.

Previously, their only course of action was to email the salesperson, with no assurance the salesperson would be available to respond. "That email could just go in a black hole," summarizes McKinney.

The Store Audit app allows G&J Pepsi employees to easily assess store displays, report issues, and set follow-up actions. Workers can also quickly view the audit history.

RPA with Microsoft Power Apps - Coca Cola case study

Packaging together all the millions of little step combinations that make up modern office work is the purpose of RPA – Robotic Process Automation:

Employing automated bots to act as virtual office horsepower that takes on all the drudgery, all the repetitive admin tasks.

Case studies include Coca Cola, who were launching a new strategic product line, 'Coca Cola United', a new company offshoot formed to distribute their new 'Freestyle' vending machine.

The machines depend on cartridges that are delivered to countertop vending machines, and they found their current back-office methods couldn't scale to demand, so they turned to Microsoft Power Automate.

Supporting Agility

As a new business unit it faced the challenge of both developing their own required line of business systems, while also integrating with the legacy applications of the main corporation.

Like most new startup units they initially co-ordinated their work load via Excel spreadsheets, which morphed into a complex 11-step process that required a dedicated customer relationship management (CRM) agent to take the order and manually push it through the system, scanning the invoice and walking it to the Accounts Payable department.

Manual quality checks were conducted, like matching customer and order numbers with internal numbers in their SAP instance, followed by manual procedures such as creating orders in the online systems of suppliers. Purchase orders (POs) for the cartridges and invoices were exchanged by email.

Asa

RPA bots are ideal for this type of repeated manual 'office work' – Anything a human can replicate so a virtual agent process can be created to emulate those actions.

Coca Cola United used Power Automate to synchronize data between the company's SAP CRM system and Azure SQL using Azure Data Factory, adding a master automated service agent they dubbed "Asa."

> With RPA unattended mode, everything is fully automated. After deploying the unattended mode in Azure Virtual Machines, Coca-Cola United can now schedule and trigger events that increase end-to-end automation of high-volume tasks.

The new, simplified process frees the dedicated CRM agent, allowing orders from all channels, such as inbound and outbound call center agents, field service sales representatives at customer sites, and via a customer self-service portal.
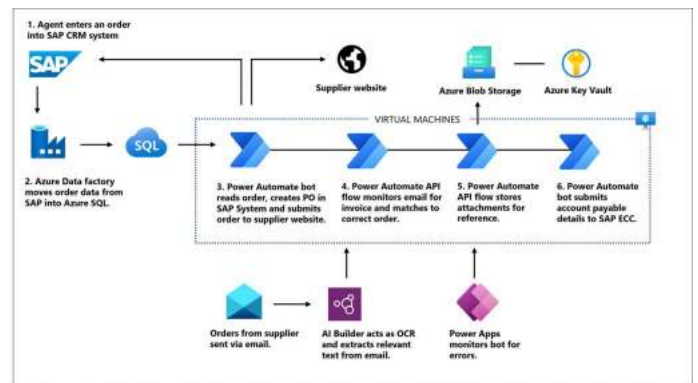

Figure 2. Bots built using Power Automate automate an order and invoice process with suppliers.

Developed on Microsoft Azure and Microsoft Power Platform, Asa consists of several bots and uses Azure Key Vault to help secure and control passwords and other sensitive data.

The case study provides a detailed summary of the RPA process model applied:

Now, when a CRM agent enters an order into the CRM system, Asa takes it from there and signs in to the company's SAP system without human intervention. Asa easily accesses orders, which are now tracked in a Microsoft Azure SQL database rather than in an Excel spreadsheet.

Asa reads the database and creates a PO in the company's SAP system. Asa then submits the order to the supplier's web application, validates successful entry, monitors the email system for invoice and delivery emails, matches them to the correct order, and then stores the attachments in Azure Blob Storage for future reference.

After that, Asa uses form processing in AI Builder to extract information from those email attachments that's necessary to close the process in the Accounts Payable system, and finally, it releases the invoice and PO from SAP.