IBM Institute for Business Value

Creating a smarter enterprise

The science of transformation



IBM Institute for Business Value

IBM Global Business Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior executives around critical public and private sector issues. This executive report is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Global Business Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to iibv@us.ibm.com for more information.

By Karen Butner

Continuous transformation, a strategy that ultimately led to IBM becoming a Globally Integrated Enterprise, restored our company from a near-death experience two decades ago to its current position as a market leader with one of the world's most valuable brands. Innovation and reinvention have kept IBM solidly positioned to respond to a changing marketplace, provide client value and achieve financial objectives. By sharing our lessons learned, we seek to open a dialogue on how organizations can differentiate and pave the way for long-term prosperity.

Change is essential to progress. Today's global business leaders embrace this conventional wisdom. The ability to transform is a prerequisite not only for progress, but also for survival in the shifting, modern global economy.

But how do you orchestrate a corporate culture of constant reinvention? How do you ingrain it into the DNA of your organization? How do you manage it? Measure it? Make it a competency for your leaders and your entire organization?

IBM has developed a differentiating point of view about addressing this transformation challenge, one informed by our client's needs and years of hands-on experience and trial and error. IBM has built a business model predicated on a commitment to continuous transformation. In an industry in which there is perpetual tension between innovation and commoditization, IBM has followed the path of innovation and reinvention.

For a decade, IBM has been transforming itself through aggressive pursuit of global integration. By adopting common, shared-support functions, enterprise-wide processes, a strong governance system and leveraging global skills, the company has improved client value and driven enormous productivity savings, freeing up resources to invest in growth and innovation.

As a result, IBM has achieved strong and sustained business performance. In 2012, IBM achieved its tenth consecutive year of double-digit earnings per share growth and is on track to achieving its 2015 earnings-per-share roadmap (see Figure 1). Our shared services, end-to-end process transformation and integrated operations have yielded cumulative productivity savings of US\$6 billion in the initial 2010 roadmap, and we are on track to achieve an additional \$8 billion by 2015. This ongoing profitability has generated excellent cash flow, enabling IBM to better serve our clients, deliver substantial returns to investors, while also investing in the business — including \$75 billion in research and development since 2000.

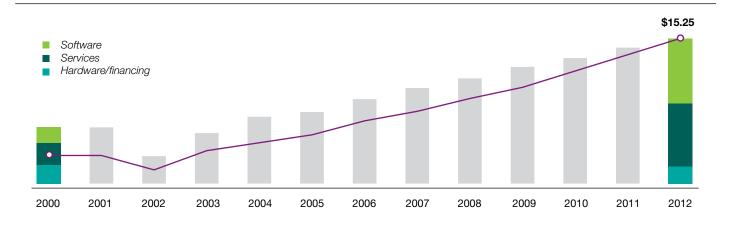


Figure 1: Continual climb in earnings per share.

IBM is among the most acquisitive organizations in the world. Our growth strategy includes acquiring companies to provide higher-value solutions for our clients' shifting needs, entering new markets and exiting non-core businesses. To meet investor expectations, revenue growth must come from both organic and nonorganic sources. Since 1999, we have executed more than 200 merger and acquisition (M&A) transactions, with a combined value of more than US\$30 billion.

To support this extensive activity, we have developed a comprehensive M&A end-to-end process, from strategy, through due diligence, to integration planning and execution, with early focus on integration. An integration executive is appointed early in the deal phase to lead all aspects of the program. This enables a fast start to creating transaction synergies, reduces risk and optimizes the return.

In recent years, IBM has expanded its portfolio with dozens of acquisitions – building capabilities in business analytics, cloud, social and mobile – while gaining new insight and technology from our acquisitions.

The paradox of the innovation economy

A paradox of the innovation economy, in our belief, is that to deliver results consistently, you have to change constantly. Organizations need to embrace restless reinvention, constantly finding ways to improve every aspect of their operations. That requires maintaining a highly disciplined approach to transformation.

In this guide, we will cover the "what," the "how" and lessons learned that can be applied to the transformation initiatives of many companies. To begin with, it is important to understand the concept of a Globally Integrated Enterprise (GIE). A GIE is an organization that has standardized, consolidated, and organized its daily operations around the world to improve efficiency and productivity. It is one that focuses resources on revenue-generating activities that facilitate growth.

A GIE also has strong leadership and use of analytics that drives continuous improvement. This allows the organization to respond quickly to changing markets and predict results with greater confidence and act accordingly. It can focus on strategic initiatives to create value – while continuously transforming to deliver productivity gains and operating efficiencies (see Figure 2). Typically, as an organization advances along its transformation journey, it rationalizes support functions, optimizes global footprints and embeds analytics in every aspect of its business.



- Rationalized and standardized support functions to enable economies of scale
- An optimized footprint of global networks and processes
- Strong governance driving continuous improvement
- Expanded consolidation approaches
- Embedded intelligence into operations

- Respond quickly to changing markets
- Leverage value chains across businesses and geographies
- Continuously transform to deliver productivity gains
- Apply greater focus on strategic initiatives
- Predict results with greater confidence

 $\it Figure~2:$ Driving sustained transformation with predictable business results.

In this guidebook, IBM is sharing the blueprint it has developed and refined for transformation. This guide describes three key elements essential in driving IBM's transformation to a smarter enterprise:

- I. Creating value services as a platform for global integration
- II. Building an enterprise-wide transformation leadership, governance and change management model
- III. Optimizing the entire system, migrating from a globally integrated to a smarter enterprise; with social, mobile, analytics and cloud technologies.

While no two organizations are alike, IBM believes its approach can be helpful to transformation journeys of others. Indeed, every year IBM leaders meet with hundreds of clients to exchange ideas and discuss transformation experience and collaborate on challenges and strategies. This guide shares the best practices and lessons learned (thus far) as IBM and its clients seek to master the everevolving science of transformation.

I. Value services – Creating value services as a platform for global integration

"Globalization is not a trend, but, in fact, a condition of future success. Your ability to see the world, and the world of business, differently can spark significant change and possibility for your organization. Accordingly, savvy business leaders everywhere are seeing smarter approaches to develop and drive a successful transformation."

Linda Sanford, Senior Vice President, Enterprise Transformation, IBM

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IBM's migration to a Globally Integrated Enterprise was characterized by several distinct phases:

- Phase 1: Adoption of globally integrated shared services organizational units providing support services to all of IBM

 collaborate and share knowledge and experiences to increase levels of standardization, enable economies of scale and introduce discipline in global operations
- Phase 2: Development of horizontal, end-to-end process transformation initiatives
- **Phase 3:** Creation of integrated operations programs that draw on synergies in our worldwide enterprise activities, skills and assets to drive integration.

We refer to our ongoing transformation of shared services, end-to-end process transformation and integrated operations, collectively, as our value services.

Phase 1: Adoption of globally integrated shared services

In moving from a national, to a multinational, to a global company, it is not uncommon for organizations to create redundancies – support functions spread across various business units or separate functions for each country. The net result is inefficiency, redundancy and lack of flexibility.

Many companies have solved these inefficiencies by creating a shared-services business model. Shared services may be defined as consolidating like functions within an organization to achieve economies of scale and standardized processes. Common information technology solutions, skills and processes typically enable these centers.

The IBM journey started with shared services. First, we restructured finance into consolidated functions, with global oversight by the Chief Financial Officer across all business units. Next, we took on supply chain management, creating a single organizational unit responsible for all procure to pay processes across our entire enterprise. Human resources, information technology, real estate and legal functions were each consolidated with standardized processes and technology. Marketing evolved from fragmented marketing strategies in each business unit and country, to a demand system to make the way we generate and manage demand smarter, while increasing the power of our brand. We also reorganized sales management support to improve seller productivity by better aligning resources with opportunities.

But our leadership quickly realized that, although productivity and efficiency savings were mounting, this was the very "tip of the iceberg." Leaders envisioned and implemented an operating entity for each area of functional expertise – pulling all global resources together organizationally, with a single global owner with full control over their resources – budget, headcount, process and information technology (IT) requirements.

This powerful change was a catalyst for driving greater efficiencies and innovation across the shared services. Each function was compelled to examine its resource composition and enablement by geographies and core processes. These quickly became globally integrated functions, locating operations and capabilities where they can best be performed anywhere in the world, based on the right cost, skills and business environment.

Key lessons learned

As we rationalized redundant functions and processes into globally integrated shared services, we learned a great deal that might help the transformational journey of other organizations:

- Business transformation and IT should be closely aligned. Processes should be enabled, once rationalized and standardized, with a common, standard information technology capability.
- Understand the process as currently executed before you try to simplify it. Don't automate a mess – fix processes first, then apply IT.
- Continuously and constantly improve processes, aligning skills. Refresh with new technologies and simplification.

Phase 2: Development of end-to-end process transformation initiatives

End-to-end process transformation initiatives are those that span functional and business units. These processes offer the greatest opportunity for improvements in efficiency and effectiveness, as they have significant cost impact on other areas of the business and can unlock productivity gains by taking an end-to-end view. In the second phase, IBM applied standardization concepts to these cross-functional processes similar to those detailed in Phase 1.

Finance transformation

In the early 1990s, IBM Finance wasn't adding up. The organization was decentralized and dependent on a maze of unique systems with inconsistent reporting. The finance organization was viewed mostly as a necessary accounting function.

What changed? Everything.

The current and future mission of the finance organization is to provide predictive, fact-based business intelligence as a trusted business advisor to the enterprise.

| | Then | Now |
|--|------|-----|
| Finance expense to revenue (E/R) | 3% | 1% |
| Days to close the books | 18 | 7 |
| Time spent on high-value activities | 30% | 70% |
| Finance staff in Centers of Excellence | 0% | 50% |
| Ledgers | 60+ | 1 |
| Chart(s) of account | 60+ | 1 |

Typical horizontal, end-to-end support processes for many organizations include:

| Cross functional process | Focused on |
|---|--|
| Integrated sales and operations planning: the process to evaluate and revise time- phased projections for demand, supply, product and portfolio changes | Aligning sales, production, finance, marketing, transportation and procurement into a single forecast plan |
| Opportunity to order: processes of sales prospecting and opportunity identification through customer-order placement | Optimizing the sales process to unlock seller productivity |
| Order to cash: processes of customer- order placement, through receipt of product and payment for goods or services | Driving supply chain efficiency and effectiveness |
| Procure to pay: processes of requesting goods or services, through delivery and receipt of goods, through payment | Leveraging relationships with business partners |
| Product lifecycle management: processes of managing the entire lifecycle of a product from its conception, through design and manufacture to service and disposal | Simplifying complex product portfolios across various business units |
| Enterprise risk management: proactive and comprehensive identification, quantification and monitoring of risks | Mitigating global risk |

Like shared services, a single executive leads end-to-end process transformation initiatives across functions and business units. This has brought a significant amount of focus and synergy to our global operations.

Information technology, of course, enables each of these processes. As processes are radically simplified across functions, units and geographies, technology provides a seamless environment of current and pertinent information.

To further support this end-to-end process, we have built a common analytical framework, an enterprise process framework, that describes IBM's business process. This facilitates the ongoing evaluation of our processes to identify opportunities for continued productivity improvements and enhancements. This framework also supports the identification of workload drivers to eliminate work through automation, while identifying outsourcing targets for non-core work. More recently, we have added advanced analytics and predictive business insights to continually evaluate end-to-end performance criteria.

Key lessons learned

We have identified some important principles for process simplification in our end-to-end integrated processes:

- Simplify from the point of view of the user versus the process owner, eliminating process steps that render no added value
- Take an end-to-end, outside-in view of processes, with cross-unit leadership and clear accountability across business units and geographies.
- Let specialists handle specialized tasks enable them with fact-based insights from analytics to make informed decisions.

Process excellence requires executive sponsorship, a strong partnership with business units and strong process skills at all levels. Over the past several years, we have ramped up process expertise – training hundreds of IBMers across the company in Lean Sigma and other process methodologies.

Operations/Supply Chain Management transformation

With the complexities of global markets, economies, and political uncertainty, all accompanied by risks, it is vital to equip the supply chain with the right model. The IBM supply chain has been under continuous transformation.

The broad scope of the Integrated Supply Chain (ISC) spans the processes of pre-sales to end-of-life (asset reutilization) and cash collection for all of our business units. Today, we apply advanced analytics to predict, prescribe and optimize, end-to-end.

IBM's smarter supply chain

has been central to a successful transformation over the past decade



With solutions for better visibility, analytics applied to forecasting and inventory management and automated processes, managing more than in annual spending is now science. \$35 billion



\$6 billion \$

in costs and expenses have been saved annually, the equivalent of a Fortune 500 company

35,000 🔲

suppliers in 45 countries are connected online and 98 percent of supplier invoices are handled electronically

Clients in 100 countries



have self-service access to their contract, order and inventory information around the clock A quality early warning system

identifies defects faster and earlier, saving



Nearly 10,000 points in the supply chain are analyzed automatically to identify risks to business continuity

242 tons of paper and 201 tons of carbon emissions are saved each year and sales calls have been eliminated



In 2012,

65 clients



from around the world contributed ideas for supply chain improvement and interviews

Q

98.6% of IBM's clients

say that IBM supply chain support meets or exceeds their requirements

Phase 3: Creation of integrated operations

Next, IBM began activating integrated operations, recognizing that groups or clusters of skills and assets could be optimized if more closely associated. We applied the principles of global integration that we developed with our shared services and applied them across our global operations. Integrated operations generally cover areas that have similar outcomes that are performed in multiple business units or geographies, processes that require similar skills and processes that can be optimized with similar advanced technologies, such as analytics.

Our integrated operations cover numerous categories – business operations, center-based operations, global client centers, development, coverage optimization with profitability, worldwide investment, quota transformation and patents.

Our Globally Integrated Enterprise journey has been packed with learning as we take our company and our clients into new dimensions of efficiency and growth. Beginning in the early 2000s, our journey has been marked by rapid accomplishments (see Figure 3). We are now fine-tuning our enterprise transformation governance and moving into the next generation of making things smarter.

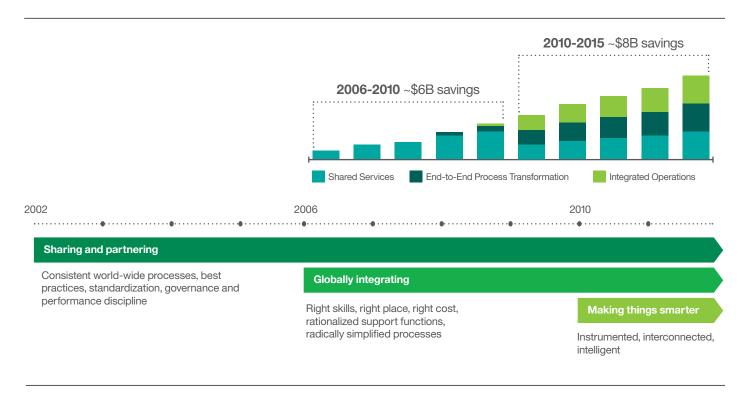


Figure 3: The IBM transformation journey.

II. Enterprise transformation – Building an enterprise-wide transformation leadership, governance and change management model

"Growth and comfort do not coexist."

Ginni Rometty, Chairman, President and Chief Executive Officer, IBM

We are, as all global enterprises, in a constant state of transformation, engaged in a stream of concurrent initiatives. As a result, we find it essential to apply change management practices to all major transformation initiatives. This has been a key factor in the success, adoption and behavior change as new improvement initiatives are designed and deployed around the world.

Governance and transformational leadership

Early on in our transformation journey, we recognized the need to have an empowered governance leadership organization to oversee all of our global transformation initiatives. IBM has a dedicated team for enterprise transformation. A senior vice president (SVP) leads our transformation to the Globally Integrated Enterprise (see Figure 4).

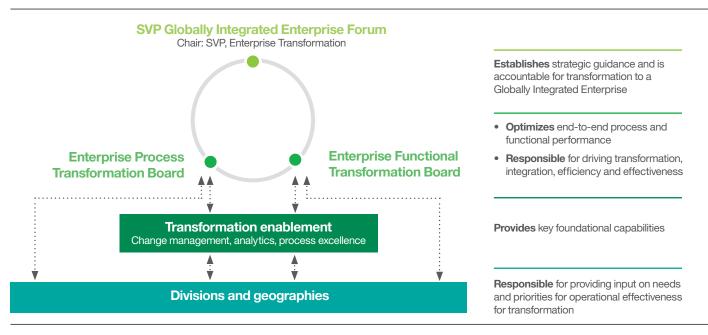


Figure 4: Transformation governance model.

We have a structured and a rigorous governance model with councils and boards, which includes oversight by the Senior Vice President of Enterprise Transformation. Collaboration among value services, IT and the business units, provides visibility to productivity objectives at all levels of the organization and ensures consistent and integrated delivery. This cross-enterprise senior leadership team is focused on performance, integration and values – the forces for innovation and ongoing reinvention.

The financial system starts with a disciplined process for creating the business case, which is used to commit to benefits and drive investment decisions. We support all of these initiatives with a disciplined, visible measurement system. This measurement system includes quarterly performance reviews, operational and financial metrics tracking, investment performance and business unit benefit reviews.

Transformation leadership also required our leaders to have a global mindset, to foster employee engagement and to inspire the next generation of ideas. To help enable this, we refreshed our leadership competencies and defined a new Leadership Framework that emphasizes business results and the employees' experience.

"The leaders need to transform first, in order for the organization to transform – role modeling and enabling the new mindsets and behaviors that embody the core values."

Nancy DeViney, Vice President. Organizational Change Management, IBM

Creating a values-based culture

We embrace the notion that change is critical for progress. The culture of the organization is one of the most important elements to create and sustain a strong focus on serving clients with creative approaches to their emerging needs.

To build a culture that resonates broadly, we needed to engage all our employees. We conducted a Values Jam in 2003 to refresh our core values, with thousands of IBMers participating in this on-line collaborative event on the company's Intranet. By values we mean more than ethics, compliance, and a code of conduct. We believe that values express what differentiates IBM with clients, investors, employees and our communities. Our values reflect our mission, our aspirations, how we make decisions at our company and how we behave and act, collectively and individually.

IBMers Value

Dedication to every client's success Innovation that matters – for our company and for the world Trust and personal responsibility in all relationships

Over the past decade, we have continued to engage employees in Jams to surface the operational changes that would enable us to live our values, to drive innovation and to identify the practices that exemplify our values. More importantly, we rigorously and continuously take actions to align our leadership behaviors, people practices, management system and communications to reinforce our values-based culture. And, we conducted employee values surveys to gain feedback on our progress and areas of improvement. The values survey provided leaders with tangible and actionable insights, "hardening" what some considered to be a "soft" topic.

Our values are enduring. They underpin our strategy and transformation programs, placing an important responsibility on leaders and teams to ensure that they are driving changes in a manner that is consistent with our values and that will have all IBMers participating in our transformation.

Enabling enterprise-wide organizational change

IBM recognizes that enterprise-wide change management is a critical component to drive the behavioral shift required for organizational agility and deliver business results on complex transformation efforts. Therefore, we established an Organizational Change Management (OCM) center of excellence as part of the Enterprise Transformation team, with the mission of deepening the change capability of tens of thousands of IBM leaders and teams, helping them to apply better change – IBM's standard best practice method and integrated toolkit – to key transformation initiatives worldwide.

We have found that practitioners achieved significantly higher rates of project success by focusing on the four facets of change (see Figure 5).

We have learned over the years that certain change program elements are critical to success:

- Leadership commitment Employees take their cues from leadership, who must clearly articulate the change vision and role model desired behaviors.
- Employee buy-in Employees are willing to change because they understand the case for change, have a meaningful "say" in the process, are regularly engaged and are given the appropriate resources and enablement.
- Organizational alignment The organization's policies, processes, tools and people practices must be aligned with desired behaviors to support the change agenda.
- Transition management Dedicated accountability is established for coordinating and managing change impacts, engaging all stakeholders to build their understanding and support to sustain change. Measurement of adoption is a critical success factor.
- Value realization Clear metrics (quick wins and long-term) are established, tracked and communicated throughout the change lifecycle.

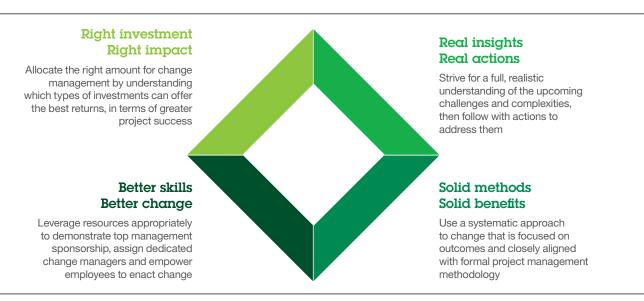


Figure 5: Four facets of change.

Organizational change occurs from the top-down as well as from the bottom-up. Recognizing this, many of our IBM leaders are now using social business technologies to reach out and engage teams around the world in ongoing change, collaborating with employees to enhance transformation approaches and solutions. Analytics and social-listening techniques increasingly provide organizational insight on the progress of change and are used to strengthen approaches to build adoption and speed results.

Our experience has proven that a focus on governance, transformational leadership, values based culture and organizational change management are critical to enterprise transformation success.

Human Resources transformation

Trends in globalization, workforce demographics, merger and acquisition activity, and the like have contributed to the need for more strategic human capital insight. This has forced HR organizations to move beyond the legacy administrative support provider to a strategic role supporting the requirements of a diverse, mobile and increasingly geographically dispersed workforce.

The transformation of IBM Human Resources

| | Before | After |
|-------------------------------------|--------|-------|
| HR operation centers | 150 | 8 |
| Percent delivered to shared centers | 0% | 70% |
| HR Applications | 1600 | 400 |
| | | |

Marketing transformation

Redundancy. When we started transforming our marketing functions, each business unit had its own, with dissimilar skills, processes and outcomes, all leading to confused messaging and erosion of the IBM brand. We needed a single marketing voice to reinforce our one IBM strategy, of providing a "single face" to our clients. As marketing's role broadens – and the digital age revolutionizes how firms comprehend their markets and reach consumers – so do the skills and capabilities required to make your marketing function up to the task.

The art - uniting brand and culture



IBM's marketing function has taken on a broader role in considering the big questions: what is the company's purpose? What does it stand for? What does it mean to be an IBMer? Pondering these questions led to the creation of IBM's Smarter Planet agenda and rallied IBMers around a common purpose: to become an essential company

Today, IBM has achieved the #4 spot on Interbrand's Best Global Brands, no small accomplishment for a B2B enterprise in a list dominated by consumer brands.¹

The science - applying technology

Applied automation and analytics for smarter demand generation. Partnering with the CIO team, IBM Marketing moved from a "spray and pray" marketing approach that took **7M** emails to deliver a message to prospective clients to just over **500,000** emails using automated marketing.







500,000

The result: A response rate 14x greater with the new approach. In one major market, lead conversion has doubled.

The discipline - focusing expertise

Created **Global Centers of Excellence** for marketing operations and market insights to improve performance and productivity. We standardize design, planning and execution through common marketing practices. With our new "marketing labs," we will apply agile principles to innovate and integrate the best of IBM into client journeys.



III: Optimizing the entire system, migrating from a globally integrated to a smarter enterprise: with social, mobile, analytics and cloud technologies.

"Big data . . . constitutes a vast new natural resource that can revolutionize industries and societies – with the right technology, capable of analyzing and extracting value and insight from it."

Ginni Rometty, Chairman, President and Chief Executive Officer, IBM

The next evolution in enterprise transformation is creating a smarter enterprise by optimizing the whole system. Digital forces of pervasive connectivity and big data are setting the stage for this next generation transformation, which encompasses (see Figure 6):

- · Analytics for customer and enterprise insight
- · Social media for business collaboration
- · Mobile communications for constant connectivity
- · Cloud technologies for information enablement.

Organizations are starting to understand and explore how to process and analyze a vast array of information in new ways. Two important trends make this era of big data different going forward. The first is the digitization of virtually "everything," which now creates new types of large and real-time data across a broad range of industries. The second is that today's advanced analytics technologies and techniques enable organizations to extract insights from data with previously unachievable levels of sophistication, speed and accuracy.

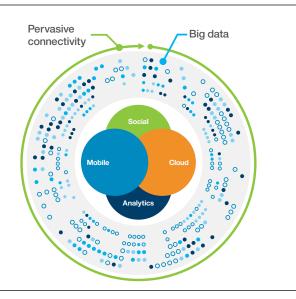


Figure 6: Digital transformation forces.

Analytics for customer and enterprise insight

Throughout this guide, we have referred to the extensive use of analytics to bring business insights and optimization to every single aspect of our transformation – every function, every process and every decision and thought. We have honed our analytics-driven competencies and incorporated analytics in our thinking and our decisions. We have found that analytics-driven organizations master the competencies to generate insight from information to create value (see Figure 7).



Align the organizations around information

- Create a trusted information foundation
- Integrate and govern information
- Instrument the lifecycle governance of content
- Leverage the volume, velocity and variety of internal and external data

Anticipate to see, predict and shape business outcomes

- Spot and analyze trends and anomalies
- Predict potential threats and opportunities
- · Plan, budget and forecast resources
- Assess and manage risk
- Automate decisions

Act with confidence at the point of impact to optimize outcomes

- Embed analytics into organizational processes
- Leverage proven solutions and models
- Empower people with historic, real-time and predictive insights
- Establish a culture that fosters analytics-based decision-making

Figure 7: Analytics-driven competencies.

Following are a few examples of how analytics can bring insights to "big data:"

- Aligning the organization around information: Coverage optimization with profitability (COP) is a Big Data application focused on helping sales managers plan sales coverage more effectively. COP is a recommendation engine for sales managers. Using data to create a view of the revenue gross margin and profitability of a sales team at the account level, the COP tool provides IBM sales leaders with recommendations for how to increase, maintain or decrease sales resources on specific accounts. The data is analyzed using SPSS (statistical analysis software) and Cognos and comes together in a private IBM cloud environment.
- Anticipating risk and issues: Mergers and Acquisitions
 Analytics predicts and mitigates risks in acquisitions, using data from past deals to identify correlations in deal characteristics and to highlight potential issues in integration and operation, so that they can be addressed before they actually occur.
- Predicting and shaping business outcomes applying workforce analytics: As IBM has shifted from a hardware-based firm to a more services-based business; the need to optimize all facets of human capital has become increasingly important. In this environment, IBM is applying analytics to take unique, differentiated approaches to transforming and retaining employees with key skills. One of the steps IBM has taken is applying predictive and prescriptive analytic concepts to its labor base to drive differentiated compensation decisions.

- Optimizing at the point of impact: In growth markets, IBM has designed a process and developed a model that accurately predicts workers at highest risk of leaving and then makes recommendations on actions to take to retain them. Analytics allows managers to cut through all of the data to get individual recommendations and take proactive steps to retain the right talent.
- Predicting and acting at the point of impact: In manufacturing, we are using deep analytics to improve chip yields, predict problems before they occur and optimize performance across an array of complex manufacturing processes – enabling both savings and growth.

Our advanced analytics and research skills are globally managed in centers of competencies. With thousands of patents filed each year, and a research division of thousands of mathematicians, we have a long and vast experience of applying analytics to business problems and performance optimization.

Social media for business collaboration

IBM has built a major presence in social media to build influence and reach our clients, business partners, and other stakeholders in new ways. Also, social media enables our employees to find one another, stay connected and share information in an ad hoc, dynamic way across our global organization. We believe that this fosters the next generation of leaders, supports the way that they choose to communicate and facilitates collaborative innovation.

"We are committed to making IBM a preeminent social enterprise."

Ginni Rometty, Chairman, President and Chief Executive Officer, IBM

Needing to connect more than 450,000 employees across 170 countries, our goal is to enable employees to be more knowledgeable, and of course, more productive. We believe in and encourage collaborative innovation. We promote and organize the flow of ad-hoc collaboration and information sharing to a worldwide community – many members of which are in mobile offices and working virtually as they travel around the world. To encourage rapid grassroots adoption, we created communities of enthusiasts.

Internally, IBM's social media tools are being consolidated onto Lotus Connections, a social software platform for business, which includes status updates, profiles, communities, blogging, discussion forums, wikis, and a host of other features. In external environments, IBM encourages the use of Facebook, LinkedIn, Twitter and blogs in support of sales, marketing, communications, technical eminence and recruiting. Employees' social interactions are not under a microscope. We continue to experiment with new ways to capitalize on social media to drive IBM's market leadership, share our perspectives and reach clients constantly and consistently.

Information technology transformation

IBM's IT strategy is a critical enabler of our transformation and supports a broad set of goals enabling productivity, integration, growth and innovation. The most agile organizations know, that to get serious about

reinvention, they must first get smart about how they manage and deploy technology. So to become world-class at transformation, you need a world-class IT organization.

The transformation of IBM's IT Organization

Pervasive consolidation







Data Centers 155 to 5



Applications

More than \$1.5B in IT savings since 2005. Now we're reinvesting these savings in our future. Using IT not just as a productivity tool, but as a catalyst for innovation and for reinventing how work gets done.

Virtualization and Project Green





Consolidating **3900 servers to 30** on System z – projected to deliver:

80% energy cost savings and 85% floor space reduction

Accelerating transformation and value creation with technology



The IBM social platform supports 428,000 blog users and 86,000 public communities.



Over 185,000 mobile devices are now used by IBMers to conduct company business.



Using Cloud, IBM reduced server provisioning from 5 days to one hour.



Using workforce analytics, IBM has taken proactive steps to retain high-skill employees, projecting savings of \$100M+.

Mobile communications for constant connectivity

The use of mobile technologies is exploding across the world – for individual communications and business communications. A mobile enterprise can attract new customers and transform its business processes and IT infrastructure. The possibilities of mobile applications to boost enterprise efficiency, improve customer service and interactions seem endless.

IBM is responding to the explosion in mobile devices with a mobile enablement strategy that provisions the right applications to the right employees at the right time on their secured device. BYOD or "Bring Your Own Device" paradigms are driving a number of companies to support employee-based mobile devices. For IBM, it's BYOSD or "Bring Your Own Securable Device," allowing for the management of devices, which presents the appropriate interfaces and capabilities for secure enterprise activation.

Our mobile device applications have gone social, as well. Our "Sametime" mobile keeps users in close touch with multichannel chat, while Sametime meetings allow mobile users to participate in live presentations. The Lotus Traveler solution allows us to push email, calendar and contacts to smart devices, allowing employees increased flexibility and productivity.

Although many enterprises may consider mobile technology as emerging, we would like to emphasize the power of real-time information in the hands of our leadership team, our business partners our employees worldwide and, most important, our clients. We have connected over 200,000 IBMers to internal networks using handheld devices. And this journey has just begun.

Cloud technologies for information enablement

As we transformed, we moved rapidly to implement cloud technologies to enhance constant information availability with a standardized enterprise application infrastructure across the world.

By providing a platform to standardize and automate the management of key business applications, cloud has enabled dramatic reductions in IBM's IT support costs and major improvements in workplace efficiency and resource use. More than that, cloud computing has accelerated IBM's ability to innovate and do so in ways that improve how we deliver services and support inside IBM. In short, it has become a catalyst for business transformation at IBM.

We are expanding cloud deployments for a wide range of applications. Leveraging cloud technologies allows us to achieve economies of scale, elastic scaling and better automation. Developers, sellers and business managers are equipped with self-service, dynamic compute capabilities. And we are rapidly deploying cloud solutions to support collaboration and broaden employee access to analytics.

In 2013, IBM acquired SoftLayer, a leading cloud services business for the enterprise. Internally, IBM is already applying SoftLayer for software product development and CIO application test and development work. Plans are in place to add more workloads to this platform, which allows for rapid provisioning of infrastructure as a service.

Your transformation journey

"I don't think there's a company . . . that's done a better job of laying out where they are going to go . . . and then having got there."²

Warren Buffett about IBM

IBM has developed a clear point of view on what it takes to transform an organization and make it smarter. We have covered a great deal of experiences, expertise and lessons learned in this guide and have highlighted them in Figure 8.

As you embark upon – or continue– your transformation journey here are five principles that we encourage you to consider:

I. Create a movement. In the age of the social network, employees expect to be part of the process. Mandates from the top aren't sufficient. To galvanize IBMers around a common set of beliefs, we held a worldwide online jam nearly a decade ago that engaged the entire company on the question of IBM's most basic values. At the conclusion of three days of passionate debate, we had set in motion a company-wide movement and created a unifying set of guiding principles that remain just as relevant today. In 2013, under Ginni Rometty's leadership, IBM held a "Client Experience Jam" in which employees identified practices that when put into action bring the values to life for clients. Whether it's jams, which we continue to employ frequently, or some other social business, you must engage employees to energize change.

2. Build a platform for continuous improvement. Over the past eight years, IBM has been evolving from a multinational model to a Globally Integrated Enterprise. We've done this by driving common worldwide process, standards and applications. We've capitalized on global skills, moving work to where it can best be done. For example, we've taken our shared services – IT, HR, Finance, Marketing, Legal and other functions – and globalized them. Each shared service has a single global leader who is accountable for performance targets.

Strategy

- CEO sponsorship is critical
- Create a "sense of urgency" that the organization can rally around
- Think, act and optimize globally
- Implement governance, performance goals and reporting discipline

Productivity

- Business transformation and IT should be closely aligned
- Don't automate a mess fix processes first, then apply IT
- Take an end-to-end, outside-in view of processes

Growth

- Focus on high-growth customer segments and new markets
- Leverage business analytics to better align resources with opportunities with fact-based insights
- Consider both organic and non-organic sources for revenue growth

Change

- Need cross-unit leadership and clear accountability
- Engage employees broadly
- Make culture tangible
- Recognize that changing culture is also a journey

Figure 8: Expert advice from lessons learned.

The integration of back-office processes produced more than \$6 billion in productivity improvements from 2005 through 2010. We've taken what we've learned from the shared services and applied it to other aspects of our operations. With this foundation, we can continuously improve and achieve the productivity goals we've committed to in IBM's 2015 roadmap. Equally important are our process improvements which are aimed at freeing up the time of employees. We want them spending less time on administrative tasks, so they can focus on living our values: helping our clients succeed, innovating, and building trusted relationships.

- 3. Pursue growth (as well as productivity). Building a global platform isn't solely a productivity contributor. It's a foundation for growth. It's given us much greater flexibility in how we operate. We can now "plug-and-play" a ready-made infrastructure to set up shop, hire employees and serve clients wherever we see the next big opportunity. For example, with the opening of offices in Mauritius, Tanzania, Senegal and Angola and with established hubs in South Africa, Kenya, Nigeria and Egypt, IBM today is present in more than 20 African countries, with more expansion planned. Many believe this is Africa's time, and IBM wants to be a part of it. With an agile platform for growth, we can.
- 4. Apply technology for smarter transformation. Deploying new technology by itself won't transform a business, but if applied shrewdly, IT can accelerate and enable transformation and kick start new ways of doing things.

At IBM, we've been taking advantage of new capabilities, such as cloud computing and analytics, to become a smarter enterprise. Over the past several years, IBM has deployed analytics across such operations as sales management, risk management, HR, finance, manufacturing and the supply chain and others.

IBM has established an internal analytics team to work with business units on projects where the creative application of analytics can improve business performance and make us a smarter enterprise – faster. We're educating all of our people on how to use analytics to make data-driven decisions.

5. Establish an enterprise change capability. Finally, effective change comes down to the "soft stuff" – the people side of change, which can be the hardest to get right. Recognizing the importance of the culture side of transformation, we've built skills in organizational change management and embedded this dimension in the plans of our transformation projects. We've also been focused on developing change leadership as a core competency for our next generation of IBM leaders.

Leading change is challenging. It's a journey that never ends. Enduring organizations never stop reinventing themselves. The good news is, this is the golden age for transformation. Today, people everywhere are eager for a new, smarter way of doing things. To do it right, what's needed is a thoughtful and strategic approach that involves the entire organization and is structured for growth.

The science

Historically, enterprises may have been valued by the sum of its parts (each individually scrutinized for improvement opportunities). But in today's complex, global climate, it's the symphony of the multiple moving parts, working together in unison that quantifies true global eminence.

The key is finding the right balance of driving out cost through productivity and then investing those savings back into the business to fuel future innovation and growth – or take them to the bottom line in the form of profitability and increased earnings per share.

Enterprise transformation and a state of constant reinvention are essential to progress and successful growth – progressing a culture of innovative change to a science – the science of transformation.

To learn more about this IBM Institute for Business Value study, please contact us at iibv@us.ibm.com. For a full catalog of our research, visit:

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Karen Butner serves as the Global Leader, Research and Thought Leadership, Strategy & Transformation for the IBM Institute for Business Value, the business think tank of IBM. Her focus areas of research are Globally Integrated Enterprise, Supply Chain Management/Operations, Sustainability and Risk Management.

In this role, she is responsible for market insights, industry trends and thought leadership development. Karen is frequently invited to keynote at international conferences and is widely quoted in leading business and industry publications. She has over 25 years of experience in strategy development and transformation. Her passion is to assist clients in the development of strategies and improvement agendas to bring significant value in transforming their global performance. She can be reached at kbutner@us.ibm.com.

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References

- 1 "Best Global Brands 2013." Interbrand. 2013. http://www. interbrand.com/en/best-global-brands/2013/Best-Global-Brands-2013-Brand-View.aspx
- 2 "CNBC Transcript: Warren Buffett Explains Why He Bought \$10.7B of IBM Stock (Part 5)." CNBC. November 14, 2011. http://www.cnbc.com/id/45290263



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