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THE IMPORTANCE OF LEVERAGING LOW-CODE TO DEMOCRATIZE PROCESS AUTOMATION

Why companies need to embrace low-code and encourage citizen development in their mission to become more agile and lighten the strain on IT



Inside

- The benefits of using a hybrid IT-citizen developer model for process automation according to SKODA executive
- How Zoom managed a jump in business in 2020 with a low-code platform
- Recommendations for large organizations to combine low-code with their legacy systems

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Introduction

With many of the interactions between customers and businesses moving away from brick-and-mortar branches, primarily due to the Covid-19 pandemic, the necessity for organizations to become more agile and embrace technology to keep up with evolving customer expectations has never been more urgent. Companies need to ensure a seamless experience by making sure their internal processes are optimized, especially in this new work context.

PEX Network defines low-code and no-code as methods of app development that utilize drag-and-drop features with minimal or no coding. Non-IT-trained employees can automate a task within a process themselves via a low-code tool as part of an IT-sanctioned citizen development program. Today, businesses are leveraging low-code to automate their processes quickly in hybrid and remote-work models.

This *PEX Network* report delves into the necessity for organizations to automate their processes in the new hybrid work context, the need for collaboration between IT and the citizen developers, and how low-code helps foster a culture of innovation. Featuring insights from experts at SKODA, JP Morgan Chase & Co., BT Digital and Bizagi, the report provides an overview of why low-code is growing in importance and offers advice on leveraging it on legacy systems.



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Maneesh Subherwal

Executive director of business transformation, commercial bank at JP Morgan Chase & Co.

The need for process automation in hybrid work models

The challenges associated with manual processes, including lack of efficiency and visibility, were placed under the spotlight when the vast majority of workplace-based employees began to work remotely at the outset of the global Covid-19 pandemic. These challenges have continued to exist in hybrid work models where employees divide their time between their homes and the office, working with processes that are manual, paper-based or only partially automated.

This new work context is here to stay. Global companies including Google, Microsoft and Ford Motors have announced they are implementing a hybrid work model for their employees. It is a trend that will continue as companies attempt to offer work flexibility and retain talent.

Now more than ever companies need to optimize their processes and remove manual steps. Rachel Brennan, vice-president of product marketing at Bizagi, believes that although the drive for automation predates the Covid-19 pandemic for many organizations, it climbed up in the priority list in 2020.

"The pandemic shined a spotlight on the broken, manual and partially or poorly automated processes that had to be augmented with manual activities to close the gaps," Brennan says.

By requiring very little coding, low-code can help companies automate a lot of processes quickly. Debashis Sarkar, managing partner at Proliferator Advisory and Consulting, notes that the low-code approach shows great promise for the digitally-connected world. He says: "Not only does it take away the pressure from the IT team, but it also ensures faster time-to-market and lesser cost."

As a starting point, companies can identify processes that are not too complex and that will deliver the best outcomes by being automated through low-code. At car manufacturer SKODA, low-code architect Jaroslav Štěpán has had the most success in automating the processes closest to the users, while more complex and critical business processes were the subject of a closer analysis with a robotic process automation (RPA) tool. He explains: "As part of our digitalization strategy, users typically use the low-code platform to automate daily tasks that are relatively simple and doable without any professional IT action involved, but within the defined guidelines."



At video company Zoom, the pandemic led to total daily meeting participants soaring 30× in the first four months of the pandemic with a 354 per cent increase in customers. The organization's channel market which serves enterprise customers via distributors and other partners, saw the number of paid accounts increase fivefold.

This overall increase in business highlighted challenges in order processing and tracking, where the bottleneck was due to a set of manual processes based around email and spreadsheets. Although orders were tracked through Zendesk and managed via Salesforce, employees still needed to follow up with sales teams to create quotes and obtain approvals, and to the provisioning teams to create the new accounts.

Zoom implemented the Nintex Workflow Cloud® in April 2020. When a new order is entered on Zendesk, an automated workflow is triggered and all interactions with Salesforce are automated. The Nintex workflow updates all systems, automates reminders to the sales team to create partner-specific purchase orders and sends notifications of status updates to the channel operations, sales and provisioning teams.

The workflow tool now handles 90 per cent of orders and sends 100 per cent of the confirmation emails. It has helped Zoom handle the fivefold increase in channel business cost-effectively, with a third of staff contractors reduced, and helps the organization's competitiveness. Yesenia Orozco, channel operations manager at Zoom, explains: "We had the smoothest end-of-month close with our largest partner. With real-time confirmations, our team did not have to stay late at the end of the month to make sure everything went through – it was a significant improvement."

The next section of this report looks at how low-code can lighten the strain on IT to automate processes and provides advice on improving its collaboration with citizen developers.

"The pandemic shined a spotlight on the broken, manual and partially or poorly automated processes that had to be augmented with manual activities to close the gaps – these did a lot of harm too."

Rachel Brennan

Vice-president of product marketing at Bizagi



Breaking down silos through IT-citizen development collaboration

The minimal coding in low-code application development decreases the pressure on IT teams to build business applications and automate processes, removing in turn bottlenecks. Large companies, however, may be cold to using low-code since their legacy systems have been around for years and have become more complex as the businesses grew, as explains Maneesh Subherwal, executive director of business transformation, commercial bank at JP Morgan Chase & Co.

Subherwal says: "Given the monolithic nature of their technology, it is very hard [for large organizations] to make changes or drive rapid improvement and innovation. Generally you have to learn the current technology architecture and wedge your way into their roadmaps to drive any ideas forward."

In PEX Report 2022, of all respondents of *PEX Network*'s global annual survey coming from companies with more than 1,000 employees, 34 per cent are already using low-code and only nearly seven per cent are investing in it over the next six months. JP Morgan Chase & Co.'s Subherwal believes the main challenge with low-code is the limited understanding of the term, with leadership teams finding it difficult to embrace the construct, while product and tech teams looking at it as "a threat to their jobs".

"The opportunity to use low-code tools to run quick experiments, validate hypotheses and business cases requires new ways of thinking and working," he explains. "For large organizations, this is an enormous challenge and requires top team sponsorship, with a clear definition of impacts."

Connecting the application programming interfaces (APIs) to legacy systems is another challenge for companies, with SKODA's Štěpán advising to have future-proof secured APIs ready as "good practice".

The slow intake for large companies could also be explained by them believing all low-code platforms are the same and that they only apply to more tactical business processes. Bizagi's Brennan says: "Larger companies need to ensure they find the tool fit for their purposes, which is going to be more sophisticated." She notes that it is important for companies to realize that not everything can nor should be simplified, that they should avoid using low-code to "repeat the mistakes of the past". Governance is needed to control who does what and where across organizations.

"Not everyone in a large enterprise knows business process model and notation (BPMN), scripting or how to call an API," she says. "We provide a curated library of structured processes that offers restricted functionality created and published by IT that the business users, citizen developers and business technologists can access."

Having good documentation on all processes to know what is being automated within them is a key point for SKODA's Štěpán. He explains: "Someone could leave the department or company and there are some leftovers of automation – if we do not have the documentation we do not know what it is for."

The automation capabilities low-code offers should not be solely in the domain of IT and need to add business transparency and inclusion, according to Brennan. "It works best when you can provide true bidirectional process automation between business analysts, citizen developers or business technologists and the professional developers – they are speaking the same visual language for the very first time and can break down silos," Brennan explains.

Using a hybrid model that includes process automation from IT and the citizen development program works for SKODA, with Štěpán explaining: "In our model, IT creates guidelines and consult the solutions while the application development is in the hands of the citizen developers, but within the defined guidelines."

The next section of this report looks into how low-code helps foster an innovation mind-set across organizations.

Fostering an innovative mind-set via low-code

By leveraging low-code and building citizen development programs to upskill employees, process automation will be democratized, opening the path to increased innovation. The change of mind-set through low-code is a "huge topic" for SKODA's Štěpán, since "citizen development is changing the way IT delivers a solution".

It is, however, difficult for companies that have been building processes for software delivery for decades, with specialized departments for project management, development and maintenance.

"Companies are being told about a new way to develop applications with their delivery being done differently," he notes. "There is no more application developer in IT market now and there are different processes on how the software is delivered – that can be really difficult to accept."

The benefits of low-code need to be clearly stated to the users to help embrace the change. At home phone service company BT Digital, employees who adopt a low-code approach can see changes in the processes very quickly because they have developed the requirement for automation themselves and do not need to wait months to see it happen. According to Christian Smart, senior manager, automation center of excellence at BT Digital, when they learn how to use the low-code, "they cannot stop from trying to automate as much as possible".

By having faster time-to-market in app development, experiments can be implemented within companies and a continuous feedback loop established on those to keep improving with an Agile mind-set. JP Morgan Chase & Co.'s Subherwal believes organizations need to ring-fence low-code initiatives to test and validate. He advises: "Run a 'small bet' teams made of five to 10 people, and identify a few ideas to validate with low-code tools to see if that makes sense for the company."

Due to the benefits that low-code offers, Proliferator Advisory and Consulting's Sarkar believes that the low-code market will grow between 25 to 30 per cent in 2022, with conversations increasing around the challenges associated with the low-code approach that include security, scalability, shadow IT teams and inconsistencies in customer experience.

Brennan foresees low-code becoming more nuanced and targeted as sub-genres emerge such as low-code process automation, enterprise orchestration and integration, which target different problems and users. The concept of fusion teams and collaboration between IT and the business users, citizen developers and business technologists will become "a big focus for automation low-code platforms aimed at the enterprise", while low-code will make "a huge impact on the digital demand of smaller businesses".

Štěpán sees the focus in 2022 around the capabilities of low-code platforms and the ability for IT to have more control about what is happening across the organization. It will also help connect low-code with traditional application development.

"This is a point for us – to have applications deployed in some environments controlled by the company, such as our private cloud or a hybrid type of development," he says.

With the low-code market expected to reach US$27.2bn by 2022, it is clear that it will be increasingly used by companies to democratize automation, foster innovation and become more agile in their offering. This could prove essential for companies looking to remain ahead of their competitors as we approach the third year of the pandemic.

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Jaroslav Štěpán

Low-code architect at SKODA

Key takeaways

Top three takeaways from this report:

- Companies need to assess the processes that will deliver the best outcomes through low-code.
- Fostering a strong collaboration between IT and the citizen developers can help break down organizational silos.
- Low-code can help implement an innovation mind-set as employees set their own requirements for automation and automate as much as possible.



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