

} FEDCAP SOLUTION SERIES

BUSINESS IN THE 21ST CENTURY

Maximizing
Organizational
Intelligence:
*Building Capacity
to Create and
Strategically Use
Knowledge.*

A JOB MAKES A DIFFERENCE

Solution Series is a project of Fedcap's Community Impact Institute





A LETTER FROM FEDCAP'S PRESIDENT & CEO

Dear Friends,

Welcome to our 16th Solution Series--Maximizing Organizational Intelligence: Building Capacity to Create and Strategically Use Knowledge.

Organizational intelligence is defined as the capacity of an organization to create knowledge and use it to strategically adapt to its environment. Actionable knowledge that drives insights and leads to better decision-making is necessary for success in a fast-changing global marketplace.

As you'll read in the following pages, maximizing organizational intelligence presents companies with both opportunities and challenges. Intelligent organizations that successfully leverage information have a distinct competitive advantage, but they risk being overwhelmed by the sheer volume of data that is available to them.

To fully leverage data and analytics, we have learned that we need to manifest all the elements that define an intelligent organization--social, emotional, business and cultural intelligence. This requires technological capabilities, understanding the dynamics and motivations of a multicultural workforce and being structured to manage complexity and change. Every member of an organization must learn to think analytically, seek out new knowledge, embrace experimentation and innovation, and encourage creativity and independence.

The Fedcap Group is a global network of nonprofit agencies dedicated to advancing the economic and social well-being of the impoverished and disadvantaged. We fully appreciate the need for and complexities of leveraging powerful new technologies, intensive market placed research, as well as the intelligence of our own diverse and talented workforce to drive actionable insight.

At The Fedcap Group, we embrace the challenge--it is the only way forward.

Thank you for joining us and taking part in this important discussion.

Sincerely,

Christine McMahon

Fedcap President and CEO



THE CURRENT REALITY


Every two days the world generates over five quintillion bytes of data--that's a 5 followed by 30 zeros, and equal to all the data the world has created from the beginning of time until 2003. There are over 5 billion daily internet searches and 1.5 billion visits to Facebook. The pace of data generation is accelerating as companies pore through emails, news, mobile data, transactional data and social media feeds. There are data sensors on factory machines, in our cars, on our wrists, on packing crates, in space and under the oceans.

This is big data--the collection of huge volumes of structured and unstructured data. The challenge for business is to make sense of it all--to gather and analyze data and turn it into actionable knowledge. Companies are committing significant resources to analytics, but their capabilities are generally immature. Twelve percent of respondents said that analytics enable them to stay current with emerging industry innovations,



Knowledge has become the key economic resource and the dominant, if not the only, source of competitive advantage.”

— Peter F. Drucker



and only two percent said that analytics have had a broad, positive impact.

To use information effectively, companies must be structured for flexibility and to manage complexity. They must move beyond thinking of information as reporting and use it to drive impactful outcomes--reducing risk, reacting to an outlier, increasing productivity and staff loyalty, finding an opportunity or increasing a margin.

In short, companies need to better leverage their human and IT assets. They need to become intelligent organizations.



Companies want to create value from data, but according to Forrester Research, while 74 percent want to be “data-driven,” only 29 percent have succeeded in turning data and analytics (information) into action.

INTELLIGENT ORGANIZATIONS

Just as we measure the intelligence of people by using IQ, the study of organizational intelligence measures the intellectual capacity of entire organizations--organization IQ or organizational intelligence. IQ has been found to account for roughly 50 percent of the differences in human success, and there is a growing body of research that suggests that something similar is true of organizational IQ. Roughly half of corporate performance may be attributed to a company's capability to respond intelligently to complexity and change, with the rest determined by dynamic factors: leadership, strategy and environmental conditions.

Modern companies are comprised of highly networked individuals who constantly interact with each other and various information systems. In that sense companies are themselves highly integrated systems designed to manage knowledge. How they do so is a mark of their organizational intelligence, which has distinct characteristics including social, emotional, business and cultural intelligence--values and qualities that flow from leadership.

Intelligent organizations seek out new knowledge, embrace experimentation and innovation, encourage creativity and independence, and are committed to intelligent, transparent communications. They employ an adaptive structure to

“An organization’s ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage.”

— Jack Welch

manage complexity and change and are designed to create situational awareness with tools capable of analyzing disparate data in real or near-real time.

According to one theory, organizational intelligence is the problem-solving capacity of an organization created by subsystems that include organizational structure, culture, stakeholder relationships, knowledge assets and strategic processes, each of which is impacted by information technology.

- **Organizational Structure:** Decentralized organizations raise organizational intelligence because they permit faster, local decisions.
- **Organizational Culture:** In general, entrepreneurial cultures correspond with higher organizational intelligence.
- **Stakeholder Relationships:** Companies should leverage the knowledge of stakeholders, including customers and boards of directors.
- **Knowledge Assets:** These assets include a company's intellectual assets: employees, patents, and data bases.
- **Strategic Processes:** Wide participation is usually more effective because more information is used to make better strategic decisions.
- **IT Systems:** IT systems with greater processing power and distributed architectures generally improve organizational intelligence. Automation that connects disparate systems and data sources and enables users to quickly respond to threats and opportunities also increases organizational intelligence.

Organizational intelligence is the capacity of an organization to create knowledge and use it to strategically adapt to its environment and advance its position in the market.





SOCIAL INTELLIGENCE

Social intelligence is broadly understood as people skills--the ability to get along with others and to foster cooperation. It includes an awareness of social dynamics and interactional skills, as well as self-insight around one's own thinking and behavior.

In organizations, social intelligence means an “ability to recognize, understand, and use emotional information about others that leads to or causes effective or superior performance.” It has two components: social awareness and social facility. Social awareness includes empathy from the ability to sense another's thoughts and feelings to grasping complex social situations. The socially intelligent leader is attuned to others and understands how the social world works. Social facility refers to an ability to effectively present oneself and interact with others in social situations, and to be an effective influencer.



Empathy and social skills serve as the foundation for social intelligence — the interpersonal part of emotional intelligence.”

— Daniel Goleman

EMOTIONAL INTELLIGENCE

Without emotional intelligence there can be no organizational intelligence. Daniel Goleman, author of *Emotional Intelligence: Why It Can Matter More than IQ*, identified five categories of emotional intelligence that are key to thriving in the workplace: self-awareness, self-regulation, motivation, empathy and people skills. Multiple studies show that effective leaders possess all or most of these competencies.

Soulaima Gourani, a TED Talks mentor and World Economic Forum expert in behavioral science, defines emotional intelligence as having a “good understanding of yourself, self-control, empathy and a natural understanding of people’s decisions, needs and desires. It is a deep human understanding and embracement of people who are different from yourself.”

Given the enterprise-wide nature of data generation and collection and the teamwork required to manage it, it is critical that emotional intelligence be embedded in a company’s organizational intelligence. The authors of a study published in the *Harvard Business Review* said that; “**The most effective teams are emotionally intelligent ones.** By working to establish norms for emotional awareness, teams can build the solid foundation of trust, group identity, and group efficacy they need for true cooperation and collaboration, and high performance overall.”

“Research shows convincingly that EQ is more important than IQ in almost every role and many times more important in leadership roles.”

— Dr. Stephen Covey,
author of *The 7 Habits of
Highly Effective People*


*Data! Data!
Data! I can't
make bricks
without clay!*

— Sir Arthur Conan Doyle

BUSINESS INTELLIGENCE

Business intelligence has been described as “the reporting of historical and current business data to serve a full range of reporting needs.” It has also been described not as data at all but as “an architecture and set of integrated technologies, methodologies and processes that translate new data into meaningful information.”

In the broadest sense, business intelligence leverages software and services to transform data into actionable intelligence that informs strategic and tactical decision making. Business intelligence software tools access and analyze data sets and present analytical findings in reports, summaries, dashboards, graphs, charts and maps. Business intelligence solutions generally do not recommend a strategy or course of action, but present data that allows users to understand trends, derive insights and create actionable plans.



Business intelligence is critical for understanding current and past events, and for validating forecasting of future trends. “When you have mastered numbers, you will in fact no longer be reading numbers, any more than you read words when reading books. You will be reading meanings.”

-W.E.B. Du Bois

One way to think of Business Intelligence is as a systematic combination of reporting, analytics, intelligence, and strategy:

- **Reporting** — what do we see?
- **Analytics** — what does it mean to us?
- **Intelligence** — how do we put the data into action?
- **Strategy** — what is the outcome we want to achieve?




CULTURAL INTELLIGENCE

Cultural intelligence is the ability to function effectively in a variety of cultural contexts, such as ethnic, national, generational, and organizational. Organizations that are culturally intelligent understand and appreciate different cultural perspectives, recognize human commonalities and interpret words, gestures and behaviors in ways that are true to the intentions of people from different cultures.

Cultural intelligence is critical for strengthening interpersonal and professional connections in a multicultural workforce and expanding business presence in the market. Culture, defined as a group's deeply rooted patterns of values, customs, attitudes and beliefs, guides much of our behavior and influences employees' feelings of inclusion and motivation at work.

“Cultural Intelligence is a critical capability for navigating today’s increasingly global and diverse business environment. It’s so important that we made it one of our core behaviors at PwC.”

— **Robert Mortiz,**
Chair PwC, United States



Culturally intelligent leaders and employees understand and leverage the various perspectives of a multicultural workforce and are thus more likely to drive innovation.

Companies that are culturally intelligent have a competitive advantage as cultural intelligence improves communication to internal and external stakeholders and performance. In a survey from the Economist Intelligence Unit, 90 percent of executives from 68 countries cited ‘cross-cultural management’ as their top challenge in working across borders.

Companies are invested in cultural intelligence. At IKEA, employees conduct home visits to see how people live in cities like Milan, New York or Shenzhen, and use the information in product design. Cultural intelligence is a top priority at Coca-Cola, one of the world’s most successful global brands. The company knows that its customers are more likely to form impressions of it based on interactions with delivery truck drivers rather than its executives. That’s why it requires all of its employees to have at least a modicum of CQ.





ADVANCED ANALYTICS

Data is raw and unprocessed information usually in the form of text or numbers. Data types include descriptive data (self-declared information and demographics), behavioral data (customer orders and transactions), interaction data (email, chat transcripts, calls) and attitudinal data (opinions, preferences and needs).


Advanced analytics are a broad category of inquiry that can be used to help drive changes and improvements in business practices. Predictive analytics, data mining, big data analytics and machine learning are just some of the analytical categories that comprise advanced analytics.

Companies need data-derived insights to succeed; how they respond to those insights is largely a function of their organizational intelligence. More companies are getting it. In a KPMG survey, 56 percent of leading multinational companies said they changed their business strategy to meet the




In God we trust; all others must bring data.”

— William Edwards Deming



challenges of mining and analyzing big data. More than half upgraded their IT systems to better integrate data and analytics into their business. Seventy-one percent said they plan to spend at least 5% of sales on mining data and analytics over the next few years.

Companies with a strong analytics strategy are more intelligent organizations. They have scenarios and contingency plans in place to respond to changing market conditions, manage risk with deeper insights and can more fully explore new opportunities. They have the right IT infrastructure in place to deliver insights at the point of impact. Senior executives are directly engaged in embedding analytics processes into the company and in supporting associated change management. They have a data governance framework in place that defines how data is being classified, captured, refined, analyzed, managed, monetized, retained and erased.



Analytics refers to the practice of capturing, managing and analyzing data to drive business strategy and performance—and it is only useful if it drives insights and action that leads to better decision making.

DATA CHALLENGES AND RISKS

The intelligent organization is prepared to manage the risks associated with big data. The deluge of data is itself a risk, both within companies and globally. According to a report by global data management firm Veritas, U.S. companies on average have 16 percent of their data tagged as business critical. Thirty percent is classified as ROT (redundant, obsolete and trivial), and 54 percent is “dark data,” whose value has not been determined. The direct costs of ROT alone could cost global organizations \$3.3 billion by 2020, not accounting for investment cash that could be productively used elsewhere.

The reason why so many companies have yet to leverage data for actionable insight is the complexity and cost. In a KPMG Capital survey of 144 corporate executives, 85 percent cited finding the right technology solution as the biggest challenge in implementing data and analytics capabilities, and almost half cited integration with existing systems. Barriers to achieving successful

“*Most organizations still suffer from very siloed data management and systems, which means very few have an enterprise-wide view of their data to enable effective analytics. If Data and Analytics are going to drive enterprise performance, you need that line of sight.*”

— **Eddie Short,**
Leader for Data and Analytics, KPMG.

analytics of big data include defining and framing problems, identifying which data to collect, acquiring the capacity to obtain and analyze data, and siloed information embedded in antiquated legacy systems.

Poorly understood or improperly applied data and related infrastructure can pose risks. Network complexity can create strategic bottlenecks, impacting response times for managing business and cybersecurity risks.

As data storage costs have fallen, many companies, believing that cloud storage is “free,” hold onto data for too long and focus on volume instead of relevancy.

According to Veritas, the ‘free storage’ myth means that companies are pushing dark data further out of the sight of management before it is properly classified, and without a formal cloud strategy. Budgets and IT strategies are often based on data volume and the belief that it will continue to grow exponentially, rather than the data’s relevancy and value.

“We still build models and run analytics with the data that is most available rather than with the data that is most relevant,” says Steve Escaravage, Senior Vice President of IT consulting company Booz Allen Hamilton.

The phenomenon of big data has also raised significant concerns in society at large about data privacy, data security and discrimination in a range of areas based on data profiling.

“By classifying more of their data, organizations would have a better view on how much money could be re-invested,” the report said.





A STRATEGY FOR BECOMING AN INTELLIGENT ORGANIZATION AND CREATING ACTIONABLE DATA

**“The value of
an idea lies in
the using of it.”**

— Thomas A. Edison

Actionable data is aligned with KPIs (Key Performance Indicators), business goals and strategic initiatives; has context with comparisons or benchmarks; is relevant (delivered to the right person at the right time in the right setting); is specific and complete; suggests new patterns or insights; is presented clearly, with appropriate visualizations and messaging.

A survey of 49 analytics experts identified 10 top strategies for intelligent organizations to turn data into actionable insights:

- 1. Measure the right things:** You can't optimize what you don't measure. There is no one-size-fits-all solution.
- 2. Ask the right questions of funders, consumers, partners, donors:** Tap into their experiences.
- 3. Use segmentation to drive action:** By grouping data with common attributes you can dig deeper. Your business questions will determine which segments to study.
- 4. Use clear visualizations:** The way data is presented has a huge impact on outcomes.
- 5. Discover the context of data:** Establish context for data. What do the numbers mean? Are they important? Do they affect the business? How is the data collected?
- 6. Build a solid optimization plan:** Use the Six Sigma concept-- Define, Measure, Analyze, Improve, Control--process to optimize your data.
- 7. Construct a great hypothesis:** A clearly articulated hypothesis should have the potential to drive action and is the starting point for data analysis.
- 8. Integrate data sources:** Mining through and connecting all your sources will enhance customer understanding and can deliver great insights.
- 9. Break down organizational silos:** A healthy organization is the foundation of everything. Inspire, motivate and be curious about data.
- 10. Hire smart people:** Tools can collect data, but people build insights. Data analytics is a team effort.

“We wanted to establish a culture where we spent far less time moving and reporting the data and far more time using the data for meaningful business outcomes”

— **Michelle A’lessandro**,
*CIO of manufacturing IT
at Merck*

Advanced analytics (AA) are foundational to an intelligent organization, and have driven huge breakthroughs in scientific research, medicine, law enforcement, machine design, sports performance, city planning, and financial trading. In business, intelligent organizations utilizing advanced analytics have 33 percent more revenue growth and twelve times more profit growth than those that don’t, according to Ernst & Young.

Using AA, Target can predict when a customer will expect a baby, Wal-Mart can predict what products will sell, and car insurance companies know how well their customers drive. Retailers optimize stock based on analyzing social media data, web search trends and weather forecasts.

An initiative at Merck to collect data about manufacturing execution and inventory control wound up taking close to 70 percent of engineers’

time involved in the project. “We wanted to establish a culture where we spent far less time moving and reporting the data and far more time using the data for meaningful business outcomes,” said Michelle A’lessandro, CIO of manufacturing IT at Merck. The company created analytics tools that can crunch both structured and unstructured data, including text, video and social media. The system has helped decrease the time and cost of IT analytics projects by 45 percent, led to a 30 percent reduction in average lead times and a 50 percent reduction in average inventory carrying costs.

Amazon was an early adopter of advanced analytics. The company’s ‘customers who bought this...’ feature was revolutionary at the time and has since evolved into an even more powerful marketing tool, the ‘today’s recommendations’ feature. The feature is informed by wide-ranging data points including customer wish lists and similar purchases.

Political campaigns use AA to guide electoral strategy. To micro-target voters with ads and solicitations they know voters’ credit history, party affiliation, internet browsing habits, income, education level and employment history, and gather information from voters directly through apps and other interactive tools. They know what books you read, which movies you stream, which shows you watch and where you shop. Microdata about voters can be aggregated for regional or statewide strategies, and predictive analysis can anticipate how a candidate will perform.



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