**Supply Chain Management (Smart)**

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| **Smart Supply Chain:** Technology. |
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| **Smart Supply Chain** |
| A supply chain that capitalizes on the use of technology and analytics. |

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| *Supply Chain Industry:* |  |
|  |  | *Supply Chain Initiatives* |  |
|  |  | Lean(Cost,Waste) | Green(TBL,CSR) | Resilient(Risk) | Responsive(Agile) | Smart(Technology) |  |
| *Key Supply Chains* | Commodity Supply Chain |  |  |  |  |  |  |
| Global Supply Chain |  |  |  |  |  |  |
| Service Supply Chain |  |  |  |  |  |  |
| Reverse Supply Chain  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | *Functions* | Inventory | Logistics | Relationships | Information | Strategy |  |
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|  | **Smart Supply Chains** |  |
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|  | 🡨 Flow of Information 🡨

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| Supplier | **↔** | Manufacturer | **↔** | Distributor | **↔** | Retailer | **↔** | Customer |

🡪 Flow of Material 🡪 |  |
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|  |  |  | *Supply Chain* *Management Systems* |  |
|  |  |  | Supplier | Operations | Logistics | Customer |  |
|  |  |  | ERP II | ERP | ERP | ERP III |  |
|  | *Supply Chain**Technology* | SRMSupplierRelationshipManagement | WMS WarehouseManagementSystem | TMS TransportationManagementSystem | CRMCustomerRelationshipManagement |  |
|  | Digital Supply Chain*(Cloud computing, Blockchain)* | Information*(Collect, Store, Retrieve)* |  |  |  |  |  |
|  | Communication*(Transparency, Interconnectedness, Accountability)* |  |  |  |  |  |
|  | Intelligent Supply Chain*(AI, NN, ES & Machine Learning)* | Analytics*(Evaluation,**Improvement, Leverage)* |  |  |  |  |  |
|  | Automation*(Customer Service,* *Decision Making,**Value Creation)* |  |  |  |  |  |
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|  | **Supply Chain Analytics** |  |
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|  | *Levels* | *Infrastructure* |  |
| 🡪 Business Intelligence 🡪 Business Analytics 🡪 Advanced Analytics | 🡪 Internet of Things 🡪 Analytics of Everything 🡪 Cloud Computing 🡪 Blockchain |
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***Brief Introduction to Business Analytics***

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| **What is Business Analytics?**An integrated, quantitative approach to managing business by gaining insights to the past, present, and future through data, models, and scientific inquiry.  |

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| **Seven Perspectives of Business Analytics**Consider the Seven Perspectives of Business Analytics consisting of three primary disciplines, three coordinated applications, and the integrated Business Analytics.Primary Disciplines: Mathematics & Statistics, Computer Science, Business Domain KnowledgeCoordinated Applications: Data Science, Business Intelligence, Business AnalysisIntegrated: Business Analytics |



***Levels of Business Analytics***

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| **Levels of Business Analytics** |
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|  |  |  | **Prescriptive** **Analytics** |  |
|  |  | **Predictive** **Analytics** |  |  |
|  | **Descriptive** **Analytics** |  |  |  |
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| **Levels of Business Analytics** |
|  | **Business Intelligence** |  |  |
|  |  |  | **Prescriptive** **Analytics** |  |
| What will happen? |  | **Predictive** **Analytics** |  |  |
| What is happening?What has happened? | **Descriptive** **Analytics** |  |  |  |
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| **Levels of Business Analytics** |
|  |  | **Advanced Analytics** |  |
|  |  |  | **Prescriptive** **Analytics** | What could happen? |
|  |  | **Predictive** **Analytics** |  | What will happen? |
|  | **Descriptive** **Analytics** |  |  |  |
|  |  |  |  |  |

***Brief Introduction to Advanced Analytics***

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| **What is Business Analytics?**An integrated, quantitative approach to managing business by gaining insights to the past, present, and future through data, models, and scientific inquiry.  |

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| **What is Advanced Analytics?**A collection of advanced quantitative techniques that incorporates data with characteristics of velocity, variety, and volume within coordinated approaches to gain insights into underlying constructs related to business objectives. |
| **Techniques: Multivariate Statistics, Optimization, Time Series Analysis** |
| **Data: Big Data, Structured & Unstructured Data, Streaming Data, Dirty Data** |
| **Approach: Data Mining, Cloud, Machine Learning, Artificial Intelligence** |

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| **Seven Perspectives of Business Analytics**Consider the Seven Perspectives of Business Analytics consisting of three primary disciplines, three coordinated applications, and the integrated Business Analytics. |



***Applications of Business Analytics***

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| **What is Business Analytics?**An integrated, quantitative approach to managing business by gaining insights to the past, present, and future through data, models, and scientific inquiry.  |

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| **What is Advanced Analytics?**A collection of advanced quantitative techniques that incorporates data with characteristics of velocity, variety, and volume within coordinated approaches to gain insights into underlying constructs related to business objectives. |

Gartner-Advanced Analytics & companies (article)

<https://www.cmswire.com/analytics/gartner-rates-these-companies-the-best-in-advanced-analytics/>

IBM-Netezza-Advanced Analytics explained (from reporting to predicting) (7min)

<https://youtu.be/e8jsICTPRpA>

IBM-Advanced Analytics (2:34) - Optimization

<https://youtu.be/DToNhgHhKHw>

Accenture-Advanced Analytics (1:25) – Forecasting [apps, analytics accelerators, platforms, algorithms]

<https://youtu.be/tUXGnHlIe3k>

Microsoft-Advanced Analytics (3:36) - Azure data

<https://youtu.be/Hft-rOjuelg>

DELL-Advanced Analytics (2:46) infrastructure

<https://youtu.be/j3eId9ZwODU>

The Blockchain and Us (2017) (31:26)

[ <https://youtu.be/2iF73cybTBs> ]

19 Industries The Blockchain Will Disrupt (10min). Jun 15, 2017

[ <https://youtu.be/G3psxs3gyf8> ]

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| No. 1. Banking and Payments (0:39)No. 2. Cyber Security (1:23)No. 3. Supply Chain Management (1:42)No. 4. Forecasting (2:19)No. 5. Networking and IOT (2:42)No. 6. Insurance (3:06)No. 7. Private Transport & Ride Sharing (3:41)No. 8. Online Data Storage (4:12)No. 9. Charity (4:32)No. 10. Voting (4:55) | No. 11. Government (5:38)No. 12. Public Benefits (5:57)No. 13. Healthcare (6:31)No. 14. Energy Management (7:05)No. 15. Online Music (7:30)No. 16. Retail (7:53)No. 17. Real Estate (8:23)No. 18. Crowdfunding (8:51)No. 19. Your Industry (9:36) |



Reference: Gartner-Advanced Analytics & companies (article)

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