The Project Manager’s MBA – Part 1

Presented by
Gregg Schoppman, Principal
FMI Corporation

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• Visit constructionbusinessowner.com in the coming days to access the recording of the webinar or download the presentation.
As a principal with FMI, management consultants and investment bankers for the construction industry, Gregg specializes in the areas of productivity and project management. He also leads FMI’s project management consulting practice.

Gregg has served as a senior project manager for a general contracting firm and holds a Florida General Contractors license. He has completed complex and sophisticated construction projects in the medical, pharmaceutical, office, heavy civil, industrial, and manufacturing markets.

Gregg holds a bachelor’s degree and master’s degree in civil engineering from the University of Florida and a master’s of business administration with a concentration in international business from the University of Tampa.
Why is the topic important today?

- The construction firm of tomorrow may look dramatically different from today
  - What will future innovations bring to the industry that will disrupt the business?
  - As the face of the workforce changes, what will be required to lead businesses?

- Availability of desired skill sets in the industry
  - What is lacking in the construction manager of today?
  - If you can’t hire him/her, will you need to develop him/her and the right business sense?
Why is the topic important today?

- **War for talented business managers is on!**
  - Why would qualified project managers and field managers choose to stay with you?
  - Have your most important assets experienced “deferred maintenance” during and after the recession?
  - Being a great builder is not enough

- **Your intermediate and long-term business and personal goals**
  - Thoughts of growth or acquisitions? Who will lead it?
  - Retirement or sale of business on the horizon?
Why is the topic relevant to you?

• I want to address deteriorating profit margins

• I need to develop senior managers to help run the company

• I need to ultimately develop individuals who can buy the company (or part of it)

• My people are asking for it

• I personally need to grow in my career
Senior management and owners say...

• “I want my PMs to think like an owner; I feel like I’m fighting the battle alone.”

• “They just don’t get it in terms of what it takes to run the business.”

• “I’m sick of these low bottom lines every year, but I can’t run the business and keep an eye on every detail of getting work and doing work.”

• “I want to sell or transition my business in the next five years, but no one here can run it when I’m gone.”
What makes a great project manager and future business leader?

The Planner
- Scheduling
- Subcontractor management
- Safety
- Meeting management
- Project documentation

The Business Person
- Procurement
- Quality management
- Budget establishment
- Change order management

The Communicator
- Closeout procedures
- Project integration
- Risk management
- Customer management

THE PROJECT LEADER
Develop a culture of project leaders
Turning PMs into business managers/leaders

This means developing leadership skills and increasing business focus and giving PMs the skills to advance and add further value to the organization.

Leadership Needs
- Set goals
- Align resources
- Motivate staff

Managerial Needs
- Plan
- Organize
- Control

Career Focus Matrix

- Project Manager
- General Super
- Project Super
- Foreman
- Craft Employee
- Project Engineer
- Estimator
- Controller
- Accountant
- Admin Staff
- VP Operations
- Operations Director
- Business Unit Leader
- Business Developer
- President
- CFO
- CEO

Project Focus
Business Focus
Evolution of skills
## Traditional BCN/Engineering curriculum vs. Business

<table>
<thead>
<tr>
<th>Building Construction/Engineering</th>
<th>Business Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Statics/dynamics</td>
<td>• Microeconomics</td>
</tr>
<tr>
<td>• Materials</td>
<td>• Macroeconomics</td>
</tr>
<tr>
<td>• Concrete</td>
<td>• Financial accounting</td>
</tr>
<tr>
<td>• Steel</td>
<td>• Managerial accounting</td>
</tr>
<tr>
<td>• Construction methodology</td>
<td>• Management</td>
</tr>
<tr>
<td>• Surveying</td>
<td>• Marketing</td>
</tr>
<tr>
<td>• Circuits/basic electrical engineering principles</td>
<td>• Operations management</td>
</tr>
<tr>
<td>• Transportation</td>
<td>• Project planning</td>
</tr>
<tr>
<td>• Construction economics</td>
<td>• Strategy</td>
</tr>
<tr>
<td>• Basic accounting</td>
<td>• Ethics</td>
</tr>
<tr>
<td></td>
<td>• Finance</td>
</tr>
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</table>
The traditional MBA:
Top schools and the investment/return

<table>
<thead>
<tr>
<th>Ranking</th>
<th>School</th>
<th>MBA Cost</th>
<th>2014 Salary (After MBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stanford</td>
<td>$127,000</td>
<td>$255,000</td>
</tr>
<tr>
<td>2</td>
<td>Harvard</td>
<td>$139,000</td>
<td>$239,000</td>
</tr>
<tr>
<td>3</td>
<td>Northwestern</td>
<td>$128,000</td>
<td>$188,000</td>
</tr>
<tr>
<td>4</td>
<td>Columbia</td>
<td>$136,000</td>
<td>$208,000</td>
</tr>
<tr>
<td>5</td>
<td>Dartmouth</td>
<td>$135,000</td>
<td>$190,000</td>
</tr>
<tr>
<td>6</td>
<td>Chicago</td>
<td>$128,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>7</td>
<td>Pennsylvania</td>
<td>$137,000</td>
<td>$207,000</td>
</tr>
<tr>
<td>8</td>
<td>UC Berkeley</td>
<td>$110,000</td>
<td>$180,000</td>
</tr>
<tr>
<td>9</td>
<td>MIT</td>
<td>$130,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>10</td>
<td>Cornell</td>
<td>$123,000</td>
<td>$150,000</td>
</tr>
</tbody>
</table>

Source – Forbes – Business Schools 2015
The MBA concentrations

- Operations Management
- Finance and Accounting
- Economics
- Ethics
- Marketing
- Organizational Behavior
POLL QUESTION #1

If you were to prioritize the MBA subjects for your managers, which would be the most important?

• Finance and accounting
• Management
• Ethics
• Operations
• Economics
• Marketing
Finance and accounting – The main takeaways

- The art/science of making money
- The story of cash flow
- Interrelation of the project budget and business budget
- Thinking like a businessperson, not just a builder
Specific executive management quotes

• “Our managers and superintendents are great builders, but they just don’t have the knack for making money.”

• “We might as well put the First Bank of Smith Builders on our door because we do A LOT of project financing—that we don’t get paid for.”

• “Sand bagging, diamond dusting, etc.—whatever you call it, our managers are masters of hiding the honey pot.”

• “Predictability of our cash flow or profitability? They look more like an EKG.”
Cash is king – enough said...

- The business manager utilizes metrics to not only manage the project but also providing Predictive Key Performing Indicators.
- The business manager understands the importance of cash flow for day-to-day operations.
- The business manager knows upward of 12 months out where the inflow and outflow of cash will be.
Financial business decisions

- Finance and accounting is more than just understanding cash flow
- True financial management involves decision making utilizing top tier financial instruments
- Rather than stocks and bonds, the business manager looks at project decisions in terms of NPV as well as their IRR

\[ NPV = \sum_{i=1}^{n} \frac{\text{result}_i}{(1+\text{rate})^i} \]
“The ability to make money...”

Exhibit 2
Margin Contribution Gauge

- Hospital Project
- Jones High School
- Highway 100 Interchange
- Office Building X

Profit Goal, Bonus Pool Funding

Profit Goal, Covers Overhead for 2014

Desired Collected Profits, July 2014
Current Collected Profits, July 2014

Margin Contribution

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Budget</th>
<th>Costs to Date</th>
<th>Cost to Complete</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Slab</td>
<td>$60,000</td>
<td>$65,000</td>
<td>$80,000</td>
<td>-$20,000</td>
</tr>
<tr>
<td>Total Project Value</td>
<td></td>
<td></td>
<td></td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Original Project Profitability</td>
<td></td>
<td></td>
<td></td>
<td>$100,000</td>
</tr>
<tr>
<td>Revised Project Profitability</td>
<td></td>
<td></td>
<td></td>
<td>$80,000</td>
</tr>
<tr>
<td>Margin Erosion</td>
<td></td>
<td></td>
<td></td>
<td>$20,000</td>
</tr>
<tr>
<td>Work Needed to Recover Lost Margin</td>
<td></td>
<td></td>
<td></td>
<td>-$200,000</td>
</tr>
</tbody>
</table>

(worth of work @ 10% margin)
Building the financial foundation

- **Purchasing strategy**
  - Hedging and bulk purchasing
  - Thinking globally rather than singularly
- **Purchasing matrices**
  - True risk/reward evaluations of vendors and contractors
- **Purchasing goals**
  - Ethical purchasing expectations and targets
  - Deadlines that include more than just the purchase order
- **Material handling**
  - Foundry to final resting place
  - Thinking like a manufacturer rather than a builder
Which aspect of finance is the most challenging for your firm?
• Team understanding that cash is king
• Providing a realistic project budget and sticking to it
• Money doesn’t grow on trees and every decision needs to be made more judiciously
• Collections, collections, collections
When a price is more than a price

### Bid Comparison Matrix

<table>
<thead>
<tr>
<th>Contractor/Supplier</th>
<th>Contractor A</th>
<th>Contractor B</th>
<th>Contractor C</th>
<th>Contractor D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Price</strong></td>
<td>$900,000</td>
<td>$800,000</td>
<td>$850,000</td>
<td>$950,000</td>
</tr>
<tr>
<td><strong>Adds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightning Protection</td>
<td>Included</td>
<td>$25,000</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Bond</td>
<td>Included</td>
<td>$10,000</td>
<td>$15,000</td>
<td>Included</td>
</tr>
<tr>
<td><strong>Premium Time for Accelerated Schedule</strong></td>
<td>$10,000</td>
<td>$35,000</td>
<td>$15,000</td>
<td>Included</td>
</tr>
<tr>
<td><strong>Value Engineering</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option A</td>
<td>($50,000)</td>
<td>(25,000)</td>
<td>($30,000)</td>
<td>None Included</td>
</tr>
<tr>
<td>Option B</td>
<td>($20,000)</td>
<td>None Included</td>
<td>None Included</td>
<td>None Included</td>
</tr>
<tr>
<td><strong>Actual Price</strong></td>
<td><strong>$840,000</strong></td>
<td><strong>$845,000</strong></td>
<td><strong>$850,000</strong></td>
<td><strong>$950,000</strong></td>
</tr>
</tbody>
</table>
Ethics – The main takeaways

**Personal integrity**
- Honesty
- Stick-to-itiveness
- The Golden Rule

**Process integrity**
- Adherence to the system
- The “firm way” rather than “my way”
- Compliance metrics

**Corporate integrity**
- The board room
- Vision, mission and values
- Marketing slogans
Integrity

- HONESTY
- TRUSTWORTHINESS
- WHOLENESS
Defining ethics

- Moral principles that govern a person’s or group’s behavior
- Derived from the ancient Greek word “ethos” (custom or habit)
- What actions are right or wrong in particular circumstances?
- What might be legal might still be unethical?
## Ethics in the world

<table>
<thead>
<tr>
<th>MOST Ethical</th>
<th>LEAST Ethical</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Co-operative Group</td>
<td>• Nestle’</td>
</tr>
<tr>
<td>• Lush</td>
<td>• Monsanto</td>
</tr>
<tr>
<td>• Traidcraft</td>
<td>• Amazon</td>
</tr>
<tr>
<td>• Triodos</td>
<td>• Shell</td>
</tr>
<tr>
<td>• People Tree</td>
<td>• Tesco</td>
</tr>
<tr>
<td>• Ecotricity</td>
<td>• Barclays</td>
</tr>
<tr>
<td>• Suma</td>
<td>• Exxon</td>
</tr>
<tr>
<td>• Good Energy</td>
<td>• Wal-Mart</td>
</tr>
<tr>
<td>• Riverford</td>
<td>• Coca Cola</td>
</tr>
<tr>
<td>• John Lewis</td>
<td>• Primark</td>
</tr>
</tbody>
</table>

Source – [The Ethical Consumer](http://www.ethicalconsumer.org) “The Best and the Worst of the Last 25 Years”
Ethical questions

• Consumer boycotts for product handling
• Child labor and working conditions
• Fairtrade
• Environmental impact
• Tax avoidance
• Labeling and advertising
• Transparency to the public
Ethics in our firm is important but the real issue is:

• We are honest people, but shopping numbers is commonplace in our market
• No one sticks to our processes and it seems “process integrity” is the most challenging part
• Financially speaking, our PM’s have “honey holes” and sand bag beyond belief
• Everything is fine here in Shangri-La
Where we lose integrity...

Project Cost Reporting Downward Spiral

1. Budget is created without the field input or with little regard to how the project will actually be built.
2. Actual performance is recorded inaccurately (i.e. time charged to wrong codes deliberately to avoid persecution).
3. At 50% complete, project financial performance fails due to inaccurate picture project progress.
4. Project management shifts dollars within project codes to hide shortcomings.
5. At 90% complete, project performance is visible to senior management.
6. Questionable decisions are made at a project level to recover costs and protect corporate interests (i.e., customer interests and subcontractor/supplier interests forsaken).
7. Project makes or loses money, customer is lost, and subcontractor dissatisfaction is high.
8. Public perception is low and ability to gain new clients and projects is hindered.
Construction and ethics

• Many firms use “shades of gray” to mask ethical miscarriages
• Many firms use this mantra to justify behavior: “This is standard operating in our market.”
• Breaches of processes ethics lead to larger breaches —Think Enron
• Ethical behavior does not start in the corner office or the board room—it begins on the project site
• The latest ethics trends in the industry include:
  • Internal courses taught to exemplify true ethical behavior
  • Ethics hotlines to provide outlets for reporting
  • Employee codes of conduct that are connected to performance reviews and incentive compensation
Organizational behavior – Main takeaways

- Organizational structure
  - Communications
    - Individual
    - Groups
    - Firm
    - Project specific
  - Roles and responsibilities
The organizational chart

- Typically used to illustrate firm structure, not project structure
- Variability from project to project creates confusion with vendors and customers
- Dotted lines are the enemies
- Without true organizational structure, project delineation of duties becomes more convoluted, thus increasing variability
Emotional intelligence in our firm is:

- **Very high**—We are borderline psychologists.
- **Average**—We could get better.
- **Below average**—We are very weak and this is hurting our business.
- **Poor**—Little emotional intelligence
- **Non-existent**—Borderline robots and complete lack of intelligence
Effective communication

### Project Communication Matrix

<table>
<thead>
<tr>
<th>Position</th>
<th>Responsible For</th>
<th>Input Required</th>
<th>Time Frame and Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Smith</td>
<td>• Project Schedule Update</td>
<td>• Current status report, Three-week, look-ahead schedules</td>
<td>• Input from Team - Due every Friday, Output to Team - Schedule out every Tuesday</td>
</tr>
<tr>
<td>Super Contractors Project Manager</td>
<td>• Project Invoicing</td>
<td>• All monthly billing</td>
<td>• Invoices/Bills Due 20th of the month</td>
</tr>
<tr>
<td>555-555-5555</td>
<td>• Owner Meeting</td>
<td>• Hot Issues</td>
<td>• Issues before agenda generation, Every Monday by noon</td>
</tr>
<tr>
<td><a href="mailto:jsmith@supercont.com">jsmith@supercont.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Josh Schultz</td>
<td>• Submittals</td>
<td>• Review Specification 1000 for requirements</td>
<td>• Submittals - As required</td>
</tr>
<tr>
<td>Super Contractors Project Engineer</td>
<td>• Request for Information</td>
<td>• Sketch, Question and Proposed Solution</td>
<td>• RFI - Within 48 hours of issue</td>
</tr>
<tr>
<td>555-555-5551</td>
<td>• Change-Order Proposals</td>
<td>• See Change Order Process (attached) for details</td>
<td>• CO - Within 48 hours of change issue</td>
</tr>
<tr>
<td><a href="mailto:jschultz@supercont.com">jschultz@supercont.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Handy</td>
<td>• Site Supervision</td>
<td>• Weekly Short-Interval Plans</td>
<td>• Attendance at weekly meetings is MANDATORY</td>
</tr>
<tr>
<td>Super Contractors General Superintendent</td>
<td>• Safety</td>
<td>• Safety Inspection Reports</td>
<td>• Minutes and action plans generated by Josh</td>
</tr>
<tr>
<td>555-555-5552</td>
<td>• Quality Control</td>
<td>• Project Exit Strategy</td>
<td>• Weekly inspections are due by EOB Wednesday (with Toolbox Talks)</td>
</tr>
<tr>
<td><a href="mailto:jhandy@supercont.com">jhandy@supercont.com</a></td>
<td>• Close-out</td>
<td></td>
<td>• Exit-Strategy Meeting on June 1, 2009</td>
</tr>
<tr>
<td>Mike Dirt</td>
<td>• All work associated with a pad-ready site, utilities, paving and landscaping</td>
<td>• QA/QC Reports</td>
<td>• All related QA/QC reports and as-builts to be checked at EOB Friday</td>
</tr>
<tr>
<td>Super Contractors Site Foreman</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>555-555-5553</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A note on “bad communication”

• You will hear this quite frequently: “We have bad communication here.”
• What does that mean?
• Dig deeper in your organization!
  • Does this mean they have a bad culture and lack camaraderie?
  • Does this mean they don’t feel like they are in on things?
  • Does this mean they don’t know where the firm is going?
  • Does this mean they don’t feel like senior management listens to them?
The concept of emotional intelligence

- **Emotional intelligence defined**
  Emotional intelligence (EI) refers to the ability to perceive, control and evaluate emotions. Some researchers suggest that emotional intelligence can be learned and strengthened, while others claim it is an inborn characteristic.

- **The four elements of emotional intelligence** (Salovey and Mayer) include:
  1. Perceiving emotions
  2. Reasoning with emotions
  3. Understanding emotions
  4. Managing emotions

- **Focusing on others involves a deep understanding of other people even if their emotional intelligence is not high** —think empathy.
Psychological models in management theory

- Maslow
- McGregor
- Herzberg
- McClelland
Maslow’s hierarchy of needs

Ultimately, there are five levels in every human—physiological, safety, social, esteem and self-actualization; and as each need is substantially satisfied, the next need becomes dominant.
McGregor

Theory X and Theory Y

• **Theory X**
  • Employees inherently dislike work and will attempt to avoid it
  • Because employees dislike work, they must be coerced, controlled or threatened with punishment
  • Employees will avoid responsibilities and seek formal direction whenever possible
  • Most workers place security above all other factors and will display little ambition

• **Theory Y**
  • Employees can view work as being as natural as rest or play
  • People will exercise self-direction and self-control if they are committed to the objectives
  • The average person can learn to accept and even seek responsibility
  • The ability to make innovative decisions is widely dispersed throughout the population and is not necessarily the sole province of these in management
Herzberg

Two-factor theory (motivation hygiene theory)

- An individual's attitude toward work is basic and can very well determine success or failure
- Herzberg theorized that items that lead to dissatisfaction are hygiene related (i.e., policies, relationship with supervisors, work conditions, tools, etc.) and items that lead to satisfaction are motivation related (i.e., achievement, recognition, advancement, growth, etc.)
McClelland’s theory of needs

• Consider three targets: one each progressively further away from you. But, the payout for hitting the target farthest away pays 3x as much as the target closest to you. Which target will you aim for?

• For those who said the farthest target, you would be characterized as a “high achiever.” According to McClelland, achievement, power and affiliation are three needs that help explain motivation.
  • *Achievement*—The drive to excel, to achieve in relation to a set of standards, to strive to succeed
  • *Power*—The need to make others behave in a way that they could not have behaved otherwise
  • *Affiliation*—The desire for friendly and close interpersonal relationships
Organizational structure and communications

- Construction is and will always be a “people business.”
- Organizational behavior is more than lines and boxes.
- Leading crews, teams and businesses requires strong emotional intelligence.
- Motivation—especially in a risky and trying industry such as construction—is increasingly more important.
- Consider catching people doing things right. Focus on the positive side of people’s actions rather than always finding the negative.
- Communication in firms is one of the greatest areas of weakness. Consider the root causes of your company’s poor communication.
Top 10 reasons project managers and field managers do not become business leaders

1. Your company does not have a vision that motivates key employees and/or a strategic plan for executing on the vision.

2. Your organizational structure and/or roles are not clear, thus impacting lines of accountability.

3. Your company does not have a structured performance management and development plan for key employees, so they do not know how to work toward the next level.

4. Top performers do not have a portion of their pay that is truly performance/incentive-driven.

5. Training and development investment does not exist or is ill-defined.
6. Field and project managers do not have a means of tracking units of production (earned value).

7. There is an inherent fear of sharing information with the field.

8. No one outside of ownership/senior management is involved in setting direction for your company.

9. Your company does not have formal productivity processes in place with field and project management responsible for implementing/measuring processes.

10. Field and project managers do not have any formal responsibility of providing mentorship to more junior staff.
Conclusions

• Construction businesses of tomorrow will require an exceptional blend of great builders and great businesspeople.
• Accounting and finance are not simply “keep score” functions in the firm, but true predictive tools to help the firm manage cash and make more money.
• The ethical contractor is not a buzz word for 2015-2016. Transparency in businesses of tomorrow will be expected and the manager of tomorrow will want to work for the true ethical leaders in the industry.
• Organizational behavior is not about lines and boxes on an org chart, but how well a firm communicates and aligns the people within the firm.
• Part 2 will focus on a new round of coursework
  • *Operations management*
  • *Economics*
  • *Marketing*
About FMI

FMI is a leading provider of management consulting, investment banking† and people development to the engineering and construction industry. We work in all segments of the industry providing clients with value-added business solutions, including:

- Strategic advisory
- Market research and business development
- Leadership and talent development
- Project and process improvement
- Mergers, acquisitions and financial consulting†
- Risk management consulting
- Compensation benchmarking and consulting

Founded by Dr. Emol A. Fails in 1953, FMI has professionals in offices across the U.S. We deliver innovative, customized solutions to contractors, construction materials producers, manufacturers and suppliers of building materials and equipment, owners and developers, engineers and architects, utilities, and construction industry trade associations. FMI is an advisor you can count on to build and maintain a successful business, from your leadership to your site managers.

† Investment banking services provided by FMI Capital Advisors, Inc., a registered broker-dealer and wholly owned subsidiary of FMI.
Thank you for attending!
To contact today’s presenter:

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