Using Customer Satisfaction and Brand Loyalty Big Data Metrics for Beating the Markets and Index Creation

Forrest V. Morgeson III, Ph.D. and Phil Bak
ACSI Funds and American Customer Satisfaction Index (ACSI)

QWAFAFEW New York
November 28, 2017

ACSI Snapshot

Established in 1994, ACSI is the only standardized measure of customer satisfaction in the U.S. economy, covering more than 300 companies in 45 industries and 10 economic sectors.

- A quarterly measure of the national economy's health
- Complementary to measures such as productivity, unemployment, and inflation rate
- Results are based on interviews of consumers
- Database contains information from over 2,000,000 customer interviews

ACSI Methodology Adopted Internationally

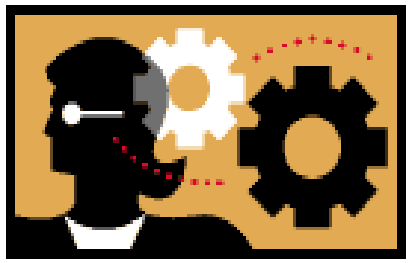
Measuring Customers as an Asset

Aligning measures to maximize firm performance

Customer Satisfaction Management System

Voice of Customer

-Management Perspective
-Customer Interviews
-Model of Satisfaction
-Custom Questionnaire



Methodology-Driven Impact Analysis

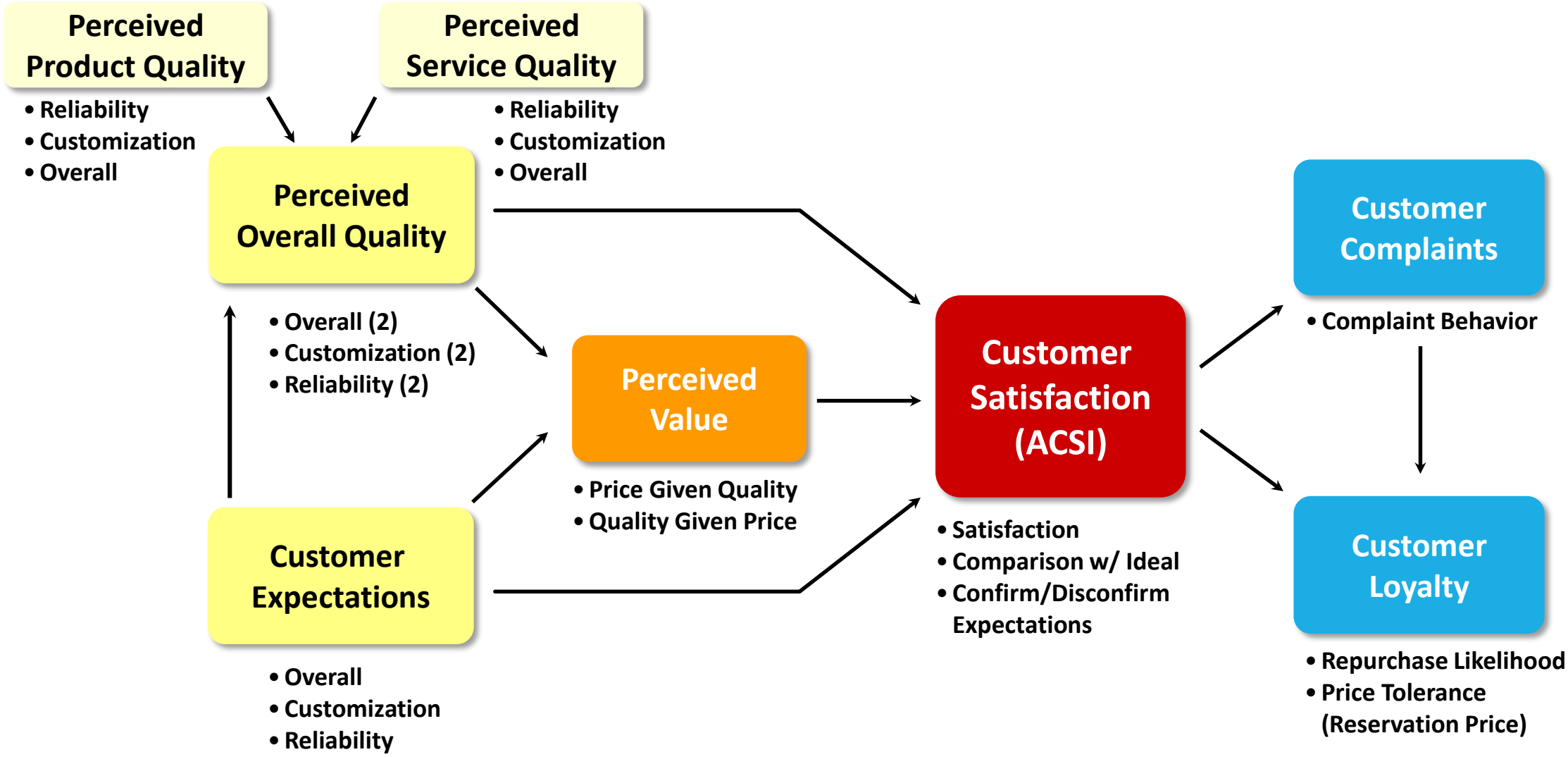
-Causes and Consequences
-Quantify Improvements
-Special Analyses
-Benchmarking

Financially-Driven Strategic Guidance

-"What to Do"
-Financial Impact
-Progress Monitoring
-What-If Analysis

The Respondents

The ACSI Expanded Model



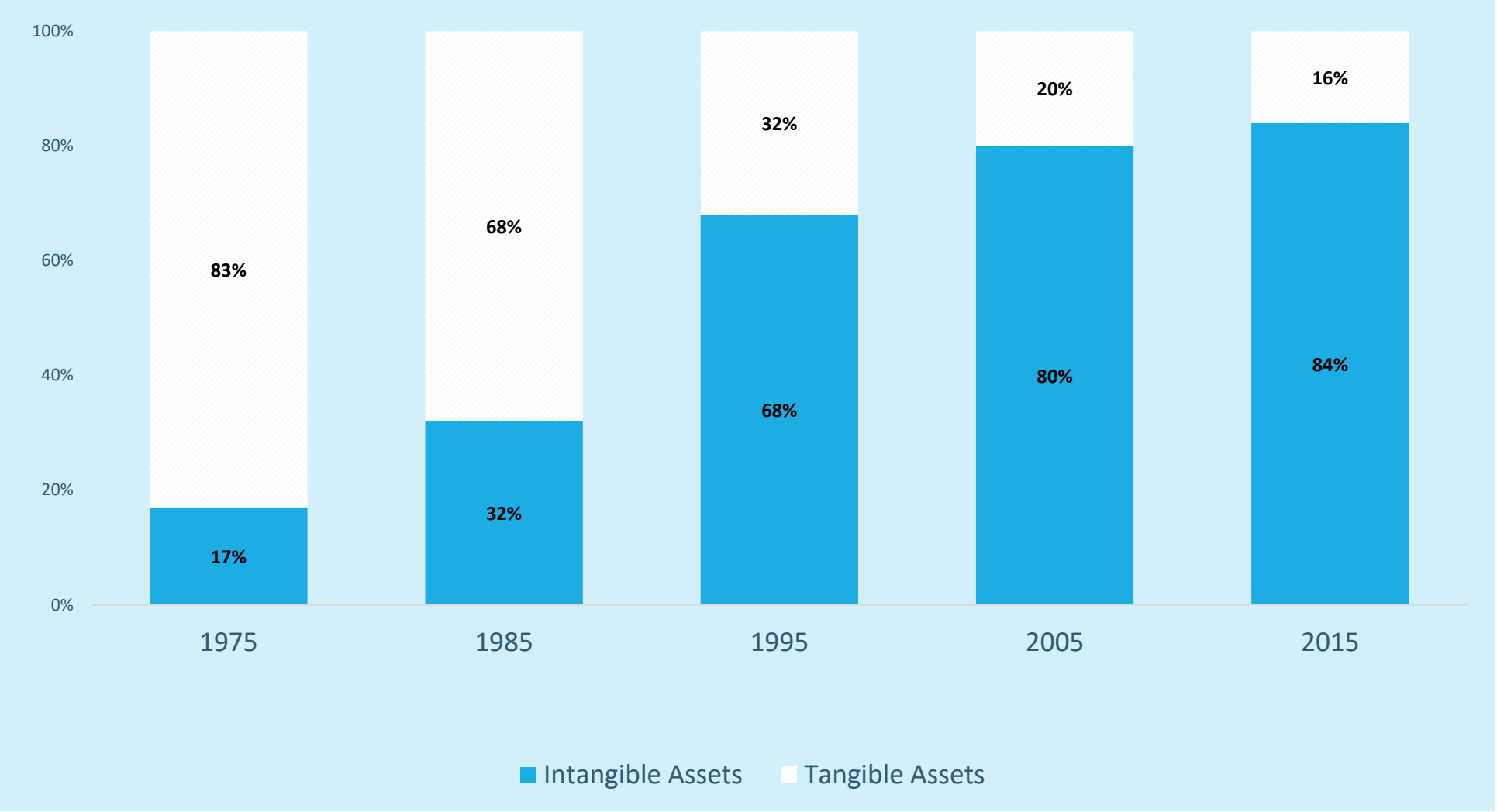
Extracting Information

The ACSI Equations

$$E[\boldsymbol{\eta} | \boldsymbol{\eta}, \boldsymbol{\xi}] = \mathbf{B}\boldsymbol{\eta} + \boldsymbol{\Gamma}\boldsymbol{\xi}$$

where $\eta' = (\eta_1, \eta_2, ..., \eta_m)$ and $\xi' = (\xi_1, \xi_2, ..., \xi_n)$ are vectors of unobserved endogenous and exogenous variables, respectively; **B** (m x m) is a matrix of coefficient parameters for η; and Γ (m x n) is a matrix of coefficient parameters for ξ. The PLS estimation implies that $\mathrm{E}[\eta\zeta'] = \mathbf{0}$, $\mathrm{E}[\xi\zeta'] = \mathbf{0}$, and $\mathrm{E}[\zeta] = \mathbf{0}$, where $\zeta = \eta - \mathrm{E}[\eta|\eta, \xi]$.

Components of S&P 500 Market Value



Stock Returns on Customer Satisfaction

Research Question

- Do stock returns on customer satisfaction produce higher than market returns?

Theory

- Satisfied customers are essential for any seller in a competitive market if *repeat business* is a significant portion of total revenue.
- Consumer markets reward high-consumer-utility-producing firms with repeat business and punish low-consumer-utility-producing ones by defection.
- High customer satisfaction is also associated with market share protection, lower price elasticity, and lower marketing costs. Satisfied customers are therefore important for earnings, return on investments, return on assets, and cash flows.

Fornell, C., Morgeson, F., & Hult, G. (2016). Stock returns on customer satisfaction do beat the market: Gauging the effect of a marketing intangible. *Journal of Marketing*, 80(5), 92-107.

ACSI

Study Method

Data

- ACSI customer satisfaction data
- Actual audited stock returns from a real stock fund
- Back-tested returns based on customer satisfaction data in the United Kingdom

Method

- Trading principle:
  - Go long in firms with strong customer satisfaction (i.e., high and rising levels of ACSI scores relative to other firms in the same industry), and short in firms with weak customer satisfaction.
- Customer satisfaction portfolio performance assessed over time, and compared with the S&P 500.

The Findings

Findings

- Stock returns on customer satisfaction are significantly above market.
- Over the years studied from 2000 to 2014, cumulative returns were 518% compared with a 31% increase for the S&P 500.
- The audited returns to customer satisfaction in the United States corresponded well to the back-tested returns in the United Kingdom.
- There is a statistically significant relationship between customer satisfaction and lagged earnings surprises. Firms with strong customer satisfaction are more likely to have positive earnings surprises.
- Customer satisfaction is largely without influence on contemporaneous share prices until its effects are manifested in earnings reports.

The Implications

Implications

- Companies that treat customers well tend to produce better returns to investors. Firms should try to improve customer satisfaction along with the volatility of future customer cash flow risks.
- The reward for having satisfied customers is much greater than is generally known. The value of marketing information, specifically information about customer satisfaction, seems underappreciated.
- It would be beneficial to allocate more resources to the marketing function because many of the most effective ways to increase customer satisfaction lie in targeting, market segmentation, customer service, customer relationship management and Customer Lifetime Value (CLV).