THE MONEYBALL CIO

Learning the Science of IT Decision Making

NERCOMP

Presented by: Matt Mandich, Director Innovation & Strategy
Beane has applied statistical analysis (known as sabermetrics) to players, focusing on **On-Base Percentage**, which led teams to reconsider how they evaluate players.

Analyzed scoring chances for and against a player, and the likelihood of a positive play occurring based on the way a defenseman clears the puck from his zone.
Business Satisfaction is **IT’s KEY METRIC**

- **Innovator**: Transforms
  - Reliable Technology Innovation
- **Business Partner**: Expands
  - Executive Execution on Business Projects
- **Trusted Operator**: Optimizes
  - Executive Fulfillment of Work Orders
- **Firefighter**: Supports
  - Reliable Infrastructure of IT Service Desk
- **Unstable**: Struggles
  - Inability to Provide Reliable Business Services
Our data is sourced from three Analytical Programs

- **CIO Business Vision**
  - Stakeholder Satisfaction
  - 42,500+ Business Leaders

- **CEO-CIO Alignment**
  - IT / Business Alignment
  - 350+ Pairs of CIOs & CEOs

- **Management & Governance**
  - IT Team Capability & Mgmt
  - 4,500+ IT Staff Members
CEOs & CIOs: do they see eye-to-eye?

Alignment on the Target Role for IT:
- Aligned: 33%
- Somewhat Misaligned: 34%
- Highly Misaligned: 33%

Alignment on the Current Performance of IT:
- Aligned: 51%
- Misaligned: 49%

n = 350+ pairs of CEOs and CIOs
How satisfied do we make the Business?

11% of firms score lower than 6.0 in Overall Satisfaction

73% of firms have an Overall Satisfaction score between 6.0 and 8.0

Just 16% of firms score above 8.0 in Overall Satisfaction
How about over time?

A closer look

The only category that is steadily going up is Dependency.

IT is not improving and the business is becoming more dependent on IT.

n = 431 first year organizations from ITRG’s CIO Business Vision diagnostic
What Drives Business Satisfaction?

- Project Delivery & Capacity: 22%
- Relationships: 20%
- Innovation: 16%
- Applications: 14%
- Infrastructure: 14%
- Policies: 8%

Values represent the percent of the R² value that each category accounts for in a multiple linear regression model.
Analyzing BUSINESS SATISFACTION

- Overall Satisfaction with and Value from IT
- Core IT Services
- Relationship Satisfaction
- Resource Constraints and IT Dependency
- Use of Shadow IT

Built from 43,000 Business Leaders
Levels of IT Performance vary significantly

<table>
<thead>
<tr>
<th>Service</th>
<th>Importance</th>
<th>Satisfaction</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Desk</td>
<td>2</td>
<td>79%</td>
<td>48% - 95%</td>
</tr>
<tr>
<td>Network Infrastructure</td>
<td>1</td>
<td>75%</td>
<td>45% - 91%</td>
</tr>
<tr>
<td>Devices</td>
<td>5</td>
<td>75%</td>
<td>56% - 92%</td>
</tr>
<tr>
<td>Work Orders</td>
<td>8</td>
<td>75%</td>
<td>45% - 93%</td>
</tr>
<tr>
<td>Business Applications</td>
<td>3</td>
<td>72%</td>
<td>41% - 90%</td>
</tr>
<tr>
<td>Data Reliability</td>
<td>4</td>
<td>72%</td>
<td>47% - 89%</td>
</tr>
<tr>
<td>IT Policies</td>
<td>11</td>
<td>71%</td>
<td>43% - 91%</td>
</tr>
<tr>
<td>Projects</td>
<td>10</td>
<td>71%</td>
<td>40% - 91%</td>
</tr>
<tr>
<td>Requirements Gathering</td>
<td>12</td>
<td>69%</td>
<td>43% - 94%</td>
</tr>
<tr>
<td>Analytical Capability</td>
<td>6</td>
<td>67%</td>
<td>42% - 86%</td>
</tr>
<tr>
<td>Customer Facing Tech</td>
<td>7</td>
<td>66%</td>
<td>47% - 83%</td>
</tr>
<tr>
<td>Innovation Leadership</td>
<td>9</td>
<td>66%</td>
<td>39% - 93%</td>
</tr>
</tbody>
</table>

Net IT Support Score: Satisfaction Percentage +30%

Net IT Support Score: Value Percentage -2%

Relationships Satisfaction
- Needs 71%
- Execution 71%
- Communication 70%
Business Leaders misjudge which services really matter to them

Overrated Services
- Network Infrastructure
- Service Desk
- Business Applications
- Data Quality
- Devices
- Analytical Capability
- Client-Facing Technology
- Work Orders
- Innovation Leadership
- Projects
- IT Policies
- Requirements Gathering

Underrated Services
- Devices
- Analytical Capability
- IT Policies
- Requirements Gathering
- Projects
- Work Orders
- Innovation Leadership
- Business Applications
- Data Quality
- Network Infrastructure
- Client-Facing Technology

DATA DRIVEN INSIGHT
Rethink your priorities; invest in services with the highest return on IT satisfaction. Projects, work orders, and innovation leadership drive IT satisfaction.

Ensure projects deliver value, remain on budget, and finish on time. Achieve fast turnaround on work requests.

Data needs to be good, but truly spectacular data may go unnoticed. Investing in state-of-the-art devices won’t significantly bolster satisfaction.
Provide the Right Level of Core Service...
but Focus on the Services that Drive Business Satisfaction

Graph showing the relationship between Overall IT Satisfaction and Satisfaction in Core IT Services. The graph includes lines for Projects, Work Orders, Innovation Leadership, Business Applications, Requirements Gathering, Service Desk, Client Facing Technology, Network Infrastructure, Analytical Capability, Data Quality, Devices, IT Policies. The IT Value Threshold is marked.

*Created Based on Correlation Coefficients
The Formula for Business Satisfaction
Linking Core Services and Happy Stakeholders

Details

\[
\hat{y} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \epsilon
\]

- 0.48 \cdot \text{Project Delivery}
- 0.22 \cdot \text{Relationships}
- 0.12 \cdot \text{Infrastructure}
- 0.09 \cdot \text{Applications}
- 0.07 \cdot \text{Innovation} + \epsilon

= \text{Overall Satisfaction with IT}
90.2% of the predicted values were within ±5% of the actual satisfaction with IT.
A NEW PERSPECTIVE ON IT

Using data to help optimize IT performance
Three Very Different Philosophies

Which will help you the best?

Balanced Bill
Chief Information Officer
Blue Bus Co.

“Every IT process is an equally important part of a successful IT operation.”

Trendy Tony
Chief Information Officer
Yellow Yukelele LLC

“An IT leader in 2016 needs to do three things to succeed: invest in cloud, increase capacity, and innovate.”

Indecisive Isabella
Chief Information Officer
Green Gardens Inc.

“I don’t know what my priorities will be. Depends what matters, and where we can make an impact.”
Which Approach is Best?

What you try to improve matters. A lot.

<table>
<thead>
<tr>
<th>Baseline Scores</th>
<th>Applications</th>
<th>Project Mgmt.</th>
<th>Infrastructure</th>
<th>Innovation</th>
<th>Relationships</th>
<th>Standards</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65%</td>
<td>62%</td>
<td>58%</td>
<td>56%</td>
<td>60%</td>
<td>52%</td>
<td>59%</td>
</tr>
<tr>
<td>“Every IT process is equally important.”</td>
<td>68% ▲3</td>
<td>65% ▲3</td>
<td>61% ▲3</td>
<td>60% ▲4</td>
<td>63% ▲3</td>
<td>53% ▲1</td>
<td>65% ▲6</td>
</tr>
<tr>
<td>“Invest in infrastructure, increase capacity, and innovate.”</td>
<td>67% ▲2</td>
<td>63% ▲1</td>
<td>63% ▲5</td>
<td>60% ▲4</td>
<td>61% ▲1</td>
<td>54% ▲2</td>
<td>63% ▲4</td>
</tr>
<tr>
<td>“I need to find out what matters, and where we can make an impact.”</td>
<td>65% –</td>
<td>72% ▲10</td>
<td>58% –</td>
<td>57% ▲1</td>
<td>68% ▲8</td>
<td>52% –</td>
<td>69% ▲10</td>
</tr>
</tbody>
</table>

INFO-TECH RESEARCH GROUP
Ken had a new CFO and had just come out of the recession of 2009 where his organization lost over 20% of their business. He needed to present what IT did, and didn’t have an effective way to show ITs value or how they were going to address new technology coming on the landscape (cloud, MDM, big data).

The Transformation
By leveraging data, ken embarked on an IT transformation and undertook major projects across service management, network upgrades, client facing technology and had incredible results.
### Overall Metrics

**Satisfaction**
- This Year: 66%
- Last Year: --

**Value**
- This Year: 65%
- Last Year: --

The IT Support Breakdown charts show the percentage of stakeholders who fall into three important categories: promoters, neutral stakeholders, and detractors.

- **Net IT Support Score: Satisfaction**
  - Detractors (scored 1-6): -9%
  - Neutral (scored 7): --

- **Net IT Support Score: Value**
  - Detractors (scored 1-6): -23%
  - Neutral (scored 7): --

### IT Support Breakdown

The IT Support Breakdown charts indicate the percentage of stakeholders who fall into three important categories: promoters, neutral stakeholders, and detractors.

- **Promoters (scored 8-10)**: --
- **Detractors (scored 1-6)**: -9%
- **Neutral (scored 7)**: --

### IT Relationship Satisfaction

Relationships are a key driver in stakeholder management. It is important that the business feels IT understands their needs and is getting enough communication.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Satisfaction</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs</td>
<td>67%</td>
<td>--</td>
</tr>
<tr>
<td>Execution</td>
<td>64%</td>
<td>--</td>
</tr>
<tr>
<td>Communication</td>
<td>65%</td>
<td>--</td>
</tr>
</tbody>
</table>

### Business Satisfaction and Importance for Core Services

The core services of IT are important when determining what IT should focus on. The most important services with the lowest satisfaction offer the largest area of improvement for IT to drive business value.

<table>
<thead>
<tr>
<th>Core Service</th>
<th>Satisfaction</th>
<th>Importance Ranking</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Policies</td>
<td>70%</td>
<td>12th</td>
<td>--</td>
</tr>
<tr>
<td>Network &amp; Comm. Infrastructure</td>
<td>70%</td>
<td>1st</td>
<td>--</td>
</tr>
<tr>
<td>Business Apps</td>
<td>68%</td>
<td>5th</td>
<td>--</td>
</tr>
<tr>
<td>Service Desk</td>
<td>67%</td>
<td>3rd</td>
<td>--</td>
</tr>
<tr>
<td>Data Quality</td>
<td>67%</td>
<td>2nd</td>
<td>--</td>
</tr>
<tr>
<td>Analytical Capability and Reports</td>
<td>65%</td>
<td>6th</td>
<td>--</td>
</tr>
<tr>
<td>Work Orders</td>
<td>65%</td>
<td>10th</td>
<td>--</td>
</tr>
<tr>
<td>Requirements Gathering</td>
<td>64%</td>
<td>11th</td>
<td>--</td>
</tr>
<tr>
<td>Devices</td>
<td>63%</td>
<td>4th</td>
<td>--</td>
</tr>
<tr>
<td>Projects</td>
<td>63%</td>
<td>9th</td>
<td>--</td>
</tr>
<tr>
<td>IT Innovation Leadership</td>
<td>59%</td>
<td>8th</td>
<td>--</td>
</tr>
<tr>
<td>Client-Facing Technology</td>
<td>56%</td>
<td>7th</td>
<td>--</td>
</tr>
</tbody>
</table>
Overall Metrics

Overall Satisfaction and Value are key indicators of the overall impression of the IT department. These metrics let the IT leader determine at a glance if they are meeting the needs of the business.

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>This Year</td>
<td>This Year</td>
</tr>
<tr>
<td>87%</td>
<td>85%</td>
</tr>
<tr>
<td>3% ↑</td>
<td>4% ↑</td>
</tr>
</tbody>
</table>

IT Support Breakdown

The IT Support Breakdown charts are indicators of the sentiment of stakeholders that fall into three important categories. Promoters are loyal enthusiasts of IT. Neutral stakeholders are satisfied but unenthusiastic about IT. Detractors are unhappy stakeholders who can damage your reputation.

- **Net IT Support Score: Satisfaction**: +78%
- **Net IT Support Score: Value**: +65%

IT Relationship Satisfaction

Relationships are a key driver in stakeholder management. It is important that the business feels IT understands their needs and is getting enough communication.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Satisfaction</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs</td>
<td>86%</td>
<td>5% ↑</td>
</tr>
<tr>
<td>Execution</td>
<td>85%</td>
<td>5% ↑</td>
</tr>
<tr>
<td>Communication</td>
<td>86%</td>
<td>5% ↑</td>
</tr>
</tbody>
</table>

Business Satisfaction and Importance for Core Services

The core services of IT are important when determining what IT should focus on. The most important services with the lowest satisfaction offer the largest opportunity for IT to drive business value.

<table>
<thead>
<tr>
<th>Core Service</th>
<th>Satisfaction</th>
<th>Importance Ranking</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Desk</td>
<td>91%</td>
<td>2nd</td>
<td>4% ↑</td>
</tr>
<tr>
<td>Work Orders</td>
<td>87%</td>
<td>8th</td>
<td>5% ↑</td>
</tr>
<tr>
<td>IT Policies</td>
<td>85%</td>
<td>11th</td>
<td>4% ↑</td>
</tr>
<tr>
<td>Network &amp; Comm. Infrastructure</td>
<td>85%</td>
<td>1st</td>
<td>4% ↑</td>
</tr>
<tr>
<td>Devices</td>
<td>84%</td>
<td>3rd</td>
<td>9% ↑</td>
</tr>
<tr>
<td>Data Quality</td>
<td>84%</td>
<td>4th</td>
<td>6% ↑</td>
</tr>
<tr>
<td>Business Apps</td>
<td>83%</td>
<td>5th</td>
<td>4% ↑</td>
</tr>
<tr>
<td>Projects</td>
<td>82%</td>
<td>9th</td>
<td>6% ↑</td>
</tr>
<tr>
<td>Requirements Gathering</td>
<td>80%</td>
<td>12th</td>
<td>4% ↑</td>
</tr>
<tr>
<td>Analytical Capability and Reports</td>
<td>79%</td>
<td>7th</td>
<td>4% ↑</td>
</tr>
<tr>
<td>IT Innovation Leadership</td>
<td>78%</td>
<td>10th</td>
<td>5% ↑</td>
</tr>
<tr>
<td>Client-Facing Technology</td>
<td>76%</td>
<td>6th</td>
<td>7% ↑</td>
</tr>
</tbody>
</table>
Ken’s Progress was Steady

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Satisfaction</th>
<th>Balanced Improvement</th>
<th>Optimal Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>65.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>73.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>80.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>87.7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall IT Satisfaction:
- Balanced Improvement
- Optimal Improvement
- Actual Satisfaction
If Business Satisfaction is IT’s Key Metric...

- **< 60%**
  - **Unstable: Struggles**
  - Inability to Provide Reliable Business Services

- **60-70%**
  - **Firefighter: Supports**
  - Reliable Infrastructure of IT Service Desk

- **70-80%**
  - **Trusted Operator: Optimizes**
  - Executive Fulfillment of Work Orders

- **80-90%**
  - **Business Partner: Expands**
  - Executive Execution on Business Projects

- **90-100%**
  - **Innovator:Transforms**
  - Reliable Technology Innovation

*INFO-TECH RESEARCH GROUP*
Improvement will be driven by IT Capabilities
Your team will struggle with **Importance & Effectiveness**

- **High Importance**
  - **Low Effectiveness**
    - Improve Process Immediately
    - Evaluate Process
    - Maintain Process
    - Leverage Process

- **Low Importance**
  - **High Effectiveness**
    - Improve Process Immediately
    - Evaluate Process
    - Maintain Process
    - Leverage Process
Your Data will Dictates What Matters
Data allows you to define your needed capabilities and build action plans. **Example: Security**

**Step 1** Diagnose Security Issues

Despite the numerous security-related headlines in the news over the past few years, 94% of companies have experienced data breaches due to being stuck in reactive mode for operations.

**Step 2** Build Your Security Strategy

90% of companies are still in reactive mode when handling security issues. Elevate your security operations out of reactive "block and tackle" models and become a proactive juggernaut.

**Step 3** Establish Mitigation Effectiveness Control

The IT landscape evolves every 3 years, and security controls become obsolete over time. Being able to measure mitigation effectiveness leads to security excellence.

**Step 4** Develop your Risk Management Program

CISOs and CIOs must understand how to assess risk. It's easy to describe the value of risk management, but the question becomes how to manage the risk.

**Step 5** Develop Your Incident Response Capabilities

Security incidents are inevitable, but how they're dealt with can make or break an organization. Poor incident response negatively impacts the business in multiple ways.

**Step 6** Adopt Human Centric Security Development

The #1 method of penetration by hackers is social engineering against humans. The best technology cannot prevent hackers with critical access information.

**Step 7** Establish a Policy and Audit Framework

Many companies still use regulatory governance as their policy control rather than using their business’ DNA to create policy. Make policy work for you to enhance your company’s security.

**Step 8** Select and Implement a GRC Solution

Get the big picture of roles and responsibilities, operations and compliance obligations – and be able to manage them within one solution.

**Step 9** Optimize Your Budget

For years, security operations have been improperly seen as a cost center. Help your C-Suite and Board of Directors see the value of security operations.
Organizations that Measure Satisfaction Dramatically Outperform their Peers

N=430 organizations

*Data point includes members at year 2-4 to ensure n-count sufficiency
3 ACTION ITEMS

Actively **prioritize and measure** Business Satisfaction

Manage stakeholders and invest in stakeholder management programs

Develop your IT staff into process owners
A Step by Step Program to Systematically Improve IT Performance

Objectively measure IT performance using our Data-Driven Insight Program.

1. **Step 1** Establish IT Performance Measurement
   - Move from a subjective to objective measurement of IT performance.

2. **Step 2** Build a Data-Driven Strategy
   - Use data to decide which IT issues really matter.

3. **Step 3** Manage Core IT Processes
   - Establish clear ownership and accountability.

4. **Step 4** Create Roadmaps For Key IT Executives
   - Build and deploy key initiative plans for your team.

5. **Step 5** Utilize Tools and Best Practices for Key Products
   - Accelerate your projects with methodologies and practical tools.

6. **Step 6** Leverage Executive Coaching Through the Year
   - Use high impact, low effort experiences that enable your team to get the job done faster and more successfully.

7. **Step 7** Measure Year-Over-Year Improvement
   - Use a measurable and systematic approach to improving your department.
THANK YOU

Questions?
Follow Up Information:

Jason Elie, Managing Director - jelie@infotech.com
Sierra Greco, Commercial Director - sgreco@infotech.com