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White Paper

Benchmark Report:

Digital Accounts Payable Invoice Processing

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It's simple. It's digital.

For reasons of better readability and easier comprehension, we use the generic masculine in this text.
We hereby explicitly address all gender identities without any judgmental distinction.

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01 Digital accounts payable invoice automation: How companies handle this process today

Digitization and automation are well-established standards for invoice processing. There are only very few companies that still rely on fully manual, paper-based processes. Instead, many have upgraded their level of digitization and automation in accounts payable invoice processing in recent years.

In place of entering data manually, OCR-based capture solutions are used to automatically read invoice information and transfer it to the ERP system. Invoices are no longer carried from desk to desk in binders; today, they are automatically distributed and forwarded in a digital workflow. And the invoice archive no longer comprises rows of filing cabinets stored in the basement; instead, the archive is stored on a server as a collection of digital files that can also be made available via a cloud service.

By now, many companies have reached a point where they want to optimize their digital processes even further. To do this, it is important to understand how good your current system landscape and workflows actually are. Which process steps are you already handling well, and where is there still a lot of potential for further optimization? This benchmark report provides you with a tool for answering these questions.

xSuite supports around 1,000 customers worldwide in the area of SAP-integrated accounts payable invoice automation. This document summarizes our findings and experiences for you and provides you with a comprehensive overview of benchmarks. The aim is to help you assess your current status and what targets you can realistically achieve by means of automated accounts payable invoice processing.

Data basis for this benchmark report

The data used to create the following benchmarks is based on system and process analyses carried out for customers. We have been offering “Customer Health Checks” for users of our SAP-integrated accounts payable invoice automation solution since April 2023.

At the time this white paper was written, **183** customer health checks had been carried out for customers who use the FI and/or MM modules in SAP ERP or SAP S/4HANA. The range of customers includes companies of various sectors and sizes as well as public sector clients based in Germany, Austria, the Netherlands and Denmark. We used the results of these customer health checks as basis to calculate the benchmark values.

02 Automation in invoice processing – what are the different motivations and approaches?

There are various reasons why companies digitize and automate their accounts payable invoice processing. Some want to reduce the manual workload for employees in the accounting department. Others pursue the key goal of speeding up processes in order to pay invoices faster and thus benefit from early payment discounts more consistently.

Other factors include the desire for more transparency and evaluation options (to uncover potential for improvement), increased process quality and security (to reduce susceptibility to errors and detect attempted fraud more quickly) or simply to better fulfill compliance requirements (based on continuous, automatic logging). Quite often, all of these benefits play a role in setting up a digital, workflow-driven accounts payable invoice automation system.

Just as different motivations can trigger digitization and automation, there are also different approaches to the topic, which are often combined. If, for example, companies want to reduce the workload for employees in the accounting department, they should focus on how the invoice data enters the ERP system. In order to reduce invoice processing times, the focus should be on invoice verification and approval processes.

Document capture – focus on reduced workload

If accounting department employees do not have to manually enter invoice data into the ERP system since this task is carried out automatically with document capture software, this translates into massive time savings for the accounting department. Simply by introducing a solution that automates this step, the overall workload for invoice processing can often be reduced by a third.

If OCR-supported document capture is used, the workload is significantly reduced, but usually not all manual processes are made obsolete. This is because the document capture results still need to be validated. To do so, employees from the accounting department view the captured data in the ERP system and compare it with the invoice or the digital invoice image.

If there are no deviations, the step is completed with a single click to confirm the data. However, document capture is never 100% accurate. Values between 70% and 95% at field level tend to be the norm. Let's assume that up to 10 fields are captured on an invoice. In this case, a 70% recognition rate means that 3 values have to be corrected manually. If, on the other hand, a rate of 95% is achieved, none or 1 value at most needs to be adjusted after capture. For a company handling 60,000 invoices per annum, that's either 180,000 corrections or just 30,000. This figure clearly shows why improving the recognition rate during document capture has a significant impact and holds the potential to massively reduce the workload in accounting.

Workflow – focus on time savings

Digital processes are significantly faster than paper processes for several reasons. On the one hand, transportation times are eliminated. If delivered via internal mail, an invoice is on the move for hours or days, or perhaps even longer if not everyone involved in the process works at the same office – and this just covers a single work step. In a digital workflow, on the other hand, an invoice is available for further processing by the next employee immediately after completion of the upstream work step.

As invoice processing is usually a multi-stage process involving several people, this elimination of transport times adds up, resulting in significant savings. As a result, the average processing times for invoices are often cut in half just by introducing a digital workflow. And when it comes to capitalizing on cash discounts, it can be of decisive importance whether the average time to payment of an invoice is 6 or 12 days.

However, it makes sense to take a closer look at the processes, even if the workflows are already digital. This is because there are still several adjustments that can be made to reduce processing times even further. One key consideration is the question of how your processes are defined. Multi-level approval processes are sensible and appropriate for invoices involving large amounts. However, it is not efficient if even every low-value invoice must be approved by several department, division and cost center managers as well as the C-level management.

Another factor that influences how quickly invoices can be processed is the quality of agent determination. If the majority of invoices still have to be manually assigned to the respective processor instead of automating the distribution and forwarding based on rules, the workflow naturally takes longer. The use of substitution rules also has a positive impact as it prevents idle times when assigned employees are absent. This factor can be of significant importance, for instance if an invoice amounting to millions of euro or dollars is paid after the discount period has expired because the person responsible for approving the invoice is on a well-deserved three-week summer vacation.

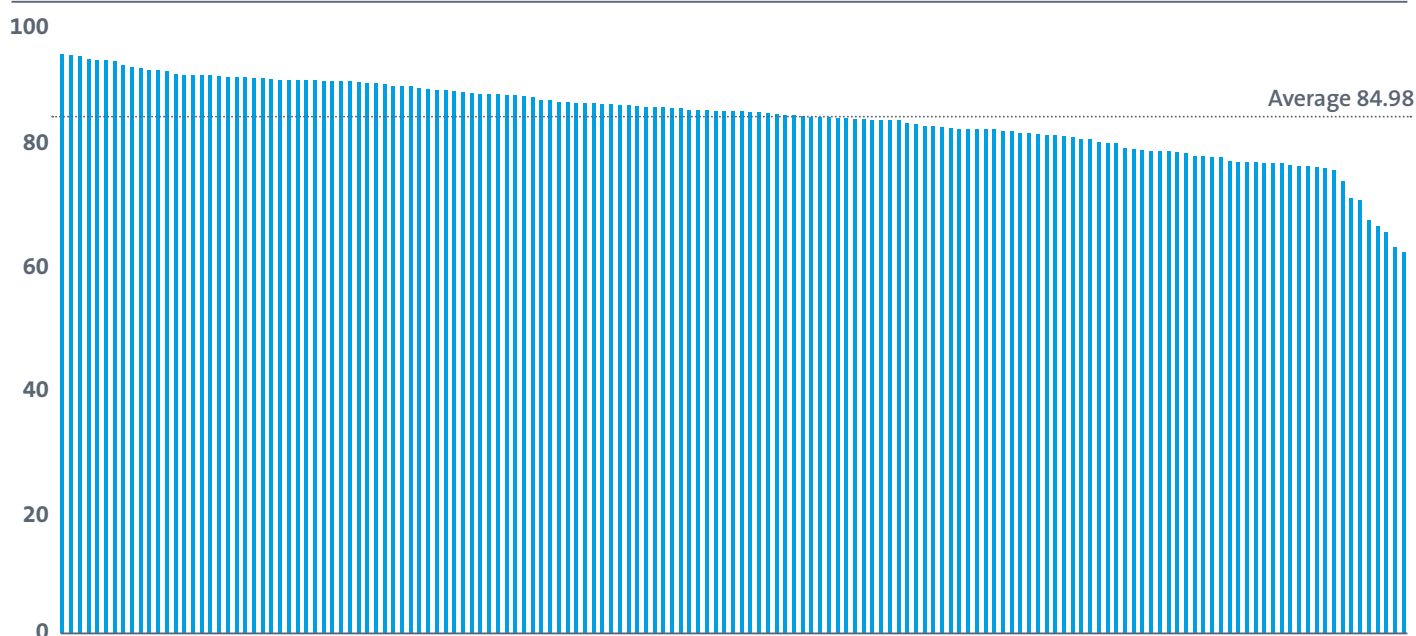
03 Benchmarks in invoice processing based on real-life data

Below we have summarized the most important benchmarks of companies that use our solution for SAP-integrated accounts payable invoice automation. The focus here is on document capture and workflow benchmarks. This provides you with an overview of the most relevant areas to help you assess where you stand and where there is still room for improvement in order to raise the level of automation and accelerate processes.

Invoice capture benchmarks

The recognition rate at the field level is the key value in assessing how well you are doing in the field of document capture. As regards the customers whose values were included in this benchmark report, the average recognition rate was between 62.55% and 95.11%, with a mean value of **84.98%**.

When comparing the results of the various customers, it can be seen that there are generally higher recognition rates for some types of fields and generally lower recognition rates for others. The company code (95.38% on average) and the currency (95.74% on average) have a particularly good recognition rate. At the lower end of the spectrum, however, are the supplier (average recognition rate of 83.93%) and the invoice number (average recognition rate of 81.30%).



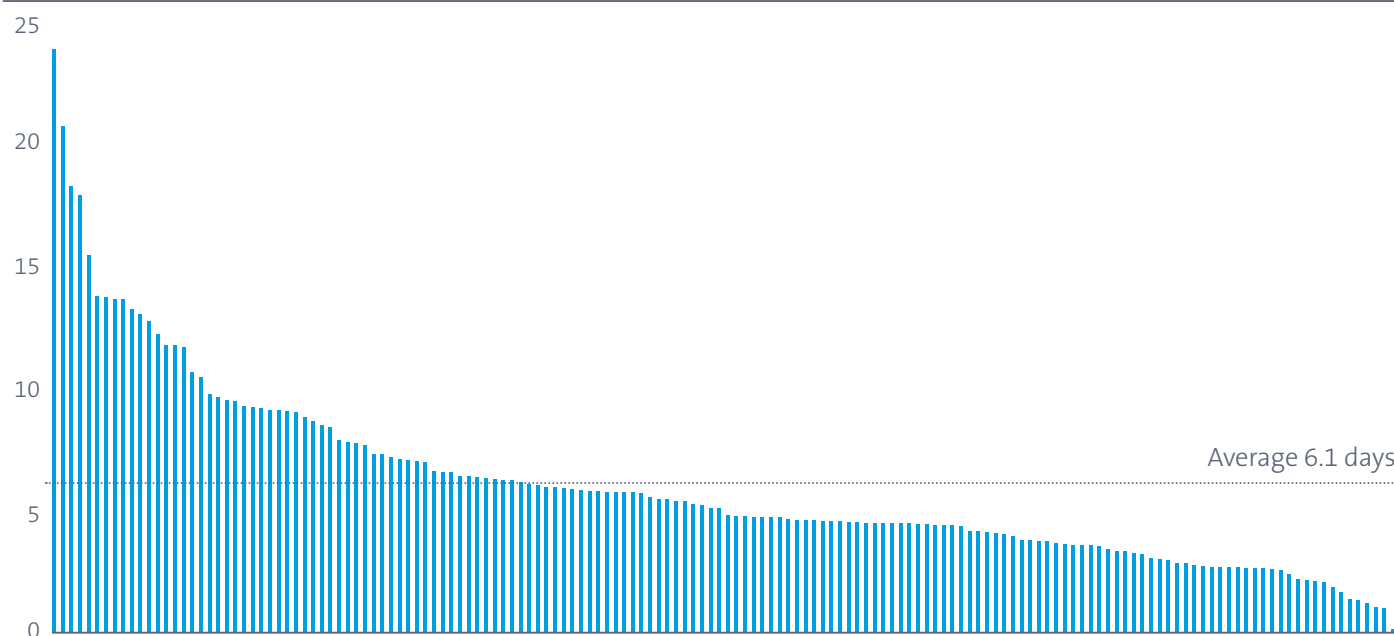
Data extraction results in comparison

Workflow benchmarks

In order to assess whether there is still greater potential for workflow improvement and acceleration, it makes sense to take a look at multiple parameters. These include the average processing time of an invoice, the monthly cash discount values, the background posting rate, the number of processors involved and the proportion of documents that generate an error while passing through the workflow.

Average turnaround time

Turnaround time refers to the period starting with the invoice's entry at the company all the way to being posted. Customers who use our solution achieve an average turnaround time of 6 days and 1 hour. The fastest customer to date achieves an average of 3 hours and 7 minutes, while the slowest customer to date takes an average of 23 days and 13 hours to process an invoice.



Comparison of process times in days

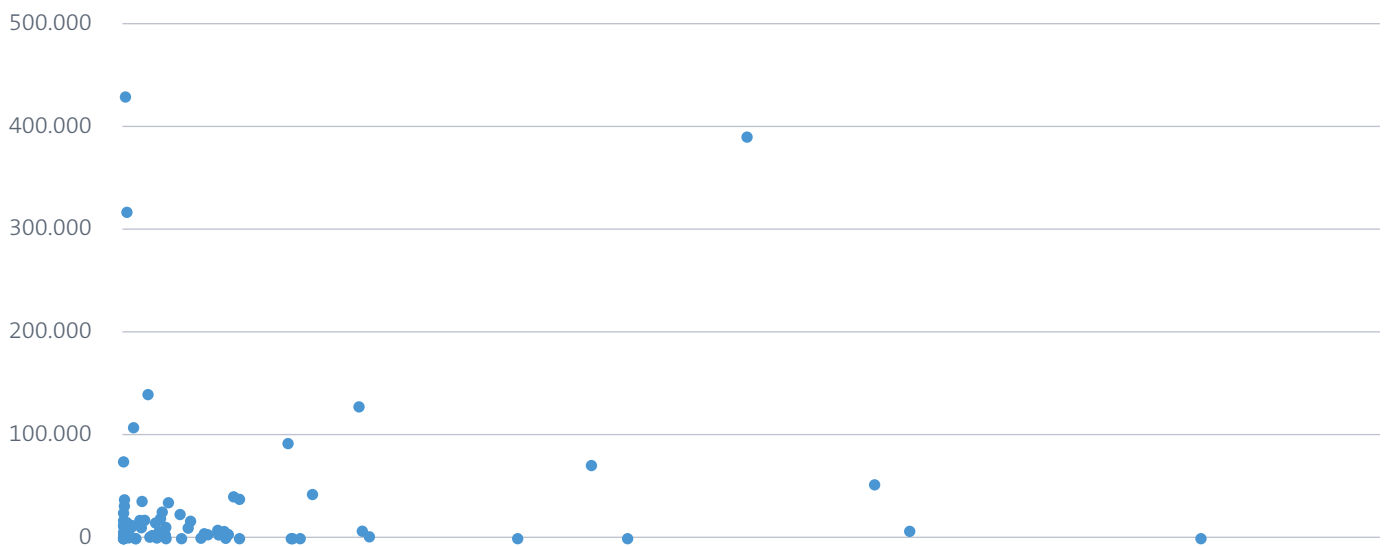
Invoices with a purchase order reference (SAP MM) can generally be processed much faster, as the necessary approvals have already been issued in advance during the requirements assessment stage. This is also reflected in the average turnaround times. For invoices without a purchase order reference, the average is 6 days and 5 hours; for invoices with a purchase order reference, the average is 4 days and 18 hours.

Monthly cash discount values

In German-speaking countries in particular, it is common for suppliers to grant a discount for early payment. This can only be claimed if invoices are actually paid within the discount period. If the payment terms are stored in the ERP system, this

makes it possible to measure the monthly cash discount values. Assessed figures include the cash discount claimed, the cash discount still obtainable and the cash discount loss, i.e. cash discounts the company failed to claim.

The opportunities for claiming discounts also depend on further factors, such as the industry or the purchasing volume. This means that these values do not apply to all companies. The highest cash discount values achieved by our customers in this benchmark report amount to almost €430.000 per month and an average cash discount utilization of **€28.600** per month.



Realization of cash discounts

Background posting rate

If an invoice with a purchase order reference enters the company, it is possible to automatically reconcile the invoice data with the order data. If there is no discrepancy between the invoice and the purchase order (or the discrepancy is within the defined customized tolerance) and the goods receipt has already been posted, this is referred to as a 3-way match. In this case, the invoice can be posted completely automatically in the background, i.e. without the accounting department performing an additional check. This process is called background posting. The background posting rate indicates the proportion of MM invoices that are automatically processed in the background in this way after validation.

The highest background posting rate we recorded for a customer when performing our health check was 95.0%. However, as many customers do not yet make use of the opportunities for automated background processing, the average value is only **45.84%**.

Number of processors involved

In order to identify errors and attempted fraud at an early stage and to prevent them, different persons should be assigned to check, approve and post an invoice. On the other hand, you should keep an open mind as to whether multi-stage approval processes are strictly necessary for all invoices, especially if the amounts involved are very small. With each additional level of redundancy, the manual workload and time required increase.

To assess how efficient your approval and release processes are, it makes sense to take a look at the average number of processors involved. The highest value we measured for our customers as part of the health checks was 4.93 persons, the lowest was 0.09 and the average number was 2.07.

A particularly low value indicates that the company makes ample use of background posting opportunities. If this is done, the average number of persons involved can drop below 1.

We identified a particularly high value – and thus a relatively long average processing time – for a customer who had set up their process in such a way that every invoice actually had to be finally approved by the managing director.

Proportion of invoices that run into an error

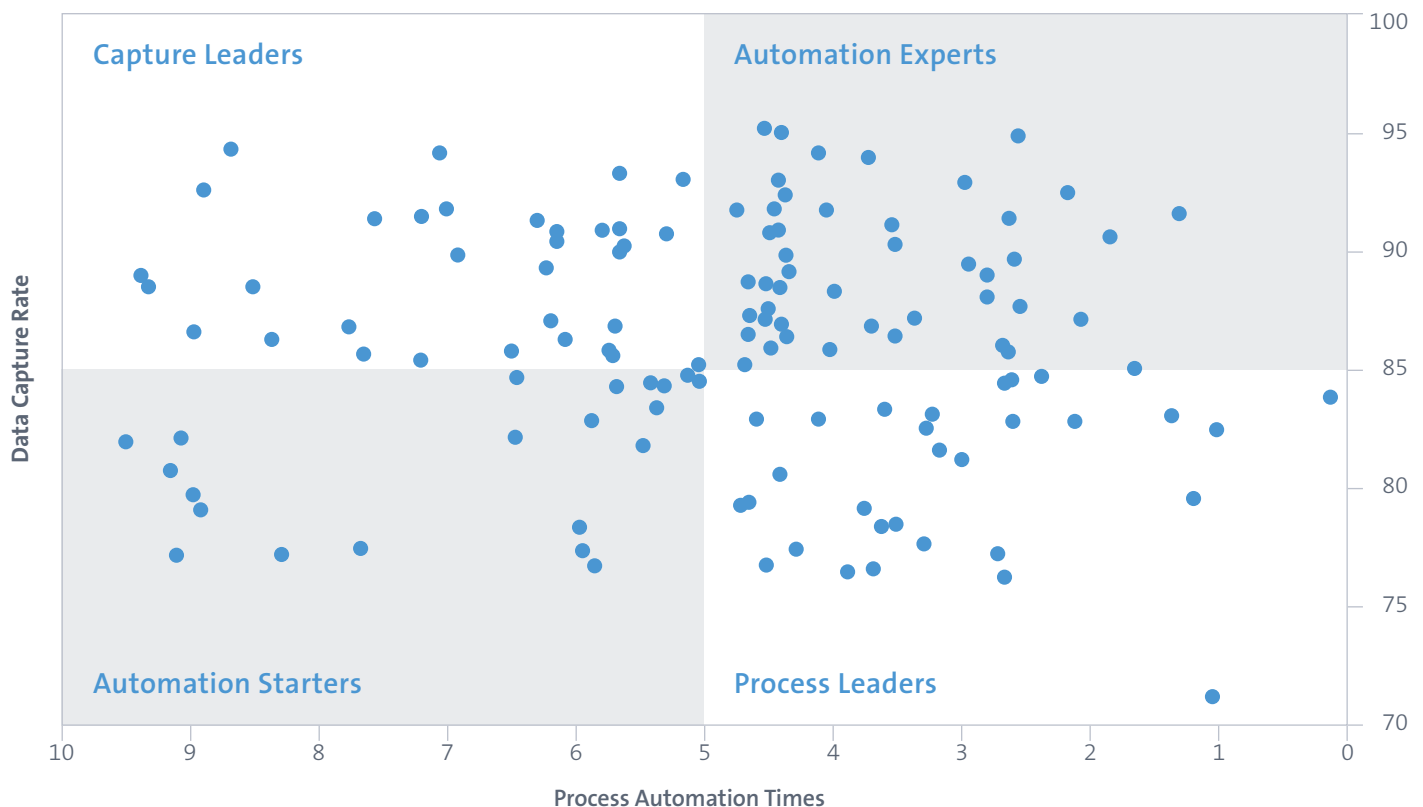
It can happen that an invoice leads to an error in the workflow, which then calls for manual intervention. The most common scenario is that a user has been deleted (e.g. because they changed the department or company), but is still defined in the agent determination list as the only user who may perform certain workflow steps. Another, somewhat rarer, scenario is that certain constellations have not been considered in advance, or that a workflow contains a logical flaw that prevents the workflow from ever completing.

In this case, an admin must review the customized procedure, adjust it accordingly and then relaunch the workflow. This process involves a certain degree of manual effort, so the less commonly this occurs, the more efficient the overall process becomes.

04 xSuite automation matrix: summary of benchmarks

It helps to create a matrix in order to assess the level of automation quickly and easily. The key values we used for this are the turnaround time (in days) and recognition rate (in percent). The two dimensions result in 4 types of automation levels: Automation beginners, document capture experts, process experts and automation experts.

- Automation beginners
- Document capture experts
- Process experts
- Automation experts



xSuite Automation Matrix

Automation beginners

Automation beginners achieve a rather low recognition rate during document capture (below 85%) and have longer average processing times (over 5 days). We identified the following items that are commonly true for all companies we characterize as automation beginners:

Weaknesses:

- Automation beginners often do not use the SAP MM module at all or only to a limited extent and consequently end up with a low proportion of invoices with a purchase order reference. Those who use the MM module usually do not rely on 3-way matching to enable background posting.
- Automation beginners often do not capitalize on the opportunities presented by document capture training to consistently improve the results; instead, they correct the same types of values again and again during invoice validation.
- What becomes apparent in this category is that the master data kept in the SAP system is often not well maintained. This, in turn, reduces the automatic recognition rate.
- Often the agent determination logic or workflow rules are not well maintained or up to date, which leads to a higher proportion of documents that run into an error.
- In some cases, automation beginners still receive a slightly higher proportion of paper-based invoices (the recognition rates for paper invoices tend to be worse than those for PDF invoices).
- Automation beginners have often not yet considered approaching their suppliers to ask them to use electronic invoices or to agree on invoicing rules with them (e.g. regarding the

invoice layout, print quality, separate dispatch of attachments, etc.).

- For automation beginners, we identified a tendency to involve a high number of processors, for instance if the managing director finally approves each and every invoice, including low-value invoices or inter-company invoices, which slows down the overall process.
- We also often detected a certain lack of process discipline among automation beginners. One such example is when employees do not process invoices promptly, but rather perform this task at their own pace and at irregular intervals.

In the case of automation beginners, there is potential for optimization at both the document and process level, so there is a high overall potential for increasing the degree of automation.

As part of this benchmark study, we classified 23.72% of the assessed companies as automation beginners.

Document capture experts

Document capture experts achieve a sound recognition rate during document capture (above 85%), but their average turnaround time is rather long (over 5 days). The following is a summary of the typical characteristics we identified for document capture experts. Alongside their strengths, they have to contend with various weaknesses or process delays.

Strengths:

- Most document capture experts capitalize on the opportunities presented by document capture training to consistently improve the results (rather than having to correct the same types of values repeatedly during invoice validation).
- What becomes apparent in this category is that the master data kept in the SAP system is often well maintained, which has a positive impact on the automatic recognition rate. For the most part, these companies have recently cleaned up their master data, for instance in preparation for an S/4HANA migration.
- In many cases, document capture experts receive a small proportion of paper-based invoices (the recognition rates for PDF invoices tend to be higher than those for paper invoices).
- Many document capture experts have already asked their suppliers to use electronic invoices or have agreed on invoicing rules with them (e.g. regarding the invoice layout, print quality, separate dispatch of attachments, etc.).

Weaknesses:

- Document capture experts often do not use the SAP MM module at all or only to a limited extent and consequently end up with a low proportion of invoices with a purchase order reference. Those who use the MM module usually do not rely on 3-way matching to enable background posting.

- Often the agent determination logic or workflow rules are not well maintained or up to date, which leads to a higher proportion of documents that run into an error.
- For document capture experts, we identified a tendency to involve a high number of processors, for instance if the managing director finally approves each and every invoice, including low-value invoices or inter-company invoices, which slows down the overall process.
- We also often noticed a certain lack of process discipline among document capture experts. One such example is when employees do not process invoices promptly, but rather perform this task at their own pace and at irregular intervals.

Longer processing times for invoices, despite good recognition rates, can also be due to other factors that cannot be addressed directly. Examples of this include the business model and industry. For example, if a company is active in the logistics sector and frequently has to wait for freight documents, processing naturally takes longer. The same applies to the real estate industry and construction invoices, which generally take a very long time to validate and approve.

In the case of document capture experts, there is potential for optimization in particular on the process level, and overall there is a medium potential for increasing the degree of automation.

Based on the figures we have collected, we classify 26.28% as document capture experts.



Process experts

Process experts achieve a rather low recognition rate during document capture (below 85%), but on average they manage to process invoices relatively quickly (in less than 5 days). We have identified the following typical characteristics of process experts among our customers. Weaknesses usually manifest in the document reading stage.

Weaknesses

- Process experts often do not capitalize on the opportunities presented by document capture training to consistently improve the results; instead, they correct the same types of values again and again during invoice validation.
- What becomes apparent in this category is that the master data kept in the SAP system is often not well maintained. This, in turn, reduces the automatic recognition rate.
- In some cases, process experts still receive a slightly higher proportion of paper-based invoices (the recognition rates for paper invoices tend to be worse than those for PDF invoices).
- Many process experts have not yet considered approaching their suppliers to ask them to use electronic invoices or to agree on invoicing rules with them (e.g. regarding the invoice layout, print quality, separate dispatch of attachments, etc.).

Lower recognition rates for invoices can also be due to factors that cannot be addressed directly.

U.S. invoices, for example, are subject to significantly lower minimum requirements with regard to mandatory fields, which makes it particularly difficult to recognize vendors during document capture.

Along the same lines, capturing non-Latin character sets is usually more prone to errors. Here it makes sense for companies to check whether they are using the latest version of their document capture system as technology is consistently and rapidly evolving in this specific area.

In the case of process experts, there is potential for optimization in particular on the document capture level, and overall there is a medium potential for increasing the degree of automation.

Based on the figures we have collected, we classify 21.15% as process experts.

Automation experts

Automation experts achieve a good recognition rate during document capture (below 85%), and on average they manage to process invoices relatively quickly (in less than 5 days). This section summarizes the typical characteristics of automation experts.

Strengths:

- Automation experts often use the SAP MM module, and a significant proportion of the invoices they process have a purchase order reference. Moreover, they rely on 3-way matching to enable background posting.
- Most automation experts capitalize on the opportunities presented by document capture training to consistently improve the results, rather than having to correct the same types of values repeatedly during invoice validation.
- What becomes apparent in this category is that the master data kept in the SAP system is often well maintained, which has a positive impact on the automatic recognition rate. For the most part, these companies have recently cleaned up their master data, for instance in preparation for an S/4HANA migration.

- In general, the agent determination logic or workflow rules are well maintained and up to date, which leads to a lower proportion of documents that run into an error.
- Many automation experts have already asked their suppliers to use electronic invoices or have agreed on invoicing rules with them (e.g. regarding the invoice layout, print quality, separate dispatch of attachments, etc.).

Compared to other companies, automation experts are already in very good shape when it comes to accounts payable invoice automation. However, even here there is potential for improvement, especially with a view to the future. Automation experts should keep an eye on the additional opportunities offered by artificial intelligence.

Technologies are developing rapidly in this area. They would also do well to prepare for e-invoicing. There are initiatives to promote e-invoicing in many countries around the world, and B2B e-invoicing obligations are soon to follow, particularly in EU member states. Based on the figures we have collected, we classify 34.29% as automation experts.

Based on the figures we have collected, we classify 28.85% as automation experts.

About the xSuite Group

xSuite is a software manufacturer of applications for document-based processes and provides standardized, digital solutions worldwide that enable simple, secure, and fast work. We focus mainly on the automation of important work processes in conjunction with end-to-end document management. Our core competence lies in accounts payable (AP) automation in SAP (including E-Invoicing), for leading companies worldwide, as well as for public clients. This is supplemented by applications for purchasing and order processes as well as archiving. Delivering everything from a single source (software components and services), xSuite solutions operate in the cloud, on-premises, or in hybrid scenarios. We are proud of the superior quality products we offer, proven by the SAP solutions and deployment environment certifications we regularly receive. With over 300,000 users benefitting from our solutions, xSuite processes more than 80 million documents per year in over 60 countries.