Why BI Projects Fail – And What to Do About It

Timo Elliott  November 2011
Introduction

It’s not only about knowing how to climb…

You also have to know how not to fall off
High performing companies are 50% more likely to use analytic information strategically

- Have significant decision-support/analytical capabilities: 65% (High Performers), 23% (Low Performers)
- Value Analytical insights to a very large extent: 36% (High Performers), 8% (Low Performers)
- Have above average analytical capability within industry: 77% (High Performers), 33% (Low Performers)
- Use analytics across their entire organization: 40% (High Performers), 23% (Low Performers)

Source: Competing on Analytics, Thomas Davenport
BI Improves Business Performance

How successful is your organization's use of BI in supporting improved business performance?

- 2% Mostly a failure
- 19% Very successful
- 23% Less successful than expected
- 56% Somewhat successful

Data: *InformationWeek* Research Business Intelligence Survey of 385 business technology professionals using business intelligence tools
BI Project Success Improving (Slightly!)

- Failure: 3% (2009) vs 5% (2011)
- Slightly Successful: 24% (2009) vs 22% (2011)
- Moderately Successful: 47% (2009) vs 47% (2011)
- Very Successful: 21% (2009) vs 26% (2011)
Barriers to Deployment

- Integration
- Ease of use
- No clear ROI
- Data quality
- Cost of licenses
- Cost of training

What Stands In The Way Of Enterprise-Wide Adoption?

<table>
<thead>
<tr>
<th>Barrier</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration and compatibility problems</td>
<td>51%</td>
</tr>
<tr>
<td>Ease-of-use issues</td>
<td>48%</td>
</tr>
<tr>
<td>No clear ROI</td>
<td>45%</td>
</tr>
<tr>
<td>Data quality problems</td>
<td>45%</td>
</tr>
<tr>
<td>Software licenses are too expensive</td>
<td>39%</td>
</tr>
<tr>
<td>Training staff is too time-intensive and costly</td>
<td>38%</td>
</tr>
<tr>
<td>Scalability issues</td>
<td>33%</td>
</tr>
<tr>
<td>BI talent is too expensive to hire</td>
<td>28%</td>
</tr>
<tr>
<td>No need for enterprise-wide BI capabilities</td>
<td>26%</td>
</tr>
<tr>
<td>Lack of industry standard</td>
<td>24%</td>
</tr>
<tr>
<td>Lower-than-expected analytic value</td>
<td>17%</td>
</tr>
<tr>
<td>Doesn’t address or integrate with BPM initiatives</td>
<td>15%</td>
</tr>
<tr>
<td>Overlap with other products</td>
<td>13%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
</tbody>
</table>

Note: Multiple responses allowed.

Data: InformationWeek Research Business Intelligence Survey of 500 business technology professionals, March 2007
IT Underestimates User Difficulties…

Difficult to find information

- Executives: 55%
- IT: 24%

Just the right amount of information is available

- Executives: 22%
- IT: 32%

(credibility) gap

Base: 406 U.S. IT Executives, 675 Business Executives
Source: BusinessWeek Research Services
…And Underestimates Value Of BI To The Business

The percentage of business users seeing the business impact as significant is 15% higher than the percentage of IT professionals saying the impact on company performance has been significant.

How successful do you consider your BI deployment?

How much has BI contributed to your company’s performance?

Business gap

Source: Successful Business Intelligence, Cindi Howson
First Law of BI

“Business people will ALWAYS be dissatisfied with their information systems”
Topics

1. Changing the Business
2. People, Not Technology
3. Program, Not Project
4. Value, Not Cost
5. Insight, Not Data
6. Pragmatism, Not Rigid Process
Changing the Business
Aim High

Not “implement software”

Not “keep the business happy”

Aim to transform the way the business works

Paint the vision
“Follow the Money”

Track information to its final destination in any system

Why is it being used

What might change as a result
Aim For 100% Deployment

Target *all* uses and users

“To be successful with BI, you need to be thinking about deploying it to 100% of your employees as well as beyond organizational boundaries to customers and suppliers” — Cindi Howson

Source: Successful Business Intelligence, Cindi Howson
PEOPLE, NOT TECHNOLOGY
People Skills Make or Break BI Projects

75% of success determined by things OTHER than data and technology

<table>
<thead>
<tr>
<th></th>
<th>Investment</th>
<th>Historical</th>
<th>Determinant of Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>2%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td>2%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>2%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>1%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>1%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td>10%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>82%</td>
<td>10%</td>
<td></td>
</tr>
</tbody>
</table>
### IT / Business Relationship

<table>
<thead>
<tr>
<th>Business Person Archetype</th>
<th>IT Professional Archetype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrovert</td>
<td>Introvert</td>
</tr>
<tr>
<td>Sociable</td>
<td>Solitary</td>
</tr>
<tr>
<td>Freewheeling</td>
<td>Methodical, systematic, disciplined</td>
</tr>
<tr>
<td>Risk-taking</td>
<td>Risk-averse</td>
</tr>
<tr>
<td>Prefers face-to-face meeting</td>
<td>Minimal face-to-face communication, email and instant messaging is fine</td>
</tr>
</tbody>
</table>

**Trust and respect**
Tough Love

“I tried being reasonable — I didn't like it”

Dirty Harry
Choose Your Users Carefully
User Adoption
Mooers’ Law

“It has to be easy. An information retrieval system will tend not to be used whenever it is more painful and troublesome for a customer to have information than for him to not have it.”

Calvin Mooers, 1960
End-User Enablement

From “self-service BI” to “self-service Data Warehousing”
Other Common User Adoption Issues

- Training for IT
- Training on data
- Continued training
- Best practice
- Culture
- Expectation setting

“Even if an application is intuitive enough to be usable without instruction, any related process or culture changes should be driven home with at least a quick tutorial.”

“What dooms IT projects”
Congratulations! You’re in Marketing!

Evangelize
Promote early, promote often
Name the system
Find successes, keep explaining the value
Highly visible dashboards
Internal seminars
Newsletters
Trophies for best projects
Apply for a Gartner BI Excellence Award
Evangelizing

myBI LIGHTS YOUR WAY

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Evangelizing

Still getting your figures the old way?

Try **DSS**; it’s fast, clear, and easy.
Evangelizing
transmitting
radio, telegraph, etc.

facsimiles.

fact (fakt) n.

1. Something that actually occurred; something asserted to be true experience to be true

2. tuality, as distinguishing phrases as a matter

Actually
Information Culture

Source: Successful Business Intelligence — Cindi Howson
BI Program, Not Project
BI is *Designed* for Change
BI is *Designed* for Change
BI Methodology
(Real) Expertise is Worth Investing In

Beware false economies:
You can easily learn to install and use the software, but only experience can tell you how to do it in the optimum way.

Beware false experts:
Make sure they are training you, rather than the opposite.

Keep control:
Listen to advice, but don’t let other people make business decisions for you.
Align With Business Processes

Patient Arrives → Triage Assessment and Entry → Patient Registration → Patient Status and Room Assigned → Nurse Exam Indicator Changed

Physician Examines Patient → Physician Note Created → Labs and/or X-rays are Ordered → Lab Report(s) Returned via EDIM → Physician Consults with Patient

Physician Note Completed → Prescription(s) Written → Patient Referred for Follow-up Care → Discharge Instructions Created → Patient Discharged

Patient Leaves ED → Electronic Chart is Completed → History File is Created → EDIM Reports Created/Printed
Applications
Applications
Stories Are Good For Business
γνῶθι σεαυτόν
Know Thyself
BI Competency Center

Leadership skills
- Link to corporate strategy
- Alter processes
- Prioritize and set expectations

Analysis skills
- Summarize and analyze
- Discover and explore
- Identify data
- Extract data
- Validate data

Relationship skills
- Gather requirements
- Evangelize
- Monitor satisfaction
- Interpret results
- Develop alternatives

Engineering skills
- Store, maintain, integrate data
- Implement changes

+Starship Command
What Goes Wrong With BICCs
Incentives and Value

Tragedy of the commons

Internal pricing
BICC Report Card

Active usage
Satisfaction
New requests
Standard reports
Applications
Service
Time
VALUE, NOT COST
What’s the ROI?
ROI is Hard to Know in Advance

“One of the key contributors to poor IT investment performance is an unbalanced approach taken by executives at the project approval stage.

Too often, the overriding emphasis is on quick payback or demands for the return on investment (ROI) to be demonstrated in financial terms.”

Gartner, “Total Value of Opportunity — The Real Measure for BI”
Finding Value

4% Technology-related benefits

54% Business process enhancements

42% Productivity-related benefits

Previous projects
Business People Have Short Memories
BI is Often Mission-Critical

“Many warehouses are now a risk to mission-critical systems that rely on them for data”

Gartner
Finding Value

Doing things FASTER
Finding Value

Minimizing RISK
Align With the Goals Of the Organization

Link BI goals to what executives care about

- Strengthening the organization's human capital
  - Attracting and retaining skilled staff: 35% (1)
  - Changing organizational culture and employee attitudes: 33% (2)
  - Improving workforce performance: 28% (7)
  - Developing employees into capable leaders: 26% (10)

- Building the customer base
  - Acquiring new customers: 32% (3)
  - Increasing customer loyalty and retention: 29% (5)

- The return of innovation
  - Developing new processes and products to stay ahead of the competition: 29% (4)
  - Being flexible and adaptable to rapidly changing market conditions: 26% (10)

(Number in parenthesis is overall rank.)
Sales Techniques

Techniques for understanding executive needs

Providing answers to problems, not technology infrastructures

Getting your projects to “top of mind”
“Our extranet produced $60M in incremental sales in the first year.”

Don Stoller, Owens & Minor
Profitability: a Foundation For Strategic BI

“I don’t care about profitability”
Play on Doubt

Start asking questions about the numbers that drive the business

“You don’t know?!”
INSIGHT, NOT DATA
Data Integration

“This is the aspect that most businesses underestimate drastically — often by 100 percent or more.”

Gartner
Lack of Trust

43% of users say they’re not sure if internal information is accurate

77% said bad decisions had been made because of lack of information

5 out of 4 people don’t believe statistics in presentations

*Business Week study, 2005*
Data Quality

DO YOU HAVE A DATA QUALITY PROBLEM?
“Poor-quality customer data costs U.S. businesses $611 billion a year. Yet nearly half of the companies surveyed admit they have no plans to improve data quality”

The Data Warehousing Institute study
Applications for Data Stewards
Data Profiling
Justifying Data Quality

Call it Data Governance
Risk, Productivity

Time Spent on Data Quality

Source: Harris Interactive Poll
Data Lineage
Go Faster
Data Misuse and Interpretation

![Graph showing the relationship between Global Average Temperature and Number of Pirates](https://www.venganza.org)
How Not To Stock Up For Promotions

<table>
<thead>
<tr>
<th>SKU</th>
<th>Product</th>
<th>Average items sold prior 3 weeks</th>
<th>Items sold during special promotion</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>120595</td>
<td>Kams Mint Toothpaste 8 oz</td>
<td>72</td>
<td>112</td>
<td>56%</td>
</tr>
<tr>
<td>593300</td>
<td>Peepers Size 5 Diapers 32 pack</td>
<td>134</td>
<td>170</td>
<td>27%</td>
</tr>
<tr>
<td>309454</td>
<td>Pata Negra Ham Sandwich</td>
<td>35</td>
<td>43</td>
<td>23%</td>
</tr>
<tr>
<td>139913</td>
<td>Closers Breath Mints</td>
<td>40</td>
<td>112</td>
<td>180%</td>
</tr>
<tr>
<td>149292</td>
<td>Bboy Barbecue Charcoal 2lbs</td>
<td>17</td>
<td>98</td>
<td>476%</td>
</tr>
<tr>
<td>249200</td>
<td>Lindas Cookie Ice cream kids treats</td>
<td>26</td>
<td>65</td>
<td>150%</td>
</tr>
<tr>
<td>202184</td>
<td>Giant Corn Chowder Soup 12 oz car</td>
<td>43</td>
<td>84</td>
<td>95%</td>
</tr>
<tr>
<td>233120</td>
<td>Silly String Cheese, Lunch pack</td>
<td>12</td>
<td>55</td>
<td>358%</td>
</tr>
<tr>
<td>210653</td>
<td>Green Label 6-pack beer</td>
<td>120</td>
<td>115</td>
<td>-4%</td>
</tr>
</tbody>
</table>

Average of % Increase: 151%

Better: Ratio of total items sold provides different % increase
Targets and Incentives

Launch your career:
45,500 casting calls since 2004
24,000 online profiles

Register Now

Browse jobs & castings
All categories
· Models wanted
· Actors & Extras wanted
· Television
· Musicians wanted
· Dancers wanted

Extras aged 16+ needed for paid work flying to Dublin
Casting no. 63820 - Norwich, UK
100+ extras for background work in Norwich on Sunday 30th and Monday 31st March

Casting complete: Applications now closed.

100 + extras for background work in Norwich on Sunday 30th and Monday 31st March.

The assignment is for a well known airline who are updating their in-flight literature etc., You will be boarding an aircraft and flying to Dublin and then back to Norwich airport there may be up to three flights during each day.

Photo ID will be required. Lunch and refreshments will be provided. Normal day clothes will be required. A good rate of pay is on offer.

Everyone interested and available please apply by email including your mobile number. If anyone is interested from anywhere outside the North East of England (be a travel allowance) and can fill a car etc, please also apply with your mobile number.

Please apply asap with your phone number.

Payment details: 82.38 per person per day net
FLEXIBLE PRAGMATISM, NOT RIGID PROCESSES

“No plan survives first contact with the enemy”

Claus von Clausewitz
Finding An Executive Sponsor

Why Should I Care?

Track record of IT success

Evangelism

Company goals

His / her career

Likely that sponsor will change: build broad base of support
Staying Zen

Do “less”
Keep it simple
Clean up
BICC efficiencies
IT dashboards
Standardize
SOA / Web Services
SaaS
Succeeding Despite Adversity

- Keep the project up to speed
- Structure the project into smaller ones
- Ensure alignment at all times
- Admit problems fast
- Stick with it!
CONCLUSION
Selected References

“Competing on Analytics” and “Analytics at Work: Smarter Decisions, Better Results” by Thomas Davenport

“Successful Business Intelligence: Secrets to Making BI a Killer App” by Cindi Howson

“Business Intelligence Competency Centers: A Team Approach to Maximizing Competitive Advantage” by Gloria J. Miller et. Al.

“Business Intelligence: The Savvy Manager’s Guide” by David Loshin

TDWI Best Practices Report 2008: “Pervasive Business Intelligence: Techniques and Technologies to Deploy BI on an Enterprise Scale”
Conclusion

BI is not (only) about
Technology
Projects
Cost
Data
Plans
Thank You And Good Luck!

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