

Business Analytics



UNIVERSITAT DE
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i Empresa

What are we going to do?

- Presentation.
- What is Business Analytics?
- Impact of Business Analytics in a Company. General approach.
 - Objectives: We will dedicate this sessions to analyze what is the impact of gathering, managing and analyzing data in the different areas of a Company
 - Strategy.

A brief review of other tools
and methodologies.

A brief review of other tools and methodologies.

- In this section we will analyze other tools that are frequently used in Business Management as an alternative to SWOT or Value Chain Analysis. In general, they are more complex to use but you can find these tools in companies:
 - Strategy map.
 - PEST analysis.
 - Growth-share matrix.
 - Business Model CANVAS.

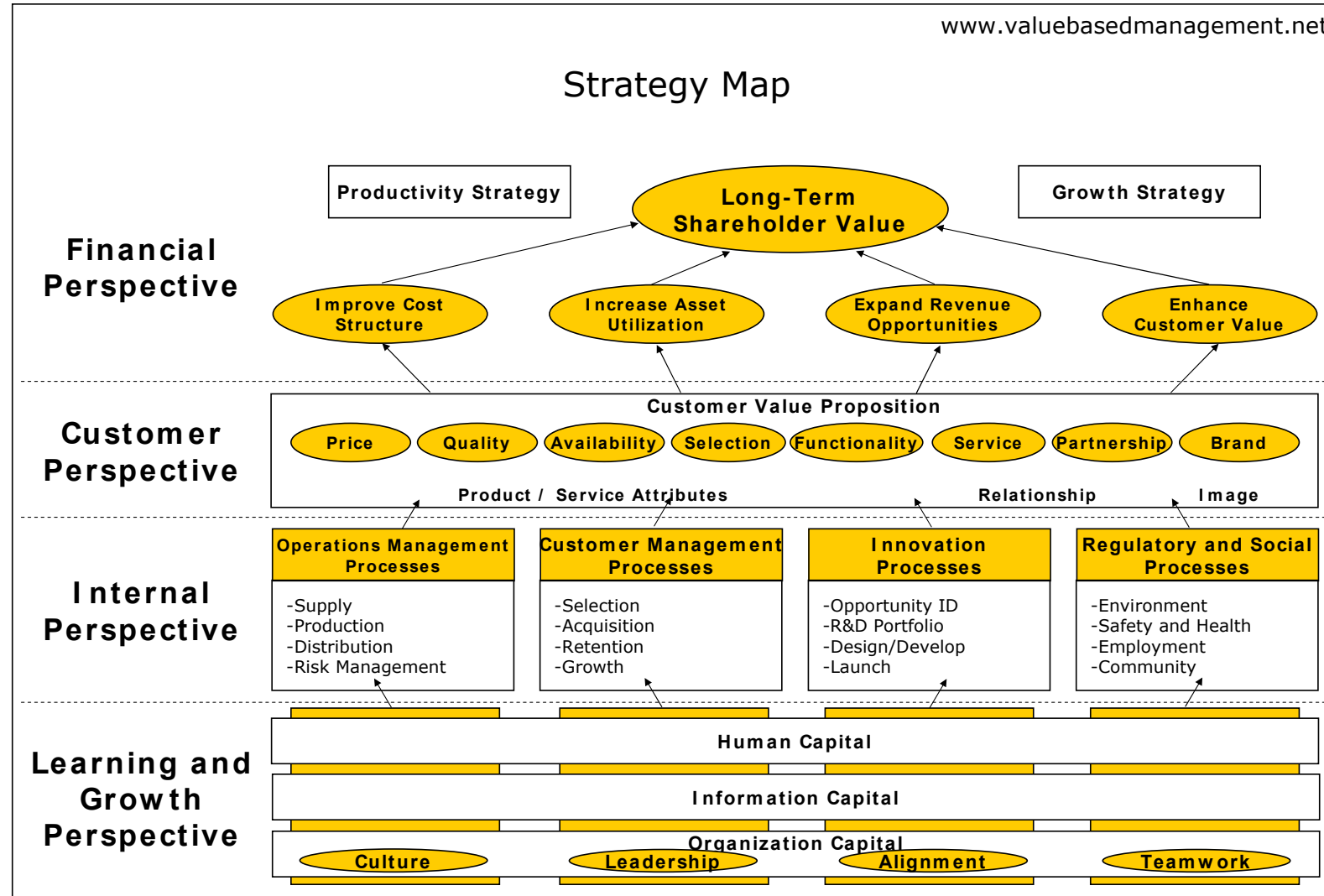
Strategy Map

- What is a strategy map?
 - Is a diagram that describes how an organization creates value by connecting strategic objectives in explicit cause-and-effect relationship with each other in the four objectives (financial, customer, processes, learning and growth).
- Why strategy maps?
 - It's a tool that helps greatly in describing the strategy and to communicate among executives and to the employees. No small thing, bearing in mind that often, the implementation of a constructed strategy is the biggest challenge.

Strategy Map

- Creation process: There are 4 perspectives: Financial, Customer, Internal, Learning and Growth.
 - Financial perspective:
 - Looks at creating long-term shareholder value, and builds from a productivity strategy of improving cost structure and asset utilization and a growth strategy of expanding opportunities and enhancing customer value.
 - Customer perspective:
 - This 4 elements of strategic improvement are supported by price, quality, availability, selection, functionality, service, partnerships and branding.
 - Internal perspective:
 - Operations and customer management processes help create product and service attributes while innovation, regulatory and social processes help with relationship and image.
 - Learning and Growth perspective:
 - All of these processes are supported by the allocation of human, information and organizational capital. Organizational capital is comprised of company culture, leadership, alignment and teamwork.

Strategy Map



PEST Analysis

- What is PEST Analysis?
 - Is a framework that is used to scan the external macro-environment in which firms operate. PEST is an acronym for the following factors:
 - Political factors.
 - Economic factors.
 - Social factors.
 - Technological factors.
- Why PEST Analysis?
 - It's relatively simple and can be done in workshops. Can vary from businesses and strategic planning, marketing planning, business and product development to research reports.
 - Other extensions are SLEPT (plus legal) or STEEPLE (Social, technological, economic, environmental, political, legal and ethical factors).

PEST Analysis

	Factor	Opportunity	Threat
Political			
Economic			
Socio-Cultural			
Technological			

PEST Analysis

Political (incl. Legal)	Economic	Social	Technological
Environmental regulations and protection	Economic growth	Income distribution	Government research spending
Tax policies	Interest rates & monetary policies	Demographics, Population growth rates, Age distribution	Industry focus on technological effort
International trade regulations and restrictions	Government spending	Labor / social mobility	New inventions and development
Contract enforcement law Consumer protection	Unemployment policy	Lifestyle changes	Rate of technology transfer
Employment laws	Taxation	Work/career and leisure attitudes Entrepreneurial spirit	Life cycle and speed of technological obsolescence
Government organization / attitude	Exchange rates	Education	Energy use and costs
Competition regulation	Inflation rates	Fashion, hypes	(Changes in) Information Technology
Political Stability	Stage of the business cycle	Health consciousness & welfare, feelings on safety	(Changes in) Internet
Safety regulations	Consumer confidence	Living conditions	(Changes in) Mobile Technology

Growth-Share Matrix.

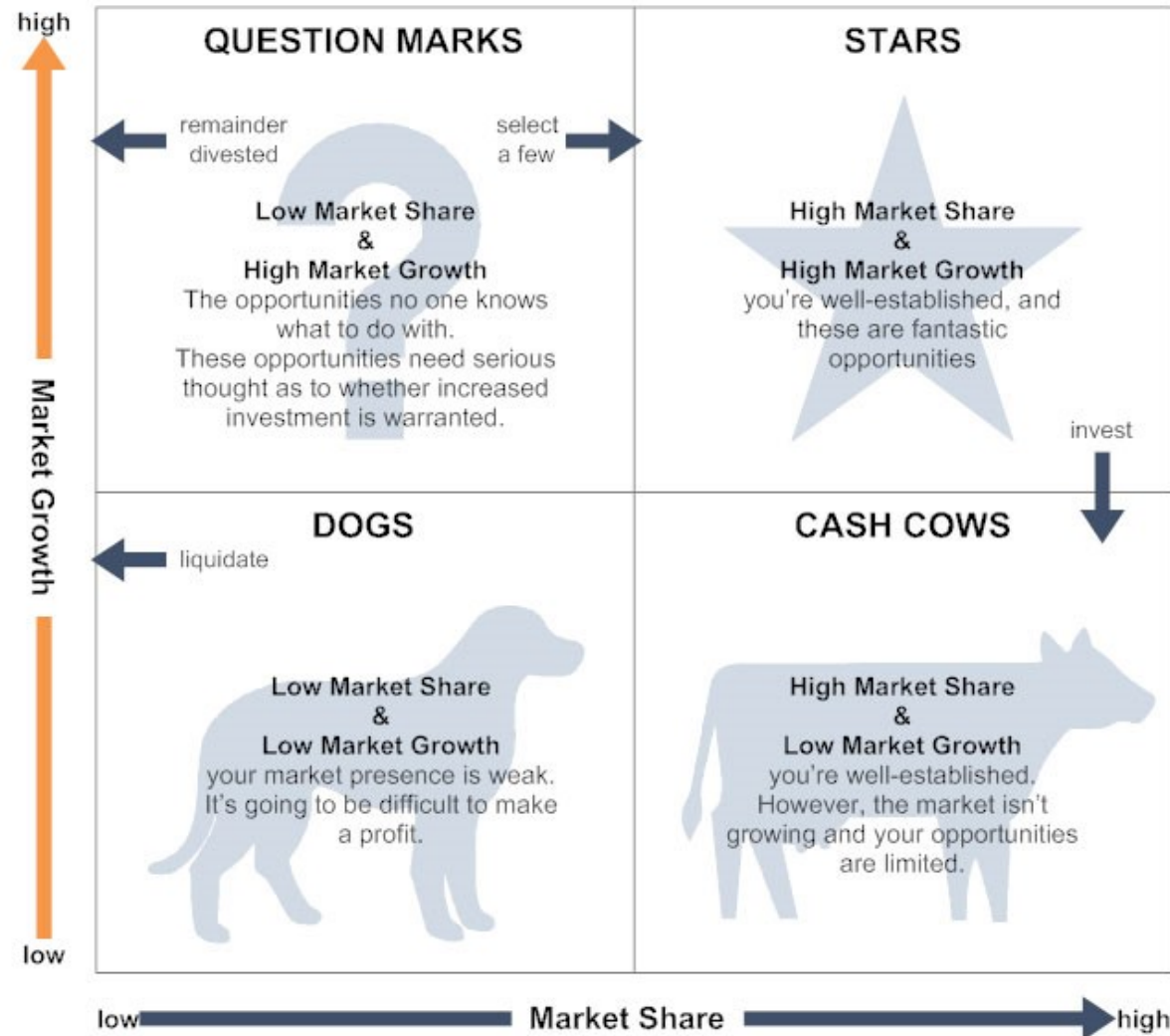
- What is a Growth-Share Matrix?
 - Is based on the “product life cycle” theory than can be used to determine what priorities should be given in the product portfolio of business units. It has 2 dimensions:
 - Market share
 - Market growth
- Why Growth-Share Matrix?
 - Can help understand a frequently strategy mistake: having a one-size-fits-all-approach.
 - Cash Cows will beat their profit target easily. Often are allowed to reinvest in business which are mature and not growing anymore.
 - Dogs fight an impossible battle and investment is done in hopeless to turn business on.
 - Question marks and stars get mediocre investment and are unable to ever become cash cows.

Growth-Share Matrix.

- Stars.
 - Use large amount of resources to generate large amount of cash.
- Cash Cows.
 - Profit and cash generation should be high, and because of low growth, investments should be low. Keep profits high.
- Dogs.
 - Avoid and minimize dogs in a company.
 - Beware of expensive turn around plans and deliver cash or liquidate
- Question Marks.
 - Have the worst cash characteristics (high demand and low return)
 - If nothing is done to change the market share will absorb great amounts of resources and as the growth stops become dogs.
 - Increase market share or deliver cash. Invest heavily or sell.

Growth-Share Matrix.

Growth-Share Matrix



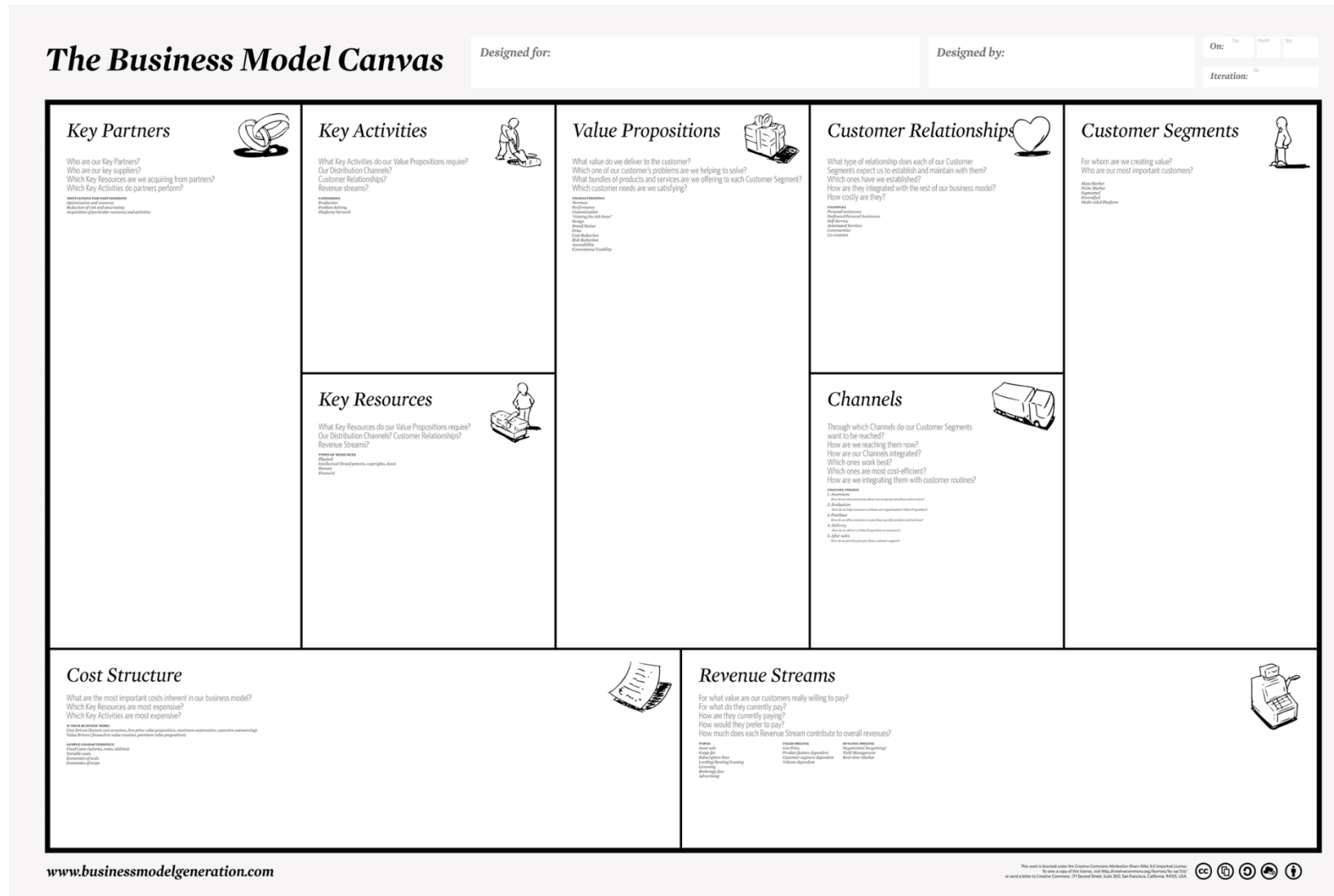
Business Model CANVAS.

- What is the Business Model Canvas (BMC)?
 - The Business Model Canvas is a strategic tool used for visually developing or displaying a business model. A BMC helps determine and align the key business activities and their relationship to your value proposition.
- Why Business Model Canvas?
 - Is not intended to serve in place of a business plan. Is used to summarize and visually illustrate the most important information of a business model, and to provide centralized ongoing clarity.
 - Is appropriate for illustrating existing business models, regardless of if the business is new or not. Is also appropriate for visualizing new business models for startups, as it helps organize and consolidate ideas around your key functions. Should be reviewed periodically, as all the factors listed can change over time.

Business Model CANVAS.

- Key partners
 - List the key partnerships your business leverages or relies upon for success. Include the resources or value your business gets from these partnerships.
- Key activities
 - Summarize the key activities that allow your business to provide services and deliver on your value proposition.
- Key resources
 - List the key resources your business relies upon or uses in order to operate and provide services.
- Key propositions
 - Summarize the different value propositions that set your business apart from your competition.
- Customer relationships
 - Define and describe the primary relationships you have with your customers, including how you interact with this, how these interactions differ among different types of customers, what different customer needs are, and the level of support the different customers receive.
- Channels
 - Detail how your customers are reached, how your services are provided, your different distribution channels and how your value proposition is delivered.
- Customer segments
 - Define the ideal customer personas your value proposition is intended to benefit, then describe the key differences between these segments and potential steps in the customer journey.
- Cost structure
 - Identify the primary costs associated with operating your business and providing your services, then detail the relationship between these costs and other business functions.
- Revenue streams
 - Describe how your business generates revenue through the delivery of your value proposition.

Business Model CANVAS.



Application of Business
Management tools to a Business
Analytics initiative.

Application to a Business Analytics initiative.

In general we can identify 4 factors we can use as input to analyse a Business Analytics initiative in a company. This initiative can be a new product or service or a new company with a new business model.

Motor Factors of Business Analytics	Impact in Data Monetization
Structured Data: More detailed transactional data: TPV, Credit Card...	Makes more detailed and concrete decisions (local, stational, multidimensional)
Unstructured data: various internal data (e-mail, consumer comments) and external data (social media, mobile).	It makes possible unstructured decisions more complete and precise (with new metrics, dimensions and dimensional attributes)
Data rate: access to low latency data ("real-time")	It makes it possible to make decisions more frequently and at the same time (hours versus weeks, on demand)
Predictive analytics: Causality, predictors, instrumentation, experimentation	More applicable predictive decisions (optimize, recommend, predict, estimate, predict)

Application to a Business Analytics initiative. Example.

- Suppose he is an executive at Foot Locker, a leading retailer in the footwear and sportswear market for men and women that sells both online and in stores. In its 2010 annual report a letter from the company president to its shareholders makes clear what Foot Locker's main business initiative is:

... become the main seller of footwear and sportswear, providing a clear vision of the brands we sell.

- That is, that Foot Locker seeks to take advantage of brands that do not need presentation, such as Nike and Under Armor, to increase visits to stores, sales and general benefits, which in the letter is reinforced with other strategic priorities:
 - ***Have a good assortment of sports clothing.***
 - ***Turn our stores and websites into attractive places to shop.***
 - ***Increase productivity in all of our areas.***

Application to a Business Analytics initiative. Example

- Merchandising: Presentation of products, placement, promotion and price to generate sales and profits for both the product itself and the stores, either separately or in combination.
- Application of the 4 Big Data Analytics drivers to get ideas on sceptical areas where they could impact Foot Locker's flagship merchandising initiative.
 - Factor 1. How we could use transactional data from POSs to improve customer segmentation.
 - Factor 2. How we could integrate unstructured data like social media with our transactional data to improve customer segmentation.
 - Factor 3. How would you use real-time data to improve customer segmentation.
 - Factor 4. How could we use advanced or predictive business analytics to improve customer segmentation?

Application to a Business Analytics initiative. Example

- Factor 1.
 - We could use the detailed POS transactions along with Foot Locker customer loyalty data so that the number of microsegments went from 50 to 500 in buying behaviours and individual and collective product trends.
 - We could create much more targeted and concrete advertising campaigns, focusing on the most loyal customer segments, and carrying out specific advertising activities for the season (for example, events such as the World Cup or Davis Cup), the city or postal code .
 - We could create customer segments specific to each location based on the current sports season (football, basketball, tennis) combined with matches of local teams.

Application to a Business Analytics initiative. Example

- Factor 2.
 - We could explore social media data for sports-related customer interests, passions, associations and affiliations, to create more complete and targeted merchandising models.
 - We could analyse social media feeds to identify which ad campaigns are successful and which are not, by analysing customer feedback.
 - We could use mobile application data like MapMyRun.com to create specific micro-segments based on specific locations, stores or sports.

Application to a Business Analytics initiative. Example

- Factor 3.
 - We could update daily the estimation of customer acquisition for direct and cross-selling (alternative products) while the campaign is active, based on the response of the different segments of merchandising (for example, weekend footballers are responding a 50 per cent more than expected, but the response of younger fans is 20 per cent lower than expected)
 - We could recalculate merchandising models right after significant local sporting events (for example, that Madrid won the league ... again, or that Celta returned to Europe for many years).
 - We could integrate the local sporting events to perfect the campaigns on the march (for example to take advantage of the classification of a local professional equipment for a playoff).

Application to a Business Analytics initiative. Example

- Factor 4.
 - We could develop analytical models that monitor and prioritize the development of the current campaign to determine which is the best micro-segment of clients to direct a specific campaign for established sales targets.
 - We could develop multiplatform attribution modelling to optimize merchandising expenses in activities aimed at e-mail, ordinary mail, the Web, mobile phones or stores.

Application to a Business Analytics initiative. Other examples

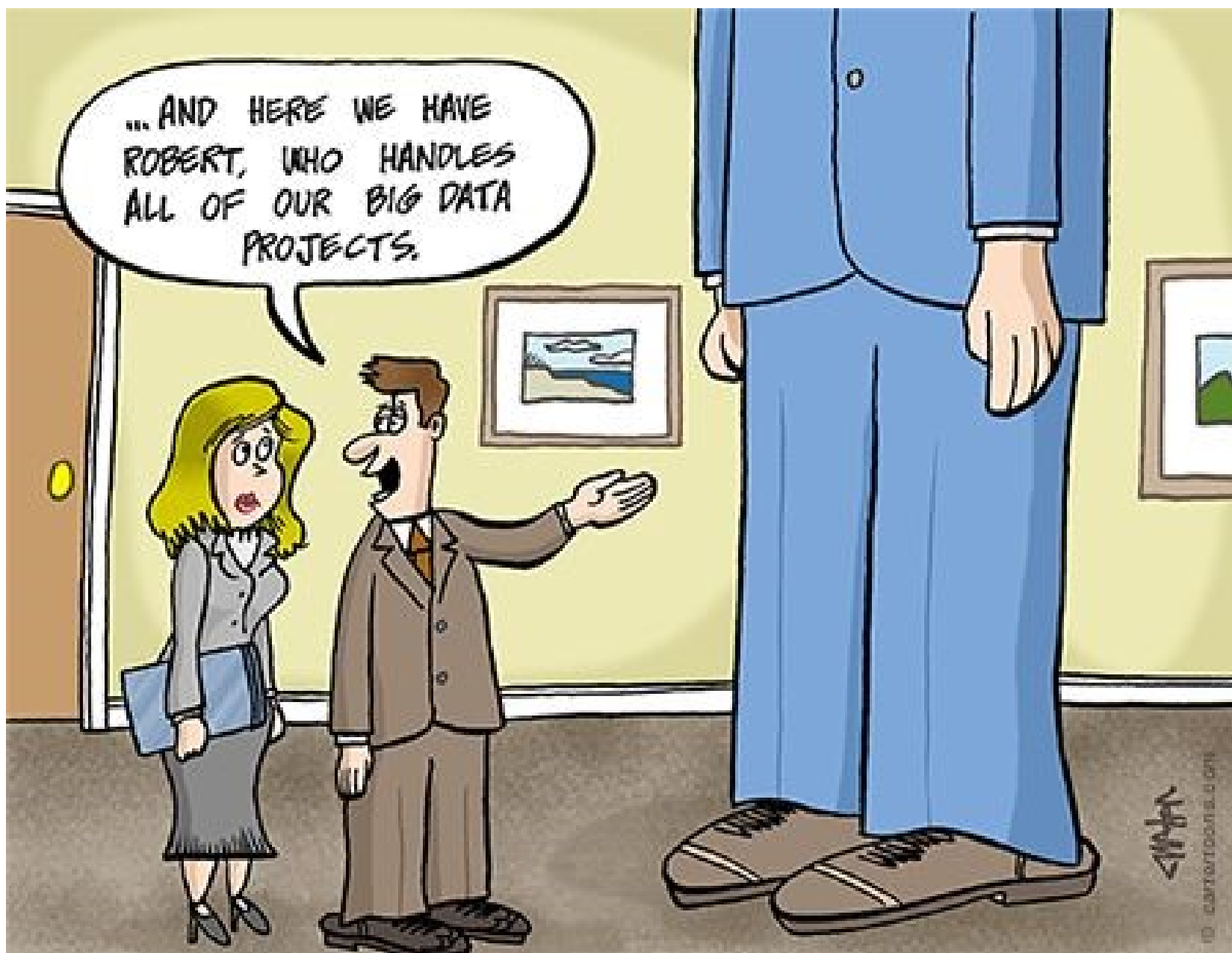
- Predictive Maintenance.
 - A railroad company is attempting to predict the maintenance of machinery and wagons in order to comply with the Positive Traction Control (PTC) order.
 - The purpose of the PTC is to eliminate out-of-control trains and rail accidents. This same information can be used by train technicians to perform predictive maintenance and optimize maintenance planning of machinery and wagons. Therefore, the objective entrepreneurship would be:
 - Predictive Maintenance: Predict maintenance of machinery and wagons to reduce out-of-control trains and rail accidents, and to improve maintenance planning for machinery and wagons.

Application to a Business Analytics initiative. Other examples

- Customer Satisfaction.
 - Let's see how an automaker can leverage the new sources of consumer knowledge and products to predict the impact of the quality of its distribution service. The objective entrepreneurship would then be:
 - Optimizing Customer Satisfaction: Monitor, revalue and reward top distributors to improve customer loyalty and predict costs and responsibilities for claims.

Application to a Business Analytics initiative. Other examples

- Client micro-segmentation
 - Organizations can move from just a few customer segments to thousands of microsegments if they take advantage of customer and product knowledge that is buried in unstructured data from multiple customer interactions. Organizations can draw from sources such as consumer comments, call center notes, email children and social media publications, valuable insights into the interests, passions, associations, and affiliations of Clients that can dramatically improve the relevancy and performance of each of the microsegments. This will make possible a more targeted customer interaction through more presonalized advertising campaigns for these smaller segments.
 - In this example, the target business initiative would then be:
 - Client Microsegmentation: Increase the number of customer segments in order to improve the processes of profiling, segmentation, personalization, acquisition, maturation (cross selling and directed sales), retention and defense.



Thank You



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