Wind Tunneling Business Strategy

Using System Dynamics to Judge Scenario Outcomes

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Vertex, Inc

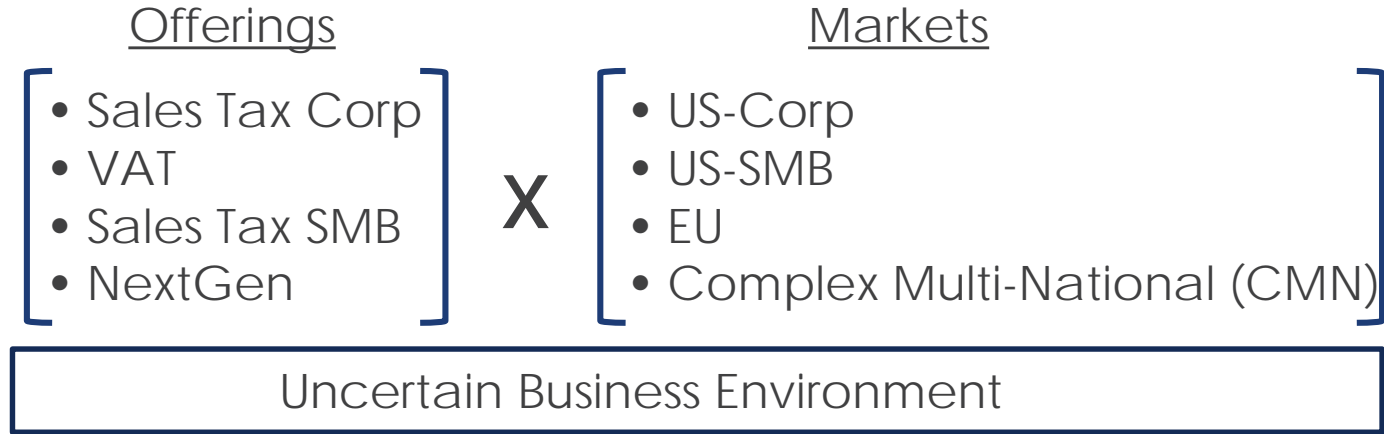- $250M, 1000 people, 40 years old, family owned

- Premier US Sales Tax calculation engine

- Named top place to work in Philadelphia region

Business Problem

Situation:

Offerings:
- Sales Tax Corp
- VAT
- Sales Tax SMB
- NextGen

X

Markets:
- US-Corp
- US-SMB
- EU
- Complex Multi-National (CMN)
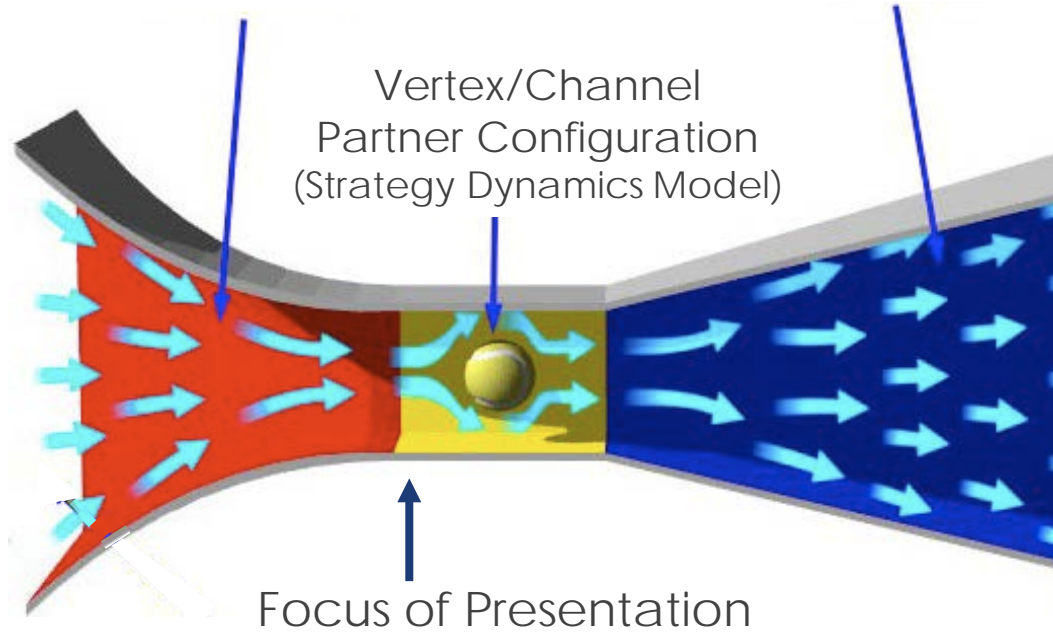
Uncertain Business Environment

Choices in 2015:
- Investment in offering development
- Use of third party partners as go-to-market channels

Approach

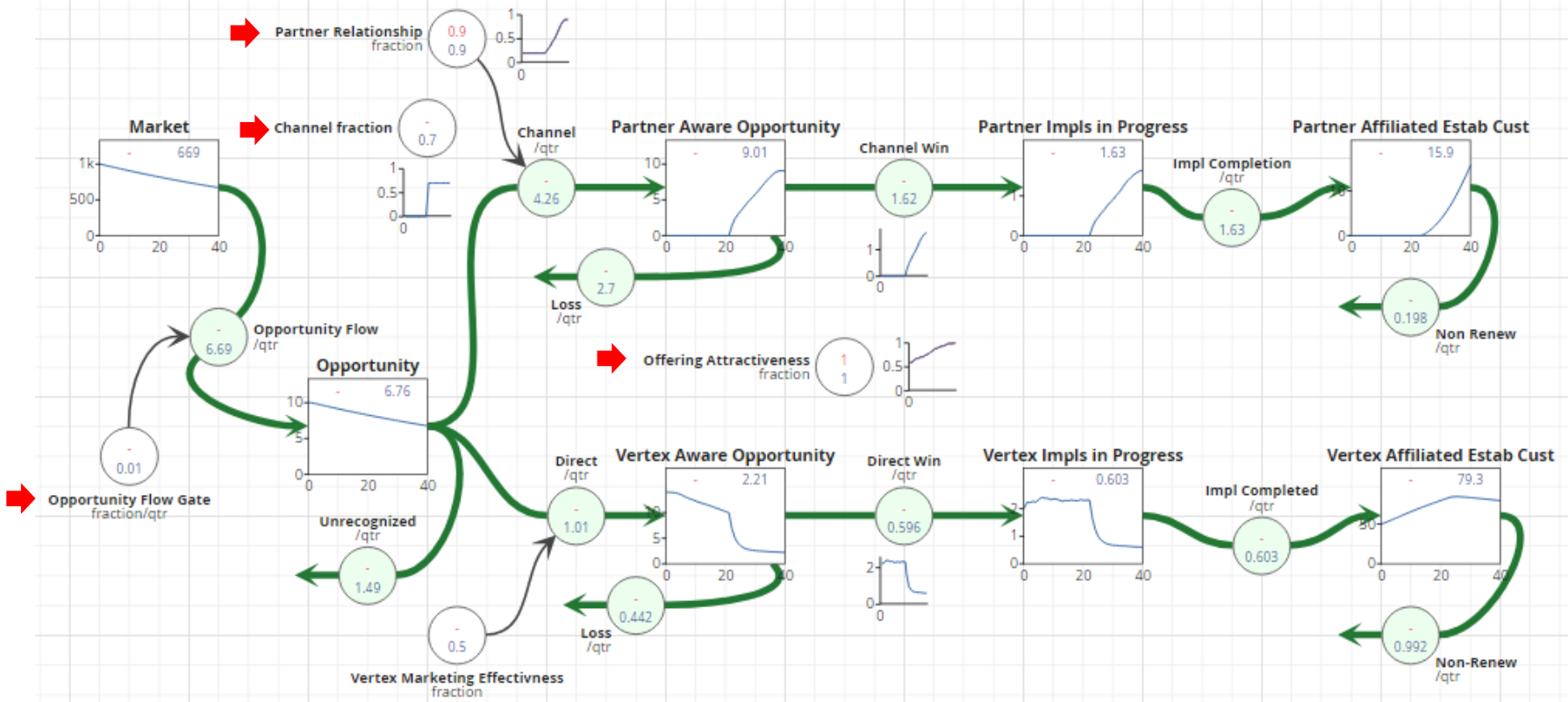Business Environment Evolution (Scenarios)

Comparative Performance Trajectories

Vertex/Channel Partner Configuration (Strategy Dynamics Model)

Focus of Presentation

Strategic Architecture – "Customer Conveyor"

Strategic Architecture (cont'd)

Adoption Profiles

Market	Adoption Profiles
• US Corporations	• SalesTax Corp – NextGen • VAT – NextGen • NextGen
• EU Corporations	• VAT – NextGen • NextGen
• Complex Multi-Nationals	• VAT – NextGen • NextGen
• SMB	• Sales Tax SMB

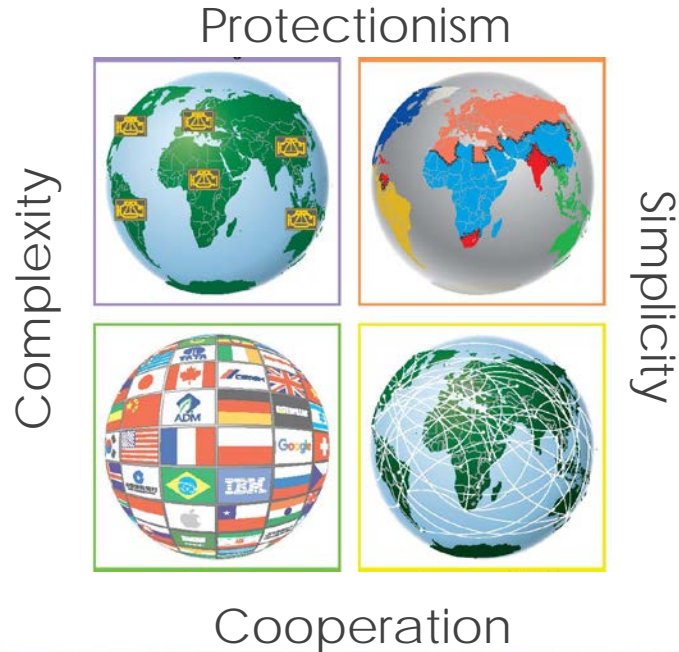## Model Structure
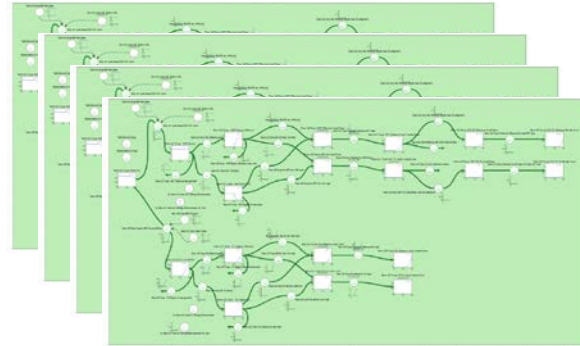
Market Situations
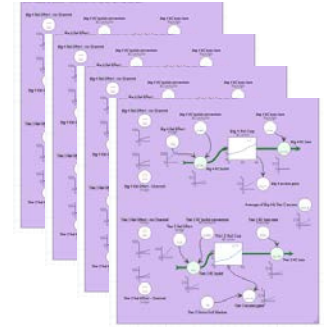
Operations

Performance Index

$$\frac{\text{Market Traction}}{\text{Vertex Effort Applied}} = \frac{\Sigma \ \text{Weighted Units of Offering}}{\text{Development + Selling + Relationship Mgmt + Services}}$$

Scenarios

Vertex Global Tax Futures
(20 year horizon)

Protectionism

Complexity

Simplicity

Cooperation

5 Year Futures

Stalled Engines	ERP Gated Community
Corporate IT Phoenix	Global Tax Network

Five Year Futures

Stalled Engines

- The consumer-led recovery from the Great Recession does not materialize. Risk averse tax leaders are unwilling to embrace new tax technology.

Corporate IT Phoenix

- Corporate information technology departments resort to building their own tax warehouses, since vendor-provided tax technology is inadequate.

ERP Gated Community

- Tax is a part of finance. Oracle, SAP and other ERPs capitalize on the strengths of their position, and argue successfully that companies should use the data management and tax solutions that are integral to their respective suites.

Global Tax Network

- Business transparency standards become widely adopted. In addition, companies are taking full advantage of the economies of cloud-based tax computing.

Business Environments – Defining Factors

- Offering Attractiveness
    - Expectations on cloud-based offering availability
- Opportunity Flow
    - ERP ecosystem maturity
    - IT Advisor influence
    - Financial (and tax) process transformation
    - Marketplace Fairness Act

Scenarios and Environment Factors

| Environment Factor	Possible Values	Value for Scenario			
		Stalled Engines	Corporate IT	ERP Gated	Global Tax Network
Cloud Expectations	Extended, Accelerated	Extended	Extended	Accelerated	Accelerated
ERP Gating	Open, Controlled	Open	Open	Controlled	Open
Advisor Gating	Open, Controlled	Open	Controlled	Open	Open
Tax Transformation	Slow, Moderate, Accelerated	Slow	Moderate	Moderate	Accelerated
Market Place Fairness Act	Fails, Pending, Passes	Fails	Pending	Pending	Passes

Activating the Wind Tunnel

With calibrated model, establish test configuration:

| Policy	Sample
Development resource allocation	Static five year policy • For Sales Tax – Corp: Deployment on cloud, otherwise in maintenance • For other offerings: Increasing investment
Use of channels (and associated marketing plan)	If channels active: • Divide by markets: o Vertex retains CMN o Partners cover other three If channels inactive: • Vertex increases marketing investment

Sample Performance Index Traces
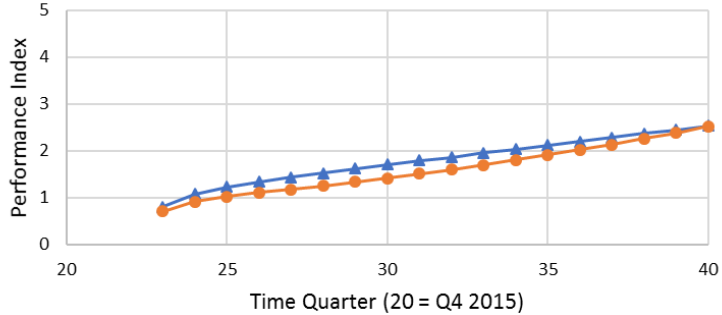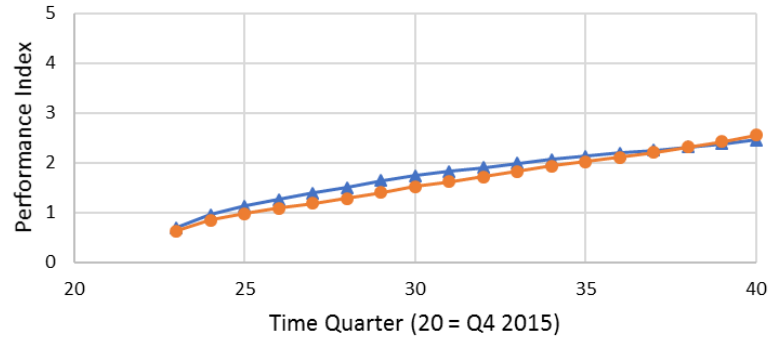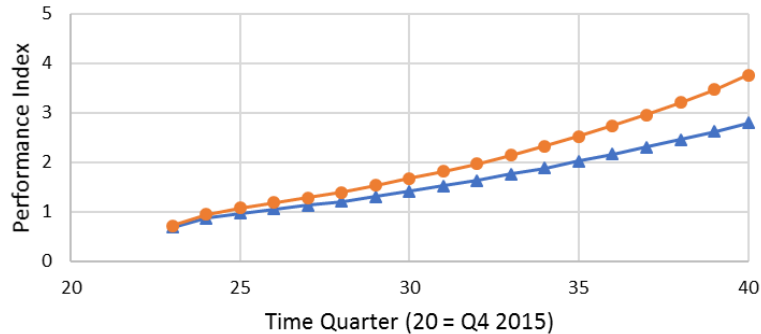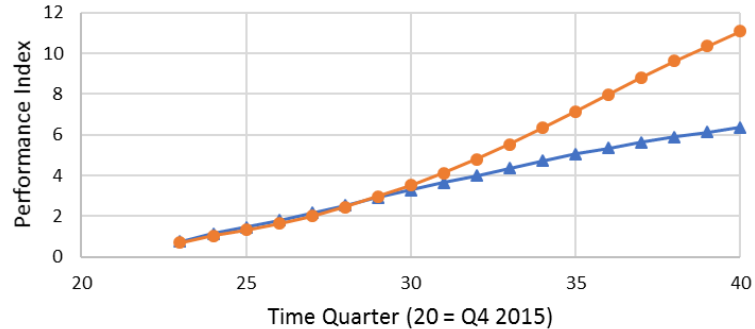
Closing Remarks

- Enhancements (partial list):
  - Offering investment policy
  - Market adoption dynamics
  - Competitor behavior
  - Financial measures
  - Staffing dynamics
- Overall outcome: basic testbed produced
  - Accurately portrays past history
  - Links scenario work to business operations
  - Lifts up and frames meaningful cause and effect impacts of strategy choices