

The Business of Engineering

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Hankins and Anderson
Consulting Engineers

The Business of Engineering

- Competitive Position
- Business Metrics
- Marketing
- Culture

Competitive Position

Competitive Advantage

- Cost
- Differentiation
- Focus

Competitive Position

Cost

- Bid for services
- Developer market
- Commodity work

Competitive Position

Differentiation

- Service
- Size
- Geography
- Expertise

Competitive Position

Focus

- Markets
 - K-12
 - Military
 - University

Competitive Position

Focus

➤ Markets

- K-12
- Military
- University

➤ Client

- Developers
- State University
- Federal

Competitive Position

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➤ Markets

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➤ Building/Project type

- Laboratory
- Auditorium
- Wastewater

Competitive Position

Focus

➤ Markets

- K-12
- Military
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➤ Client

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➤ Building/Project type

- Laboratory
- Auditorium
- Wastewater

➤ Geography

- Local
- National
- International

Metrics – How are we doing?

What does it mean?

➤ Trending

- Year to year
- Patterns - seasonal

➤ Benchmarking

- PSMJ
- Zweig-White
- ACEC
- Informally

Metrics – How are we doing?

Financial Metrics

- Profit margin $\equiv \$ \text{ Profit} / \$ \text{ Revenue}$
- Revenue growth $\equiv (\text{Rev}_2 - \text{Rev}_1) / \text{Rev}_1$
- Overhead rate $\equiv \$ \text{ Indirect Costs} / \$ \text{ Direct Salaries}$
- Age of receivables $\equiv \$ \text{ Owed} / \$ \text{ Revenue} \times 365$
- Work in progress $\equiv \$ \text{ Spent, not billed}$
- Backlog $\equiv \$ \text{ Work remaining} / \$ \text{ Revenue} \times 365 \text{ (days)}$

Metrics – How are we doing?

Financial / Productivity Metrics

- Revenue / tech staff \equiv \$ Revenue / # tech staff
- Revenue / total staff \equiv \$ Revenue / # staff
- Direct labor multiplier \equiv \$ Revenue / \$ Direct Labor

Metrics – How are we doing?

Labor Metrics

- Chargeability
 - ≡ Hours charged / Hours worked
 - or Hours charged / Hours paid
- Overtime
 - ≡ Avg Hours per Employee
 - or Hours / Hours worked
- Turnover rate
 - ≡ Employees lost / Avg Total Empl.
- Staff ratio
 - ≡ # Tech Staff / # OH Staff

Metrics – How are we doing?

Forward Looking Metrics

- Sales – booked work
 - Compared to last year
 - Compared to goals
 - Compared to revenue
- Backlog – work remaining
 - Growth trend
 - Compared to last year
- Utilization, Overtime
 - Trend

Metrics – How are we doing?

Forward Looking Metrics - Revenue Projections

- Active work
 - Fee remaining
 - Time remaining
- ID/IQ work (open end contracts)
 - Projections from past experience/expectations
- Prospective work
 - Fee
 - Handicap
 - Schedule

Marketing

Marketing vs. Business Development

➤ Marketing

- Client needs
- Competitive landscape – industry, competition
- Competitive positioning
- Presentation
- Brand

➤ Business Development

- Sales

Marketing

Brand

- A. Who you are
- B. Who others think you are
- C. Who you think you are

Marketing

Brand

- A. Who you are
- B. Who others think you are**
- C. Who you think you are

Marketing

Business Development

- Qualifications Based Selection (QBS)
- Selling yourself
- Don't make a sales pitch
- Ask questions
 - Self-promotion will follow naturally
- Know who you are and what you do
 - Vestibule speech
- Know your clients business as well as he does

Culture

What makes up your firm's Culture?

- Business Drivers
- Focus
- Communications
- Empowerment
- Process
- Feel

Culture

Business Drivers

- Revenue
- Profit
- Growth
- Job Satisfaction
- Reputation
- Ego

Culture

Focus

Design/Design	

Culture

Focus

Design/Design	Design/Business

Culture

Focus

Design/Design	Design/Business
Business/Design	

Culture

Focus

Design/Design	Design/Business
Business/Design	Business/Business

Culture

Communications and Transparency

- Two-way communications
- Open book
 - Project
 - Financials
- Access to the top

Culture

Empowerment vs. Dictatorial

- Who makes decisions?
- Who stamps drawings?
- Who deals with the client?

Culture

Process

- No process, procedures, standards or controls
- Very Regimented
- Somewhere in between

Culture

Feel

- Family oriented
- Team approach or Us vs. Them
 - Workers vs. managers
 - Architects vs. engineers
 - Electrical vs. mechanical
- Recognition, appreciation
- Type of work, clients

Questions/Comments
