



DATA ANALYTICS

Unit 5: Interpreting business value

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Data Analytics to Drive Business Value

- The metamorphosis taking place in the analytics world has been rapid and transformational.
- The analytics space has moved from business intelligence to the age of big data analytics.
- These transformations have been affected in the recent years as more and more companies are opting for digitization.
- The technology, infrastructure and the philosophy of organizations have changed as well.
- It is now evident, that organizations will have to keep pace with the changes or perish.
- It has all the more become important to embrace data analytics to develop an agile IT framework and build a strong base for data science.

ROI of Analytics: Explaining the Business Value of Measurement

- Analytics is a critical part of building and growing a successful business.
- With all of the intense discussion around big data, artificial intelligence and the advance of analytics tools, it seems obvious that having an annual analytics budget just *makes sense*.
- And yet, when it comes time to secure funding for next year's analytics budget, often get unexpected push back and resistance. That's because we struggle to explain and demonstrate the business value and the return on investment (ROI) of analytics.
- And when senior executives don't have a clear understanding of the business value of analytics, the budget goes to higher priority areas where the business value is clear and demonstrable.

Questioning the Business Value of Data Analytics

According to the [Digital Analytics Association](#), “44% of analytics teams spend more than half their time accessing and preparing data rather than doing actual analysis.”

So why should a business invest more budget in data analytics if less than 50% of an analyst’s time is going to doing the actual business value of analyzing the data and improving the value of the business?

The following are five of the most important business drivers where you can easily demonstrate the ROI of your analytics efforts.

1. Analytics Business Value #1: Acquire More of the RIGHT Customers
2. Analytics Business Value #2: Marketing Attribution and Media Mix Modeling
3. Analytics Business Value #3: More Revenue from Current Customers
4. Analytics Business Value #4: Growth From A/B Testing
5. Analytics Business Value #5: Moving at the Speed of Business

Analytics Business Value #1: Acquire More of the RIGHT Customers

Without the support of rich data and robust analytics tools, businesses are left to measure the most cursory top line and bottom line impact of any marketing effort. These are questions such as:

1. How many customers have we acquired?
2. How much do these customers purchase?
3. What is our overall profitability?

The ROI of acquiring more of the right customers means that even with a higher cost per acquisition:

1. The repeat purchase rates are higher.
2. The customer churn rates are lower.
3. The overall lifetime value of the right customers will generally outperform customers acquired at the lowest possible price

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Analytics Business Value #2: Marketing Attribution and Media Mix Modeling



- When you combine the right analysts with powerful data analytics tools, you solve the John Wanamaker problem.
- Wanamaker was the department-store magnate, who once said, “Half the money I spend on advertising is wasted; the trouble is, I don't know which half.”
- At least in the area of digital marketing combined with powerful analytics tools and professionals, the data will illuminate the ideal marketing mix ratio by allowing you to test a combination of marketing options that produce the maximum results for the minimum investment.
- Effective marketing attribution and media mix modeling reduces significant advertising spend and that business value can be measured and attributed to both data analytics and the analysts doing the work.

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Analytics Business Value #3: More Revenue from Current Customers



- Acquiring a new customer can cost 5 times more than retaining an existing customer.
- In addition to validating that industry accepted stat with your own data, your analytics will support you to more effectively upsell, cross-sell, and increase the frequency of purchases.
- The data, when properly analyzed, will support a better understanding of what your current customers need as well as understanding what other customers purchased.

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Analytics Business Value #4: Growth From A/B Testing

Analytics, when properly deployed, deliver incredible value in their ability to isolate variables and test assumptions from the top of the funnel activities all the way to the point of conversion.

”Investing in analytics is the foundation for both running statistically significant A/B tests to increase website conversion, and for running top of funnel A/B tests on advertising vehicles. Without proper analytics in place, you are essentially flying blind and will undoubtedly get left behind by those who use the data to continually improve and better connect with their customers” by **Sean Lee, Vice President of Digital Marketing and eCommerce at Pure Romance**



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Analytics Business Value #5: Moving at the Speed of Business



- Analytics also leverage data to do things faster.
- By using machine learning and pattern recognition, we can begin to drive repeat purchases faster without the manual analysis.
- Today, speed is often the difference between closing the sale and losing the sale. There is both demonstrable opportunity cost for business lag (without analytics) and increased purchase frequency by removing any barriers to completing the current transaction.

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Case study : Analytics: A blueprint for value

Converting big data and analytics insights into results

- **In today's competitive marketplace**, executive leaders are racing to convert data-driven insights into meaningful results.
- Successful leaders are infusing analytics throughout their organizations to drive smarter decisions, enable faster actions and optimize outcomes.
- These are among the key findings from the 2013 IBM Institute for Business Value research study on how organizations around the globe are leveraging key capabilities to amplify their ability to create value from big data and analytics.



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- To discover how to achieve this alignment of strategy, technology and structure, IBM surveyed 900 business and IT executives from 70 countries.
- They asked more than 50 questions to an analytics-savvy group of executives, senior managers and managers, along with analytics experts, business and data analysts, and others within organizations large and small.
- The questions were designed to reveal how to translate high-level concepts associated with delivering exceptional business value through analytics into actions that can truly deliver value.
- Through the research, IBM identified **nine levers** that enable organizations to create value from an ever-growing volume of data from a variety of sources – value that results from insights derived and actions taken at every level of the organization.



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Nine levers of differentiation

These nine levers represent the sets of capabilities that most differentiated Leaders from other respondents:

1. **Culture:** Availability and use of data and analytics within an organization
2. **Data:** Structure and formality of the organization's data governance process and the security of its data
3. **Expertise:** Development of and access to data management and analytic skills and capabilities
4. **Funding:** Financial rigor in the analytics funding process
5. **Measurement:** Evaluating the impact on business outcomes
6. **Platform:** Integrated capabilities delivered by hardware and software
7. **Source of value:** Actions and decisions that generate results
8. **Sponsorship:** Executive support and involvement
9. **Trust:** Organizational confidence

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Organizations that invest in these nine levers – with particular attention to the symbiotic relationships that exist – can accelerate value creation, simplify analytics implementation and realize value from analytic investments.

They identified three levels of value impact among the nine levers:

- 1. Enable levers form the basis for big data and analytics;*
- 2. Drive levers are needed to realize value; and*
- 3. Amplify levers boost value creation.*

Interpreting business value

<https://www.ibm.com/downloads/cas/4WBWGBJL>

<https://infotrust.com/articles/roi-of-analytics-explaining-the-business-value-of-measurement/>

Additional references:

<https://www.slideshare.net/jamet123/delivering-the-business-value-of-analytics>,

<https://medium.com/analytics-for-humans/how-to-use-analytics-to-identify-the-business-value-of-your-website-c13f9c9675c7>,

<https://www.searchenginejournal.com/content-marketing-kpis/business-conversion/#close>

<https://zivanta-analytics.com/data-analytics-to-drive-business-value/>



THANK YOU

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