

# Reinventing the Office - Lean Processes (RPA)

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# Reinventing the Office - Lean

- RPA – robotic process automation, AI tools.
- Lean – doing more with less.
- Accounting departments are inundated with requirements to be more efficient.
- Principles to prevent unnecessary new costs and eliminate existing unnecessary expenses.



## WEF – Top 6 Emerging Roles

- AI and Machine Learning Specialists
- Data Analysts and Scientists
- Big Data Specialists
- Digital Transformation Specialists
- Internet of Things Specialists
- Process Automation Specialists



## WEF – Top 6 Redundant Job Roles

- Data Entry Clerks
- Accounting, Bookkeeping and Payroll Clerks
- Administrative and Executive Secretaries
- Accountants and Auditors
- Assembly and Factory Workers
- Client Information and Customer Service Workers
- AI and Machine Learning Specialists



## WEF – Top 5 Current Skills

- Analytical thinking and innovation
- Leadership and social influence
- Active learning and learning strategies
- Critical thinking and analysis
- Technology design and programming



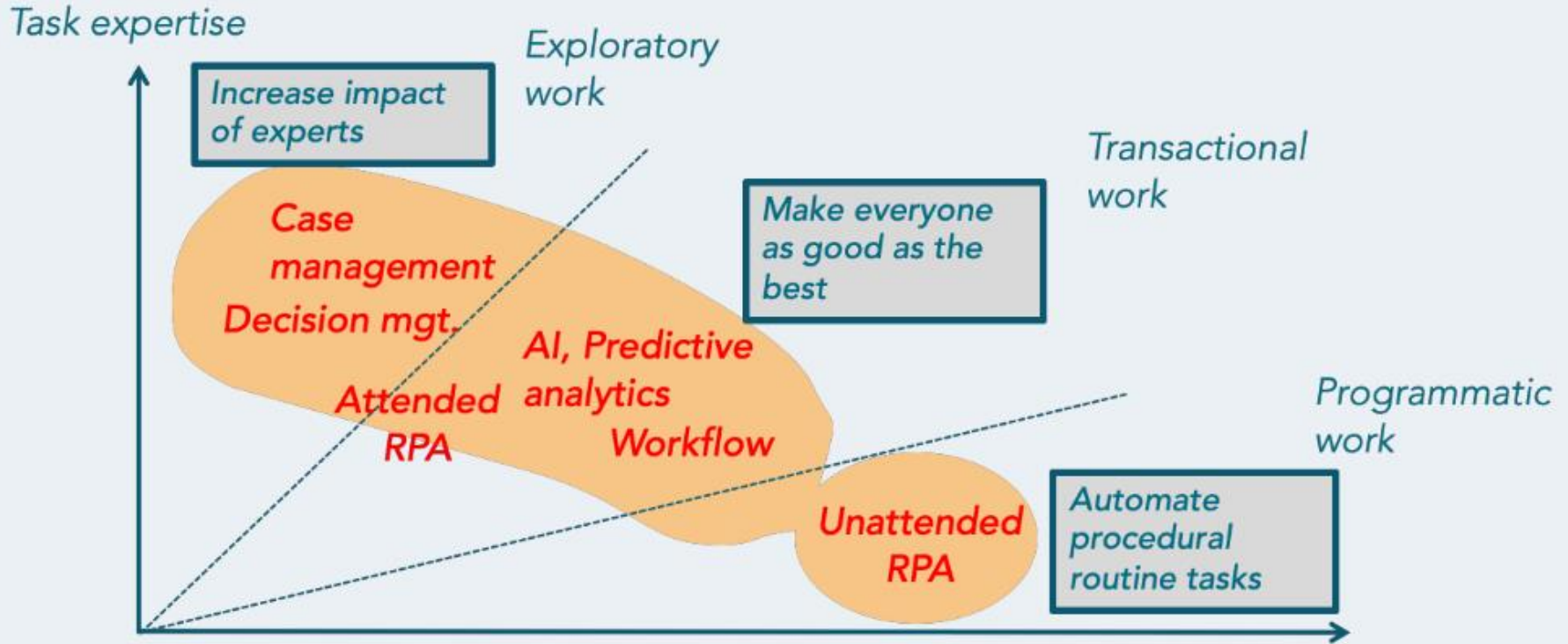
# Implications for Accounting

1. AI systems will be able to close the financial statements (including JEs), perform detail and variance analysis, and prepare forecasts.
2. Preparation of data will be almost entirely automated. Key punching and aggregation of data will continue to diminish.
3. The accountant role will be more analytical and prescriptive.
4. This will force accountants to focus more on business operations than accounting report preparation.
5. There is an excellent chance that CEOs will seek out MBAs for the CFO role as the traditional accounting role follows the same path as the bookkeeper.



**Figure 1**

Three types of work: standalone RPA has a specific 'sweet spot'



Source: MWD Advisors



# Main Principles of Lean



## Lean manufacturing or lean production

1. Considers the expenditure of resources for any goal other than the creation of value for the end customer to be wasteful, and thus a target for elimination.
2. Working from the perspective of the customer who consumes a product or service, "value" is defined as any action or process that a customer would be willing to pay for. Basically, lean is centered around creating *more value with less work*.





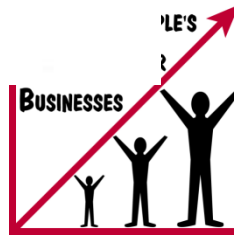
# What is the Lean Office?

- The lean office can be described as a place where waste is eliminated to offer internal and external customers a better service. Almost every principle used in manufacturing context can be used with similar meanings in office as well.  
([www.leanmanufacturingconcepts.com/LeanOffice.htm](http://www.leanmanufacturingconcepts.com/LeanOffice.htm))
- A Lean Office means optimizing your way of working in a manner that requires the absolute minimum in resources (human, materials, surface, office machines, IT, etc.) to fulfill customer expectations. (xonitek)



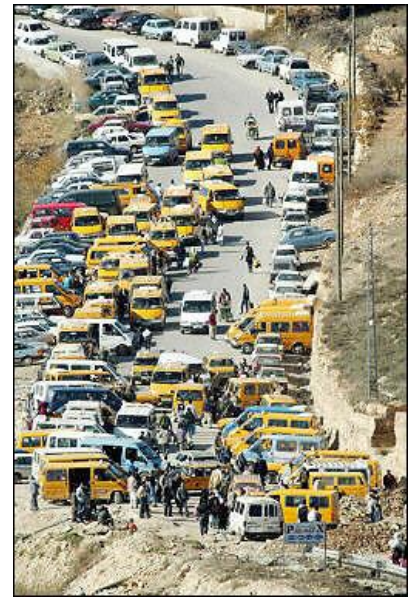
# Lean - Background & relationship to the Office

The core of this philosophy is driving out waste and making operations more efficient.



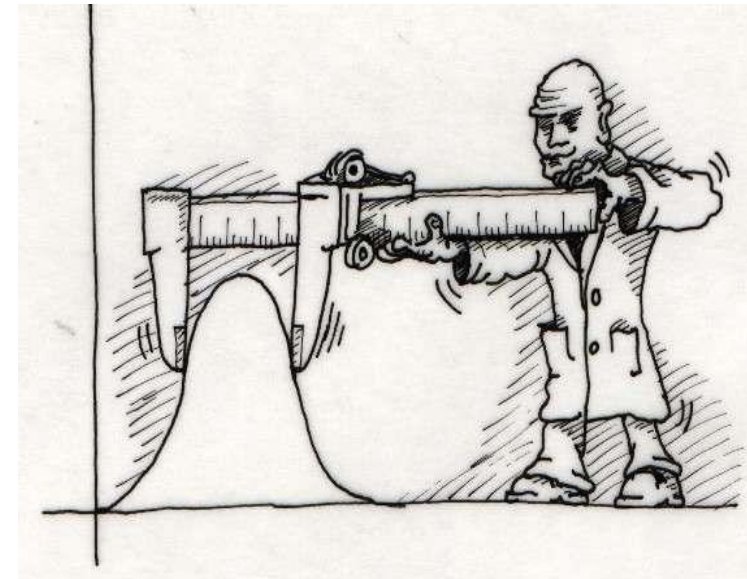
# 5 Principles of Lean Thinking (James Womack)

- 1) Value,
- 2) Value stream,
- 3) Flow,
- 4) Pull, and
- 5) Perfection.



# Suggestions for accountants to be in line with lean philosophy

1. Eliminate variance reporting
2. Eliminate detailed labor reporting
3. Reduce the number of payable and receivable transactions
4. Cross-train within the accounting department



# Principles of Lean Management Accounting

1. Manage by value streams
2. Constantly identify waste
3. Every employee accountable for cost reduction
4. All reporting is linked to improvement cycles
5. Accounting people change agents integrated with operations teams
6. Consistent and coherent rollup of cost and performance reports by value stream, program, company, and sector
7. Accounting control and measurement systems must themselves be lean.



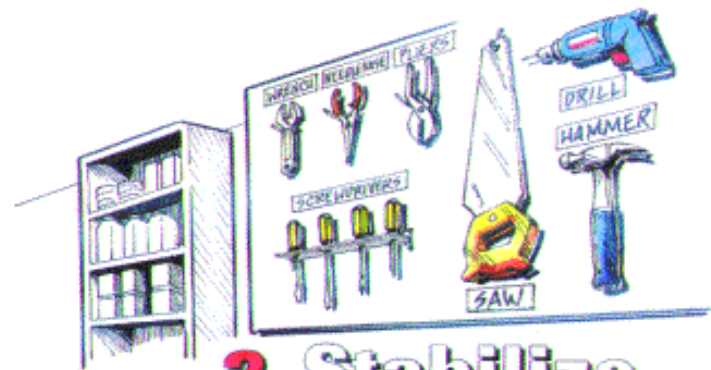
# Lean Management Accounting

1. Lean data collection – eliminating operational transactions
2. Lean performance measurement
3. Cell performance measurements
4. Value stream performance measurements
5. Measuring and managing the financial benefits of lean
6. Product costing
7. Target costing



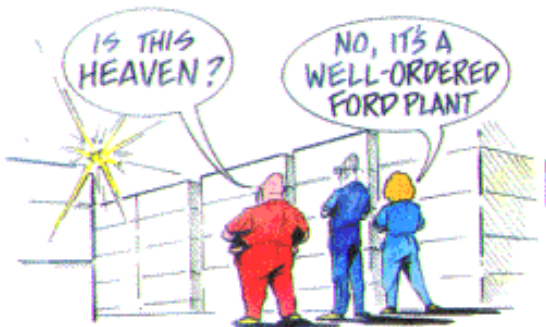


**1. Sort**



**2. Stabilize**

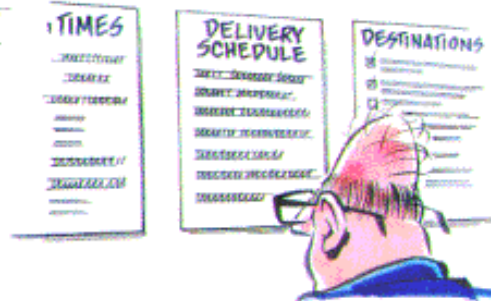
# 5 S's



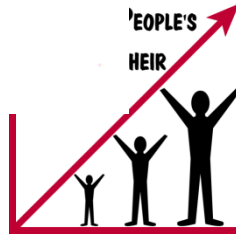
**5. Sustain**



**3. Shine**



**4. Standardize**





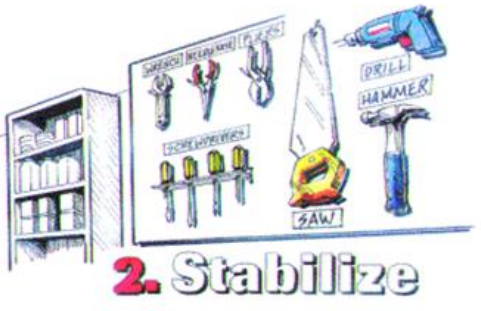


# Sort





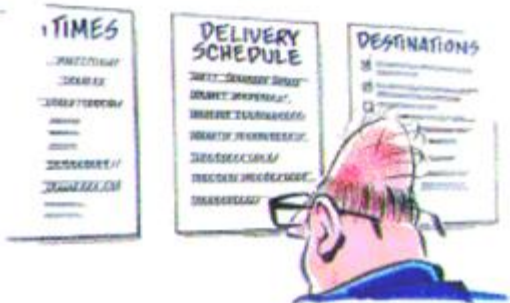
# Set or Stabilize





### 3. Shine





# 4. Standardize





## 5. Sustain



# What is waste?

Waste typically shows up in the following categories:

- Overproduction
- Inventory
- Defects
- Extra processing
- Waiting time
- Underutilized people
- Motion
- Transportation





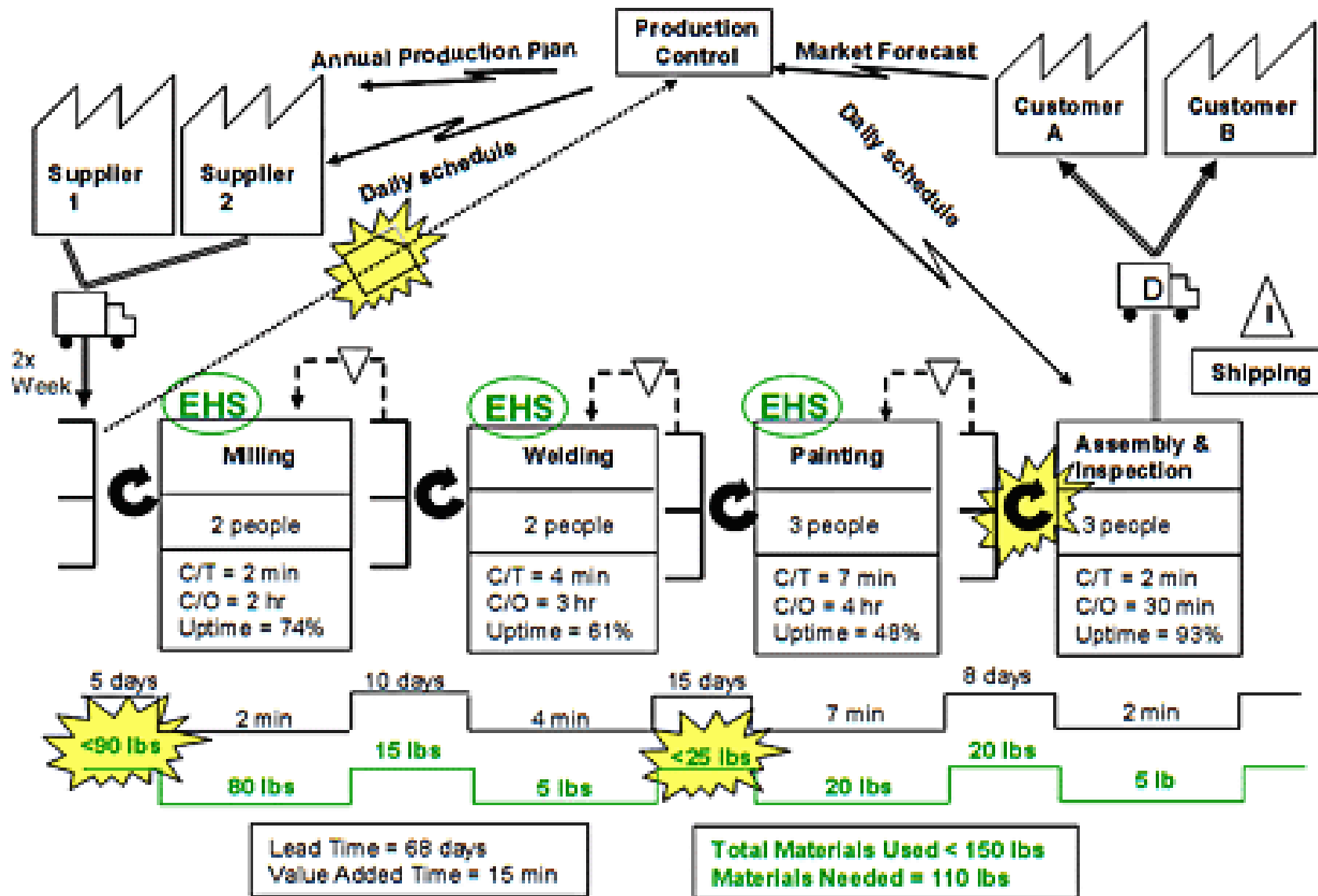
# Filing



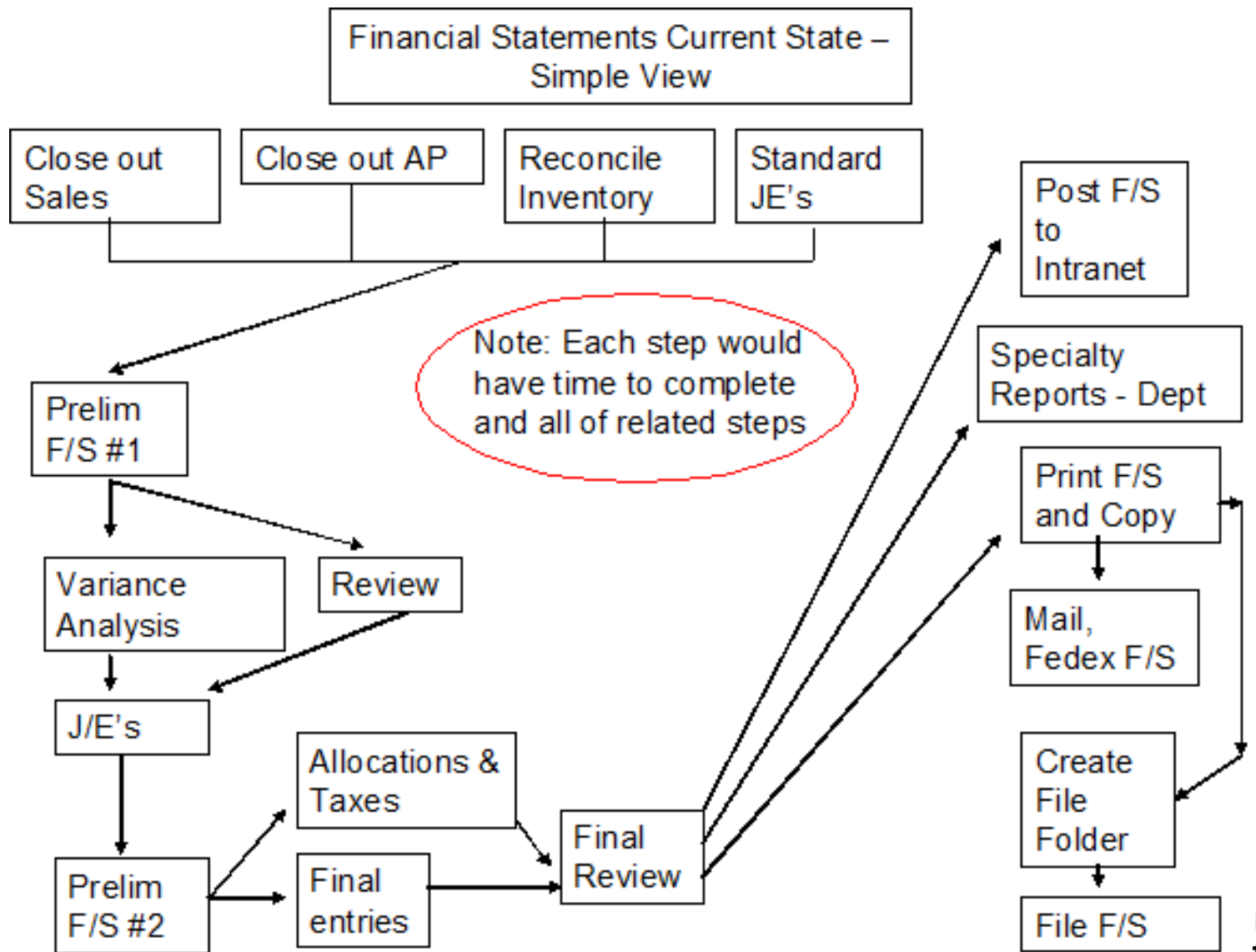
# Process mapping steps:

- Identify the target product, product family, or service.
- Draw a current state value stream map, which shows the current steps, the time requirements, delays, and information flows required to deliver the target product or service. This may be a production flow (raw materials to consumer) or a design flow (concept to launch). There are 'standard' symbols for representing supply chain entities.
- Assess the current state value stream map in terms of creating flow by eliminating waste.
- Draw a future state value stream map.
- Implement the future

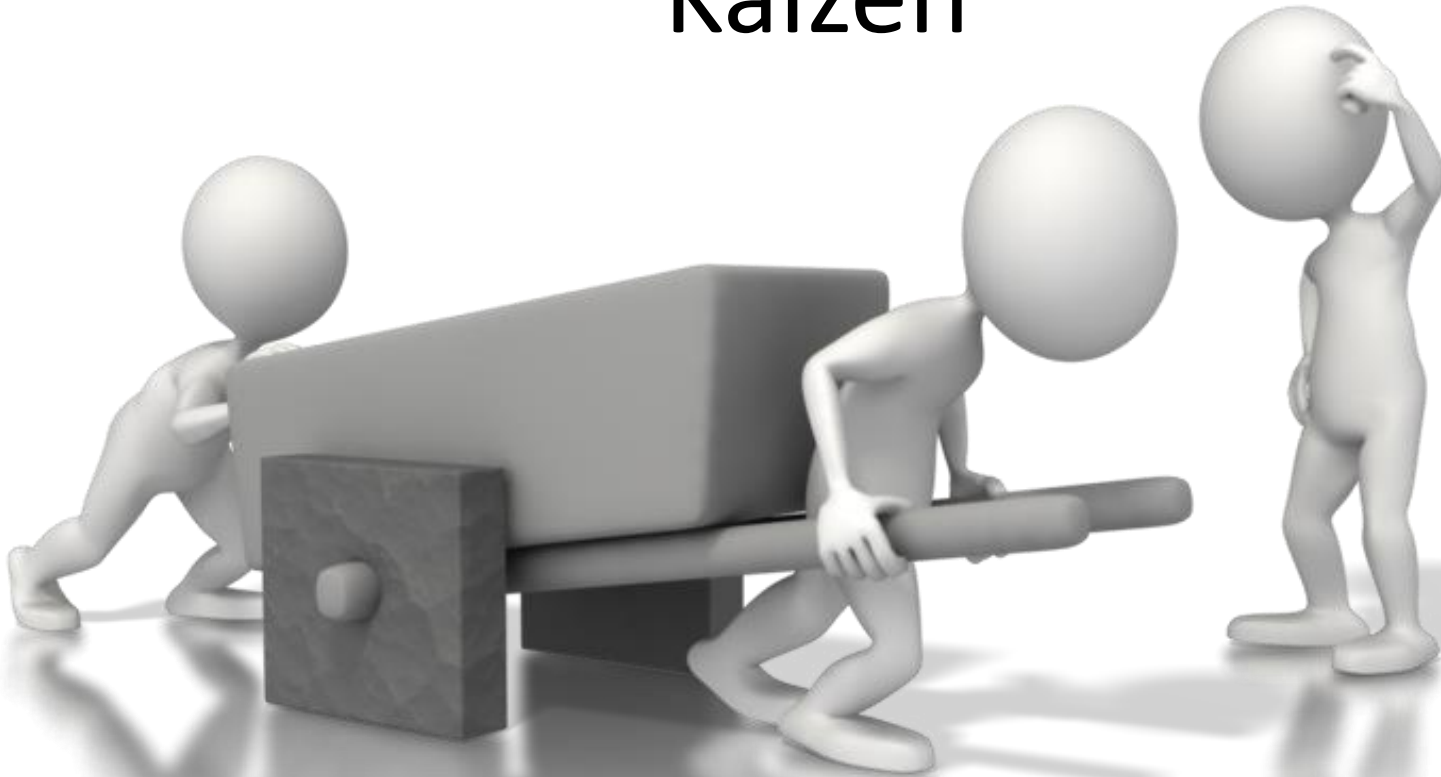








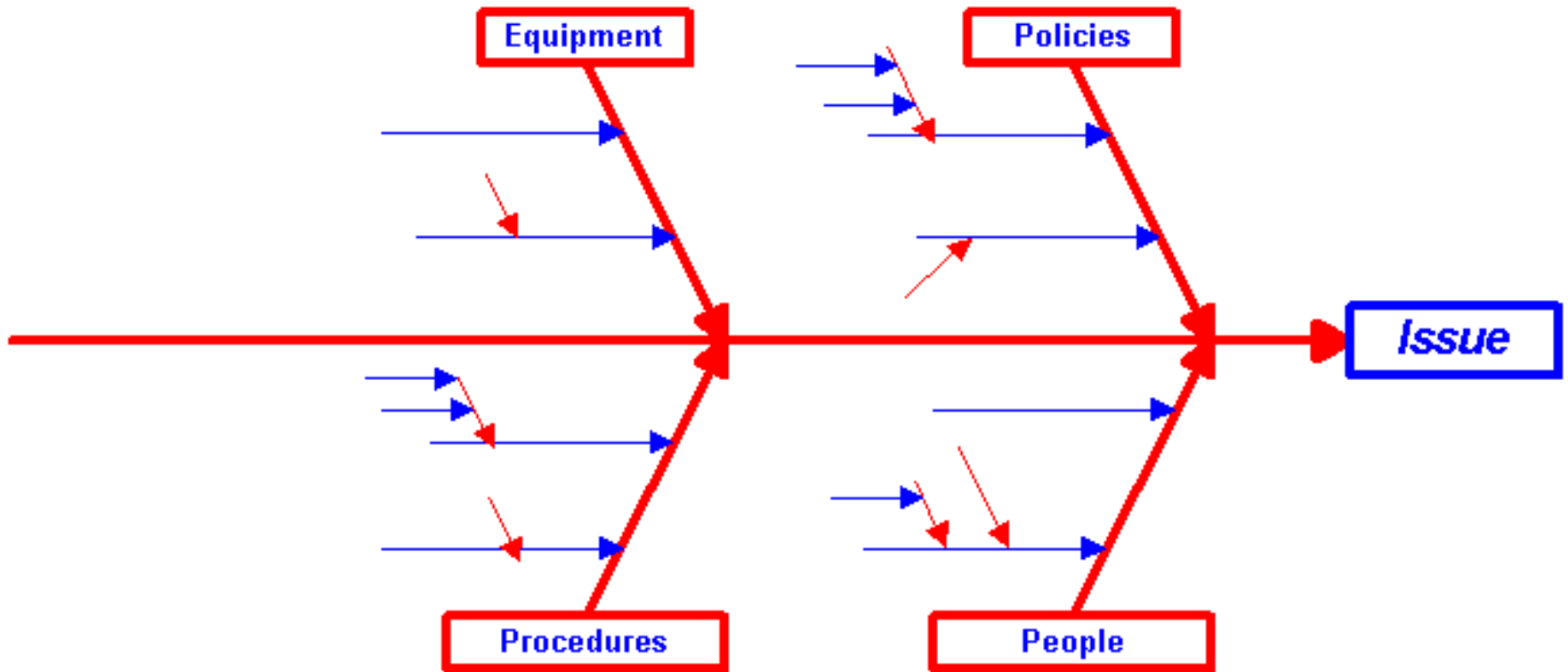
# Kaizen



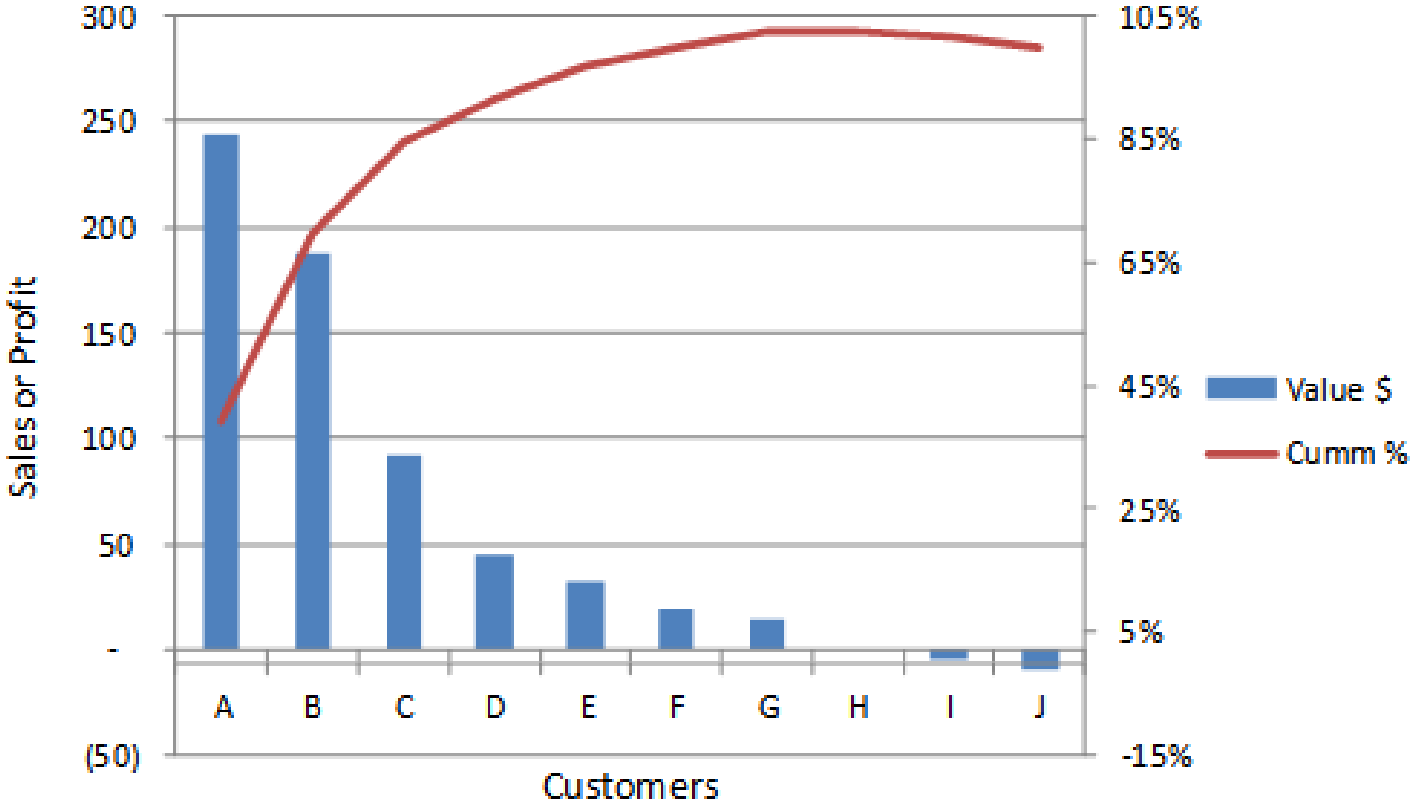
# Practical Kanban



# Cause and Effect



# Customer 80/20 Chart

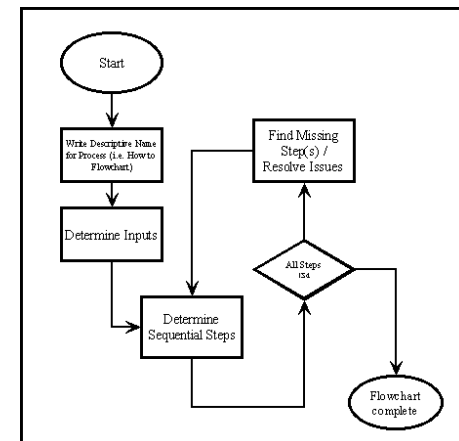


Source:simafore.com



# Driving out paperwork and waste

- Eliminate bureaucratic BS (stamping, excessive approvals)
- Inventory all excel worksheets – redundancies, duplicate data entry
- Flowchart systems – ask why,why,why,why,why



# Lean Process

- Establish Strategic Direction to Pursue Lean Management
- Lean Training (High Level)
- Select Initial area for lean emphasis
- Train staff in lean techniques
- Measure existing processes / flow chart (value stream)
- Identify Waste – Select area to change
- Create kaizen project
- Run project
- Evaluate
- Repeat



# Best practices

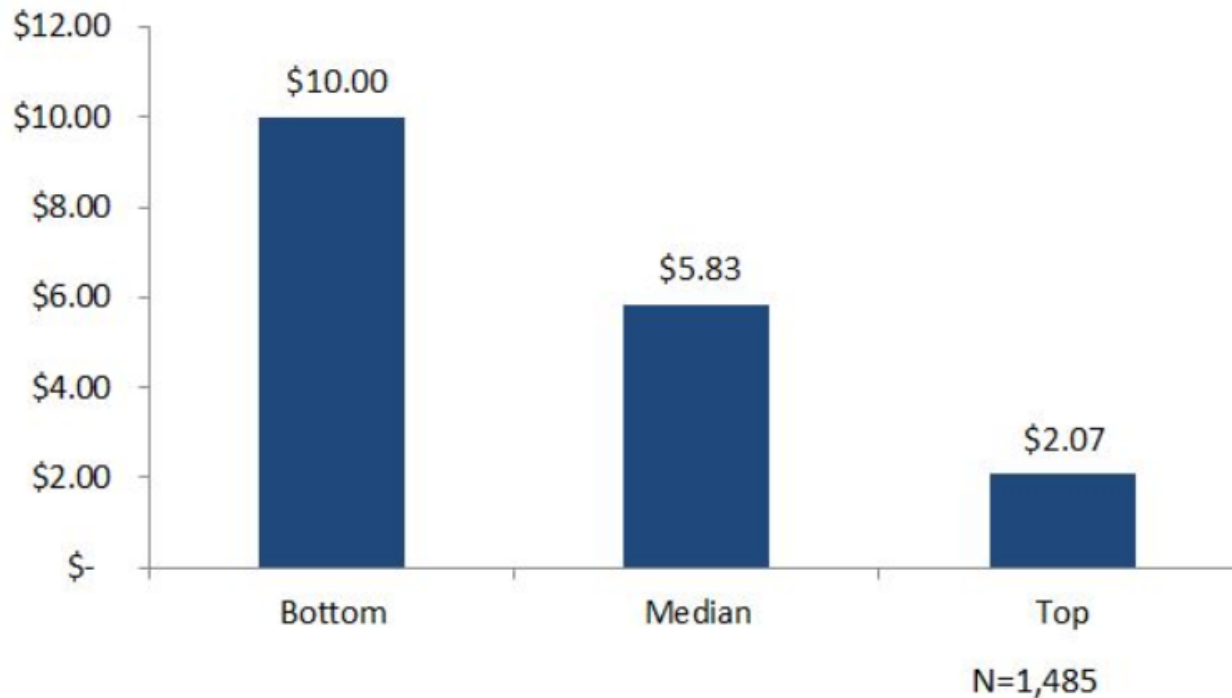
- Root Cause – delays, waste, imperfection are a result of not adhering to best practices.
- Review best practices





The total cost to process accounts payable includes labor, systems, outsourcing, overhead, and other AP process costs. This metric is calculated by dividing the total cost to process AP by the total number of invoices processed by the business entity.

Of the 1,485 organizations reporting data on this measure to [APQC's database](#), the bottom 25% are spending \$10 or more per invoice processed. (See graph below.) The best performers — those who rank among in the top 25% on this measure — can do the same task at a cost of \$2.07 per invoice or less. That's nearly five times less than the organizations in the bottom quartile. At the median are the organizations spending \$5.83 to process an invoice, or a bit more than double what the best-performing organizations spend to perform the same process.



Source: <https://www.cfo.com/expense-management/2018/02/metric-month-accounts-payable-cost/>



## AP Performance Comparison, Best-in-Class vs. All Others

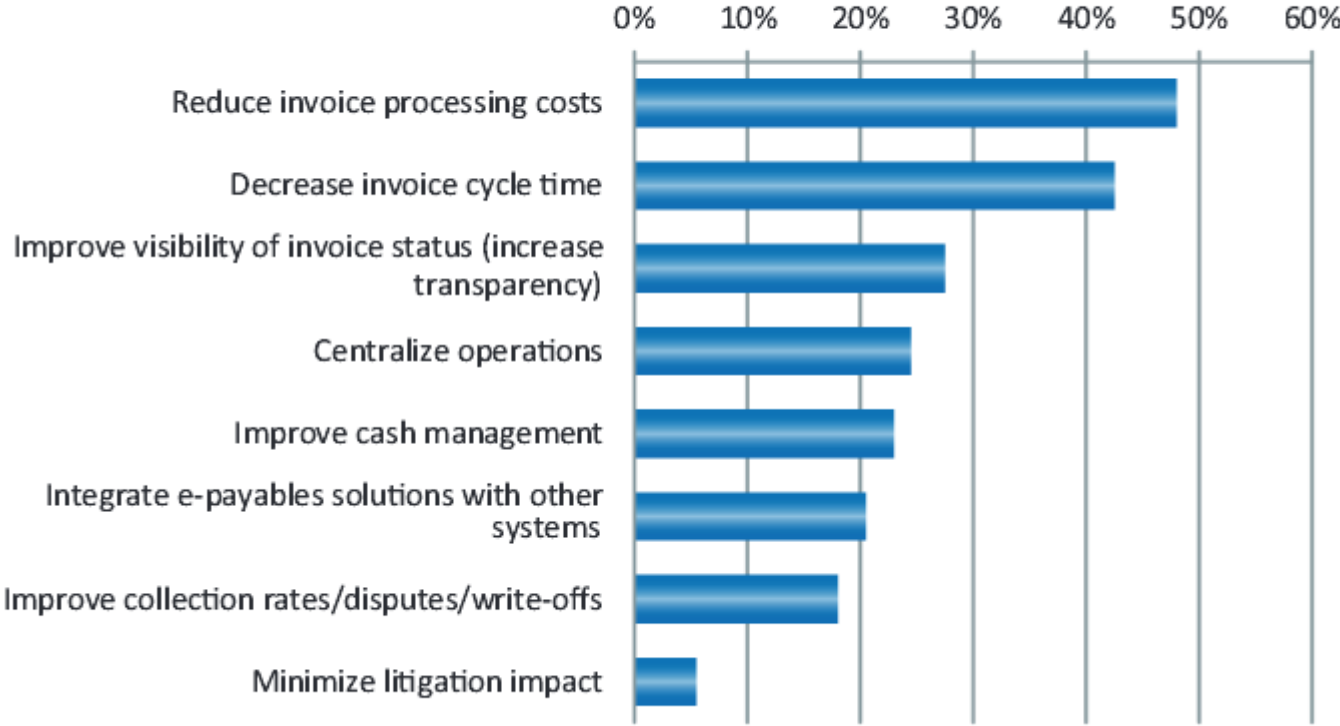
Metrics	Best-in-Class	All Others
Cost to process a single invoice (all-inclusive cost)	<b>\$2.18</b>	<b>\$12.60</b>
Time to process a single invoice	<b>2.9 days</b>	<b>10.8 days</b>
Invoice exception rate	<b>10.1%</b>	<b>23.3%</b>
Percentage of invoices processed "straight-through"	<b>65.3%</b>	<b>19.2%</b>
Percentage of suppliers that submitted invoices electronically	<b>49.0%</b>	<b>16.0%</b>
Percentage of invoices linked to a Purchase Order (PO)	<b>79.2%</b>	<b>31.7%</b>

Source: Ardent Partners 2019

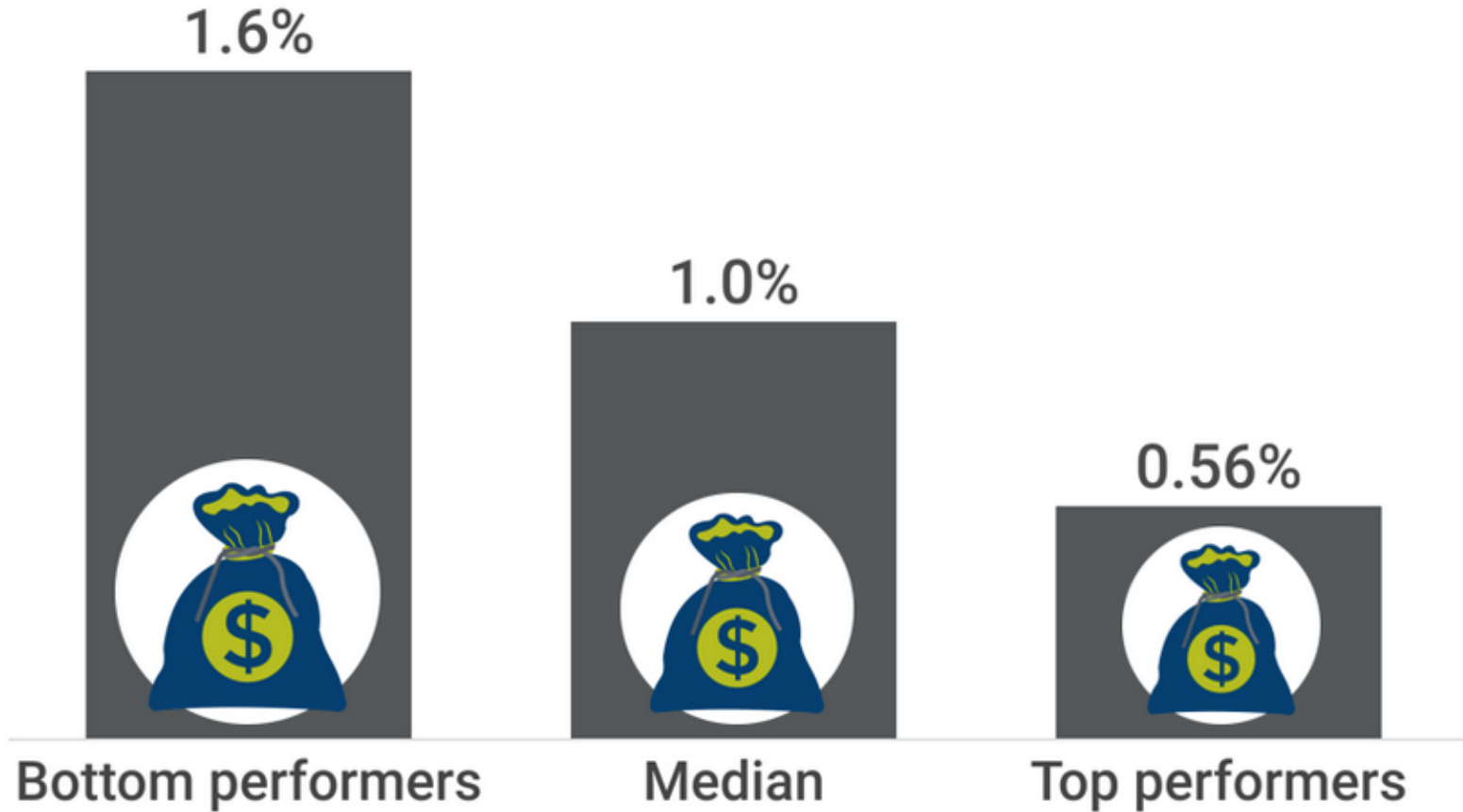


# AIIM.ORG

Figure 1: What are the two biggest drivers related to AP and AR processing in your organization? (N=200)



# Total Cost to Perform the Finance Function as a Percentage of Revenue



Source: <https://www.cfo.com/budgeting/2020/01/total-cost-to-perform-the-finance-function-metric-of-the-month/>

N=2,381



# AR Trends

- **PREDICTIVE CASH FORECASTING**

- In every accounts receivable department, one of the most important factors to know and understand is how much cash you can be expecting. This can be hard to determine when you're completing the calculation manually. However, with predictive cash forecasting, an algorithm can be used to determine how much cash will be coming in based on past data patterns showing which customers are most likely to pay and when.

- **CASH APPLICATION**

- One of the most likely sources of bad data often occurs when you're re-keying information from one system to another. Using accounts receivable software that has cash application, or posting back to your business software or accounting system, ensures accurate data and less work for the whole team.

- **ELECTRONIC PAYMENTS**

- When you're using online bill pay and accepting electronic payments, customers are able to pay the invoice completely on their own. Once they receive an email, they simply click a link and enter in their payment information. Payments can even be automated, allowing for recurring charges. That's one step of work towards getting paid that you can completely eliminate.

- **OMNI-CHANNEL COLLECTIONS**

- It's not enough anymore to simply mail out an invoice or a reminder letter. Collections efforts have to meet the customer everywhere they do business. New technology allows you to automate email collections, text message collections, collection phone calls and more.

Source: <https://anytimecollect.com/4-fintech-trends-for-accounts-receivable-and-collections-professionals/>



# AR Trends Continued

- **Automation of processes**
- Nearly every aspect of invoice issuing and delivery, customer communication and payment, debt collection and dispute management can benefit from automation. Artificial intelligence and machine learning enable the additional automation of decision processes without human interaction. The entire workflow should, of course, be monitored, tracked and if necessary adapted to the quickly changing environment.
- **Personalization of customer communication**
- Especially when it comes to collecting overdue payments which are considered an intrusion in the private sphere if done improperly. This is the phase in which businesses have the chance to show that they really care about their customers. Personalized solutions, which are entirely tailored to customer preferences help to maintain a long-term relationship and prevent the churn of “good customers”.
- **Code-driven compliance**
- Ensuring compliance with legal and client-specific parameters especially when the rules and regulations surrounding cross-border receivables management are constantly changing. Embracing automated procedures and intelligent systems can minimize human errors in processing thanks to its pre-coded rules. Code-driven compliance makes sure that the customers are treated fairly and legal requirements are met for each collection territory.



# AR Trends Continued

- **Flexible payment plans**
- Last year was all about the changing face of customer demands. This also refers to the need of optimizing the payment solutions, offered by companies. Modern machine learning-based systems evaluate the constellation between the customer's payment situation and the current receivable status and trigger the best possible payment plan, that will suit both sides.
- **Increased use of e-Invoicing**
- E-Invoices are machine-readable documents, that enable automated exchanges between issuer, partner and buyer. The estimated amount of B2C invoices in Europe amounts to 23 billion in 2017. The expectation is that by 2024 appr. 90% of this amount will comprise of eInvoices. This trend underlines the importance of reducing manual processing steps from internal business processes and applying efficient systems.



# Budgeting





Thinking of emerging technologies and their impact on marketing and sales, which of the following do you believe will most improve the customer experience? Which have you already implemented, or are planning to implement by 2020?

	Which technologies will most improve CX?	Already implemented	Planning to implement by 2020	No plans to implement
Base: All Respondents	800	800	800	800
Automation technologies (in sales, marketing and customer service)	42%	48%	40%	12%
Smarter analysis of customer data	41%	50%	40%	10%
Purpose-built mobile apps	39%	48%	39%	13%
Virtual Reality	39%	34%	44%	22%
Greater experimentation with social media	38%	51%	38%	10%
Artificial Intelligence	34%	37%	41%	21%
Predictive analytics	33%	43%	43%	14%
Robotics	32%	32%	44%	25%
Chatbots	32%	36%	44%	20%

Source: Oracle – Can Virtual Experiences Replace Reality



# Why Robotic process automation?

- Frees accounting time up for more people-centric tasks
- Allows more room to create more value-added work



# RPA - Benefits

1. Automation of repetitive, routine and labor-intensive tasks.
2. Reduction of costs and improved efficiencies.
3. 24/7 productivity – no downtime for breaks, time-off, etc.
4. RPA complemented with Machine Learning (ML) could result in new products and services.
5. Capability to scale services.
6. Greater ROI on investments for technology used in RPA services.



# RPA - Barriers

1. Lack of internal resources.
2. Resistance to change.
3. Processes are fragmented.
4. Lack of vision.
5. Cost.
6. Data readiness.



# Gartner RPA Strategic Assumptions

- By 2023, 50% of new RPA scripts will be dynamically generated.
- By 2022, 80% of RPA-centric automation implementations will derive their value from complementary technologies.
- By 2024, organizations will lower operational costs by 30% by combining Hyperautomation technologies with redesigned operational processes.
- By 2023, there will be a 30% increase in the use of RPA for front-office functions (sales and customer experience).

Gartner 2020 Study - <https://coda.io/@rpa/rpa-renaissance>



# Robotic Process Automation

Look how manual tasks are being mimicked by machines:

- Chat bots
- Pepper PARLOR, a café in Japan where three different types of robots serve customers (with a few humans).
  - Semi-humanoid robot named Pepper does most of the customer interaction, greeting, and taking orders.
- Baseball team is filling stadium with 500 robot spectators. Taiwan's CPBL (Chinese Professional Baseball League) Rakuten Monkeys have robotic mannequins sitting in the stadium for the upcoming game.



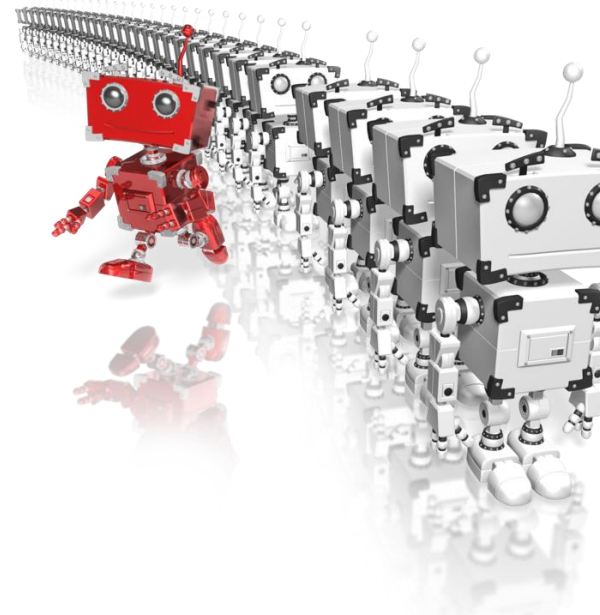
Kristin Houser, "Cafe Staffed by Robots Opens in Japan," *Futurism*, December 5, 2019, <https://futurism.com/the-byte/cafe-robots-opens-japan>.

Victor Tangermann, "A Baseball Team Is Filling Its Stadium with 500 Robot Spectators," *Futurism*, April 7, 2020, <https://futurism.com/the-byte/baseball-team-robot-spectators>.



# Robotic Process Automation, cont.

- What Remote works means for RPA
- “A new employee needs to create a new task in a CRM system they have never used. Provide them with a bot that performs all the necessary clicks and keystrokes to take them to exactly to the spot they need to be in the CRM system.”
- An example of what we will likely see is from Automation Anywhere. The company recently launched its Discovery Bot, which uses AI to map and optimize processes by tracking keystrokes, mouse movements and other actions within applications.



Tom Taulli, “Remote Working: What It Means for RPA (Robotic Process Automation),” Forbes, April 4, 2020, <https://www.forbes.com/sites/tomtaulli/2020/04/04/remote-working-what-it-means-for-rpa-robotic-process-automation/#80562fc3f996>.



# Robotic Accounting and RPA in the accounting department

## Benefits of robotic accounting

- Non-invasive application
- Customizable workflow
- Nonstop performance
- Consistency and reduced errors in work
- Major lifting
- Ease and speed of installation



The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.





# RPA - Examples

1. Virtual employee to gather information from customers, stakeholders, etc. from client's records, social media channels and email accounts to compile information regularly.
2. Automate accounting processes.
3. Integrating customer service into accounting workflows.
4. Automating bookkeeping functions.
5. Intelligent assistants for knowledge management (even Chatbots)
6. Robots will move beyond clerical tasks and assist in deeper data analysis.



## RPA – Accounts Payable

- Vendor verification and setup
- Purchase order entry
- Extracting data from invoices and purchase orders
- Vendor invoice processing
- Cross-checking invoices with purchase orders
- Preparing and performing payments
- Payment validation and reconciliation
- Expense compliance audit
- Monitoring duplicates
- Responding to vendor inquiries



## RPA – Accounts Receivable

- Customer data setup and management
- Extracting customer information from different sources
- Sales quotation and entry generation
- Invoice generation and distribution
- Customer credit monitoring
- Dispute resolution
- Follow-ups, reminders, and dunning
- Credit risk management
- Chargeback



## RPA – Accounts Reconciliation

- Extracting or retrieving data from files
- Searching for related statements in ERP systems
- Comparing balances
- Looking for missing invoices and sending emails to customers
- Reporting discrepancies
- Directing reports to the business controller
- Creating journal entries



# RPA – continued examples

- Journal entries – uploading text or excel files, autocomplete missing info (departments, accounts), attaching journal entry detail to entry, loading journal data into ERP.
- Financial close – importing spreadsheets, automated variance analysis, automated checklists to identify missing information or other data, track progress or approvals and timelines, reconciliations.



# RPA – Reporting

Reporting – automate reporting, trend analysis, visualizations

- a. Trial balance and balance sheets
- b. Income statements
- c. P&L
- d. Variance analysis
- e. Financial close processes
- f. Regulatory/management reports



# RPA - Inventory

- Extracting or retrieving data from files
- Searching for related statements in ERP systems
- Comparing balances
- Looking for missing invoices and sending emails to customers
- Reporting discrepancies
- Directing reports to the business controller
- Creating journal entries



# RPA – T&E and Payroll

- T&E reporting
- Extracting or retrieving data from files
- Searching for related statements in ERP systems
- Comparing balances
- Looking for missing invoices and sending emails to customers
- Reporting discrepancies
- Directing reports to the controller
- Creating journal entries
- Payroll management
- Employee data extraction
- Data verification across information systems (sick days, business trips, timesheets)
- Generating and approving timesheets





# Example of robotic accounting

- This detailed finance and accounting use case example explains how to use robotic process automation (RPA) to automatically upload invoices to a SharePoint website to be paid.
- Cathy works in Accounts Receivable, and she's responsible for uploading her company's invoices to a SharePoint website for their customers to pay. She normally processes each invoice manually, which takes 5-10 minutes per invoice depending on the customer. In the current-state (pre-RPA) process, she has to separate Excel files from xml files (in a folder created automatically by SAP), zip the xml files (invoices) and then upload these invoices to a SharePoint website for their customers to access.



# Example of robotic accounting



- The pre-RPA estimate use case process is as follows:
- SAP automatically saves invoices to a specific network folder, depending on the customer.
- Cathy opens Explorer and navigates to the folder created for today's invoices.
- She selects all xml files, being sure to not choose any Excel files.
- She zips these xml files into one folder.
- While Windows zips the folder, she waits.
- When the folder is zipped, she navigates to the appropriate website to upload the files.
- She logs into the website.
- She uploads the newly created zip folder containing the invoices to be paid.
- This is tedious work, performed by multiple employees every day for numerous customers.

The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.



# Example of robotic accounting



- With the help of robotics, however, Cathy's repetitive job is going to be very different. The RPA use case will now process the work as follows:
- SAP automatically saves invoices to a specific network folder, depending on the customer.
- Cathy starts the UiPath AR robot.
- UiPath asks Cathy to choose the correct folder for today's invoices (folders change daily).
- UiPath then automatically navigates to the folder that Cathy has chosen.
- UiPath searches for and then selects all xml files.
- UiPath zips all xml files to one folder on the desktop.
- A pre-set delay allows Windows enough time to zip the folder (zip time depends on the number of files).

The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.



# Example of robotic accounting



- UiPath then navigates to the company’s invoice site, logs in with Cathy’s username and password, chooses “upload file” and uploads the zip folder full of invoices.
- After uploading, UiPath deletes the zip folder from the desktop to reduce desktop clutter.
- The above steps (1-9) only took a few clicks of a button compared to the 50+ clicks required before RPA.
- It used to take Cathy 5-10 minutes to zip and upload invoices, but now it takes her 2 minutes—saving an average of 7 minutes per invoice. Cathy used to spend a large portion of her day just zipping and uploading invoices. Now she has time to focus on more important matters. With RPA, she can “set it and forget it.” The AR robot does most of the work for her.

The Lab Consulting, “Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments,” The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.



# Other Examples of RPA

- **Accounts payable RPA use case example** – Vendor invoice processing cycle times were reduced by 60% by implementing a robot that aided accountants with the transcribing of inbound invoice information from PDFs (invoice number, data received, and dollar amount) into web-based SAP, internal use spreadsheets used for reporting, and by placing a final PDF copy on a local server to maintain SOX compliance.
- **Controller function RPA use case example** – Manual work time required to process weekly invoice data feed validation comparisons to previous week invoices received were reduced by installing an accounting robot that automatically reconciled the current period feed against the last period once the controller opened the file. The robot then spit out any exceptions or rejections that required human review if they did not reconcile automatically.
- **Finance and accounting cost allocation RPA use case example** – Business units submitted cost allocation data through SharePoint, in bodies of individual emails, Excel spreadsheets, or Google documents – all of which had to be merged into one “master file” before being uploaded to SAP. RPA was able to eliminate the manual merging of data by scraping all of the inbound data submissions into the master file automatically in less than one minute, compared to 2 hours before the robot was installed

The Lab Consulting, “Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments,” The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.



# Other Examples of RPA

- **Financial close and reporting RPA use case example** – Baseline 10K and 10Q report creation processes were improved by implementing RPA that automatically processed tax entries into QuickBooks from spreadsheets received from business units – reducing manual copying and data transcribing tasks of finance managers by 85%.
- **Accounting reconciliation RPA use case example** – the exception review process required reconciliation of accounting data from QuickBooks, multiple Excel sheets, and customer invoices. RPA was installed as a bridge between the three data sources to automatically compare the invoice discrepancies in less than 1 minute compared to the 30 minutes it took prior.

The Lab Consulting, "Robotic Accounting – 5 Use Cases, a Case Study, and Examples of RPA in Finance and Accounting Departments," The Lab Knowledge Work Factory, July 7, 2018, <https://thelabconsulting.com/robotic-accounting-5-use-cases-case-study-examples-rpa-finance-accounting-departments/>.



# Gartner 2020 Morphing RPA

- **Key Findings**
- Organizations have paid for an expensive patchwork quilt of applications and systems. Business executives are demanding a path to digital operational excellence. The net result is a tremendous pent-up demand to democratize process automation and data integration. Robotic process automation (RPA) fulfills a need but requires strategy, guardrails and governance.
- Hyperautomation refers to an approach in which organizations rapidly identify and automate as many business processes as possible. It involves the use of a combination of technology tools, including but not limited to machine learning, packaged software and automation tools to deliver work.
- RPA offerings are in the midst of market disruption. New offerings, new vendors and new commercial models are emerging rapidly. The largest RPA providers are using their significant capital resources to add complementary components in an attempt to distinguish themselves. Similarly, vendors in adjacent categories are delivering new RPA-oriented functionality.

Gartner 2020 Study - <https://coda.io/@rpa/rpa-renaissance>



# Gartner Morphing RPA (cont.)

## Recommendations

IT leaders responsible for sourcing RPA offerings (services and solutions) should:

- Drive organizational adoption and avoid potential missteps on the Hyperautomation journey by engaging business units, IT, security and assurance functions into a process automation governance board. This will help drive organizational adoption and avoid potential missteps on the Hyperautomation journey.
- Plan your Hyperautomation journey by focusing on a wider spectrum of business functions and knowledge work. Strategize and architect across the toolbox of options, including RPA, iBPMS, iPaaS and decision management tools. This is the only way to effectively leverage related components (for example, process mining, analytics, user experience and machine learning).

Gartner 2020 Study - <https://coda.io/@rpa/rpa-renaissance>





# Gartner Morphing RPA (cont.)

## Recommendations

IT leaders responsible for sourcing RPA offerings (services and solutions) should:

- Avoid the hype with rigorous due diligence of RPA offerings and their ecosystems. Focus on the provider's abilities to address outcomes critical to your organization across multiple areas. Assess vendor process models carefully as seen with Microsoft's entry into these offerings that changed the marketplace dynamics significantly especially for the small and midsize business (SMB) sector.

Gartner 2020 Study - <https://coda.io/@rpa/rpa-renaissance>



Figure 1: Magic Quadrant for Robotic Process Automation



Oct. 202:

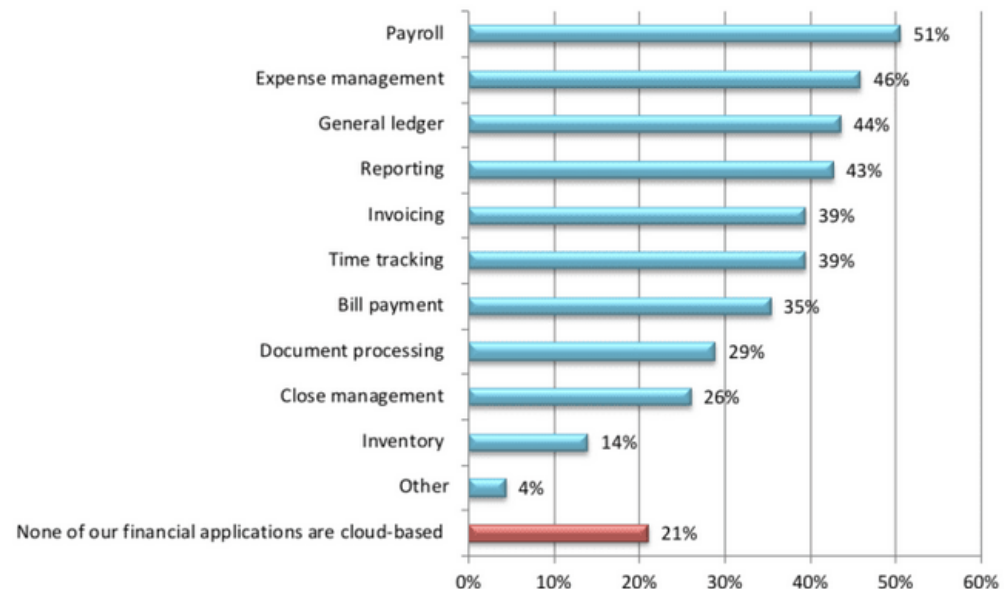
Source: Gartner (July 2022)



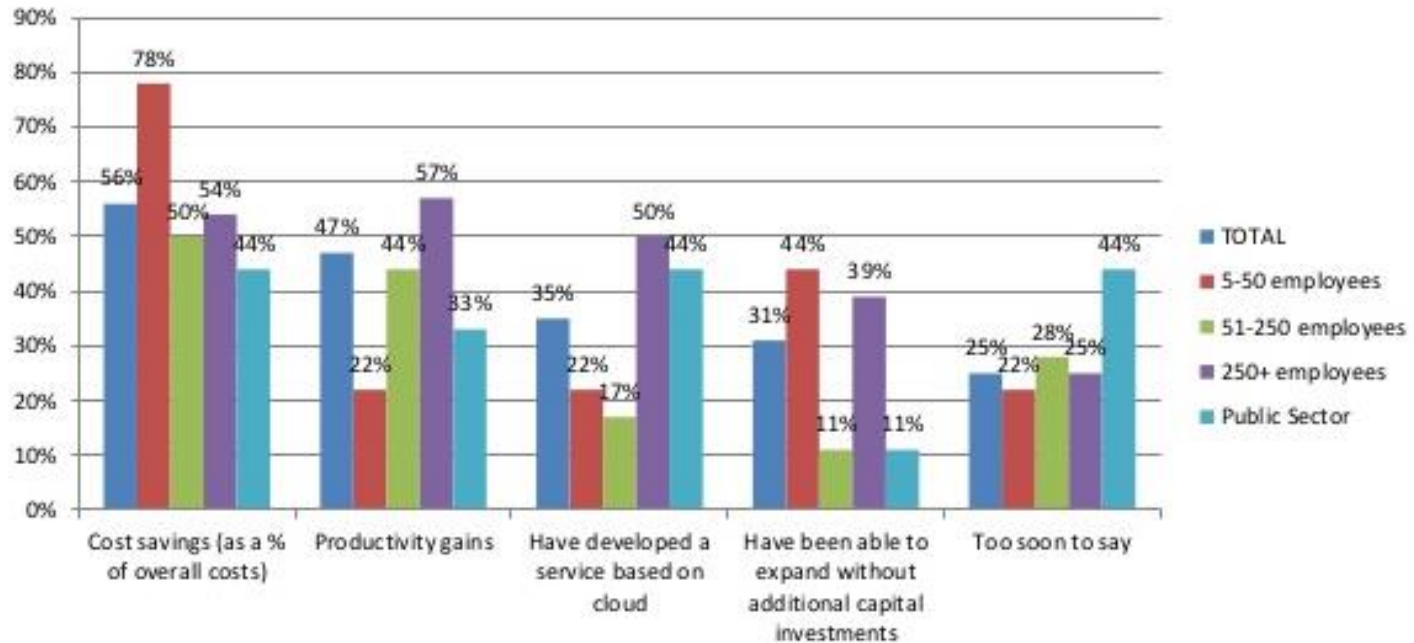
# HERE'S WHAT IT MEANS TO BE A "CLOUD ACCOUNTANT"

According to a new survey of 506 accounting and finance professionals commissioned by FloQast and conducted by Dimensional Research, 79 percent of accountants are using at least one cloud-based financial application. However, most of them are not yet what we would call true "cloud accountants."

**What types of cloud-based or SaaS financial applications does your company use?**



Among those that have already deployed Cloud Computing, cost savings and productivity gains are among the initial benefits:



BASE : All who have deployed Cloud Computing in their organisation

<https://www.acecloudhosting.com/blog/wp-content/uploads/2018/06/The-Impact-of-Cloud-Computing-on-Accounting-Industry.png>



# Digital Transformation

- Digitization is the transitioning of your accounting and reporting documents and storage from a traditional paper-based system to an electronic format. Because it reduces process time and errors, aids cash flow and improves transparency on income, digitalization helps business leaders make better decisions about how to lift business performance. It can also make an organization more competitive.

Source: EY - Digitalization of accounting and administrative processes: the making of the paperless office



# Definitions

1. Digitalization - Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.
2. Digitization is changing from analog to digital form, also known as digital enablement. Said another way, digitization takes an analog process and transforms it into a digital format without any changes to the process itself.
3. Robotic process automation (RPA) is the application of technology that allows employees in a company to configure computer software or a "robot" to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses and communicating with other digital systems.



# Digitization

- Conversion of sample data from analog signals to digital signals
- Digital transformation is also rapidly integrating with accounting systems and processes. As a result, digital transformation and the growing popularity of cloud computing have become the new normal.
- With automation and digital technologies, companies can extract value from digitally aggregated data, drive organizational change, and create new business models.



# Digitization (cont.)

- Traditional accounting methods have not kept pace with digitization's speed and distributed nature in other areas
- Cloud-based digital accounting tools can make tedious processes more efficient and more manageable.
- Businesses without significant human and capital resources should start small and tackle the digital efforts in an iterative process





# Benefits of Digitization

- Significant productivity gains and cost savings.
- Improve customer experience and customer communication.
- Efficient cost management results in better control of production and sales processes.
- Greater fluidity of internal processes.
- Increased competitive advantage in the marketplace.
- Improved delivery time and personalized service.



# Benefits of Digitization

- Increase production
- Improved internal communication across departments.
- Improved transition from one phase to another throughout a customer's life.
- Higher employee morale.
- Faster decision-making.
- Economical use of crucial resources
- Many, many other benefits as well



# Benefits of Digitalization

## Organizational and technological impacts

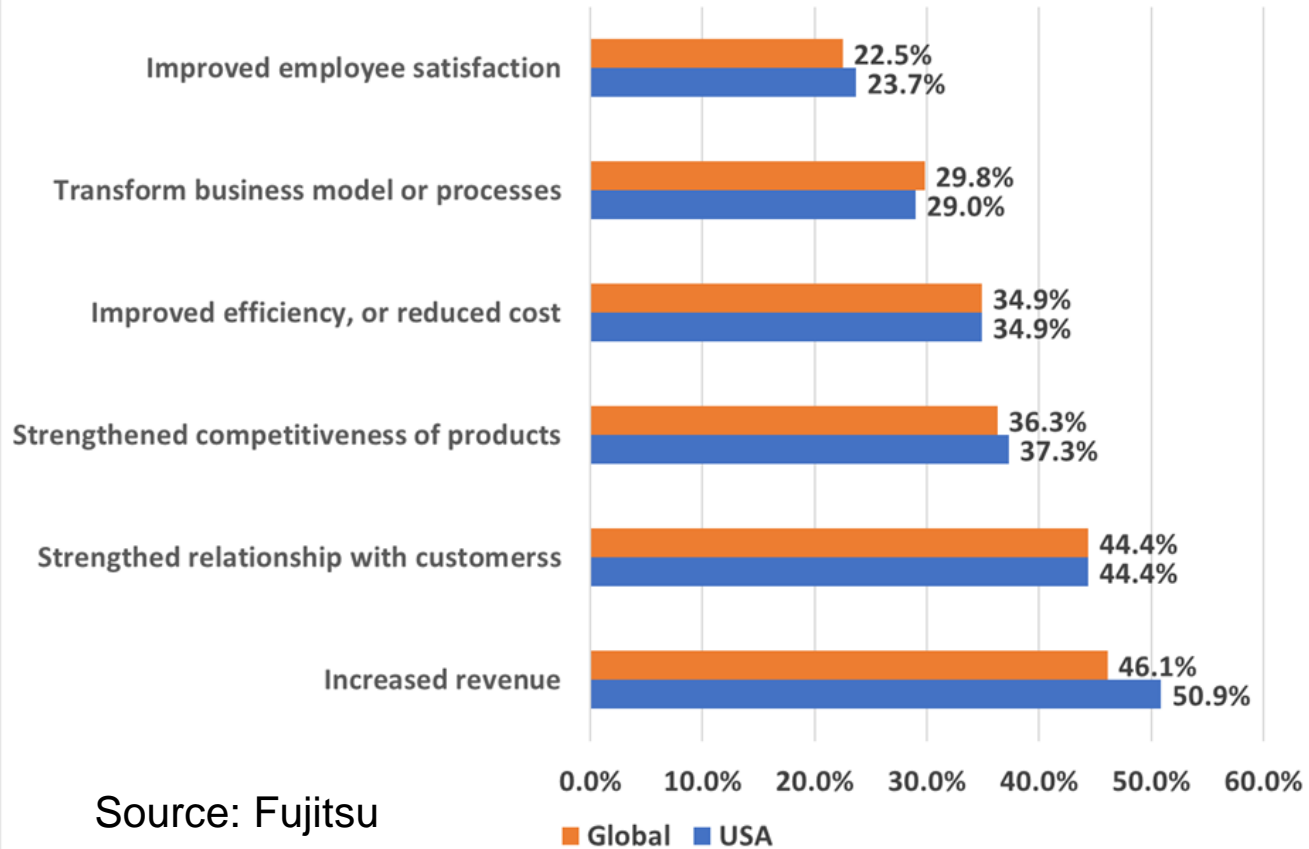
- Cost savings
- Quicker, easier, more effective or more efficient business processes
  - Gains in time and productivity
  - Less space dedicated to physical archives
  - Lower materials consumption
  - Higher accuracy due to fewer errors
  - Enhanced control capability and process analysis
  - Improved service capabilities to customers
- Stronger business information, improved analytics and better process control
- Automated collection and payment processes through structured electronic document sharing
- Improved transparency of processes, opening up new credit models
- A more favorable sustainability profile, better corporate social responsibility performance and stronger environmental credentials
- Increased overall productivity and competitiveness



Source: EY - Digitalization of accounting and administrative processes: the making of the paperless office



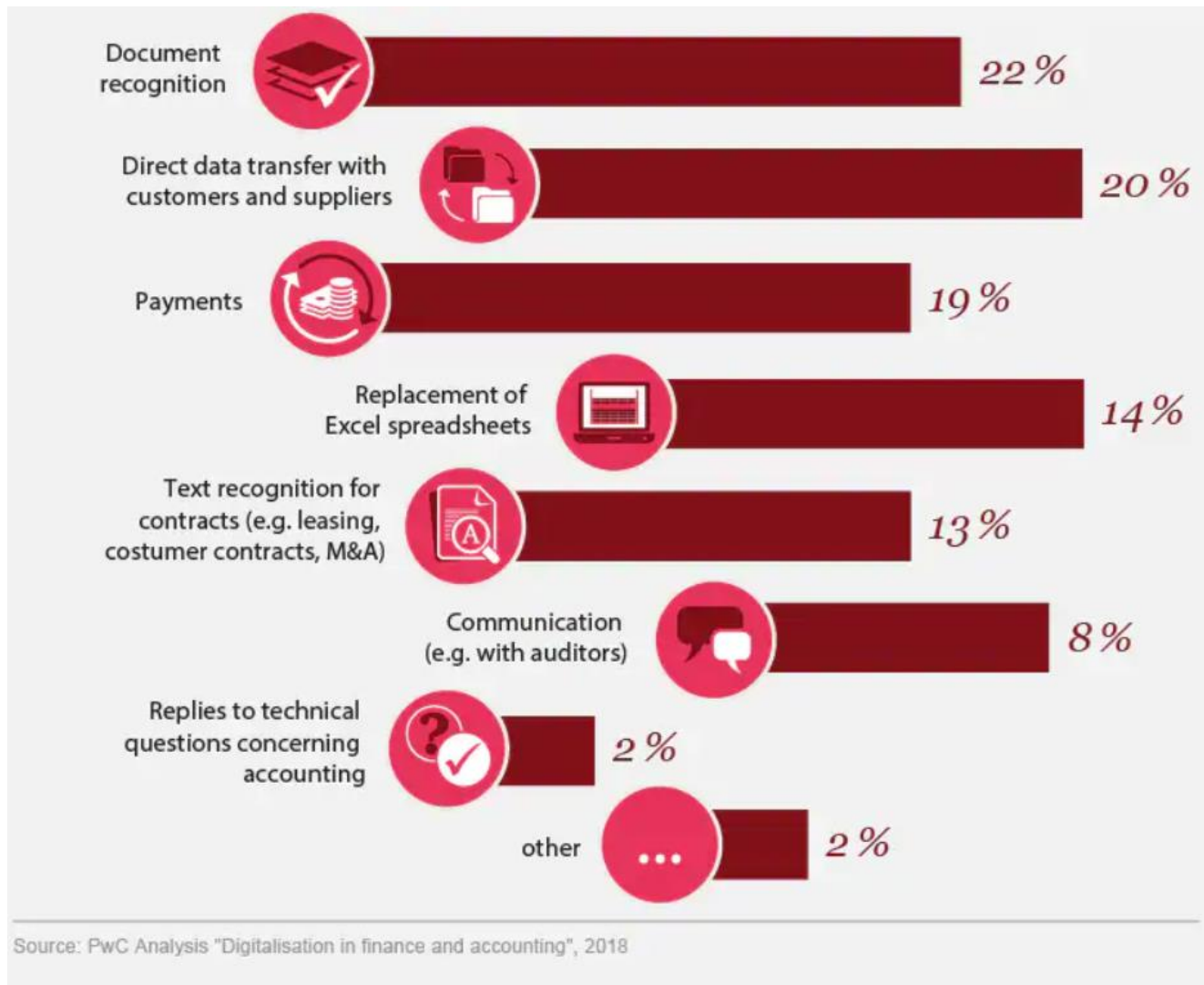
## Digital Transformation Impact on Organization



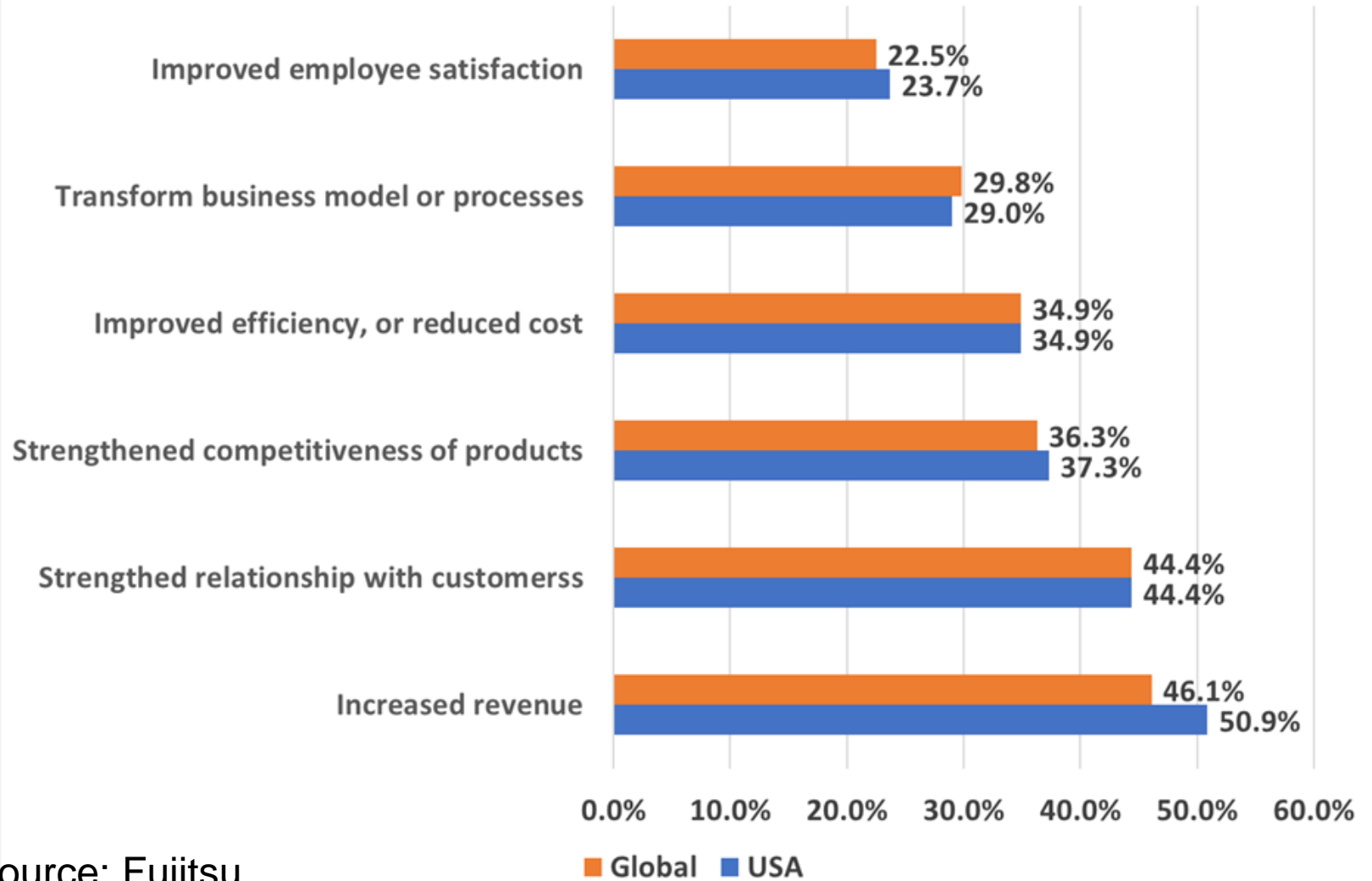
# McKinsey – Automatable Functions

- Fully automatable:
  - General accounting operations
  - Cash disbursement
  - Revenue management
- Highly automatable:
  - Financial control and external reporting
- Tax
- Financial Planning and analysis
- Treasury
- Risk management
- Audit
- Difficult to automate:
  - Business development



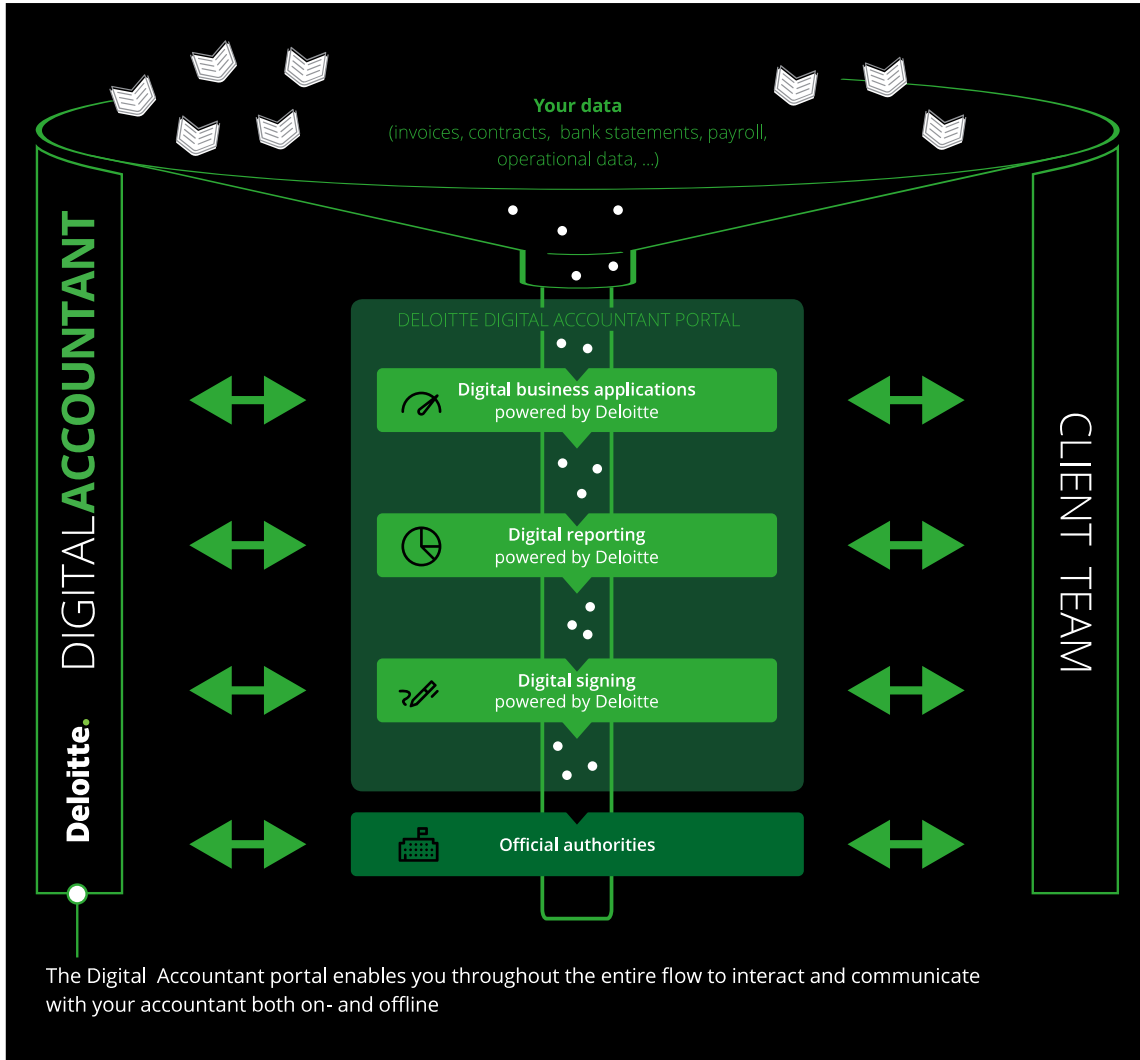


# Digital Transformation Impact on Organization



Source: Fujitsu







# Accounting functions that will be impacted

- Transactional accounting processes
- Fiscal period-end accounting closes
- Auditing
- Business process outsourcing (BPO) of accounting tasks
- Regulatory filings

Source: <https://icrunchdata.com/blog/594/the-disruptive-impact-of-the-digital-revolution-on-accounting/>



# Integrated document management systems

- Digitalization project, from identifying vendors through to change management, business process re-engineering and managing IT system impacts.
- Integrated document management systems
- Electronic storage of accounting ledgers
- Automatic recording and e-storage of invoices
- E-invoicing

Source: EY - Digitalization of accounting and administrative processes: the making of the paperless office



# Electronic storage of accounting ledger



- Digital “re-engineering” of business processes
- Consideration of regulatory frameworks for document management and archiving
- Detailed functional specifications to support system and workflow development
- Efficient process monitoring

Source: EY - Digitalization of accounting and administrative processes: the making of the paperless office



# Automatic recording and e-storage of invoices

- Higher finance productivity
- Reduced operating costs
- Improved controls to minimize invoice routing and approval
- Alignment with regulatory requirements
- Better control over suspect payments
- Consistent processes across the company



Source: EY - Digitalization of accounting and administrative processes: the making of the paperless office



# E-invoicing

- An e-invoicing process and audit trail
- Reduction in administrative cost

Source: EY - Digitalization of accounting and administrative processes: the making of the paperless office



# Reorienting accounting to a future-looking role

- Increase forecasting role
- Seek out industry trends on a regular basis
- Use historical data in novel ways
- Become an invaluable asset to the decision-making process
- Harness predictive analytics



# Principles to Control Future Expenses

- Total percentage cap for accounting costs
- Standardization of platforms / tools
- Incentivize staff to reduce costs
- Implement key ratios to control major working capital accounts
- Time studies on processes
- Focus on reduction of waste



# Where Digitization Fails - Everest

- 73% failed to realize sustained returns on their digital investments.
- 69% organization structure a barrier while scaling up their digital initiatives.
- 82% no culture of collaboration and innovation.
- 87% fail with implementing change management plan.
- 89% to narrow scope of technology investments limited to particular products or functions.





# Where Digitization Fails

- Lack of focus
- Lack of innovation
- Having a clear understanding and vision of the soon-to-be-transformed business.
- The lack of clear goals.
- Lack of the Right Mindset and being open-minded.
- Integration of digital projects with existing systems.



# Where Digitization Fails

- Employees that are not digitally savvy and experienced in driving these transformations.
- Ignoring the customer experience.
- Ignoring changing needs of industry and customers (think newspapers.)
- Resistance to change.
- Organizational culture does not support digital transformation.
- Unwillingness to use consultants or outside experts.



# Where Digitization Fails

- Lack of leadership support – no champion.
- No cross-departmental communication.
- Failure to conduct sufficient research before diving headfirst into development efforts.
- Overdependence on past successes or practices.
- No KPIs to monitor and evaluate digital progress and transformation.
- Dumping digital transformation onto employees that may already have too much to do.
- Not addressing security concerns of new systems.



# Digital Transformation Stage

Step 1 - analysis

Step 2 - strategize

Step 3 - develop

Step 4 - implement

Step 5 - test

Step 6 - execute



# Digitization – Foster Engagement

- 1) Communicate Often: Email, meetings and memos and share big picture.
- 2) Find Common Ground: Getting buy-in from leadership and the team.
- 3) Create Cross-Functional Teams: teams of representatives from different departments who can work together toward common goals.
- 4) Make Sure Everyone Gets Credit: recognize and reward.



# Digitization – Key Success Factors

1. Leadership and culture.
2. Employee engagement.
3. Value chain, partners and trend.
4. New technologies.
5. Business intelligence and data science.
6. Continuous monitoring.



# Summary

1. Accounting jobs will be lost – lower levels of accounting jobs will become obsolete, and higher-level accounting jobs will become more prescriptive and analytical, which means continual upskilling for all of us.
2. Computer capacity and capability will increase – Every day, something new is created. Our systems' power continually increases, which allows for "new" ways to operate a business.
3. Training will not be quick enough – the obsolescence of our knowledge increases dramatically. Accountants must become perpetual learners.
4. Repetitive jobs will be automated, and any repetitive type of task will be an excellent candidate to automate or eliminate. RPA will impact your staff, processes, and demand that you move to a higher financial and business acumen level.
5. We must adapt Lean techniques to remain competitive!



# Questions? More Information?

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