IMPROVING BUSINESS VALUE THROUGH DATA ANALYTICS
- APPROACH DOCUMENT

Krysalis Analytics – from Data to Insights
Krysalis brings its business perspective to data analytics – a new dimension

- Krysalis has rich consulting experience (more than 50 projects in the last 10 years) in various sectors – manufacturing, retail and services
- We aim to leverage our business consulting experience in driving appropriate data analytics to help organizations make insight-driven business decisions

Our Value Proposition

Experience-led Analytics approach customized for each business need

On-demand allocation of analytics resources to support your reporting needs

Quick turnaround – 24 to 72 Hr. TAT depending on query complexity

Assured security of your data – NDA bound; secure servers with data masking, firewalls as needed
Data to insight – our overall approach

<table>
<thead>
<tr>
<th>Enterprise data</th>
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<tbody>
<tr>
<td>Sales data</td>
</tr>
<tr>
<td>Inventory data</td>
</tr>
<tr>
<td>Customer &amp; supplier info</td>
</tr>
<tr>
<td>Cost data</td>
</tr>
<tr>
<td>Various operational data –</td>
</tr>
<tr>
<td>Delivery, Quality and</td>
</tr>
<tr>
<td>cost</td>
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<table>
<thead>
<tr>
<th>Data sources*</th>
</tr>
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<tbody>
<tr>
<td>ERP</td>
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<tr>
<td>CRM</td>
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<tr>
<td>Legacy systems</td>
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<td>Flat files</td>
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</table>

* Our data analytics services are customized to client needs and current level of data systems.

Data warehouse

Data Analytics*

- Cleansing
- Ordering/Grouping
- Crosstabs
- Correlation
- Integration/Enrichment

Business insights

- Trends
- Reports
- Models

Krysalis
Our Data Analytics Services Model (DASM) –
customized to your current needs, systems & practices

Level 1 – Clients who do not have well developed data collection systems
- Creation of data structure & data capture systems
- Creation of simple tables & crosstabs

Level 2 – Clients with fairly large amounts of data – but not using the same effectively
- Data cleansing, validation, grouping
- Correlation analysis & simple reports
- Predictive analysis – answer to “what if” questions

Level 3 – Clients who analyze data but seek deeper analysis
- Advanced prediction methods – Regression, multi variant analysis, simulation techniques
- Modeling

Krysalis
Our Engagement Model

**Requirements Gathering**
- Client specifies key business questions to be answered
- Data requirements and sources jointly identified

**Pilot Run**
- Krysalis receives pilot data in raw form
- Krysalis processes the pilot data (cleansing & analysis) & shares results

**Analysis, Insights & Reporting**
- After pilot approval, Krysalis runs analysis on the full data set
- Results studied, insights gathered & reported using appropriate visualization tools
Service across domains and business processes

- Manufacturing
- Retail
- Social networking & E-commerce
- Market Research, Information Services and Consulting

Addressable domains

- Supply chain optimization
- Customer engagement
- Opportunity assessment
- Business Development

Business Processes
# Step-by-step approach to gaining business insights and improving business value

<table>
<thead>
<tr>
<th>Objective</th>
<th>Key activities</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| Understanding business needs & data| • Understanding the drivers for the business challenge  
• Assessing existing data and its quality  
• Finalizing data requirement | • Project scoping document  
• Data requirements document  
• Plan for data augmentation as needed |
| Data management & analysis         | • Data acquisition, collection, cleansing and collation  
• Data ordering, grouping and reduction using techniques (cluster, factor analysis etc.) | • Cleansed database  
• Key data tables, crosstabs for analysis  
• Brainstorming notes for initial hypotheses formulation |
| Data Interpretation & modeling     | • Running analytics to gain insights – crosstabs, regression, correlation and multivariate analysis.  
• Testing hypothesis, interpreting results, developing business insights  
• Creating models | • New business insights  
• Standard reports using data visualization methods  
• Model outputs |
| Prediction, strategy formulation and reporting | • Running predictive models  
• Evaluating alternative scenarios  
• Building alternative operational strategies using insights gained  
• Using visualization to communicate and seek internal consensus | • Recommendations  
• Business scenarios and model outputs  
• Reports  
• Implementation plan |
Data to Insights – key business questions across domains
## Questions of interest

<table>
<thead>
<tr>
<th>Questions</th>
<th>Analytics methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>What products are my customers in different segments interested in?</td>
<td>Clustering</td>
</tr>
<tr>
<td>Does my business have seasonality or trends that I should be aware of?</td>
<td>Sales trend analysis, Time Series</td>
</tr>
<tr>
<td>Were the promotional schemes rolled out by my business in the past effective?</td>
<td>Logistic Regression, Market segmentation analysis</td>
</tr>
<tr>
<td>How should I plan for stocking during this festive season?</td>
<td>Trend analysis, Demand forecasting algorithms</td>
</tr>
<tr>
<td>Does my customer see value from the various services offered?</td>
<td>Customer feedback analysis, Market segmentation &amp; sales analysis</td>
</tr>
<tr>
<td>Do I continue my investments on online and digital platforms to improve customer engagement?</td>
<td>Regression, Simulation</td>
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## Questions of interest

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<td>Is there any change or recent trends in the way my customer is pulling material from my facility?</td>
<td>PQ analysis – customer-wise &amp; part family-wise</td>
</tr>
<tr>
<td>What is the level of flexibility of my supplier base to meet varying market demand?</td>
<td>OTD analysis; schedule variance analysis, supplier-wise, commodity-wise</td>
</tr>
<tr>
<td>What are the key problems to be addressed to improve the on-time delivery of my suppliers?</td>
<td>Supplier failure analysis – commodity wise, region-wise</td>
</tr>
<tr>
<td>Do I need to reassess my inventory norms in this economic downturn?</td>
<td>PQ analysis, OTD analysis &amp; Inventory analysis</td>
</tr>
<tr>
<td>Do I need to increase my current capacity or is there any bottleneck machine that is affecting my overall throughput?</td>
<td>PQ analysis, Takt time – Cycle time study</td>
</tr>
<tr>
<td>What should I do to improve my overall plant productivity?</td>
<td>Comprehensive OEE analysis</td>
</tr>
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### Social networking, E-commerce & other digital platforms

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<tr>
<td>What kind of customers visit &amp; buy products from my various online platforms?</td>
<td>Customer profiling &amp; segmentation – platform wise</td>
</tr>
<tr>
<td>What kind of products are being targeted by my customers across various digital platforms?</td>
<td>Customer segmentation – Product – platform analysis</td>
</tr>
<tr>
<td>What is the effective way to reach my target customers among the various online options available?</td>
<td>Past hit rate analysis &amp; customer profiling</td>
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<tr>
<td>Which part of the day are my customers mostly active in purchasing my products?</td>
<td>Traffic flow analysis, Sales vs. customer profile analysis</td>
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<tr>
<td>What is the effectiveness of various online marketing initiatives carried out by the company?</td>
<td>Online sales analysis, platform-wise sales analysis</td>
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About us - Our experience & strengths

- Krysalis is a management consulting firm operating in the Indian market space for more than a decade

- Our analytics services go beyond mere number crunching – it is hypothesis driven and moderated by the rich experience gained through our consulting practice across sectors

- Our team consists of professionals with engineering and business degrees having several years of experience in leading organization handling complex business problems

- Our experience spans across sectors – retail, manufacturing, services

- Data integrity and confidentiality of customer data is key; we understand the sensitivities and have internal processes to guarantee the same
### C Venugopal – MD & CEO

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Experience (38 years)</th>
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<tbody>
<tr>
<td>Ph.D, Enterprise Systems, Anna University</td>
<td>Co-founded Krysalis after a career of 28 years in leading organizations having held C-level positions</td>
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<tr>
<td>M.Tech, Jamnalal Bajaj</td>
<td>At Krysalis, has led and completed over 40 projects with diverse clients across all areas of management</td>
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<tr>
<td>B.Tech (Hons.), I.I.T., Kharagpur</td>
<td>Diverse experience in all functional Areas – Marketing, General Management, Strategic Planning, Procurement and Supply Chain Management and IT</td>
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<td>Has led and participated in several strategy assignments using data analytics as a base</td>
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<td>- Was part of the client engagement team for two assignments with McKinsey</td>
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<td>- Led a strategy assignment for assessing market potential for BPO Services – an international assignment working along with PWC, New York office.</td>
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<td>Deep knowledge of research methodology – strong analytical skills; model thinking and strategizing using data</td>
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Krysalis
| Qualification                      | Masters in Management from Bombay University  
<table>
<thead>
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<th></th>
<th>Graduation in Commerce &amp; Economics</th>
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<tbody>
<tr>
<td>Experience (35 years)</td>
<td>Last corporate assignment: <strong>National Product Manager of TI Diamond Chain</strong>, a leading manufacturer of automotive chains</td>
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<td><strong>PAN India experience</strong> in the area of business development, marketing and sales</td>
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<td>Created and managed a business of creating and developing business content for a leading company in India</td>
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<td>Wide experience in handing complex market research assignments in the areas of industrial products and services</td>
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<td>Strong understanding of markets; High level of logical and analytical thing skills</td>
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S. Narayanan
Principal Consultant

Qualification

[PGDM (AIMA), LIBA], [B.E.(Mech.), Madras Univ.]

Experience: 8 years

30 consulting projects in Market Research, Supply Chain and Business Strategy - Gained expertise in data analytics and statistical packages

Well developed logical thinking skills; deep knowledge in the cause-effect analysis of business problems

Arun. G
Principal Consultant

Qualification

[MBA, Anna University],[B.E, Vellore Inst. Of Tech.]

Experience: 8 years

More than 25 projects in Market Research in the manufacturing, services and retail domains

Strong analytical skills; well-developed model thinking skills; experience in business problem solving
Consultants profile

T. Divakar
Business Analyst

Qualification
[B.E. (Mechatronics) – Anna Univ.]

Experience: 5 years
Market research field work and analysis experience of over 3 years
Well developed logical thinking skills; problem solving abilities using analytical tools

Jayasathiya J
Business Analyst

Qualification
[B.E. (ECE) – Anna Univ], [PGP Industrial Engg. from NPC]

Experience: 3 years
Handled process improvement exercises using data, in a wide range of industries
Excellent Industrial Engineering skills; Logical thinker; well developed analytical skills
Contact us

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Ph: 044- 42836750, www.krysalisco.com

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Balan Karunakaran (President & COO), +91 91766 29520, balan@krysalisco.com