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Oracle Modern Best Practice–Predicted

Why many new jobs will be created, some old jobs will become irrelevant—but every job will change at the task level.

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

Steve Cox
Group Vice President,
Cloud Business Group, Oracle

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About the Author

Steve Cox
Group Vice President
Oracle Cloud Business Group

steve.r.cox@oracle.com
@the_steve_cox

Steve Cox leads go-to-market strategy for Oracle ERP and EPM Product Marketing. Cox joined Oracle in 1997. Prior to his current role, he held various management positions within Oracle product marketing, consulting, and development.

Cox holds a master's degree in business administration from the University of Bath. He is the author of Modern Best Practice Explained, an ebook articulating the next generation of business processes needed by organizations embarking on digital transformation.

Contributing Authors

Stephanie Foster, Joe Fuster, Emily He, Yih-Wen Lin, Juergen Lindner, Rudy Lukez, Anke Mogannam, Krina Patel, Lynne Sampson, Lisa Schwartz, Jeff Stiles, Jennifer Toomey.

***My second epiphany**, like the first, came on a plane journey. Back in 2014, when I wrote Modern Best Practice - Explained, I argued that previous definitions of best practice were flawed —because of the momentous changes introduced by cloud, mobile, analytics, social, big data and the Internet of Things. In late 2018, I realized that we were about to go through an even bigger change driven by the original six technologies and 3 new accelerants: machine learning, blockchain and augmented/virtual reality - so everything I'd written needed to be rewritten as every process would change at the task level as a result.*

And also, this ebook meets a need. Read any news source and artificial intelligence or blockchain is almost magically going to disrupt financial services, review whisky, fight hate speech, detect fraud, find your future life partner —which is all good but doesn't answer the question, how will all this impact common business processes? This book is an attempt to start to address that question and give you a view of how work will change in the near future.

Steve Cox, August 2019

"In late 2018, I realized that we were about to go through an even bigger change driven by the original six technologies and 3 new accelerants."

Chapter 1

Predicting Best Practices During Wildly Unpredictable Times

Accelerating technologies will upend work in ways we have never seen before.

"The more things change, the more they stay the same." *Really, Monsieur Karr?* Even a cursory glance at the tumultuous change around us, tells us that this is no longer the case. And that's an understatement. One hundred-seventy years later, it's, "The more things change, the more everything changes—and keeps changing."

This book is a product of this new reality. It's a follow-up to *Modern Best Practice Explained*, an e-book available for free as a download from Oracle. Steve Cox, Group Vice President of Oracle's Cloud Business Group, wrote that book in January 2014 after spending months thinking about the impact of the cloud and several other technologies on common business processes. Steve knew at the time that every definition of best practice he'd seen up until then seemed to be irrelevant because they were based on what customers had done in the past with older technologies. Fixed, static, cast in stone.

The new computing model made possible by the cloud had changed things. Possibilities for fundamental change in processes needed to be articulated for people to easily understand the huge gains in productivity that were now possible.

"Plus ça change, plus c'est la même chose."

—Jean-Baptiste Alphonse Karr, 1849

Translation:
"The more things change, the more they stay the same."

Why a Follow-Up Book, and Why Now?

Five years later, we're on the cusp of a brave new world powered by all the technology enablers that were mentioned in the first e-book—with a whole host of accelerants. Just like the original six enablers, these new technologies are now mature, will be cost effective to adopt, and will soon become broadly available.

Another reason for following up on the first e-book is that the pace of change is accelerating. This was also true in 2014, but now change is wildly unpredictable as well. What was a steep change-over-time curve on a graph is now a vertical with jagged spikes—each spike representing yet another catalyst.

The sudden evolutionary spurts in technology-driven efficiency generated by the confluence of cloud, mobile, analytics, social, big data, and the Internet of Things (IoT) are powerful geysers accelerated by pervasive and scalable applications that leverage artificial intelligence/machine learning (AI/ML), blockchain and augmented and/or virtual reality (AR/VR).

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

It's not a stretch of the imagination to describe this new wave of change as being "as big as the internet."

Now this isn't a handbook for the technological revolution. It's more of a map. A guidebook. Thousands of executives from all industries and company sizes are considering their organizations' journeys into a future where business processes enabled by AI/ML, blockchain, AR/VR, and a whole host of other technologies are commonplace. But clearly, the times, they are a changin'. What's clear even now is that many new jobs will be created, and some old jobs will become irrelevant but all jobs will change as tasks are automated using ever more advanced technologies.

These changes are so momentous, in fact, that it is time to revisit one of Oracle's most popular initiatives: **Oracle Modern Best Practice**.

New and Dynamic Operating Models

Designed as a new way of thinking about how common business processes could be made digital, Oracle Modern Best Practice have been adopted by thousands of customers as a blueprint for managing multiple new and dynamic operating models.

As we've said, business is still accelerating, but at an even faster clip. To give you an idea of speed, let's look at one indicator: data. Being in the data business, Oracle knows a lot about data and how to manage it. At Oracle OpenWorld, CEO Mark Hurd predicted that by 2025, 80 percent of IT budgets will be spent on cloud services. And this makes sense, as the best way to easily keep up with exponential data growth is by using cloud services. IDC also predicts an astounding data growth rate, with the amount of data subject to analysis growing by a factor of 50, reaching 5.2 zettabytes in 2025[1]. (One zettabyte is $1{,}000^7$ kilobytes). In simpler terms, if you're an average organization, the volume of data you manage increases 100 percent, or 2x, every year. Moreover, if you've invested in IoT your data volume will increase 50x—that's 5,000 percent more data every year.

Having access to all this new data and information is great. But—and it's a huge but—drawing insight from this data requires more than human effort. Which is why a new generation of business intelligence and enterprise performance management software that leverages machine learning is necessary to complement human ingenuity, intuition, and creativity with the number-crunching power of the cloud.

A new definition of what is best practice:

Digital business processes that harness enabling technologies to drive business performance.

1 "Analytics, internet of things to drive data volumes to 163ZB by 2025," ComputerWeekly.com, April 4, 2017.

At the same time that data volume is growing, some more prosaic challenges still exist. In 2015 the AQPC said that "50 percent of the average finance function's time is spent transaction processing." That's half the effort in accounting being spent moving information around. That's not sustainable. And there is a solution. A new definition of what is best practice: digital business processes that harness enabling technologies to drive business performance.

So much has changed and continues to change that we realized this new version of our best practice guide could not be simply an update. We had to revisit our previous efforts and set about predicting new modern best practices because, rather than disruption of what's already in place, we foresee an entirely different landscape forming around a new computing model built on life-altering advanced technologies.

What is a **Best Practice?**

Wikipedia: A best practice is a method or technique that has been generally accepted as superior to any alternatives because it produces results that are superior to those achieved by other means.

Shift Happens: Time to Redux

Artificial intelligence, IoT, autonomous software, and blockchain will do more than change how humans work. They will change work and society in ways similar to how cell phones changed person-to-person communication into something entirely different than what it was before. This in turn gave rise to social networking, one-click ecommerce, the mobile worker, and other new realities that are now commonplace. When will all of this happen? No one can say definitively, but we think sometime within the next 10 years.

The general consensus is that during this transition:

> Millions of jobs will start going away for good, but twice as many new jobs will be created. Many of the new jobs will come from new types of businesses, business models, and revenue streams that will spring from the same advanced technologies.

> ML-capable applications will run production lines, machinery and device maintenance, private procurement networks, monthly financial closes, predictive planning, new-client or new-employee onboarding, and database-security monitoring—among many other tasks and processes. Get used to touchless automation everywhere.

> Reservoirs of untapped talent will be unleashed. People, the most important part of any organization, will be free to focus on developing the ideas that are at the heart of any success, designing the business rules that govern the software and managing exceptions rather than maintaining the status quo. Often, they will be guided by intelligent helpers such as virtual assistants. This new definition of work will focus on analyzing outliers for new information and clues on how to react, as well as ideating on new opportunities uncovered by predictive analytics.

> The cloud is the delivery mechanism—and the thing that makes everything else scalable. Only the cloud enables providers such as Oracle to deliver innovation to its customers in a way that's easy to adopt and consume. Without it, organizations will struggle to implement emerging technologies, data-driven processes and modeling, IoT connectivity, and other components of a best practice-based strategy.

These new Modern Best Practices are based on a rich pool of Oracle expertise and are easy and fast to adopt. We have designed them so that users can start implementing tomorrow's technology today. In the next chapters, you can begin to see how a few Oracle Modern Best Practice-Predicted processes in Finance, Supply Chain, HCM and CX will shift in line with emerging technologies.

Chapter 2

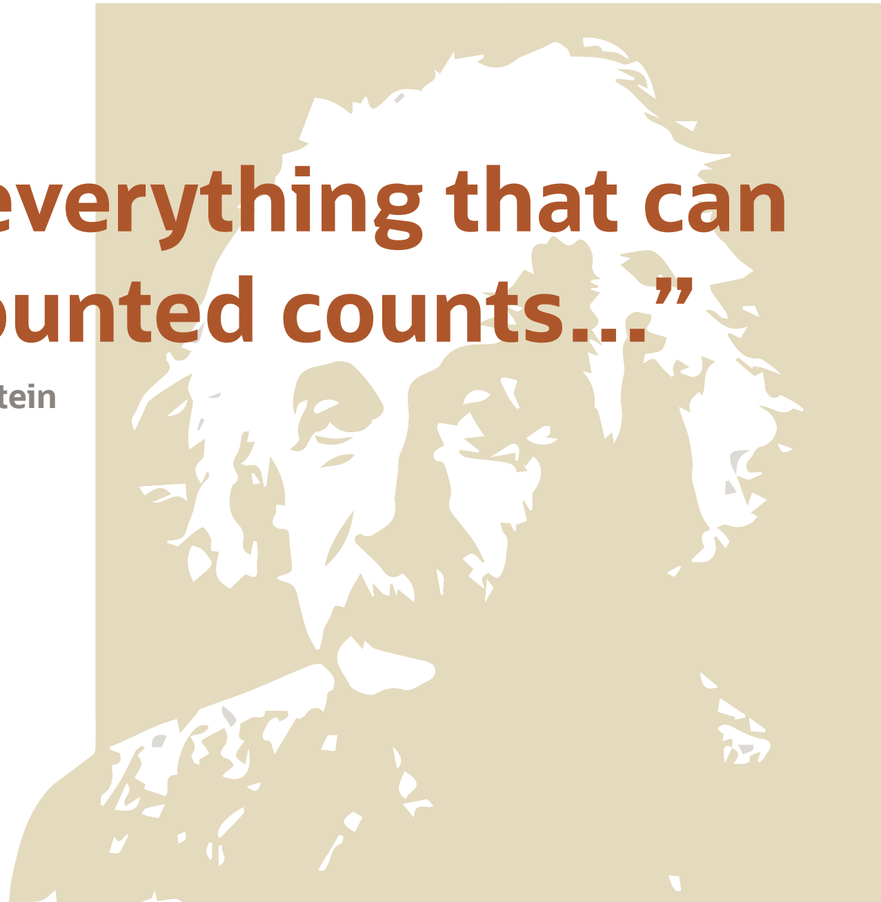
Finance in the Future: Our Best Practices Predictions

As Einstein's quote implies that not everything we count matters. Nothing could be more true in the world of financial accounting. Being able to discern important nuances in a sea of data to make instant financial decisions with the highest degree of accuracy will give a business its next competitive edge.

Top performing companies close their accounting periods in just under five days. That's according to CFO.com in March 2018. Yet when asked, many of the CFOs we've spoken to state that period close consists of just two primary activities: Chasing and Waiting. That's chasing for information and waiting for a response—plus a fair amount of iteration because some responses require further investigation (more chasing, which means more waiting).

All organizations are complex. Few except the smallest are simple, so questions have to be raised: *"Is 4.8 days good enough for a period close?" "If we could eliminate chasing and waiting, how much would our organization's performance improve?"*

> **"Not everything that can be counted counts…"**
>
> **—Albert Einstein**



No matter the type of business, all sales, expenditures, and investments flow through finance for review, verification, and processing. Everything goes through GL (general ledger). Finance teams touch everything from long-term market forecasts to mileage-reimbursement requests, providing sound counsel to leadership, overseeing compliance, and addressing anything that potentially threatens the organization's wellbeing.

That's a lot of data and a lot of transactions, and it is precisely why best practices for finance will be starkly different in the future. As artificial intelligence (AI), machine learning (ML), the Internet of Things (IoT), virtual digital assistants, and blockchain permeate enterprise technology, finance teams will be freed from transaction processing and take on the expanded role of strategic influencer.

Specifically, emerging technology will enable finance leaders and their teams to:

Improve decisions by using rapid-return predictive analytics and discovering hidden insights that can draw from vast amounts of internal and external real-time data.

Automate most repetitive tasks by using ERP, EPM, and other cloud-based solutions infused with AI/ML capabilities. Most of the transactions for a period-close cycle, for example, will be on an automated continuous loop, with financial team members focusing on the important tasks of managing exceptions, defining business rules, and publishing reports.

Manage risk better through intelligent process automation, which embeds standardization and compliance across the enterprise and eliminates the potential for human error.

Optimize assets by moving financial roles away from transactions and toward more strategic contributions, such as ideas for improved process efficiency and new business models.

Improve purchasing performance using a combination of workflow, recommendations and advanced analytics to eliminate maverick spending, overstocks and stock outages across a global supply chain.

How Finance of the Future Will Look

Sounds great, but what's actually going to be different? We expect to see these new and enhanced capabilities become more commonplace as emerging technologies become more commonplace:

Intelligent Process Automation

Many tasks that humans do now will be turned over to intelligent software that learns as it operates.

General ledger: A continuous and intelligent close process will be used for ledgers, sub-ledger, currency, and posting actions.

- A**utomated consolidation**: Run financial consolidations continuously with 70 to 90 percent less explicit user action.
- **Account reconciliations/transaction matching**: Automate 70 to 90 percent of high-volume reconciliations to allow accounting staff to focus on complex cases.

Transaction processing: This will evolve into software-driven touchless transactions through continuous AI/ML as well as including blockchain-based networks.

- **Expense reporting**: Cloud and analytics will help streamline all processes related to expense reporting and improve fraud control.

AI-Driven Procurement

Procurement professionals will be able to:

- Dynamically negotiate the most beneficial terms on payables outstanding based on in-the-moment analysis of treasury position.
- Combine trusted data from many financial sources to generate investment returns.
- Optimize payments and cash-on-hand with predictive project scheduling, proactive capacity planning, and smart supplier discounts.

AI-Assisted Decision-Making

Managers and executives will have easy access to tools for intelligent performance management:

- Better signal detection enables early intervention to correct problems and faster response to requests.
- Faster root-cause analysis accelerates problem-solving and solutions.
- Combining internal and external data for analysis provides deeper insight with more context.
- Prescriptive recommendations provide reliable, data-driven insights into best actions.

> **Regardless of company size, about half of finance teams' time is spent on transaction processing."**
>
> **—Source: AQPC 2015**

Best Practices **Predicted**

With these capabilities, finance will never be the same. Automation and machine intelligence will change all processes and practices. Three of those processes are outlined in the following pages.

Financial Reporting

Period Close to Financial Reports: We predict automation will eliminate many of the activities around the current period close process. Eventually, as AI/ML capabilities expand, the "close" itself could become obsolete as the process becomes autonomous, aka, always closing.

—Is 4.8 days good enough for a period close? If we could eliminate chasing and waiting, how much would our organization's performance improve?

Today: from Transaction Processing

Mobile • Analytics • Social

Close Subledgers
Monitor enterprise-wide close status. Interact on and finalize outstanding subledger transactions and exceptions.

Pro-Forma Close Ledgers
Prepare and review preliminary financial statements. Prioritize outstanding transactions based on initial results.

Reconcile Accounts
Reconcile sub-ledgers to general ledger, automatically matching transactions to entries.

Close Ledgers
Route close tasks to task owners automatically. Collaborate to streamline the close for each entity. Monitor enterprise-wide close status.

Consolidate Subsidiaries
Transform each subsidiary's results to the corporate chart of accounts. Revalue non-monetary balances and translate to the corporate currency. Eliminate intercompany activity and minority interest.

Review and Confirm Financial and Management Reports
Review consolidated results—using the same reports as each subsidiary where applicable—and enter final adjustments.

Publish and Securely Share Financial Statements
Distribute financial statements to all interested parties, leveraging collaboration to incorporate feedback.

Update Financial Forecasts
Modify forecasts and financial plans in light of the result from the just-closed period.

Predicted: to Intelligent Closing

Continuous Virtual Close

Automate and continuously close processes for ledgers, sub-ledger, currency, posting actions, and transaction processing.

Manage Exceptions and Reviews

Recommendation-driven exceptions based on business policies, compliance requirements and user preference. Includes user confirmation of automated handling of similar exceptions and anomalies subject to rule-based approvals.

Close and Securely Publish

Distribute financial statements to all interested parties, leveraging collaboration to incorporate feedback.

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

Planning and Analysis

Report to Forecast: We predict AI/ML will streamline data analysis activities and detect variances and biases. Human input will shift to strategic work, such as revising financial plans based on the analysis.

—Finance teams will be freed from transaction processing and take on the expanded role of strategic influencer.

Today: from Report Creator

Mobile • Analytics • Social • Big Data

Report Current Period
Report actuals by line of business on monthly/daily or other frequent close.

Update Forecast with Actual Data
Create new forecast scenario to replace current period forecast with actuals.

Roll Forecast Forward
Extend forecast horizon to incorporate actuals to retain forward outlook.

Assess Variances
Review actuals vs. forecast, assess variances.

Analyze Trends
Drill into variances & identify trends in historical data using built-in time series regression analysis.

Update Forecasts
Run sandboxes with what-if scenarios based on trend analysis and latest information from across the business.

Monitor and Consolidate Forecast
Use dashboards and alerts to monitor individual forecast progression. Consolidate into integrated forecast for the business.

Update Financial Plan
Based on latest forecast, update financial plan and communicate to lines of business. Report to stakeholders with narrative context.

Predicted: to Strategic Advisor

Process Actuals

Automatically transfer current period actuals from line of business reporting.

Analyze Variances and Trends

Review actual vs. forecast and assess variances. Automatically identify new trends and drivers by continuously scanning historical and 3rd party data.

Take Action

Update and post forecast. Incorporate findings and recommendations to management report. Adjust financial plan.

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Customer Invoicing

Customer Invoice to Receipt: We predict that advanced technologies will dramatically decrease manual handling and errors in the current customer invoice to receipt process.

—A dramatic turn for the role of finance in organizational management—literally from looking backward to envisioning what could be.

Today: from Invoice Processing

Mobile • Analytics • Social

Create and Manage Transactions
Automatically generate customer invoices, credit and debit memos from sales fulfillment transactions based on business rules. Review status via role-based dashboards.

Send Invoices
Send customers discrete invoicing documents or consolidated statements via preferred format and delivery method (mail, email, or B2B ecommerce message).

Address Billing Issues
Manage customer disputes and billing issues with role-based dashboard. Collaborate on investigations via secure social platform. Apply corrections (credit or debit memos) and refunds after required review and approval.

Process Payments
Automatically match receipts to invoices even without remittance advice using configurable rules or scoring engine. Handle exceptions with help from recommendation algorithm.

Manage Adjustments
Close receipts and invoices with remaining balances based on company policy and approval limits.

Post Receivables Activities
Automatically post all approved receivables activities to the general ledger to ensure current account balances.

Schedule Receivables Close
Stay on predetermined close schedule. Use integrated inquiry, reporting, and analysis tools to review and reconcile account balances. Post period close entries and close receivables period.

Predicted: to Customer Focus

Create and Send Transactions

Automatically generate and send customer invoices, credit from sales fulfillment, contracts and provisioning based on business policies and credit status.

Process Exceptions and Payments

Handle exceptions leveraging recommendations based on policy, customer and user profile. Automatically match receipts to invoices.

Finalize

Automated posting of all approved activities to the general ledger and handoff to customer-facing functions.

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

Finance as a function will come to the forefront of strategic planning and execution.

Finance: Looking Forward, Not Backward

Finance as a function will come to the forefront of strategic planning and execution as most of the traditional work performed by finance teams is automated. Control will still be a crucial part of finance, and this improves through machine intelligence.

It will be a dramatic turn for the role of finance in organizational management—literally from looking backward to envisioning what could be.

Next, let's look at the predicted landscape for supply chain management.

Chapter 3

Supply Chain: Our Best Practices Predictions

Some say, *practice makes perfect*. However, it was Vince Lombardi, the great American football coach, who morphed the phrase to suggest **perfect practice** is what makes the master. And in business as well as sports, reinvention coupled with “best practice” can make perfect.

For example, Tiger Woods is regularly reinventing his golf swing and as a result he won the Masters golf tournament again. Similarly to win in business and get products to market faster, it is often most prudent to reinvent supply chain processes with best practices.

Looking into the future we can see how supply chain processes will condense and become smarter by using AI, ML, IoT, blockchain, robotics, smart factories and more.

“Übung macht den Meister.”

—German proverb

Translation:
“Practice makes the master.”

> Companies that operate at the top of the game for producing perfect order performance hit the mark 95% of the time, according to APQC Open Standards Benchmarking data.

As a result, 5% of the time, customers are still not happy when they receive their orders. This demonstrates how challenging it can be to get every detail and every step just right to be consistently perfect—meaning that customers get their orders delivered at the right time, with the correct quantity, in perfect condition, and with the right documentation. With so many industries facing challenges from outsiders with disruptive business models, such inadequate performance is not acceptable for future business success.

Adding to the challenge, e-commerce apps have trained end consumers to want a higher level of customer service—including free shipping, fast response, easy returns and special requests— without paying more. This is putting pressure on supply chains to become faster and more responsive while better controlling costs through technology-driven efficiency. Agility is key.

This agile supply chain model can only be achieved by connecting activities and sharing insights that historically have existed in silos. When data throughout the supply chain is shared throughout the fulfillment process quickly, it is easier to make timely adjustments in the most cost-efficient way.

Supply Chain Management in the Future: Our Best Practices Predictions

By providing access to a wealth of internal and external data, the cloud enables companies to better anticipate demand, optimize fulfillment planning, and feed performance metrics and feedback into R&D and Operations. This improves product and service quality in a continuous cycle that strengthens the top and bottom lines.

Cloud-enabled agile supply chains, which are certainly here today but will dominate in the future, can:

Satisfy demands with extreme variability: Market-to-market, customer-to-customer, and order-to-order.

Anticipate change in fluid circumstances, such as material availability and commodity pricing, new regulations, and unexpected challenges in the last mile of delivery.

Continuously improve business processes. With a complete virtual copy (digital thread) of all activities happening in a supply chain, relevant participants have total visibility into upstream actions and resource status impacting their work, reducing errors and lag time.

Quickly adopt modern and emerging technology. Artificial intelligence (AI), machine learning (ML), the Internet of Things (IoT), and blockchain are beginning to make an impact by offering better insights, trust and granular visibility. Technologies like these will be used to improve efficiency, tighten collaboration and assist in decision-making throughout supply chain activities.

How Supply Chains of the Future Will Work

To satisfy ever-more-demanding customers and maintain profitability, the supply chain of the future will need to be:

Connected with IoT

As it is collected with ever proliferating devices, IoT data becomes instantly available for automated alerts, updates, and actions, as well as ad-hoc reporting and modeling. There will be more companies offering new supply chain capabilities and services such as real-time device health and performance data and even real-time track-and-trace capabilities via the blockchain.

Assisted by AI/ML

Predictive algorithms have been used in areas like demand planning and inventory optimization. With the power of cloud, AI/ML will offer deeper insights and better assistance in areas thought previously to be too complex. For example, a production manager will become more productive by receiving early detection of abnormalities based on IoT sensor data and by getting recommendations for remediation of issues such as making adjustments to equipment maintenance plans, inventory levels, fleet locations, etc. These intelligent recommendations will present ways to address exceptions based on available resources, cost/profit objectives, and other relevant factors.

Digitally Agile

By combining internal, partner, and other trusted data, companies will form resilient supply networks that can sense demand trends early and respond quickly to factors like natural disaster or regulation change. Customer feedback from usage data (IoT) or sentiment (web, social, customer service, etc.) will feed into decision-making for product development or product retirement. Production facilities can better recover from disruption with up-to-date equipment status and quick access to alternate material sources.

Best Practices **Predicted**

By leveraging the capabilities brought by the new technologies, companies can simplify supply chain tasks with higher level of automation and focus on creating more value for customers. Here are two examples:

Requisitions

Requisition To Receipt: New technologies will change how organizations make purchases. Routine transactions such as purchasing office supplies will be executed automatically according to business rules and ranges of parameters, freeing humans to address exceptions and investigate more strategic purchases based on volume, time of year, etc, all assisted by AI/ML for timely insight and recommendation.

—How can we see rapid time to market and value in weeks versus months? Build an organization of strategic purchasers with automated business flows across your network.

Today: from Approval Management

Mobile • Social • IoT

Predicted: to Strategic Purchasing

Raise Requisitions

Automate creation, approval, and order dispatch of regular purchases from approved suppliers based on business rules. Easily locate intended goods and services via assisted UI.

Manage Exceptions, Anomalies, and Business Policies

Recommendation-driven exception handling based on business policies, compliance, and user preferences. Adjust policies/rules based on learned insight, change of buying pattern, or business environment.

Receive Goods and Services

Record goods received or approve invoices for services rendered to trigger automated matching in Payables.

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

Supplier Payments

Supplier Invoice To Payment: Similarly, the supplier invoice cycle could be streamlined further. Validated invoices will be paid automatically through a trusted blockchain network with optimal timing for cashflow. Humans will focus on addressing exceptions and fostering a high performing supplier base.

—Should we pay our suppliers early or on time? There is great savings in discovering the value in paying the right supplier at the right time.

Today: from Invoice Matching

Mobile • Analytics • Social

Manage Supplier Invoices
Process electronically or scan invoices with rules-driven routing to automate invoice processing. Use spreadsheets to speed up manual entry.

Manage Audits, Disputes, and Approvals
Mange rules-driven approvals across any device or desktop. Resolve disputes and holds via a role-based dashboard and secure social interaction.

Manage Prepayments and Discounts
Manage prepayments across multiple devices and leverage competitive payment terms to optimize discount opportunities.

Settle Liabilities
Actively monitor and process supplier and statutory liabilities via secure interaction. Process electronic payments, automated pay runs, or off-cycle payments.

Review Daily Activity
Review and analyze the day's financial activity and monthly progress.

Schedule Payable Close
Stay on predetermined close schedule. Review payables register, trial balance, and reconciliation reports. Close payables period.

Predicted: to Supply Base Optimization

Process Supplier Transactions

Automate invoice processing, audits, disputes, approvals, prepayments, discounts, and liabilities on a continuous basis.

Manage Exceptions and Reviews

Recommendation-driven exceptions based on business policies, compliance requirements and user preference. Include user confirmation of automated handling of similar exceptions and anomalies subject to rule-based approvals.

Close and Securely Post

Follow regular payables schedule to complete supplier transactions and post to general ledger.

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We need a more **agile** and **cost-effective** response to modern customer demands.

Supply Chains: The Widening Value Stream

Globalization and digitalization have impacted every function in the supply chain, and old supply chain models and ideas cannot keep up. What's needed is a connected ecosystem for more agile and cost-effective responses to modern customer demands.

Because supply chains can be complex and are often dependent upon market conditions, they are not static, but consist of dynamic processes. And notably it is certain that automation, through AI/ML, IoT, blockchain and other technologies will influence every supply chain's future.

Now let's take a peek into the world of human capital management (HCM) to predict some future processes.

Chapter 4

HCM: Our Best Practices Predictions

In the 20th century, the term “hard work” often meant tough, physical labor over long periods of time. Today, next generation technologies are changing the present and the future of work. Now how we work has to be smarter, demanding more brain-power and critical thought than muscle power or hand-eye coordination.

We predict that artificial intelligence (AI), machine learning (ML) and robotics will augment humans in all sorts of ways that will evolve how we carry out our daily tasks. In short, technology holds the promise to make work more human.

“Piedra sin agua no aguza en la Fragua.”

—Spanish proverb

Translation:
“To achieve something in life you have to put in hard work.”

Human Resources in The Future: Our Best Practices Predicted

By 2030, 75 million to 375 million workers (3 to 14 percent of the global workforce) will need to switch occupational categories[1]. Moreover, all workers will need to adapt, as their occupations evolve alongside increasingly capable machines. This will hit human resources (HR) in every service area and threatens to break outdated systems that lack adequate tools to respond.

The fact is that HR is the part of the organization that manages its most valuable asset, people. It needs to be ready for massive increases in the automation of all tasks and the majority of business processes. During this shift, as human intervention is reduced in effort, but increased in importance and complexity, effective workforce planning will become critical, furthering adoption of software-driven intelligent automation. Never has the role of the HR leader been more important. It is leaders that will ask the difficult questions: What skills will we need? How will we identify, retain and hire the right people? How can we maintain our culture, what makes us who we are?

This is all good news for everyone; for HR leaders and professionals, employees, and job seekers.

1. McKinsey & Co – Jobs Lost, Jobs Gained: Workforce Transitions In A Time Of Automation (page 8).

Technologies such as AI/ML and blockchain will not only streamline cumbersome recruiting processes, but also empower the humans in HR to make intelligence-based decisions and predictions for optimal sourcing, selecting, and onboarding of the right candidates with the right skills at the right time. Some of these capabilities are available today, and we expect they will become commonplace over the next decade.

The fact is that HR is the part of the organization that manages its most valuable asset, people.

As this transformation is happening, surprisingly the workplace will actually become even more human-centric. It seems contrary to popular fears about robots taking jobs away from people, but a clear benefit of automation is that it will absorb tasks that add no value. It will create more time and opportunities for people to take on higher-impact work. As a result, HR will need to help business leaders refocus on the value of people skills and carve out niches through personalized service, creative communication, innovative ideas, intense collaboration, and other uniquely human resources. At the same time, personalized training will enable people to learn and advance faster so they can contribute more.

The Future of HCM

How will day-to-day life within organizations change? We predict HR roles and processes will be significantly impacted in these following four areas.

Proactive Process Automation

Many processes that require human input will become fully automated and take place in the background, continuously updating so that decisions are always based on real-time data. HR staff will manage only exceptions or anomalies, rather than managing every single transaction. Two examples are:

- Ongoing organizational modeling and predictive algorithms will identify resource and budget needs for planning on a continuous basis.
- Applications will pro-actively surface candidates and employees, and then invite them to apply to open positions—all in a streamlined and connected process.

Predictive Modeling

Powerful analytics applications will automatically scour data for patterns that indicate looming change or untapped opportunity. HR teams will be able to better understand relevant current and future conditions and operate ahead of talent shortages, retirements, emerging knowledge gaps, growth goals, market fluctuations, etc.

Because these advanced analytics applications are operating on open and standards based cloud platforms, they can incorporate trusted data and other applications simply.

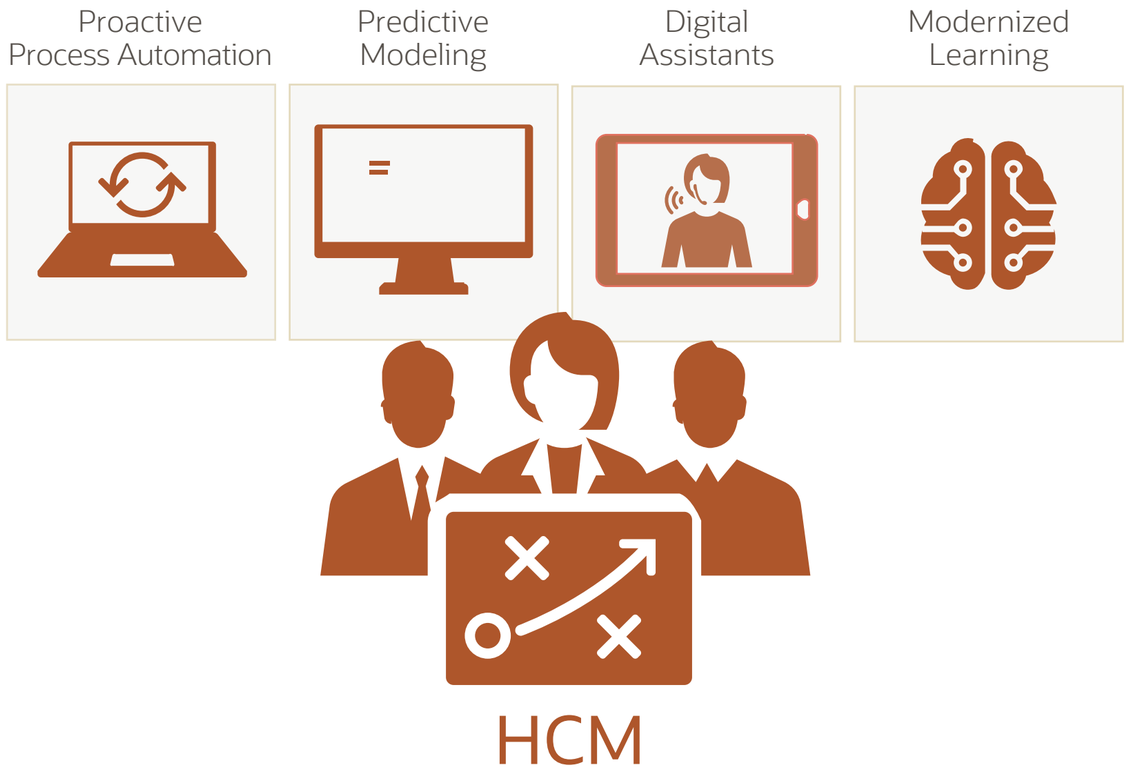
HR teams will also use cloud applications to incorporate other emerging technologies such as blockchain, which is becoming a valuable tool to validate identity, experience, and education.

Digital Assistants

AI/ML-infused digital assistants, also known as chatbots, will automate processes across HR functions but will require HR input. For example, digital assistants can deliver an external and internal candidate engagement experience that is seamless and relevant for prospective hires. The digital assistants use their AI/ML capabilities to generate interest, make informed recommendations, and deliver content within the context of the candidate's profile and interest indicators. HR's role will be to provide relevant content/ collateral (e.g. job description), and define rules and parameters for digital assistants to achieve meaningful interaction.

Modernized Learning

Forward-looking companies are modernizing learning with AI/ML, and this trend will continue. Instead of being manager-driven and classroom-based, learning will become employee-driven and happen continuously as part of everyday work. AI/ML capabilities will automatically make personal recommendations for learning based on the personal preferences, job type, and organizational needs.



Best Practices Predicted: Recruiting and Onboarding

We predict sourcing, screening and selection processing will be streamlined so that the system generates high-quality recommendations for job requisitions.

—**67%** had above-average organic revenue growth. **70%** had above-average total return to shareholders (TRS). **74%** had above-average net enterprise value or NEV. (Source: McKinsey, https://www.mckinsey.com).

Today: from Resume Screening

Mobile • Analytics • Social • Big Data • AI/ML

Determine Workforce Need
Leverage workforce modeling and predictive algorithms to identify resource and budget needs. Understand talent supply/demand to mitigate future shortages due to retirements, market expansions or high turnover ratios. Create new workforce plans and submit to finance team for approval. Authorize job requisitions.

Drive Candidate Engagement
Manage corporate brand across website/social media for cohesive messaging. Include digital assistant for candidate interactions. Present relevant content to candidates (e.g. articles, events) and recommendations to personalize the experience.

Manage Sourcing
Find candidates to fill current needs but also those with potential to meet future needs by sourcing from social media, referrals, job boards, agencies, or internal talent profiles and succession pipelines.

Intelligent Screening
Identify top prospects via multi-tiered automated screening and assessment tools. Review recommended candidate resumes, conduct interviews and perform background checks.

Select Candidate and Generate Offer
Determine best-fit candidate, analyze offer insights (e.g. likelihood to accept), and collaboratively manage salary details with the Compensation department. Obtain required approval and electronically deliver offer package.

Onboard New Hires
Automate the completion of on boarding tasks with new hire portal and dashboards. Manage benefits, knowledge requirements and learning plans.

Predicted: to Best-Fit Candidates

Align Candidate Sourcing with Workforce Needs

Automate workforce planning to determine current and future resource and budget needs. Drive external and internal candidate engagement per approved plan and review an auto-generated list of potential prospects.

Select Top Prospects

Intelligence-driven recommendations to reskill existing talent for internal mobility, to hire new talent, or to outsource talent. Automate top prospect selections, determine likelihood of success, and offer generation.

Onboard Best Candidate

Onboard candidate(s), generate benefit packages, deliver required equipment, provide targeted career learning plan opportunities for now and for the future, and create talent profile(s).

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

The same technologies that are disrupting traditional roles are essential in the **workplace of the future**.

The Future Workplace: HCM at the Helm

Technological change is bringing dramatic changes to all aspects of managing human resources, and HR leaders should be prepared to respond. The same technologies that are disrupting traditional roles and responsibilities are also essential for managing people in the highly automated, human-centric workplace of the future.

AI/ML, automation, digital assistants, IoT and blockchain will greatly impact best practices, as more and more mundane tasks are absorbed by background processes, and people assume more strategic and uniquely human roles.

By satisfying your employees you also create loyal and happy customers. Let's now take a look at how customer experience (CX) will be affected in the future by emerging technology.

Chapter 5

CX: Our Best Practices Predictions

When Confucius spoke these words, he could not even imagine what the future would bring in the field of technology and customer experience. Until recently, studying the past and using historical information was the only way to present new, relevant buying opportunities for customers. Now in the 21st century, we are predicting the future, parsing oodles of data in milliseconds using AI and powerful machines that accurately recommend to customers what they don't even know they need yet. This is all part of the Experience Economy.

The Rise of the Experience Economy

The Experience Economy is based upon the whole of a customer's experience anywhere, at any time, with any organization. Customer expectations are now measured based upon the quality of service experience with any company or any organization. No longer are you measured based upon how you did in serving just your own customers. Your company or brand is measured in the customer's eyes against any company or service organization in the world. Whole economies can be affected by the customer's experience. Only those organizations that will achieve success in an Experience Economy will do so by innovating faster, while others will struggle.

Let's take the example of Amazon's Prime delivery service producing an exceptional customer experience. Amazon has shifted the expectation of every customer around the world. Who doesn't want immediate delivery of ordered products in hours, free shipping and easy returns? Using new practices as in this example, can affect entire economies and industries on a broad scale.

Just as emerging technology affects finance and supply chain, customer experience (CX) processes are driven to undergo rapid change in this Experience Economy. In fact, since being broadly customer-centric is imperative to survival, customer experience organizations usually find themselves very willing to be the first adopters in new technology and process change. So we see ongoing responsiveness to process change in the customer experience area.

Customers have indirectly defined the Experience Economy not only as a new economic driver, but also as a new purchase journey that puts their experiences at the center of every stage: discover, engage, consume, and serve. This type of journey will dominate into the future.

The Experience Economy

1 **Discover** is fundamentally about exploration and how customers can quickly find what they need or want. Today businesses need to be present in multiple social channels to find and service customers where they are rather than the customer seeking out the business.

2 **Engage** is about consumers moving past the discovery phase to learn more. Consumers can learn more only if information is easily accessible. Advanced technologies such as voice search is making this increasingly more common.

3 **Consume** is about an efficient and effective buying experience. Consumers want to design their own experiences and buy immediately when they are ready—not when brands tell them to buy. Innovative companies are leveraging self-service platforms where customers can customize their own products, request quotes, and submit orders with little or no help.

4 **Serve** is about the experience of receiving highly effective service fulfillment. Time is the new currency, and companies that can reduce wasted time around the customer experience can be richly rewarded. A core advancement is the ability to predict with AI/ML what the customer needs and present offers with next best recommendations, leapfrogging the competition in meeting the customer's desires first.

Ultimately this Experience Economy, starts and finishes with **data**. How organizations leverage trusted data from many sources: internal and external, will be critical. Pulling together the hidden insights from combinations of structured and unstructured data and acting on them will deliver success. Failing to do so may sadly result in irrelevance or even worse, extinction.

Consumers are

driving innovation

by adopting new behaviors and forcing companies to change.

CX in the Future: Our Best Practice Predictions

As mentioned a customer's experience with a brand is becoming more important than the products and services the company sells. As consumers, we already feel this shift and know there's no turning back. Consumers are driving innovation by adopting new behaviors and forcing companies to change to fulfill their expectations. It's a consumer-driven force that is reshaping how we define the customer experience. This consumer-driven force is the Experience Economy.

No longer can companies think about just customer journeys—whether consumer-based (B2C) or business-based (B2B)—as linear. Today's consumers search for knowledge, engage, and take action when they want, in whatever channel or application they happen to be using. To effectively meet their needs on a consistent and large-scale basis, companies will need to connect data, experience, and intelligence across all CX areas: sales, service, marketing, and commerce.

How the Future of CX Will Look

Data is and will continue to be central to the Experience Economy. It will feed automation of customer interactions with services across channels and provide predictive insight on how to anticipate customer needs. At the same time, people will provide more one-on-one personal attention to customers because they will have more time and knowledge to do so, thanks to automation.

> AI/ML will become standard in CX software applications because machine learning (ML) algorithms are the power behind predictive analytics that can help brands anticipate customer's needs. ML recognizes patterns, such as search patterns during the "discover" phase of the purchase journey, and provides insight that sales, service, marketing, and commerce can use to give a proactive response.

> The lines between B2B and B2C will continue to blur creating another category, B2X, business to any entity. "X" equals any entity. We are already seeing customer expectations align. B2B customers want the same level of service that B2C companies provide, and they want a deeper brand relationship, not a distributor relationship.

> Digital assistants—also known as chatbots—within applications will be a big part of customer-facing automation across buying phases, enabling a faster, more streamlined customer experience. Voice interactions will be the consumer's interface of choice, using it to discover new brands, products, and services—as well as to consume and receive products and services.

Business models will vary as well. The online subscription business model, is already growing in popularity, will become more prominent because it encourages buyers to buy without the business investing in as much precious capital and resources. It enables the business to generate recurring revenue from value-added services for maintenance and additional services while leveraging existing infrastructures and distribution channels. Automation is essential for delivering and managing the subscription-as-a-service business model at scale for tasks such as:

- Renewals, cross-selling, and up-selling
- Configuring, pricing, and managing quotes
- Collecting and processing payments
- Revenue-recognition compliance
- Tracking maintenance and service contracts

Best Practices **Predicted**

Now that we've discussed the predicted effects on the economy, business processes and business models via the customer experience, let's take a deeper look at two common B2B and B2C customer experience processes.

B2B: Search to Checkout

AI/ML will use customer data to create a personalized experience for the user where they are located. No longer does the user have to engage with a company's product in the store or on the company's website; rather, customer data will be used to bring customized recommendations directly to the user via social networks by learning about their daily interactions and preferences. The experience that can engage the customer first and keep them engaged with relevancy wins.

—**81%** of consumers are willing to pay for a better experience (Source: Capgemini Digital Transformation Institute).

Today: from Product Search

Mobile • Analytics • Social

Search Engine Marketing
Drive traffic via Search Engine Optimization to entice website visit while buyer searches online.

Identify User
Display relevant landing page based on search terms. Remind buyer to login for custom catalog, price list, etc.

Personalize Online Visit
Apply pre-negotiated price to users under contract. Deploy responsive design for optimal viewing on all devices. Assist with live-chat or call throughout visit.

Locate Intended Products
Reach high relevancy results with advanced search and navigation. Pinpoint intended items with detailed attributes and rich product data, e.g. technical specs or drawings.

Configure Product Offering (Optional)
Guide configuration via pre-defined rules. Display pricing impact and cross/up-sell suggestion based on selections.

Manage Cart
Add items to cart from current session or saved list. Allow splitting lines into different shipments, locations, or payment methods.

Predicted: to Tailored Recommendation

Personalized User Experience
Display landing page personalized to user profile and location with recommendations based on previous purchase patterns, similar user profiles and promotions.

View Tailored Offer
Generate pre-approved subscription or item based offer specific to user/customer complete with pre-agreed terms, further recommendations and options.

Manage and Finalize Cart
Summarize cart contents with confirmation dialog and instant acceptance of price, terms and conditions.

Finalize Purchase
Automated processing of contracts, pricing, delivery methods, & financial terms, billing. Automated warm transfer to after sales support.

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

B2C: Awareness to Interaction

The awareness to interaction process of the future begins with a business actively seeking a customer and does not stop when a customer adds a product to their cart; the process continues even after a customer has made a purchase. Advanced technologies will continuously seek and serve the customer.

—Brands who increase their customer retention by **5%** have seen revenue growth of up to **95%** (Source: Bain).

Today: from Customer Interaction

Mobile • Analytics • Social • Big Data

Create Optimized Web Presence
Drive site traffic by boosting Search Engine Optimization from all dynamic commerce-created pages.

Provide Adaptive Experience
Display content based on explicit user indications (how they get to site and click behavior.) Adjust experience as users move through site.

Advanced Search and Navigation
Tailor search results based on customer interests and provide product comparison for easy decision-making. Find needed items in the fastest and most effective way.

Entice Account Login
Prompt visitor to login and make it easy with features like social login. Incorporate account specific benefits (loyalty program, promotion, etc.).

Apply Personalization
Dynamically personalize experience based on visitor profile and needs.

Pinpoint Promotions and Merchandising
Maximize value per order with targeted promotions, recommendations, and content.

Add to Cart
Record product selection and quantities. Retain cart information across web and retail systems.

Predicted: to Continuous Experience

Discover
Consumer creates passive interest with the product through casual interactions during their day to day activities.

Engage
Consumer is now actively researching the product after it has struck their interest via social media channels via personalized search results and offers.

Consume
Product is added to cart with applied promotions and discounts and any necessary adjustments.

Serve
Create brand loyalty through proactive customer service and consumer behavior predictions.

Cloud • Mobile • Analytics • Social • IoT • Big Data • AI/ML • Blockchain • AR/VR

Companies are using

CX applications

to deliver exceptional customer experiences everywhere, every time.

The Experience Economy Is Expanding

The Future Is Here Today

These are just a few CX processes that will be effected by emerging technology. And, it is happening today. Customers are pushing brands to continue innovating to provide what they want immediately. Few customers like to wait, and the competition is just a click or a voice request away! Companies are using powerful CX applications to deliver exceptional customer experiences everywhere, every time—and doing so profitably and at scale. Large amounts of internal and external data are being processed to extract the right data at the right time to enable advanced analytics and effective automation in back-office functions as well as customer-facing interactions.

Leaders will need to continue fostering new thinking and compel companies to provide new types of technology across all areas of customer experience: sales, service, marketing, and commerce to stay ahead.

Chapter 6

What's Next?

What Have We Learned?

It is clear that automation will continue into the future. We also know that AI/ML can't replace the human capacity for nuanced decision-making, creative thinking, and personal contact. However these emerging technologies will drive competitive differentiation. That is, if organizations are using a cloud-based business platform of connected applications that can optimize the usage of many data sources, which is the feedstock of advanced technologies such as AI/ML, IoT, digital assistants and blockchain.

We have also observed that the pace of innovation has accelerated to the point where we can predict best practices and prepare for them more easily because of cloud services. Cloud-based applications gives us the capability to keep all of our business processes tuned and updated as those new predicted best practices evolve. Best practices have always been blueprints for managing multiple new and dynamic operating models, and they will continue to be.

Keep Moving, Propelled by Best Practices

In summary, we can see Best Practices and business processes evolve across the entire business from finance to supply chain to HR and customer experience. This is propelled by new demands by people who create the Experience Economy, whether they be employees or consumers. And, what a difference five years in Oracle Modern Best Practice has made since the inception of the first version of Oracle Modern Best Practice.

The evolution of business processes has started a revolution. As the confluence of cloud, mobile, analytics, social, big data, and the Internet of Things (IoT) meets connected and scalable cloud applications that leverage artificial intelligence/machine learning (AI/ML), blockchain and augmented and/or virtual reality (AR/VR), are all becoming mainstream.

Your Roadmap

To move boldly and confidently into the future, consider adopting Oracle's existing Modern Best Practices found on oracle.com.

Then understand the impact and the advantage that predicted best practices can afford you in the future.

Remember, though, that the ultimate goal of adopting best practices is to make a meaningful and strategic difference in your business today. So carefully consider your operational and customer-centric, employee-centric goals at the same time.

Take time to explore more about *Oracle Modern Best Practice - Predicted* and start an internal conversation about your organization's future with Oracle Modern Best Practices.

ORACLE CORPORATION
Worldwide Headquarters
500 Oracle Parkway, Redwood Shores, CA 94065, USA
Worldwide Inquiries
TELE + 1.650.506.7000 + 1.800.ORACLE1
FAX + 1.650.506.7200
oracle.com

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