Intuitive Visualization for Business Analysis

Presenters:
Mukesh Deshpande (mukesh.deshpande@in.pwc.com)
Sayantan Mondal (sayantan.mondal@in.pwc.com)
international giving.

We're averaging $0.31 per dollar placed directly in the hands of the poor. Read more

Siaya County, Kenya, meeting both recipients and non-recipients. Read more...
Agenda

Business Analysis in today’s world

The essence of Design Thinking

Intuitive visualisation

Brainstorming

In a nutshell

Key Takeaways

- Empowering BAs with data driven capabilities and intuitive visualisation techniques.

- Incorporating the concept of design thinking in their approach of problem solving and make use of intuitive visualisation
Shift in scope of Business Analysis

Business Problems

Software

Define Requirements

Business Analyst Community

Activities
- Define software requirements
- Define how tables, fields, records and screens are arranged and change

Change
- Business Processes
- Roles & Responsibilities
- Procedures
- Relations

Customers
Vendors
Competitions
Employees
Internal stakeholders
Innovative methods that BAs adopt

1. Collaborative Analysis
   - Facilitation
   - Team Experience
   - Cognitive Load
   - Explicit sharing

2. Visual Modelling
   - Modelling Techniques
   - Use Case Models
   - Class Diagrams
   - Decision Tables
   - Data Diagrams

3. Problem Analysis
   - Root cause Analysis
   - SWOT Analysis

4. Design Thinking
   - Iterations
   - Show and Tell
   - Pilot
   - Object Modelling
   - Visualization
Evolving face of business

- Business is transforming with the megatrends – mobile, cloud and digital.

Evolving approach of business analysis

The approach towards business analysis is evolving with the analysts now being empowered with data and analysis models to formulate for relevant and effective decisions.
Data playing an important role in Business Analysis

Data

- Enterprise Data
- 3rd Party Data
- Social Media Data
- Market Data
- Industry Specific Data

Business Analysis

- Performance Monitoring
- Question on Key Metrics
- Insight Generation

Outcomes

- Value Realization
- Execution
- Insight Validation

Business Value

• Analytical models outcome provide the hidden view of the enterprise to business analyst. It presents the business patterns, preferences and predictions

• Business Analysts can make use of Analytics technology with innovative visualization options to make their job bit simpler by looking into business problems analysis
Solving problems with Design Thinking

Business Thinking

Problem  Solution

Design Thinking

Understand  Problem  Solution

Boundary less Thinking

The ability to combine **empathy**, **creativity** and **rationality** to **meet user needs** and **drive business success**
Application of Design Thinking in a programme

- **Concept**
  - Clarify need and define objective
  - Brainstorm concepts
  - Prioritize insights
  - Research and observe

- **Direction**
  - Measure, manage and control
  - Hypothesise methods
  - Build it

- **Pain Point**

- **Explore**
  - New Ideas
  - Feedback

- **Resolve**

**Design Thinking**, **Lean Models**, and **Agile**

© 2016 BA Convention
Evolving face of business
• Business is transforming with the megatrends – mobile, cloud and digital.

Evolving approach of business analysis
• The approach towards business analysis is evolving with the analysts now being empowered with data and analysis models to formulate for relevant and effective decisions.

Analytics driven design thinking
• Design thinking approach using data driven business analysis is a powerful tool for the BA community to address the needs of rapidly evolving businesses.
Intuitive Visualization is the key to unfold data insights

**Business analysis** supported by data based insights is very **adaptive** phenomenon.

- **Iterative Process:** Combine results -> Data insights -> Form hypothesis -> Feedback -> Iterate

- **Next level of visualization:** Combination of
  - Attractive visualization components
  - Data insights
  - Information related to hypothesis

- **E.g. Combination of geographical map and the heat map and the related occurrences that customer is looking for at the same time.**

“The visualization techniques should help business analyst to look into data patterns and drive their analysis before the data actually goes through analytics platform”

Twitter conversation heat map on tourism destinations vs actual foot fall in a season
Combining visualization techniques with outward focused visualization needs

Traditional visualization techniques getting combined with more intuitive visualization options like dynamically rendered web pages, geo maps, doodles, satellite images, surveys, etc.
Outward focused visualization than inward focused

Most of the times the visualization designed for the business analysis process or for organization’s decision making process is always internal focused. The data is represented in a way the business analysts or designers can understand.

The usage of various visualization techniques are always internal focused. They are driven by key metrics that we want see and analyze.

How many time the visualization is designed keeping the out-word focus?
How many times the visualization design is addressed for real consumers or for the feet-on-street users?

Many of the times the Business Analysts can solve the problem by arranging the data visualization for the customer. If they try and see the data the way consumers would like to see it.

The outward focused visualization forces you to look beyond the traditional ways of representing data and user instruments other than typical bar charts, line charts, etc.

Can we design the visualization that can work directly with the data, that can interact with the visuals to dig deeper and that can navigate through all the information like never before with combination to external factors.
Brainstorming real life cases

1. Optimizing "Feet on Street" operations
Problem Definition

- An insurance major had taken up an initiative to boost its customer satisfaction index.
- But even after spending a large amount of money on they realised that their agent workforce was not properly utilised, and
- The operational expenditure was shooting up every month.
- Customer feedback indicated no tangible improvement in the score

Our target

1. Decrease OPEX by X%
2. Increase CSAT by Y basis points
3. Improve utilisation of workforce by Z%
Approach

Business problem:
- How to increase the customer satisfaction index and reduce operational expense.

Define goals:
- Seeding: It was a 10 basis point increase in the CSAT and 5% decrease in OPEX.

Explore:
- Identify customer interface points – can be agents, call centres as well as websites and apps.
- OPEX reduction be achieved through a variety of approaches.

 Iterate and finalise:
- A solution with an impactful visualisation that would convince the stakeholders of the effectiveness of the approach.
A call centre agent would be empowered with a real time map of agents in an area, one of whom can be immediately assigned in case a customer calls for a, say cheque pickup request.
Real-life Use Cases

2. Optimising Digital Marketing (How online advertising can be evolved to the next level)
Problem Definition

- An automobile major was planning to launch a new product.
- It wanted to increase brand awareness and reach the youth population without spending a fortune on advertisement.

Our target

1. Increase brand presence
2. Increase brand awareness among youth
3. Optimise marketing costs
Application of Design Thinking

### Traditional business analysis

**PROBLEM**
- Brand presence
- New product, How to market?
- Decrease marketing cost

**SOLUTION**
- New ads
- Chose a new brand ambassador
- New ad partner

### Business analysis using design thinking

**UNDERSTAND**
- Interactive doodle based ad to grab attention
- Set up team to respond to social feedback
- Redesign website for quick message passing

**PROBLEM**
- Minimal social presence
- Ad hits are sub par
- Website design fail to attract reader
- Product targeted to youth
- Brand awareness amount youth is minimal

**SOLUTION**
• Adopt animated Google doodles or videos instead of static images

• Improve the user engagement time by having option of user interaction

• E.g. Consider a case where a user could play around with Fido in a 7Up ad!

http://www.google.com/doodles/celebrating-ludwig-van-beethovens-245th-year
In a nutshell

• Business analysts today need to be empowered with data driven capabilities and intuitive visualisation techniques to be able to create value for the rapidly evolving business landscape.

• Business Analysts will need to incorporate the concept of design thinking in their approach of problem solving and make use of intuitive visualisation techniques to create better insights and enable more powerful decisions.
Thank You!

Learn more. www.baconvention.com