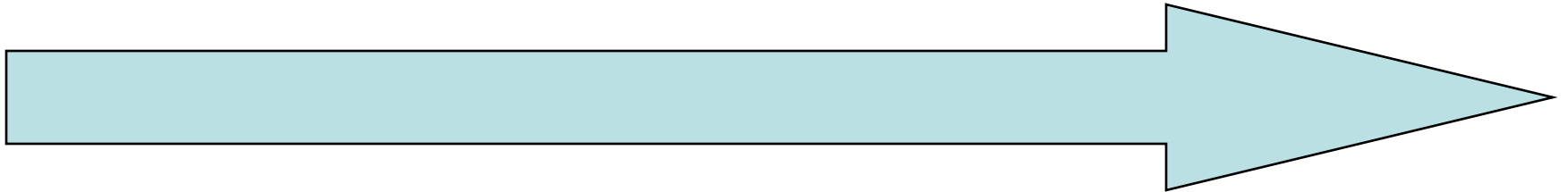
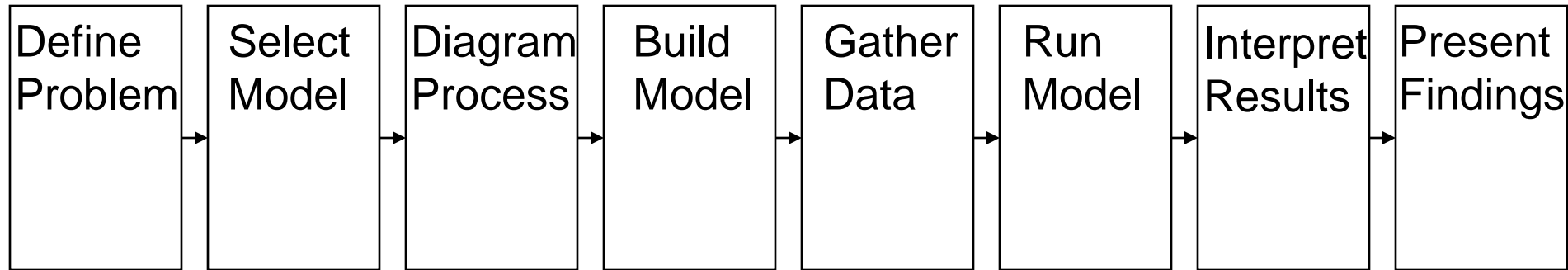


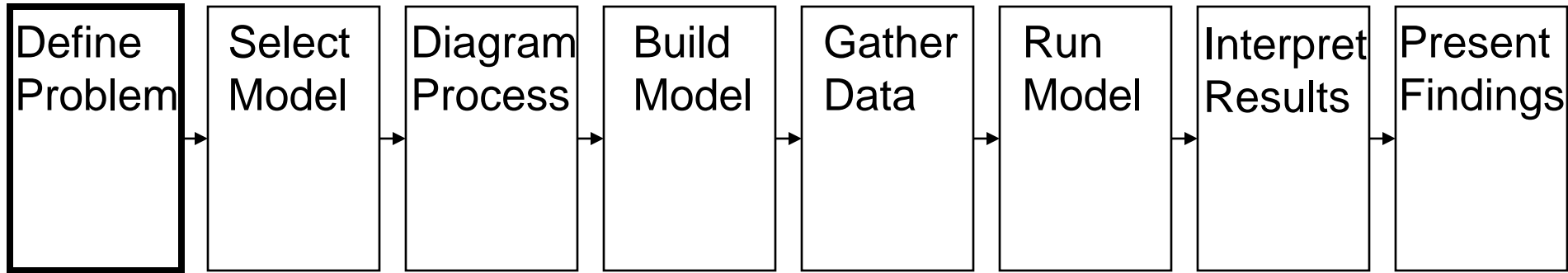
Decision Model Development

Stephan Sorger
www.StephanSorger.com

Model Development Process: Overview



Model Development Process: Define Problem



Define Problem

Description

Product features

What features should be included in the product?

Pricing

What should be price of product/ service?

Positioning

How should product/ service be positioned?

Segmentation

What are the salient segments in the market?

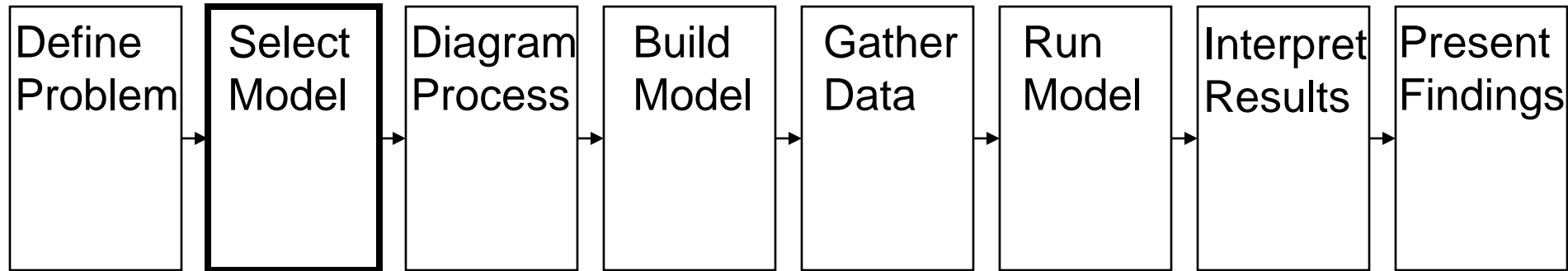
Targeting

Which segments should be targeted?

Budget

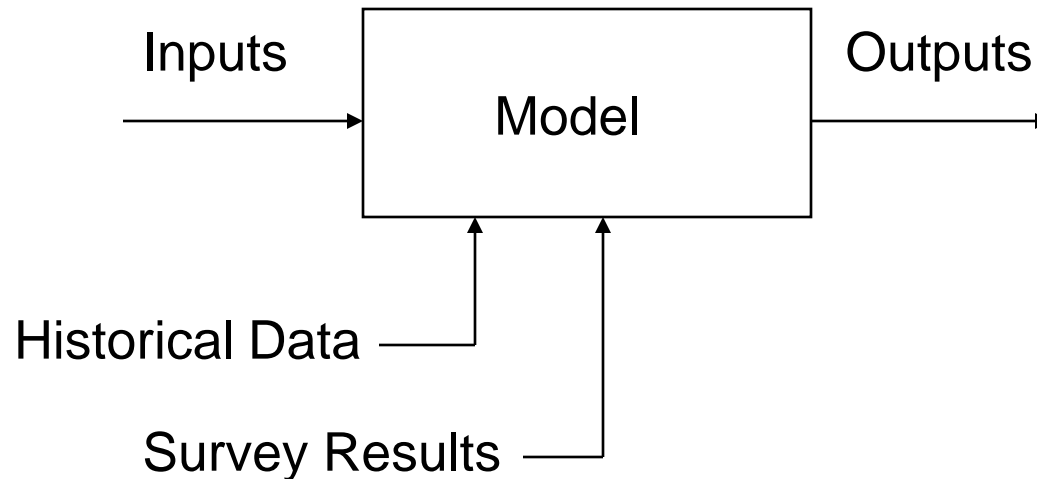
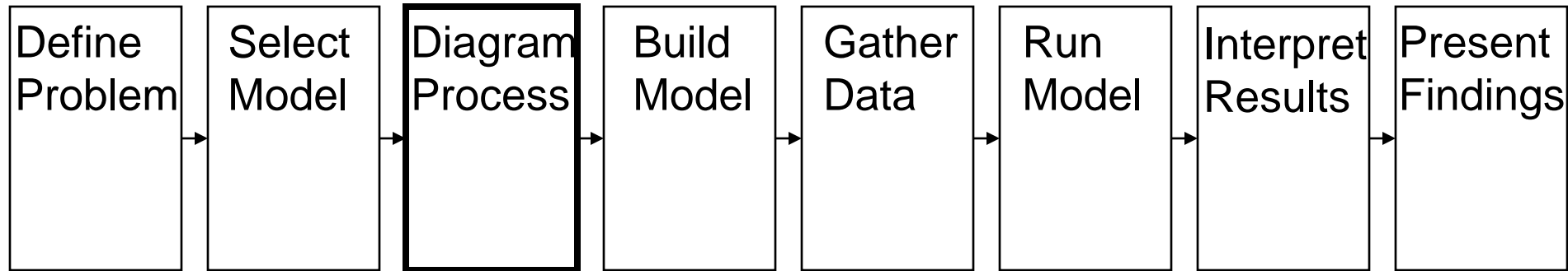
How much advertising budget should be allocated?

Model Development Process: Select Model

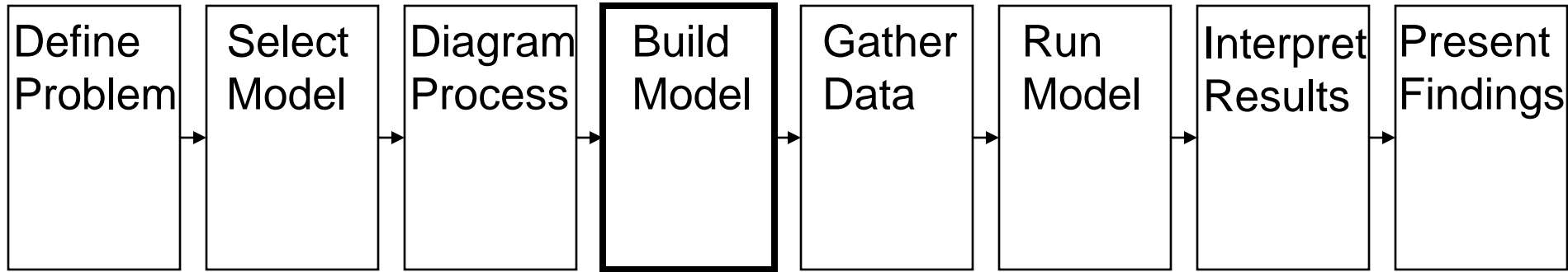


Select Model	Description
Conjoint	Determining which features matter most
Regression	Forecast future sales using historical data
Bass	Forecast future sales without historical data
Decision Tree	Maximizing expected value of different choices

Model Development Process: Diagram Process



Model Development Process: Build Model



Inputs

1	Inputs	Model Process	Model Process	Model Process	Outputs
2					
3	Input 1	Functions	Functions	Functions	Output 1
4	Input 2				Output 2
5	Input 3				Output 3
6		Procedure	Calibration	Usage	
7					

Outputs

Procedure: How model works

Sheets/ Tabs (examples)

- Tab 1: Main page
- Tab 2: Historical data
- Tab 3: Graph/ Plot

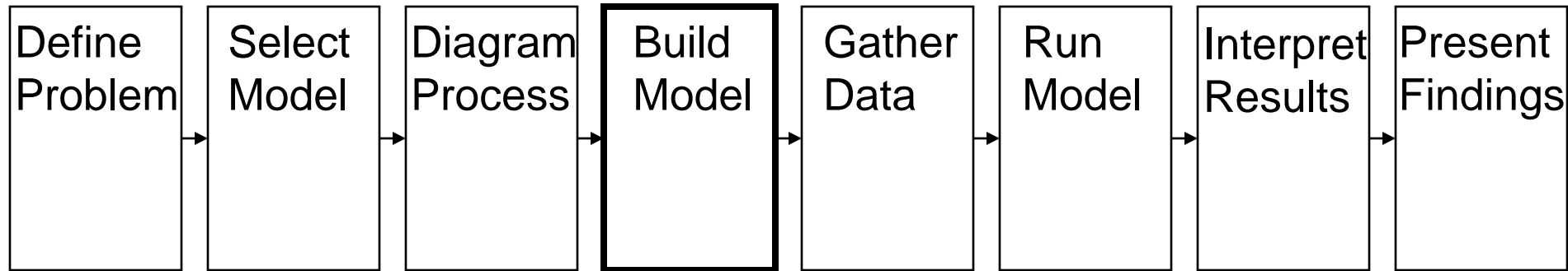
Model process area

- Algorithms for model
- Excel functions

Usage: How to use/ interpret outputs

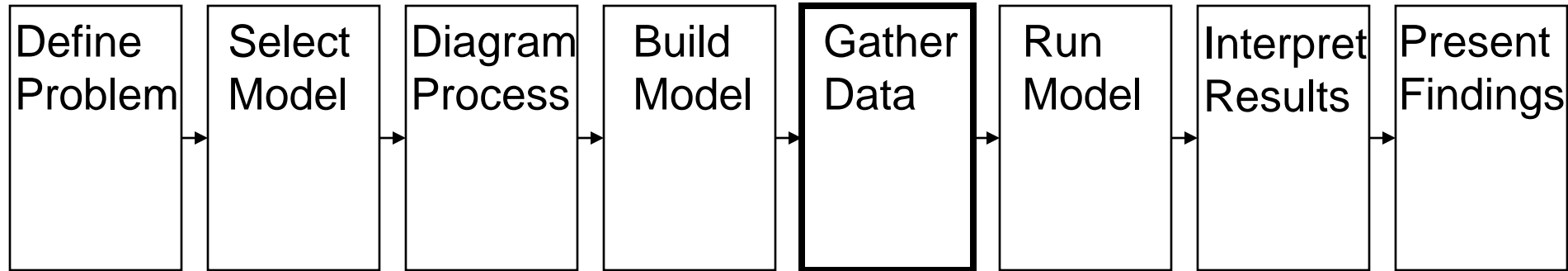
Calibration: Making model "fit" data

Model Development Process: Build Model



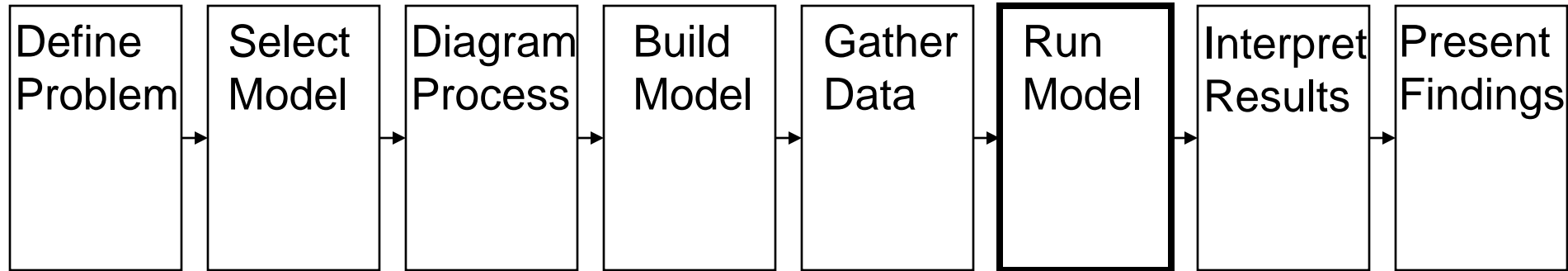
Excel Function	Description
Arithmetic (+, -, x, /)	Sum up survey results, divide to get average, etc.
Ratios	(Marketing Spend) / (Annual Revenue), etc.
Analysis ToolPak	Set of analysis functions accessible via Tools menu Regression: Find coefficients to fit line into data Moving Averages: Filter noise out of data Statistics: Sampling, z-tests and t-tests
Algorithms	Search “model (e.g. Bass) algorithm excel” http://andorraweb.com/bass/ : equations, usage, etc.
Pivot Tables	Analyze data by changing (pivoting) data structure

Model Development Process: Gather Data



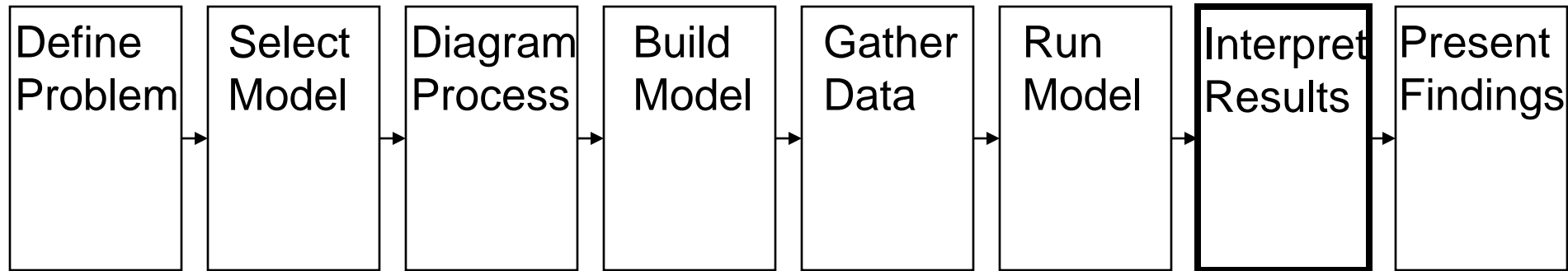
Gather Data	Description
Historical	Past sales data Data by customer, product, sales rep, date, etc.
Survey	Market research data Survey target market to get feedback on proposed idea Qualitative research: Open-ended discussions Quantitative research: Send out questionnaire
Calibration	Tweak model to “fit” data Use regression analysis to find model coefficients Use Excel Solver tool to optimize model for data

Model Development Process: Run Model



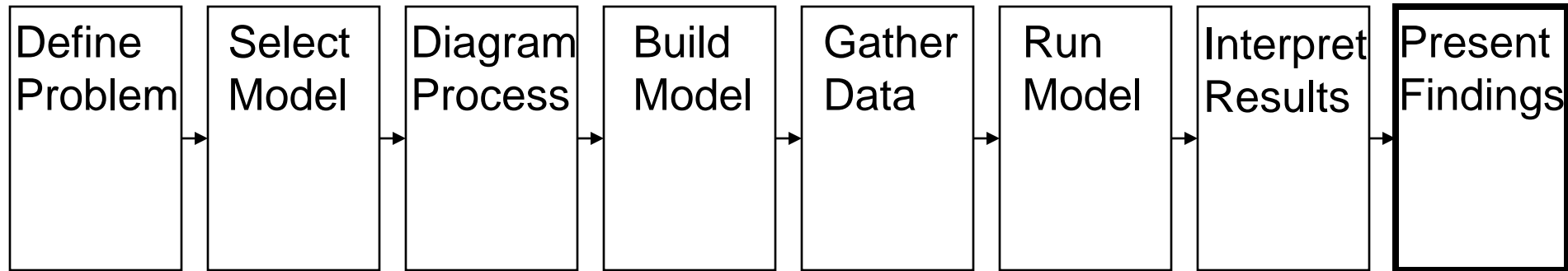
Run Model	Description
Assumptions	Define assumptions; Examples: “Assumes economy will stay at current state” “Assumes no reaction from competitors”
Scenarios	Define multiple scenarios; Examples: “Advertising at Current Levels (Baseline)” “Advertising at +10% Increase”
What-If	Run different scenarios Determine results with different inputs
Demo	Ensure smooth running demonstration

Model Development Process: Interpret Results



Interpret Results	Description
Tables	Create tables showing results of different scenarios
Graphs	Plot out data in tables Visual representations assist in forming insights
Problem	Relate findings to original problem How does model help to solve problem? What additional insights have we learned?
Adaptability	Applicability of model to other marketing problems Where else can we use this model?

Model Development Process: Present Findings



Present Findings	Description
Documentation	Add labels to Excel model to assist others in using
User Guide	Create MS PowerPoint / Word guide to using model: <ul style="list-style-type: none">-Problem statement and background-Model selection rationale-Research methodology and model calibration-Procedure: How to use model and interpret results-Use case: Example of how model is applied
Graphics	Plots/ Charts/ Tables to show results Visual results make more powerful arguments
Insights	Summarize insights learned and how problem solved