



**THE ANALYTICS FACTORY**  
**LA FÁBRICA ANALÍTICA**

**CANBACK DANGEL**  
PREDICTIVE ANALYTICS INTEGRATORS

# *The challenge: Finding patterns in chaos*

## TYPICAL CUSTOMER PROBLEMS

### *Ad hoc analysis*

Several organizational units need similar information to support decision-making, but each unit uses its own definitions, analytical methods and presentation modes

### *Data quality*

Analysis required on an ongoing basis, but underlying data are not clean enough for full automation and some data are missing

### *Fragmentation*

Data is available in several datasets – some internal to the company, others from syndicated sources and government agencies – and merging the data is time-consuming and labor-intensive

### *Cost*

In-house analysis is possible, but is expensive and not part of the company's core competence

# The solution: From data to actionable knowledge

## OUR ANALYTICS FACTORY SOLUTION

The Canback Dangel Analytics Factory manages and analyzes customers' quantitative data on an ongoing basis. The results are presented based on our "Managerially Relevant – Analytically Robust" credo

### *Robust*

We use the most rigorous analytical methods and manage the underlying data based on years of experience

### *Timely*

Our production line approach allow us to feed back results to customers within days, rather than weeks

### *Efficient*

The factory is located in Mexico City, supported by our predictive analytics consultants in Boston, resulting in the lowest costs available

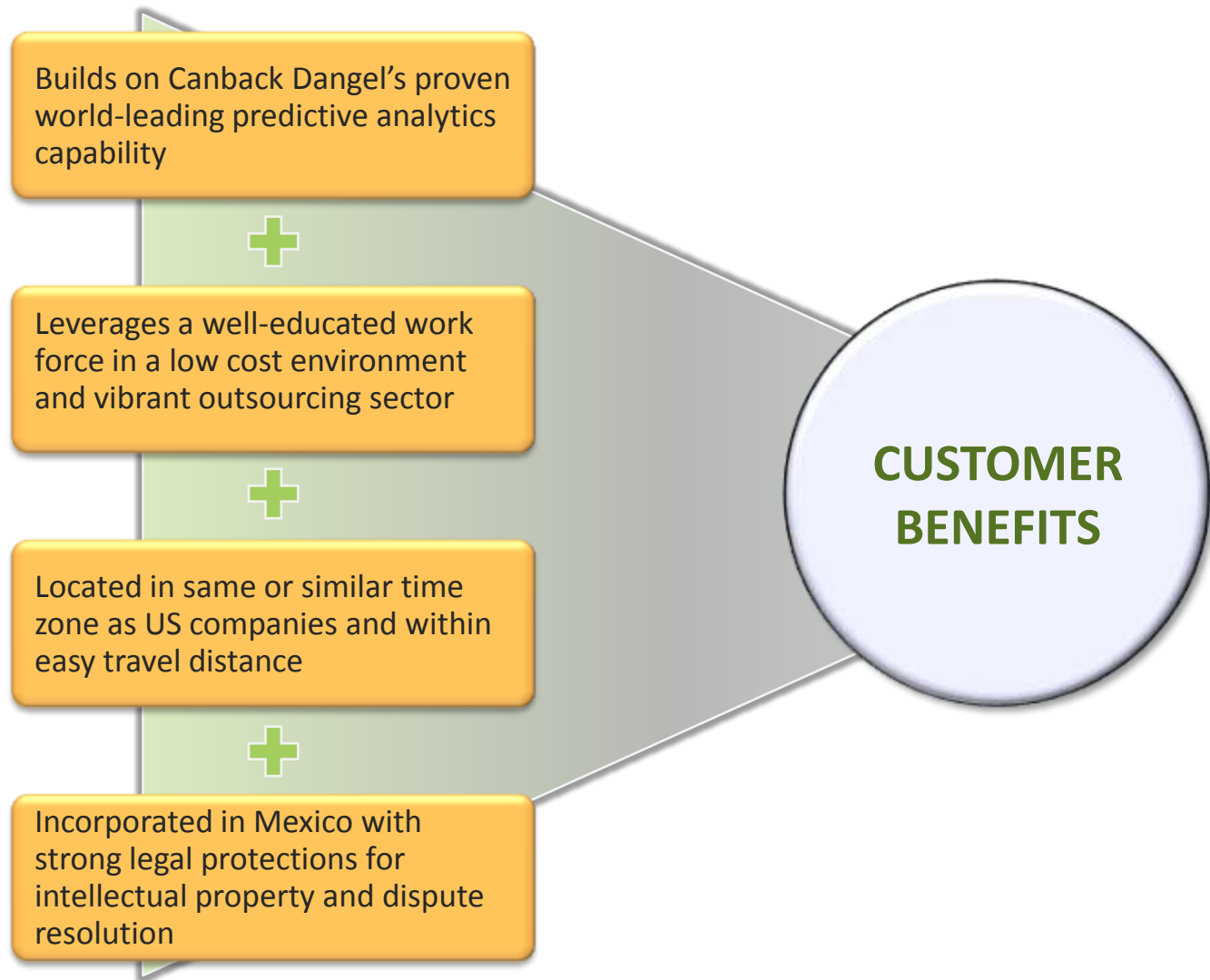
## FACTORY SERVICE LINES

- Market predictions -2014
- Between and within country market sizing
- Price band management
- Demand driver analysis (incl. merging of macro and micro data)
- Hidden knowledge analysis
- Advanced consumer survey analysis (beyond cross-tabs)

## FACTORY CAPABILITIES

- Cross-sectional time series analysis
- Arima and Armax models
- Multivariate and instrumental variables analysis
- External dataset collection
- Data cleaning techniques
- Dataset merging and updating
- Database management
- Excel-based predictive tool building

# *The Canback Dangel advantage: Experience, cost and integrity*



# Examples of Analytics Factory work

Find patterns in world's largest database for product innovation for a global beverages company



## PROBLEM

- Database only includes innovations not outcomes
- Dataset too large for easy analysis
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## SOLUTION

- Merged innovation data with brand-level data and added socioeconomic factors from other datasets
- Analyzed with multivariate techniques rather than tabulations

Maintain and continuously update world's most detailed database for income distribution data



- Raw data from hundreds of national sources with different definitions
- Complex econometric modeling

- Created harmonization algorithm to make countries comparable
- Collected data manually and convert to harmonized dataset
- Analyzed with standardized techniques

Create database for prevalence of parasitic infections and combine with affluence and social metrics in Mexico



- Affluence data only available at individual level from census
- Parasite statistics differed by state
- Same effort carried out in other countries

- Built integrated dataset easy to maintain
- Surveyed 1,500 households to correlate parasite prevalence with other metrics
- Created standardized presentation so results from other countries could be compared

## *Analytics Factory — Mexico City*



### **FRANCISCO MACIEL**

Mr Maciel is a former McKinsey consultant and investment banker with extensive experience in finance, telecom, and consumer goods. He has also been Dean of the Master of Finance program at Universidad Anahuac. He holds an MBA from Berkeley and a BA from Universidad Anáhuac.



### **JOSÉ MIGUEL VILLER**

Mr Viller has extensive business experience within Latin America. He has work in the chemical, plastics, engineering, diplomatic, educational marketing and consultancy industries. His areas of expertise include sales management, strategic planning, team work and communication.



### **ALBERTO BORBOLLA**

Mr Borbolla has been a researcher at the Universidad Nacional Autonoma de México since 2000. He works at the LAISUM (Institutional Analysis Lab for the Mexican University System), as well as for the Mexican Congress as a researcher in labor topics.

## *Methodology Development — Boston*



### **DR STAFFAN CANBACK**

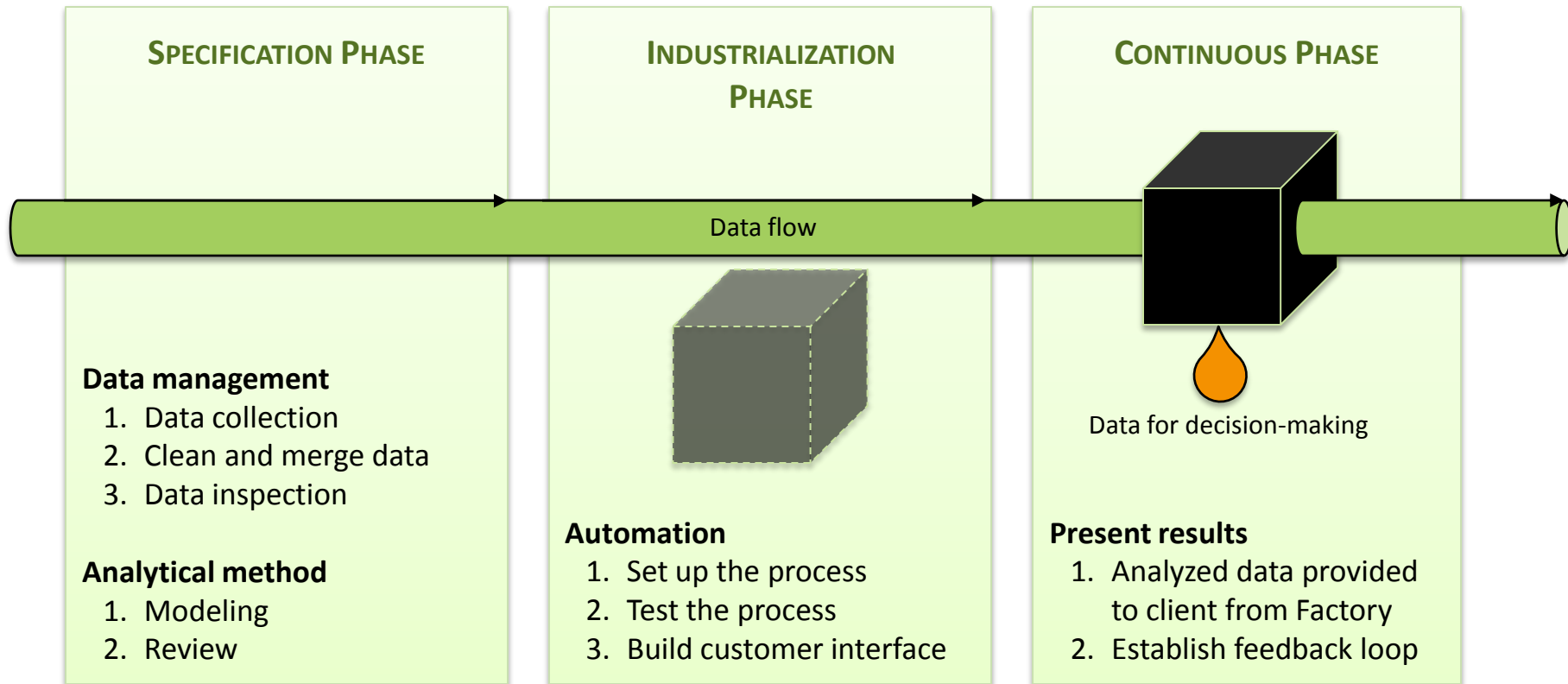
Dr Canback is co-founder and managing director of Canback Dangel. Earlier, he was a partner at McKinsey & Co, Accenture and Monitor Company. His doctoral dissertation on diseconomies of scale in large firms won first price in business administration research in Europe in 2002.



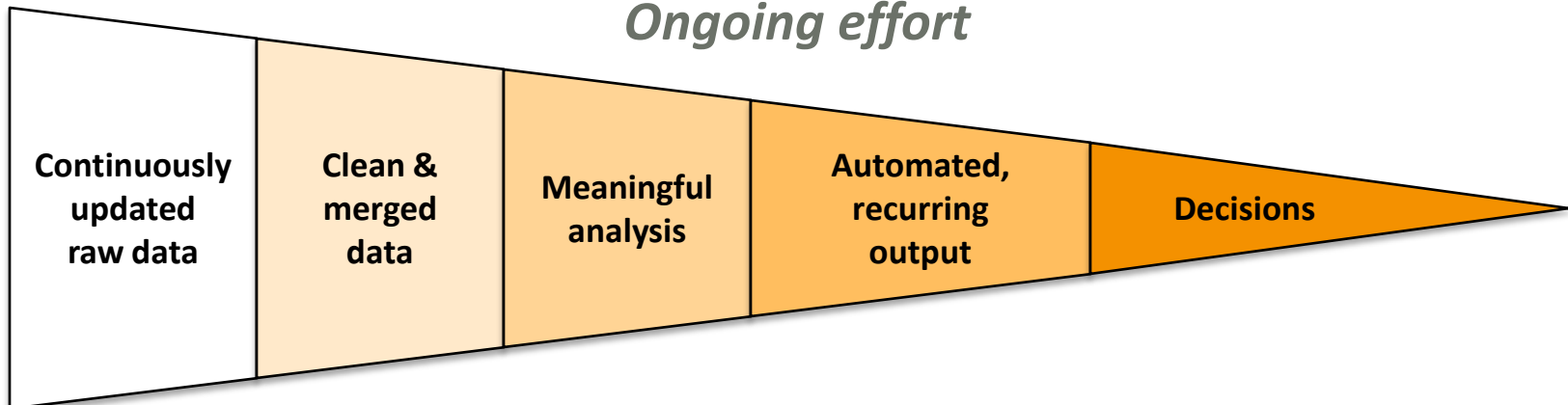
### **JESSE LOGAN**

Mr Logan is an analyst at Canback Dangel. Earlier, he was a virology scientist, leading viral load retention studies and creating modeling specifications for new product development. He has extensive experience with statistical analysis tools. He holds an MBA from Boston College.

## Initial effort



## Ongoing effort



# Practicalities

## LEGAL

Wholly owned subsidiary of Canback Dangel

- Analytics Factory incorporated in Mexico as Canback Dangel S.A.
- Canback Dangel incorporated in Massachusetts as LLC

## CONFIDENTIALITY

- Based on master services agreement with customer
- No re-sell or use with other customers
- Global or country-specific exclusivity for customers in own category is available

## STORAGE

- Permanent data resides on server in Boston office
- Temporary data resides on office server in Mexico, then uploaded to permanent storage
- Encrypted communication

## TOOLS

### *Data Management*

- Microsoft (2007) environment

### *Analysis*

- Statistical analysis in Stata
- Amos for structural equation modeling
- SPSS for simple survey analysis

### *In-house data sources*

- Global income distribution database (C-GIDD)
- Cellular Operator Analysis Tool (COAT)

## CUSTOMER INTERFACE

Done with Analytix Solutions in Boston as exclusive partner

- Specification by Canback Dangel
- Implementation by Analytix

# *Pricing model*

## ***Specification phase***

Charged as consulting project with monthly fee and expense reimbursement

## ***Industrialization phase***

Charged as consulting project with monthly fee and expense reimbursement

## ***Continuous phase***

Annual fixed fee contract with upgrade and extension options and performance metrics

# Appendix A: Outsourcing in Mexico



## OUTSOURCING SERVICES

Application management and support

Software development

Quality assurance and testing

Call center

Training facility

Research and development

## TRENDS

- 3<sup>rd</sup> largest US outsourcing (behind India and China)
- World class quality
- 100% growth of outsourcing services per year
- Major centers in Mexico City, Monterrey and Guadalajara
- Similar culture
- Identical technical education standards
- 3 companies have assessed CMM level 5 and over 30 have adopted SEI CMM model

## RECENT EXAMPLES

- 2009 – Tata Consulting Services Global Development Center in Queretaro (500 employees)
- 2009 - BBVA Global Training Facility in Cuernavaca (to serve all the Americas)
- 2008 – Accenture Global Delivery Center in Monterrey (supporting outsourcing clients in North America)
- 2008 – Motorola R&D Center in Monterrey (Home & Network mobility)
- 2007 - IBM Global development center in Mexico City and Guadalajara (1,000+ employees)

## Appendix B: Canback Dangel Projects (A)

Company	Category	Geography	Project
US branded foods company	Food	Brazil, China, Mexico, Philippines	Create business plan for new type of functional food with revolutionary health benefits
US branded foods company	Food	India	Assess future market in category and 11 sub-categories
US household and personal products company	Personal care products	Russia	Market sizing and demand predicting
Chinese financial institution	Mutual funds	China	Strategy development
US branded foods company	Food	United States	Develop strategy to counter private label growth
US household and personal products company	Personal care products	Russia	Regional pricing analysis for premium brands
US household and personal products company	Personal care products	Global	Market sizing and short-term forecasting for resource allocation
Chinese specialty retailer	Jewelry	China	Focus group interviews to support product mix optimization
US household and personal products company	Personal care products	Latin America	Market sizing and demand predictions
US household and personal products company	Personal care products	China	Market sizing and demand predictions
US household and personal products company	Personal care products	China, India, Indonesia	Provincial pricing analysis to support tiered pricing strategy
Chinese food company	Snack foods	China	Survey exploring attitudes and preferences for local versus international branded snacks
Chinese food company	Alcohol	China	Segmentation based on consumer surveys
US household and personal products company	Personal care products	US, UK, Germany, France, Japan	Analysis of interactions between low-end and premium products
German consumer products company	Household appliances	Russia	Market sizing and demand predictions for three product categories
German consumer products company	Household appliance	Russia	Analysis of price change impact

## Appendix B: Canback Dangel Projects (B)

Company	Category	Geography	Project
German consumer products company	Household appliance	Russia	Analysis of price change impact
US telecommunications company	Cellular services	China	Strategic evaluation of market prospects
US telecommunications company	Cellular services	China	Profitability analysis for third market entrant
US branded foods company	Food	China	Predictive insights on market prospects, consumer preferences, and trade development
US branded foods company	Food	Russia	Predictive insights on market prospects, consumer preferences, and trade development
International development agency	Banking	Sub-Saharan	Market sizing and forecasting with demand driver analysis
International development agency	Cellular services	Sub-Saharan	Market sizing and forecasting with demand driver analysis
US branded foods company	Food	Brazil	Predictive insights on market prospects, consumer preferences, and trade development
US branded foods company	Food	Germany	Predictive insights on market prospects, consumer preferences, and trade development
US household and personal products company	Personal care products	Brazil, Russia, India, Indonesia, China	Assessment of modern retail trade trends
US branded foods company	Food	Argentina, Mexico	Market entry strategy based on consumer insights and trade assessment
Chinese communications equipment maker	Telecom equipment	China	Product portfolio analysis
Chinese communications equipment maker	Telecom equipment	China	Corporate reorganization
Chinese pharmaceutical company	Pharmaceuticals	China	Market sizing and demand predictions

## Appendix B: Canback Dangel Projects (C)

Company	Category	Geography	Project
Chinese utility	Energy	China	Investment strategy development to manage large idle cash balances in capital intensive industry
Chinese utility	Energy	China	Forward integration strategy development from power generation to distribution
Chinese utility	Energy	China	Design of comprehensive system for executive compensation
Chinese telecommunications company	Telecom services	China	Corporate reorganization
Chinese building materials company	Building materials	China	Development of blueprint for new human resources division
Chinese building materials company	Building materials	China	Vertical integration strategy development
Chinese provincial government	Public sector	China	Policy development for special economic zone to encourage foreign direct investment



## DR STAFFAN CANBACK

Dr Canback is co-founder and managing director of Canback Dangel. He was a senior partner at Monitor

Company – a leading strategy consulting firm – from 1994 till 2002. Between 1984 and 1994, Dr Canback was a management consultant at McKinsey & Co – the world’s largest management consulting firm – where he was elected partner in 1989. As a consultant, Dr Canback focuses on marketing and market development issues. As an executive in the management consulting industry, Dr Canback has held practice leader responsibilities for units with \$30 million in annual revenue.

Dr Canback received his DBA from Henley Management College/Brunel University in the UK. The dissertation, “Bureaucratic Limits of Firm Size: Empirical Analysis Using Transaction Cost Economics,” explores diseconomies of scale in large corporations. The research received first prize in the prestigious EDAMBA European Doctoral Dissertation Competition. Dr Canback also holds an MBA from the Harvard Business School, which he attended as a Fulbright scholar, and an MSc in Electrical Engineering from the Royal Institute of Technology, where he graduated summa cum laude.



## CANBACK DANGEL LLC

Canback Dangel provides predictive analytic insights on consumers and markets globally through its management consulting and market research services.

Predictive analytics help companies draw reliable, fact-based conclusions about present and future opportunities based on sophisticated analyses of market, consumer and client data. Our deliverables range from holistic perspectives on what drives consumer demand to statistical prediction models.

We work for global Fortune 500 companies within four consumer-facing sectors: consumer goods, retailing, cellular services and financial services.

Canback Dangel has offices in Boston, Beijing, Manila, Mexico City, Moscow, São Paulo and Singapore, and a research unit in Pune (India). We leverage modern information and communications technology to create a seamless organization with little need to travel.

We anchor our work in science and use leading-edge management techniques and statistical methods to find the right answer, not only an answer. We achieve this through a highly interactive process with client executives and share all data and analyses to be as transparent as possible.

Founded in 2004, Canback Dangel is already a truly global company.

Boston

Beijing

Manila

Mexico City

Moscow

Pune

São Paulo

Singapore

## MEXICO CITY—ANALYTICS FACTORY

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