

What is Data Literacy?



May 15th, 2019

WIPFLI^{LLP}
CPAs and Consultants

A New Second Language

Data Literacy
and
Information –

*What does it
mean to you?*



Data Literacy



The ability to read, write and communicate *data in context*, including an understanding of data sources and constructs, analytical methods and techniques applied, and the ability to describe the use case, the application and resulting value.

Definition from Gartner's 2018 research paper titled,
Fostering Data Literacy and Information as a Second Language:
A Gartner Trend Insight Report (2018)

Why Data Literacy?



Enterprise-wide data literacy is low:

24% of business decision makers surveyed are fully confident in their ability to read, work with, analyze, and argue with data.



Senior leaders do not display confidence:

32% of the C-suite is viewed as data literate, potentially holding senior leaders back from encouraging their workforces to use data to their advantage.



Future employees are underprepared for data-driven workplaces:

21% of 16 to 24-year-olds are data literate, suggesting schools and universities are failing to ensure students have the skills they need to enter the working world.



Organizations are losing competitive advantage because better data literacy drives higher enterprise performance:

85% of data literate people say they are performing very well at work, compared to 54% of the wider workforce.



Data is key to professional credibility:

94% of respondents using data in their current role agree data helps them do their jobs better and they also believe greater data literacy would give them more credibility (82%) in the workplace.



There is an appetite to learn:

78% of business decision makers said they would be willing to invest more time and energy into improving their data skillsets.

Levels of Literacy

BEGINNER

Still in the beginning stages of data literacy, having recognized the benefits of working with data in their current roles

INTERMEDIATE

Driven to become more data literate, eager to further their skills in data science, algorithms and statistical analysis

EXPERT

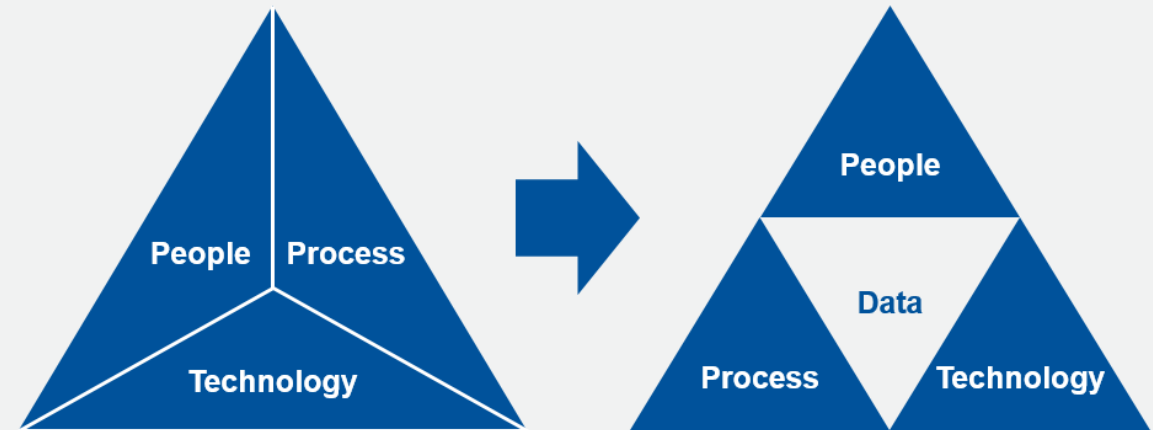
The most data literate employees have advanced skillsets and experience in data analytics, storytelling, algorithms and the latest methodologies for data analytics. Experts can serve as evangelists and mentor others in helping your organization lead with data.

Data – The 4th Element in Business Change

How *confident* are you about playing a role in this transformation



Data as the New Core Capability of Digital Business



ID: 342240

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Business Intelligence Evolution

Reporting



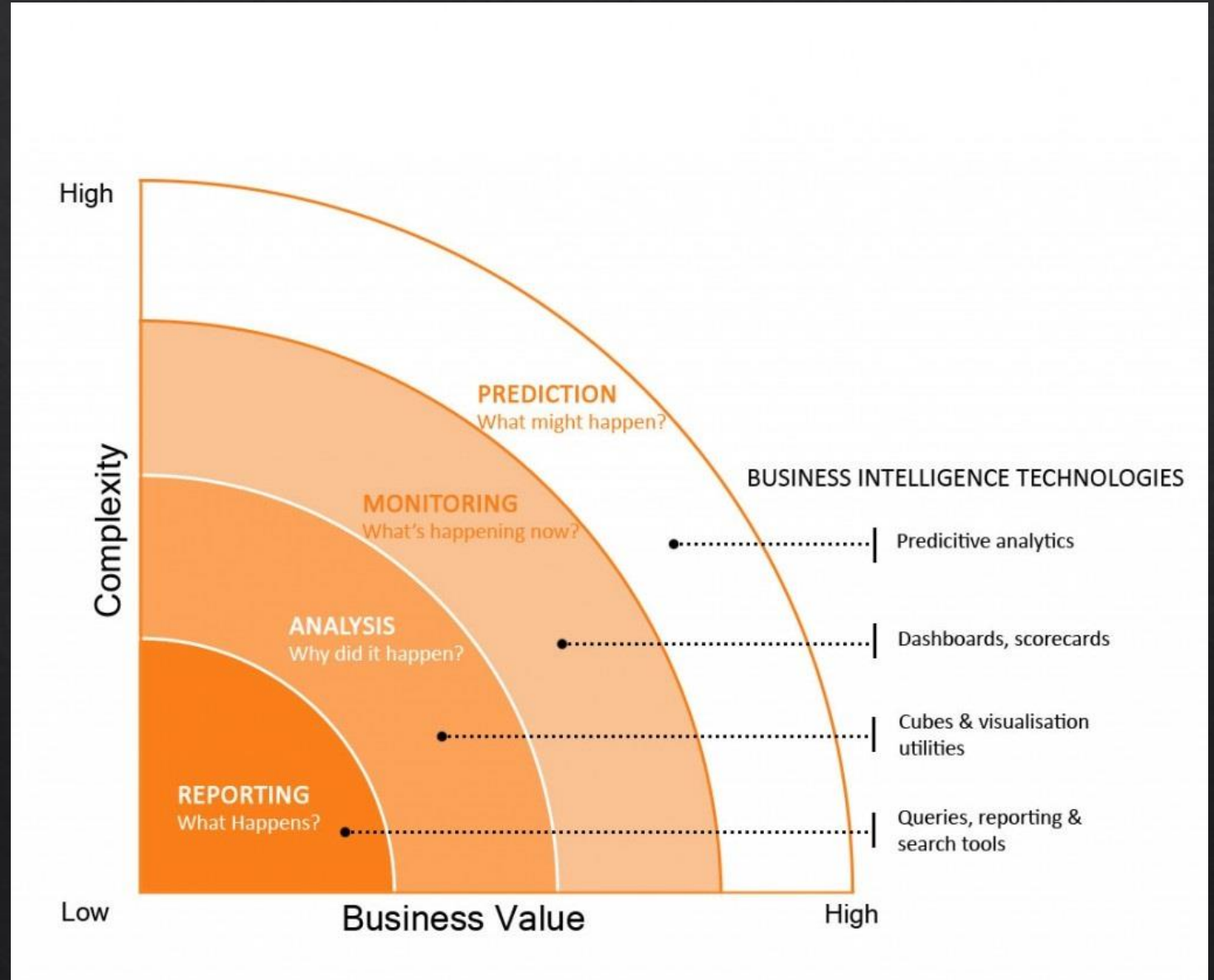
Analysis




Monitoring



Prediction



Reporting – What Happened?

 Profit and Loss Variance Report For the Months Ending March 31, 2006 US Demo		Month-To-Date						Year-To-Date							
				Variance		Variance				Variance		Variance			
		Actual	Budget	Prior Year	Budget	% Variance	Prior Year	% Variance	Actual	Budget	Prior Year	Budget	% Variance	Prior Year	% Variance
Revenue															
41100000	Sales Revenues - Domestic (HO, USA, GA)	34,325	33,295	0	1,030	3.1%	34,325	0.0%	86,475	83,881	0	2,594	3.1%	86,475	0.0%
41200000	Sales Revenues - Foreign (HO, USA, GA)	21,164	22,608	0	(1,444)	-6.4%	21,164	0.0%	79,557	68,533	0	11,024	16.1%	79,557	0.0%
41300000	Sales Revenues - Services (HO, USA, GA)	16,901	16,912	0	(11)	-0.1%	16,901	0.0%	80,760	78,396	0	2,364	3.0%	80,760	0.0%
41400000	Sales Reveues - Freight (HO, USA, GA)	25,044	24,322	0	722	3.0%	25,044	0.0%	82,239	79,135	0	3,104	3.9%	82,239	0.0%
Total Revenue		97,434	97,137	0	297	0.3%	97,434	0.0%	329,031	309,945	0	19,086	6.2%	329,031	0.0%
Cost of Sales															
51100000	COGS - Domestic (HO, USA, GA)	33,258	31,567	0	1,691	5.4%	33,258	0.0%	67,133	66,111	0	1,022	1.5%	67,133	0.0%
Total Cost of Sales		33,258	31,567	0	1,691	5.4%	33,258	0.0%	67,133	66,111	0	1,022	1.5%	67,133	0.0%
Profit Margin		64,176	65,570	0	(1,394)	-2.13%	64,176	0.00%	261,898	243,834	0	18,064	7.41%	261,898	0.00%
Profit Margin %		65.87%	67.50%	0.00%	-469.07%	-694.90%	65.87%	0.00%	79.60%	78.67%	0.00%	94.65%	120.31%	79.60%	0.00%
Operating Expenses															
61210000	Payroll Expense - Salaries (HO, USA, GA)	100,000	87,189	0	12,811	14.7%	100,000	0.0%	325,000	158,053	0	166,947	105.6%	325,000	0.0%
63210000	Electricity (HO, USA, GA)	250	250	0	0	0.0%	250	0.0%	750	700	0	50	7.1%	750	0.0%
63900000	Other Administrative (HO, USA, GA)	(900)	(593)	0	(307)	51.8%	(900)	0.0%	(4,800)	(2,999)	0	(1,801)	60.0%	(4,800)	0.0%
66000000	State Sales Tax Expense (HO, USA, GA)	4,688	5,000	0	(312)	-6.2%	4,688	0.0%	15,861	16,000	0	(139)	-0.9%	15,861	0.0%
81600000	Rounding (HO, USA, GA)	(0)	(0)	0	(0)	42.4%	(0)	0.0%	0	0	0	0	0.0%	0	0.0%
Total Cost of Sales		104,038	91,846	0	12,192	13.3%	104,038	0.0%	336,811	171,754	0	165,057	96.1%	336,811	0.0%
Net Income		(39,863)	(26,276)	0	(13,587)	51.71%	(39,863)	0.00%	(74,913)	72,080	0	(146,993)	-203.93%	(74,913)	0.00%
Net Income %		-40.91%	-27.05%	0.00%	-4571.04%	16898.17%	-40.91%	0.00%	-22.77%	23.26%	0.00%	-770.16%	-3311.70%	-22.77%	0.00%

Analysis – Why did it Happen?

Business Segment

- Agriculture
- Energy
- Manufacturing

Product Category

- Burrachos
- CodaBow
- Cottonseed
- La Crosse Scale
- Oxford
- Star Blends
- Venture Fuels
- WIScale

Location

- Ann Arbor
- Bloomington
- Chicago
- Cincinnati
- Cleveland
- Columbus
- Detroit
- Indianapolis
- Jacksonville
- Nashville
- Orlando

Current Month Revenue

\$8.07M ✓
Goal: \$7.73M (+4.52%)

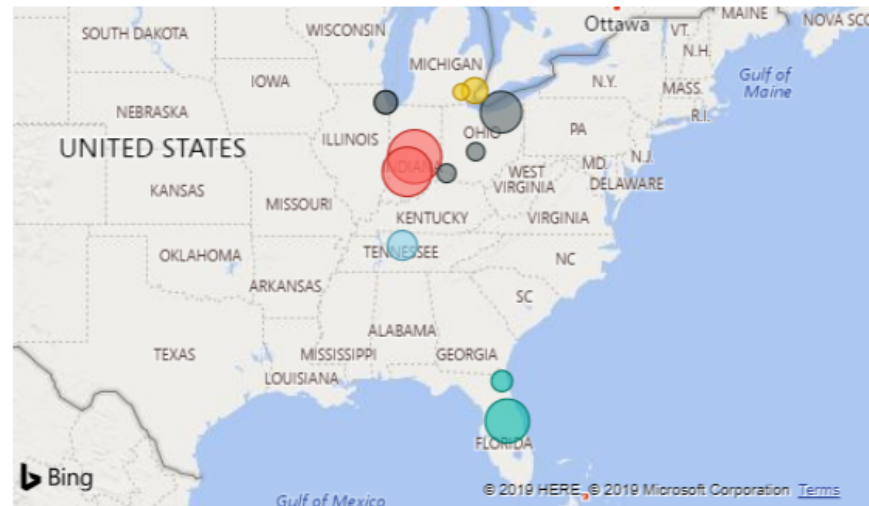
Current Month Expense

\$1.55M !
Goal: 1.48M (-4.92%)

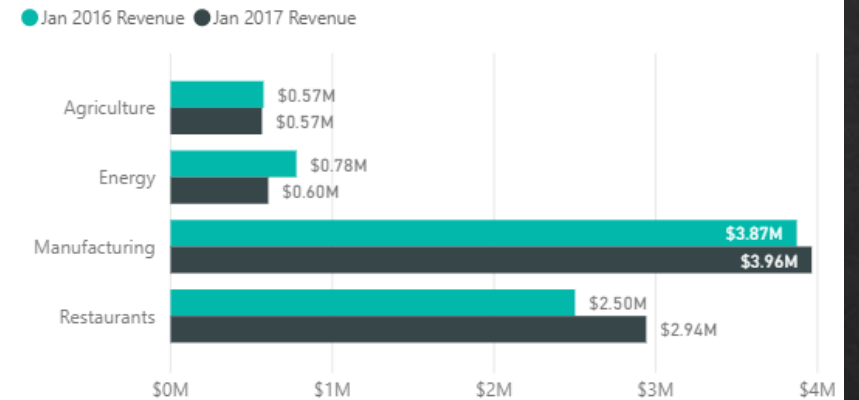
New Business



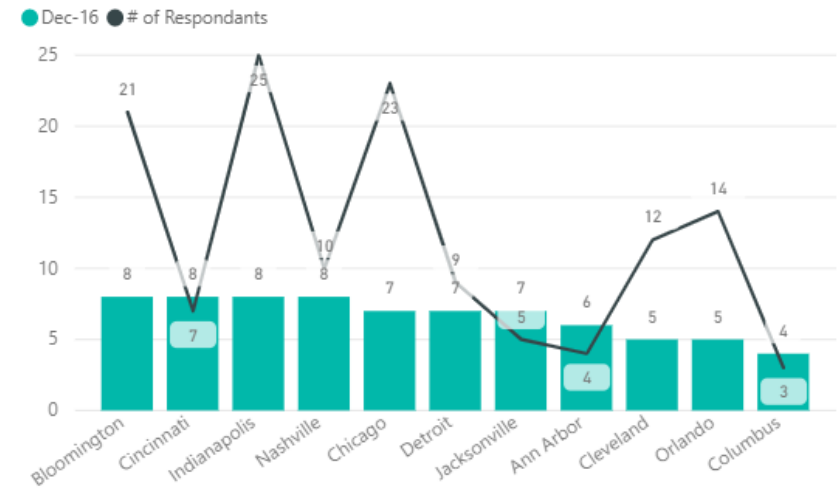
Jan 2017 Revenue by Location



Jan 2016 Revenue and Jan 2017 Revenue by Business Segment



Regional Manager Satisfaction Survey - Last Month



Monitoring – What's Happening Now?

Return on Assets

1.53✓

Goal: 1.50 (+1.69%)

Return on Equity

7.82%!

Goal: 10% (-21.76%)

Efficiency Ratio

\$0.68✓

Goal: 0.80 (+15.3%)

Loan Deposit Ratio

35.95%!

Goal: 70% (-48.64%)

VS

