



مدیریت کسب و کار در صنعت ساخت (Construction Business Management)

ماژول پیش نیاز: اصول بنیادین

بخش سوم: فروش، بازاریابی و توسعه

ارائه دهنده:

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What we will learn?

- ☐ Sales, marketing, and business development
- ☐ Industry introduction
- ☐ What is a contractor's business?
- ☐ Construction economics: the supply and demand curve of contracting
- ☐ Marketing materials
- ☐ Publicity
- ☐ Proposals and presentations
- ☐ Staying ahead of the pack
- ☐ Impressions
- ☐ New customers vs. Old
- ☐ Reaching out
- ☐ The attitude of successful contracting: no windfalls are left
- ☐ Exercises

**The Attitude of Successful Contracting: No
Windfalls Are Left**

The attitude of successful contracting: no windfalls are left

- ☐ A time or two ago,
 - material prices were stable, people wanted to work, the economy was steady,
 - and legal/political issues were a minor concern.
- ☐ We all have worked as laborers in the field.
- ☐ Loud music playing on the radio, our shirts off, and after-work time was ours.
- ☐ What happened?
 - ❖ In the decades since, we have moved up in our responsibilities, thus we're having less fun.

Changes in the last three decades

- ☐ Let's look at the changes that have occurred in the **last 30 years or so**.
- ☐ These points are compiled from **several groups of contractors** at **different times**.
- ☐ They were asked **what has changed in the last three decades**.

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Changes in the last three decades

❑ Rising Age of Workforce

- ❖ The average age of **foremen** has risen to the **upper 40s**.
 - ✓ No one is replacing them.
- ❖ As a witness to that fact, the average age of a construction apprentice **rose to the upper 20s**.
 - ✓ Less people want to be in our industry.
 - ✓ The young people are seeking other careers first, and then, working in construction.
 - ✓ The replacements are not coming.
 - ✓ This has made the average age of field managers rise.

Changes in the last three decades

❑ Declining Quality of Construction Documents

- ❖ Designers work **under price pressure** from owners/developers.
 - ✓ This **price pressure** forces **intense cost/labor management**.
 - ✓ To make a **profit**, time has to be **cut from oversight** by experienced design people, thus, plan details and clarity are not there.
 - ✓ **Frustration** by the **contractor** is the result.

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Changes in the last three decades

☐ Fast Track Schedules

- ❖ Years ago, this was a new concept.
- ❖ Now, Fast Track is a standard expectation.

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Changes in the last three decades

❑ Material Availability

- ❖ Between the shortages and the decreased amount of stocked material at suppliers' warehouses, this is another negative change.
- ❖ Material logistics are a greater concern than ever.
- ❖ If you don't have the material, you cannot install it.

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Changes in the last three decades

❑ Restrictions/Red Tape

- ❖ **Bureaucratic demands** on contractors has risen to an all-time high.
- ❖ Permitting, Occupational Safety and Health Administration (OSHA), environmental, and client paperwork requirements make **office work more demanding**.

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Changes in the last three decades

❑ Technology

- ❖ Wireless, Internet, software, and the like were not standard equipment three decades ago. They are now.
- ❖ We believe if you don't have some technology in your business, you are at a competitive disadvantage.

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Changes in the last three decades

❑ Risk

- ❖ With more change and demands by others, **contracting** has more risk than ever before.
- ❖ Add to that **price (profit) pressure** and, again, the **opportunities are limited**.
- ❖ The law of repose or extended construction liability time has **not decreased**.

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Changes in the last three decades

❑ Workforce Fewer

- ❖ American high school graduates and more immigrants work in **construction contracting**.
 - ✓ It is a **different workforce** and this **will not change**.
- ❖ The **languages and customs** of other countries are the **norm on the project**.
 - ✓ We have to **gear up and learn** to be **cosmopolitan**.

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Changes in the last three decades

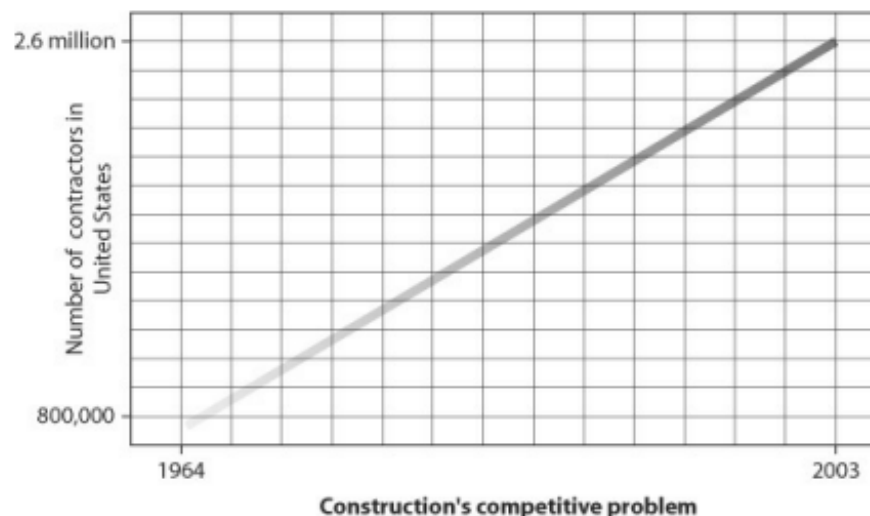
❑ Competition Today,

Take field dimensions using standard templates or worksheets. This minimizes misunderstandings and keeps accuracy high.

the U.S. has **three times the number of contractors** it had in the 1960s.

❑ That speaks volumes about the **lack of profit opportunities.**

❑ This translates into **more bidders** on projects and more **headhunters** for your employees.



The population of contractors has risen to three times the number of the 1960s, while the industry's revenue volume has stayed approximately the same (in constant dollars).

Construction productivity is flat

- ❑ We track **several metrics** that indicate
 - ❖ The general health of our industry,
 - ❖ Its workforce, and
 - ❖ Its practices.
- ❑ Our **consulting firms review** the constant dollar value of construction put in place and
divides it by the number of people who work in the industry.

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Construction productivity is flat

- That is, with all the computer technology, efforts made to improve the industry practices, and other initiatives,

we still have not improved the productive rate of work installed each year as an industry.



Labor output for payroll input is slightly declining. (Source: U.S. Department of Labor and U.S. Department of Commerce)

Construction productivity is flat

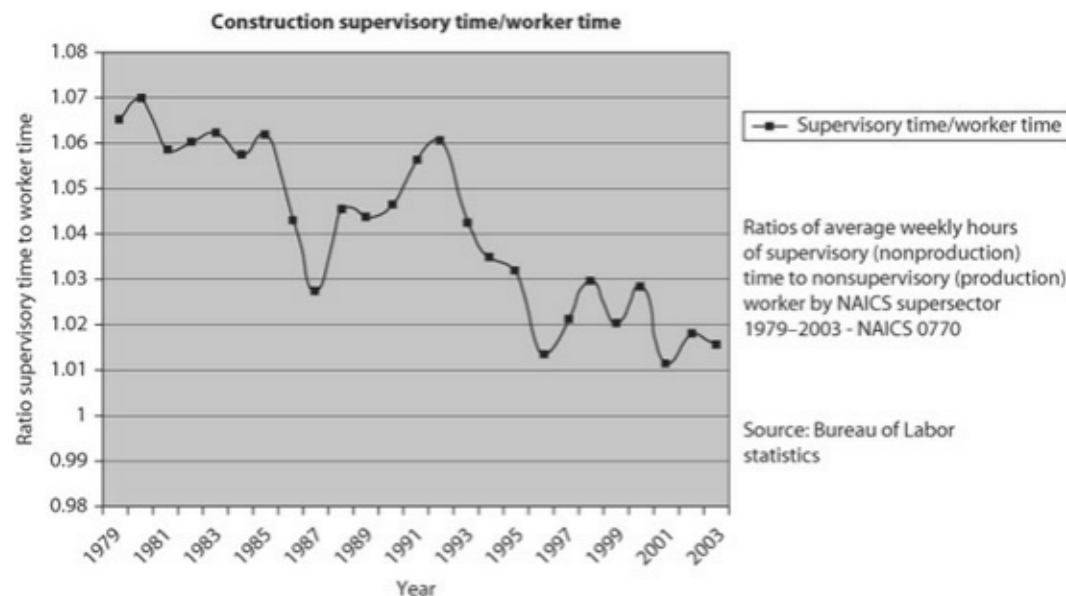
- ❑ Figure shows a **long-term problem** over a number of years.
- ❑ The **output** of a labor dollar is **not rising**.

The question is this: what can we do about it?

Financially successful contractors don't bid unsuitable work. They use the word "no" or some prefer to use "pass" in telling clients they won't price the work. At a minimum, they discourage clients from unsuitable work. Estimators, craftsmen, project managers, and superintendents are a scarce resource to be conserved and used for profit opportunities.

Supervisory hours are trending in a downward direction

- ❑ Released information by the Bureau of Labor Statistics shows a **negative trend** for **construction supervisors and their crews**.
- ❑ In the period from 1979 to 2003, supervisor hours are at almost a **1:1 ratio with a worker's hours**.
- ❑ This means supervisors are at **more of a leverage point** for production.
- ❑ This is certainly good news.



This downward trend signals a positive trend. Field managers are able to manage larger crews. Both managers and their crews work for the same number of hours, if not slightly more.

Project risk in construction

❑ A **contractor's risk** on a project is caused by two potential events:

1. Unaccepted work by the client
2. Higher than estimated project costs

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Project risk in construction – Unaccepted work by the client

- ☐ Unacceptable Installation
- ☐ Client will not pay for the work

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Project risk in construction – Higher than estimated costs

- ☐ Bad Estimate
- ☐ Higher Material Cost
- ☐ Poor Labor Management
- ☐ Project Factors Outside the Contractor's Control

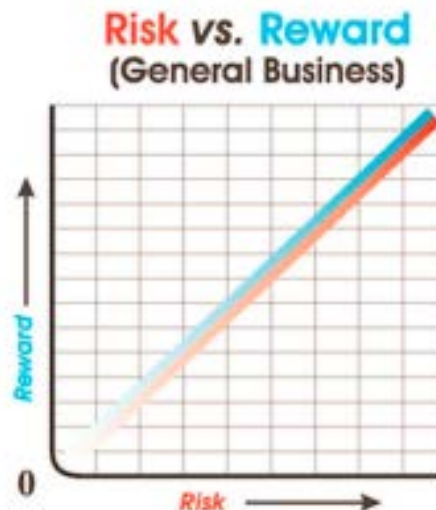
Know the cost of retention and use it as a negotiating point. Industry studies suggest that retention is approximately a 3 percent expense.

We choose our risk curve

Our risk curve is the risk factors that cause us financial harm or reward.

- ☐ **Contractors are on a risk/reward curve** that is much different from the **general business** as shown in this section.
- ☐ There is **little similarity** of construction to **most businesses**.
- ☐ The **combination of factors** is found in no other industry.

Risk versus reward



The general business risk/reward makes sense. It gives a premium for risk. The plotting is slightly different for each business, but it is a positive relationship, meaning for every one unit of risk, there is a corresponding unit of reward.

Risk versus reward



Construction's risk/reward relationship does not resemble the general business one. It is a negative relationship, meaning for every increasing risk factor, there is a decreasing reward (percentage of profit).

Why? Two factors determine reward:

1. Percentage of actual net profit
2. Cash-to-cash cycle

Know that the reduction of cost to a contractor from an "Owner Controlled Insurance Program" (and others that are similar) is far less than the Worker's Compensation, general liability, and premium amount. Hidden expenses to construction firms eventually show up in their overhead. Items such as lost premium discounts, agent service, and conflicting goals of light-duty programs, just to name a few. Contractors are careful to calculate the additional cost, which reduces the savings to the project.

Risk versus reward

- ❑ **High-risk projects** typically are larger-dollar volume jobs,
so the **percentage of net profit** bid is lower compared to small projects.
 - ❖ The **gross profit** amount is **acceptable** due to the project size.
- ❑ Other risk factors are added, such as:
 - ❖ Project distance from office
 - ❖ New type of work
 - ❖ Novice or unknown client
 - ❖ Unknown building department
 - ❖ New subcontractor(s)

Give the field manager a copy of the estimator's marked-up bid set of project plans to help speed up understanding of the project details.

We choose our risk curve

❑ Our business is:

1. Craft-driven

- ❖ It cannot be replicated by machine, only by man. Craftsmen are hard to find and they are our only means of production.

2. Variable cost-driven (not fixed cost)

- ❖ You have to make a specific percent of profit with little exception **on each job**.
- ❖ You don't make money by increasing volume.

3. Treated as a commodity

- ❖ Strangely, even though our business lives and dies on the quality of craftsmanship, the **customer assumes** craftsmanship is a constant.
 - ✓ Therefore, they focus on price.

We choose our risk curve

❑ Our business is:

4. Natural conflict

- ❖ People expect a minimal price for above-average quality.
- ❖ Add to that time pressure and safety, along with uncontrollable weather, and the inexperienced end user is unhappy.

5. No road test

- ❖ Product samples are nonexistent.
- ❖ Naïve customers don't understand what the final product will look like and how long quality takes.

We choose our risk curve

❑ Our business is:

6. High expectations

- ❖ The earthmoving and structural work gets naïve end users excited and the detail work afterward makes them frustrated.

7. All projects are custom

- ❖ Even though the project may be a cookie cutter, it still is on a different site and at a different time.

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We choose our risk curve

Our risk curve is the risk factors that cause us financial harm or reward.

- ☐ Remarkably, the choices we make determine the risk we take.
- ☐ Our place on the risk/reward curve is of our choice.
- ☐ We choose:
 - ❖ Large, medium, or small jobs
 - ❖ Long-duration or short-term projects
 - ❖ Clients who play fair or not
 - ❖ Contracts that are onerous or not
 - ❖ To stick to a niche or not
 - ❖ To promote managers who are qualified or not
 - ❖ High-maintenance or low-maintenance crews (see Figure in the next slide)

We choose our risk curve

Overhead cost crew comparison		
Labor costs	×	×
Crew type	Low maintenance	High maintenance
Overhead dollars needed to manage	Less than average	Higher than average
Behaviors	• Planning • Communicating • Measuring • Feedback • Competing against	• Reacting • Disrespecting • "Painting the target" • Not asking for

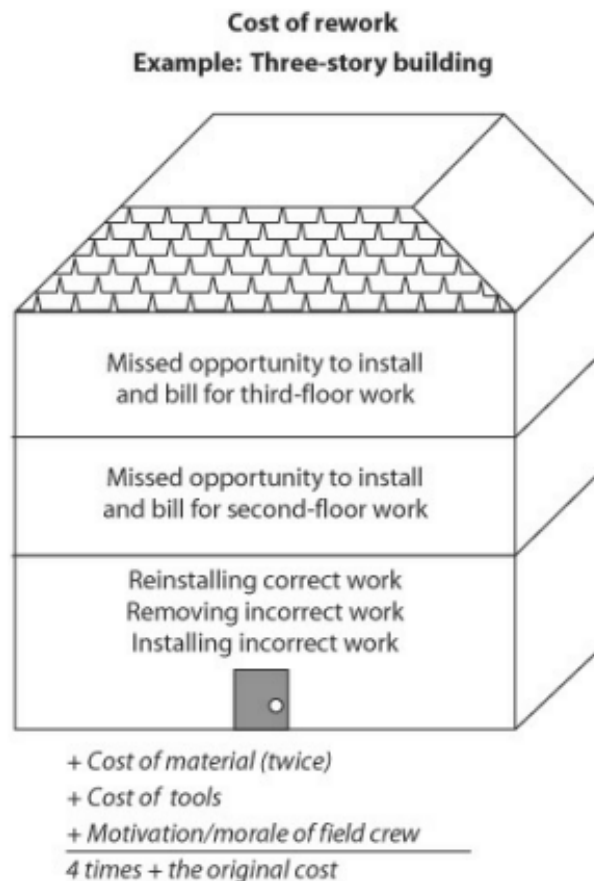
High-maintenance crews increase our overhead cost of construction. Low-maintenance crews do not. If we hire the former, this is one of the risk factors we choose.

We choose our risk curve

Never accept “Paid-if-Paid” contract terms. To do so is to rely on the credit of the client’s client. Your contract is not with that person or organization.

Monitor the steps completed and to complete on every project. Typically, an electronic means is used to do this, so it is not a paperwork nightmare.

The high cost of rework



The cost of mistakes is high—three to five times the original cost.

The high cost of rework

- ☐ The cost of loss, theft, and mistakes has to be **repaid by profit**.
- ☐ Profit is a **function of revenue**.
- ☐ This is an illustration of how we must generate a **substantial amount of revenue** to pay for losses.
- ☐ **Some** of these losses are **easily identified**,
such as safety, job cost overruns, theft, rework, and so on.
- ☐ Other types of losses are **less clear**,
such as efficiency, morale, lack of paperwork, unrecognized change orders, job site favors, and so forth.

The high cost of rework

- ☐ As an example, let's say an employee loses a \$1,000 tool.
- ☐ The company's net profit is 3 percent.
- ☐ This means the company has to earn **\$33,300** of revenue to break even on this loss.
- ☐ Wouldn't some of your employees act differently if they had this information?
- ☐ And, what if the loss was \$10,000?
- ☐ Isn't it time for your construction staff to have some financial education?

Next Figure effectively portrays the huge cost that companies must expend to make up for loss.

The high cost of rework

The cost of construction mistakes and theft			
Each loss of any kind in construction has to be paid for from profit. This is an illustration of how we must generate a substantial amount of revenue to pay for losses. Some of these losses are easily identified such as safety, job cost overruns, theft, rework, etc.			
Other types of losses are less clear such as efficiency, morale, lack of paperwork, unrecognized change orders, unrequited job site favors, etc.			
This illustration effectively portrays the huge cost to companies to show the effort that they must expend to make up for loss.			
Mistake/theft	Profit needed to pay for mistake/theft	Revenue needed to pay for mistake/theft	
\$100.00	\$100.00	\$10,000	If your company makes 1% net profit before tax
\$1,000.00	\$1,000.00	\$100,000	
\$10,000.00	\$10,000.00	\$1,000,000	
\$100,000.00	\$100,000.00	\$10,000,000	
\$1,000,000.00	\$1,000,000.00	\$100,000,000	
\$100.00	\$100.00	\$5,000	If your company makes 2% net profit before tax
\$1,000.00	\$1,000.00	\$50,000	
\$10,000.00	\$10,000.00	\$500,000	
\$100,000.00	\$100,000.00	\$5,000,000	
\$1,000,000.00	\$1,000,000.00	\$50,000,000	
\$100.00	\$100.00	\$3,333	If your company makes 3% net profit before tax
\$1,000.00	\$1,000.00	\$33,330	
\$10,000.00	\$10,000.00	\$333,300	
\$100,000.00	\$100,000.00	\$3,333,000	
\$1,000,000.00	\$1,000,000.00	\$33,330,000	

This chart is powerful, teaching the problem of loss, theft, rework, and so forth. We equate the dollars of a loss to revenue needed to break even.

The profitability challenge



The construction process is complicated and the team may change often.

The profitability challenge

Identify long-lead time and critical-path items to make sure they are ordered early and delivered on time. This assures you will not have unnecessary project delays.

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The profitability challenge

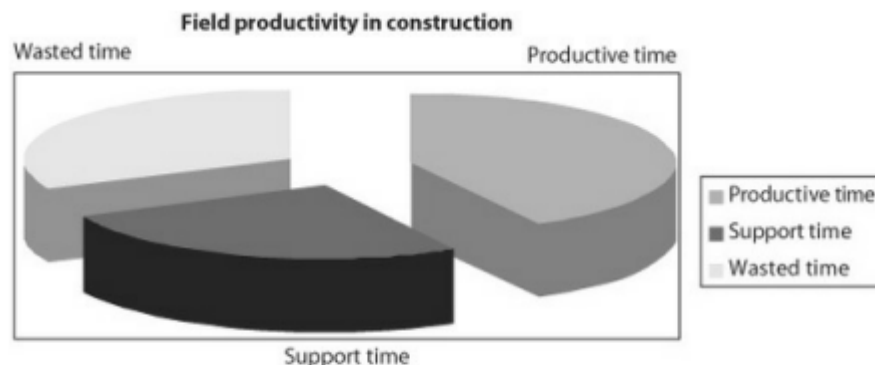


When things go wrong in construction, many important contracting issues are affected, such as cost, safety, quality, schedule, and business relationships.

The secret to profitability

- ❑ Attaining and keeping profitability is a little simpler than you might think.
- ❑ The **basis for all profitability** is to do the following:
 1. Control what you can control
 2. Perform the work you are good at
 3. Focus on two things: financing and scheduling

This sounds simple, but it works hard.



Productive time is approximately 42 percent, support time is approximately 26 percent, and wasted time is approximately 32 percent.

The secret to profitability

You can do this in four practical ways:

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The secret to profitability

1. First, educate your people.

- ❖ Show them productivity statistics.
- ❖ Illustrate how lost time is such a large part of the typical crew day.
- ❖ Show them and ask them, don't tell them.
- ❖ Getting their emotional involvement is crucial.

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The secret to profitability

2. Second, focus your people on the controllable.

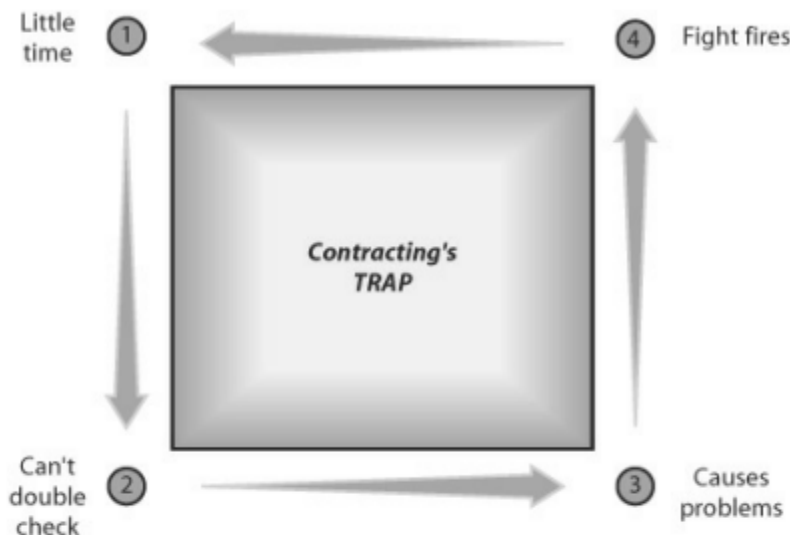
- ❖ This is planning, schedule, buyout, and so forth —not the uncontrollable events, weather, changed conditions, and so forth.
- ❖ Explain that this is where the greatest lasting improvement can be made.
- ❖ You never win consistently against uncontrollable factors, such as weather.

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The secret to profitability

3. Third, define the major business processes.

- ❖ These are the processes that most affect the schedule and budget.
- ❖ Map them out and make them clear to all. (See Figure)



Limited time means contracting processes have to be fast and accurate. Working smarter, not harder is a must.

The secret to profitability

4. Fourth, follow the productivity improvement cycle.

- ❖ This applies to getting work, doing work, and keeping score.
 - ✓ Improving your productivity is expressed in four steps, and then repeated:
 1. Planning scheduling the plan and budget.
 2. Communicating the plan, schedule, and budget.
 3. Measuring against the plan, schedule, and budget.
 4. Feedback performance and adjust the plan, schedule, and budget.

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The secret to profitability

These four steps will help a contractor achieve a lower installed cost with less stress.

Once your people have experienced some success, they will own the process emotionally.

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The secret to profitability

Use a formal pre-job meeting to carefully plan and communicate the project estimate, plan details, and other important factors. The field manager is included in these meetings.

Use scope checklists and standard contracts/purchase orders to minimize oversights, as well as missed terms and conditions.

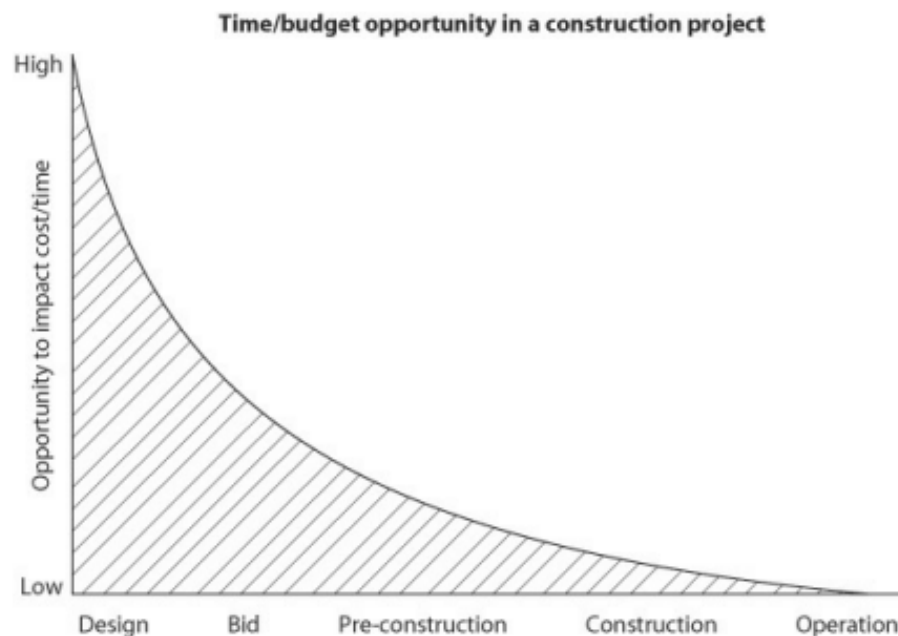
Understand the billing and payment process of the client fully. Use the first pay request as an indicator of the client's willingness and ability to pay.

Build a smaller, less-risky job with an unknown client first. This enables you to experience the pay habits, organizational ability, and general capability without a large risk.

Complete buy out (subcontractors and suppliers) of major cost items within the first 25 percent of project time. After that, aggressively manage delivery times and site logistics.

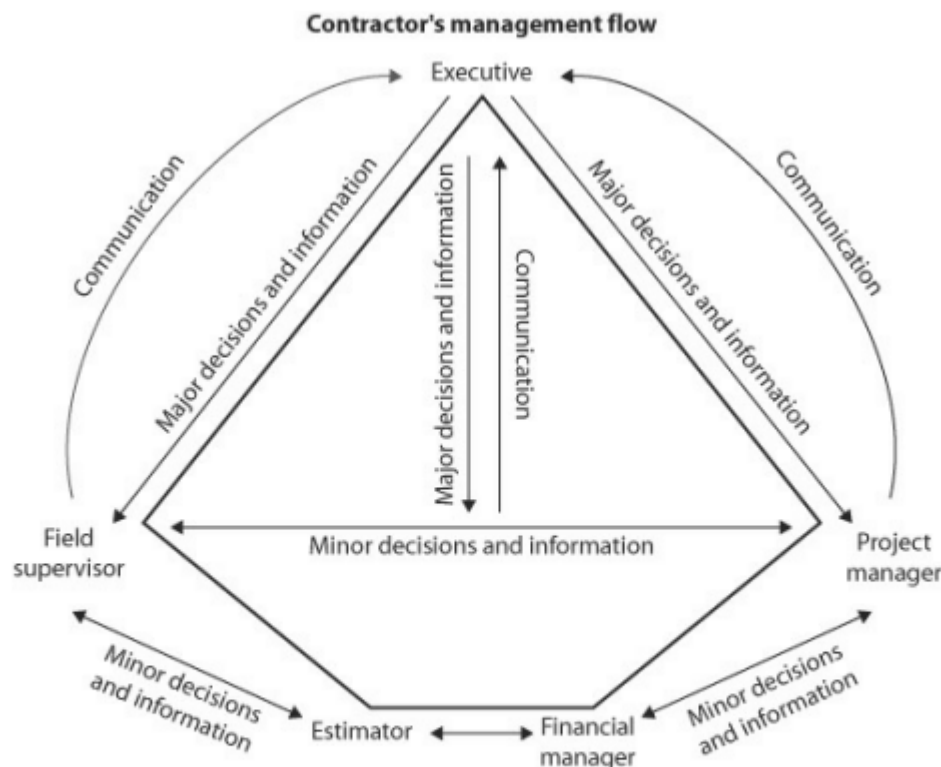
Use an action plan template and write down all commitments during meetings. This keeps everyone accountable for their promises.

Planning – Market research



This identifies a great opportunity for all construction projects. Proactive processes reward contractors with more speed and cost savings.

Contractor's management flow

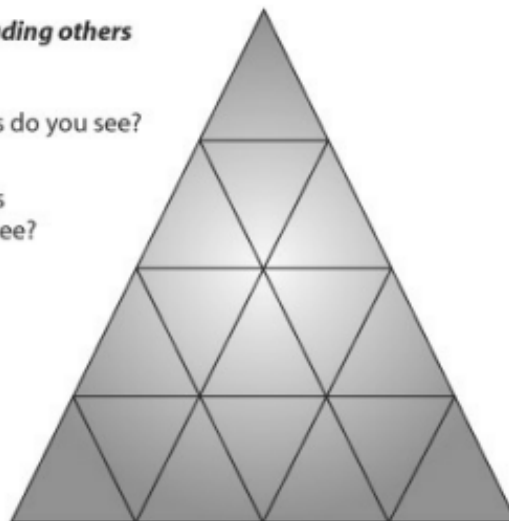


A procedure manual specifically defines how to communicate major decisions and information to others, so they may make minor decisions.

Go Past Documentation—Now Improve Your Processes

The benefits of including others

- How many triangles do you see?
- How many triangles does your partner see?



Asking others their opinion always leads to better insights. Ask others why they see more or less than you and learn.

Issues to address in a continuous improvement initiative

<i>Characteristic of Construction Contracting</i>	<i>Potential Problem Issue Poses</i>	<i>Potential Solution</i>	<i>Comments</i>
Employee turnover percentage is approximately twice other industries	Training expense of new and re-hired employees while those leaving are taking that investment with them	Employee turnover can be lessened by committing to a consistent or slightly increasing turnover amount	Eliminate or reduce this significant percentage
Fast business formation means hyper-competition	Company perception is that rapid innovation is needed to stay ahead of a high percentage of new entrants	Share government statistics that show business formation	Approximately 6% per year over the previous four years
Single Digit % Net Profit Before Tax	Fewer dollars for correcting mistakes	A formalised process to identify improvements	Small projects division may be the best place to start
Craftworker's unique process learned over her/his lifetime	The craftworker's approach is well embedded and has been successful for her/him	Focus on the needed inputs to the craftworker such as material logistics or information delivery	Technical craft improvement methods will be difficult
Unique design and construction challenges for each project	Cannot make a "Detailed System" for every contingency	Planning, communication and risk management are primary focuses	A process map is focused on few streams of practices

Comparison of Multi versus Singular Practice Implementation

<i>Factor</i>	<i>Multi-Practice Implementation (MPI) Per Calendar Quarter</i>	<i>Singular Practice Implementation (SPI) Per Calendar Quarter</i>
Training	Much training needed consuming time and money	Single Practice training can be done "on-the-job"
Late Adopters	These employees are a large barrier since many practices are implemented during a quarter	Late adopters will be less of a problem to manage
Construction's High Employee Turnover	New people are often a barrier to rapid and complete adoption	The knowledge gap is less for new employees (since it is a single practice) as compared to MPI
Industry's 4% net profit average	Many practices implemented might push the firm into negative profit results	A one-practice-per-quarter change threatens profit margins less
High-Risk Industry	Raises chance of adverse Safety, Quality and Financial outcomes than SPI	Less risk than MPI approach
Full Implementation and Compliance	Less of a chance than SPI – Much change means "overwhelm"	More of a chance than MPI – Balanced change means deeper focus
Possible Conflicting Practices	High chance of conflict resulting in confusion	No conflict since 1 per quarter is adopted

Exercises

1. What is the greatest competitive edge a contractor can have?
2. What risk factors do contractors sometimes choose to have in their business?
3. Do best practices assure a great result in every project? Do they guarantee profits for a contractor every year? Why or why not?

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1. Name and describe a dozen risk factors in a new contracting business, and then discuss how to limit or minimize them.
2. How would you address the issue of the supply/demand curve for construction contracting?
3. State the value of using quantitative methods in managing risk versus reward in construction contracting.

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ماژول پیش نیاز: اصول بنیادین

بخش چهارم: تأمین مالی

ارائه دهنده:

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CMAA Authorized Trainer

دانشگاه Illinois Tech آمریکا

What we will learn?

- ☐ Controlling your finances
- ☐ Working capital
- ☐ Projecting cash needs
- ☐ Understanding financial statements
- ☐ Dishonest employees
- ☐ Where is the money?
- ☐ Financial management for contractors
- ☐ Successful contracting organizations know finance
- ☐ Exercises

Controlling Your Finances

- ❑ **Experience** is a hard teacher because it gives the test first, the **lesson afterward**.
– Vernon Law
- ❑ Although you may (and must) employ someone **qualified to keep your books and a CPA** to guide you and your bookkeeper in establishing proper accounting procedures and tax planning,
you yourself must remain in close touch with your finances.

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Working Capital

Importance of working capital

- ❑ The United States Small Business Administration (SBA) says **lack of adequate working capital** is one of the top causes of **small business failure**.
- ❑ In addition to having enough cash for **day-to-day operations**, you need **reserves** that will enable you to **survive** the tough times.

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Importance of working capital

❑ In a **large corporation**, a **design flaw** that results in the mass recall and modification of thousands of one of its **major products** may cost the company many **millions of dollars**,

but that **isn't likely to threaten** the viability of such a large and diversified company.

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Importance of working capital

❑ But in a **small construction firm**,

especially a **young one**, making a substantial bidding error or going an extended period of time without securing profitable work

can have consequences ranging from merely worrisome to **catastrophic**.

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Importance of working capital

So build up **cash reserves** as **early** as possible, and
establish a **line of credit** to provide funds for **temporary needs**
(but don't use **loans** to support a **losing operation**).

Relationships with banks

- ☐ Establish **relationships** with more than one bank.
- ☐ You will probably **use one more than another**,
but if you **ever need** the second bank,
you will be **ahead by having established** some history there.

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Projecting Cash Needs

Project cash needs

- ☐ **Theoretically**, you should be able to operate a construction business with **little cash**.
 - ❖ After all, you're going to **pay your subcontractors** and other vendors on a **thirty-day basis**, aren't you?
- ☐ And your **customers promise** to pay you within **thirty days**, do they not?

So all you need is enough cash for miscellaneous expenses and payroll and your construction draw will come just in time to pay the subcontractors and Home Depot, right?

What's wrong with that picture?

Project cash needs

- ❑ A **cash forecast** is an attempt to project your cash needs at a **time in the future** by **estimating** your cash inflow and outflow.
 - ❖ On the outflow side are G&A expenses including payroll, rent, insurance, and taxes; and job costs including payments to subcontractors and suppliers.
 - ❖ Cash inflow usually amounts to owner payments for the construction draws you submit.

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Timing of cash flow

- ❑ Timing payroll, rent, and other G&A outflow are **relatively easy**,
but subcontractor and vendor payments are as random as job starts, and
receipts from owners
are often **delayed** for any number of reasons.
- ❑ This amounts to a complex cash flow picture that requires **updating at least** as often
as the **schedules for your new projects** are known.

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Your financial responsibilities

- ☐ **Taking on more work than can be **supported** by**
your working capital, management team, and other infrastructure
is as likely to **cause failure** as being unable to **acquire work**.

- ☐ **Other financial responsibilities** that fall on you include
establishing **budgets for a chart of accounts** that you've tailored to your
business.

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Your financial responsibilities

☐ You must monitor

accounts receivable,

accounts payable,

job costs,

overhead expense,

cash balances,

bank lines of credit,

payroll tax remittances,

income tax payments, and

other important gauges, and

act quickly when one of them **gets out of line**.

Your financial responsibilities

- ☐ **Establish** reporting formats that your **bookkeeper will** use for each of these indicators, and **review** these reports on a regular schedule.

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Understanding Financial Statements

Understanding financial statements

- ❑ Unless you already have a good **understanding of how** to read and interpret income statements and balance sheets,
ask your CPA to spend some time **teaching you at least the fundamentals.**
- ❑ Consider enrolling in **related seminars and classes.**
 - ❖ This is important for **comprehending your own financial reports** and those **provided to you by** project owners, subcontractors, and other vendors.

Understanding financial statements

- ❑ **Financial statements** are crucial tools in your decision-making process.
 - ❖ But **when using** them to evaluate others,
be aware that **anyone can throw dreamed-up numbers** onto an un-audited financial statement,
so all statements should be **viewed with a critical eye** (yours or your CPA's) when their **accuracy may affect** your well-being.
- ❑ **High-profile accounting scandals** in giant corporations have shown that even audited financial statements must be **viewed with caution**.

Dishonest Employees

Dishonest employees

- ☐ An employee who is determined to **cheat** will **find a way**.
- ☐ Even an “**honest**” employee who happens upon a weakness in the system may be **tempted** and **eventually steal** from you.
- ☐ Your **CPA** can help you **devise systems** that at least make cheating difficult and more likely to be discovered.

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Dishonest employees

- ❑ A project manager or field superintendent may on **occasion be offered a favor** or **outright payment** from a subcontractor or vendor in exchange for **something in return** from your company that **your employee controls**.
- ❑ Your employees should understand that **accepting bribes is a firing offense**.
 - ❖ Be **careful about making accusations** without the proper proof and consider consulting with an employment **attorney about such a matter**.

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Dishonest employees

- ☐ Let's say you have a **project manager** (“Jack”) who is **authorized to approve vendor invoices** submitted to your company.
- ☐ **Jack** covertly sets up a **fake company**, XYZ Plumbing, which then issues **invoices for nonexistent charges** to one of your **actual projects that Jack manages**.
- ☐ When the phony XYZ **invoices arrive at your office**, Jack approves them and they are processed for payment the same way as for the invoices of your **real vendors**.
- ☐ Finally, your **firm's check arrives** at the XYZ **post office box owned by Jack**.

Dishonest employees

- ❑ **Another situation** to warn your employees against is
 - ❖ A request by the project owner for you to invoice entities **other than the owner named** on the construction agreement or
 - ❖ To otherwise **manage payments** and invoices in an unusual manner.
- ❑ Doing so could be innocent or it could have serious consequences for your firm.
- ❑ Any such transactions should be made **openly, in writing, with your knowledge**, and
only with the **advice of your own attorney**
if you are **not certain** as to the potential consequences.

Dishonest employees

- ❑ The above are only a **few of the many avenues for dishonesty or mishandling** in construction.
- ❑ You can **never be guaranteed** that it will not occur in your company, but
 - ❖ A good “firewall” is diligence in hiring,
 - ❖ Effective training of your employees,
 - ❖ Proper controls, and
 - ❖ Your careful oversight of vendor payment.

Where is the Money?

Where is the money?

- ☐ Be sure **you understand** your **internal flow** of cash receipts and disbursements.
- ☐ In a **small business** you may know all of your vendors personally, but this becomes **less likely as you grow larger**.
- ☐ **One simple control** to put in place is for you personally to look for your signature on all **cancelled checks**.

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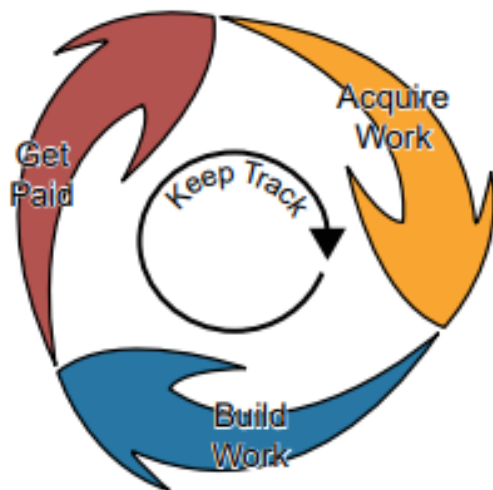
Financial Management For Contractors

Financial management for contractors

- ☐ Financial management is **not an exciting subject**,
except when you are in financial trouble.
- ☐ To the unknowing, this is **not the time to study** the subject.
- ☐ As sure as the sun will rise tomorrow, **lack of financial knowledge** can lead to **financial distress**.

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Financial management for contractors



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Financial management for contractors

- ❑ **Contractors** are different from tradespeople because they **view construction as a business**.
- ❑ **Successful contractors** know construction is more than tradecraft.
- ❑ **Without a keen eye for cost and value**, their companies would, at **best**, stay small and, at **worst**, no longer exist.

❖ **Money is the key difference.**

Without money, no company can stay in business.

As I have heard often, “Money is next to oxygen in importance.”

Financial management for contractors

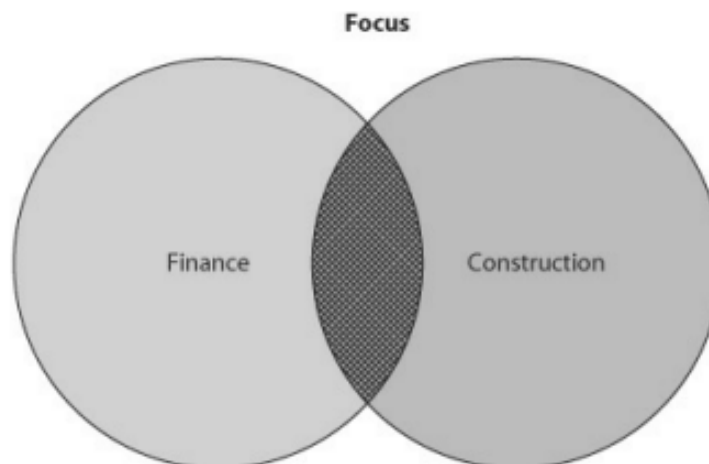
- ☐ Financial management is not accounting.
- ☐ **Accounting** deals with the **classification** of income and outgo (expenses).
- ☐ **Financial management** is the **diagnosis** and **operation** of your finances.
- ☐ **Excellent accounting** is the first step in the process.
 - ❖ Certainly, if your **accounting is performed haphazardly**, then the financial management will be poor.

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Financial management for contractors

❑ **Not all financial concepts** apply to construction.

❖ In fact, **some are dangerous**.



Relatively few financial concepts apply to the construction industry.

Create job-cost reporting that allows project managers to tie in physical completion percentages to financial results. This is a basic financial principle of construction.

Successful Contracting Organizations Know Finance

Successful contracting organizations know finance

- ❑ **Construction companies** have long neglected the idea that their **employees** should understand **financial management**.
- ❖ Owners **trying to create personal wealth** with **employees** who do not know money management fundamentals is madness.
 - ✓ If employees don't know financial concepts, how can they deliberately influence them?
 - Furthermore, if an **employee is causing profit losses** for the firm, owners are **quick to dismiss him**.
 - Simply put, **finances are critical** to the success of any business.

Why don't we do more to further the understanding of finances?

Finances make or break a construction firm

☐ Senior managers

must have a laser-like **focus on financial matters**.

☐ All activities—

adopting technology, hiring, office expansion, and bidder-list qualification, just to name a few—expand or curtail due to money.

☐ Well-managed firms

1. Keep clients,
2. Attract talent, and
3. Build value for their owners.

Finances make or break a construction firm

- ☐ **Middle managers**

make the most money for the construction firm.

- ☐ **Profit is made** on the project.

- ☐ Field supervisors and project managers make it happen on the job.

- ☐ Shouldn't they be the **most knowledgeable** of all middle managers?

Finances make or break a construction firm

❑ Look at these statistics that reflect **most categories of contracting**:

1. 3 percent—average profit before tax
2. 10 percent—average overhead
3. 87 percent—direct job costs

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Finances make or break a construction firm

- ☐ **Middle managers** influence or **control 87 percent** of the project.
- ☐ They are **critical to profitable construction** and, therefore, to profitable companies.

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Finances make or break a construction firm

- ☐ Overall, three people have the greatest impact:
 - (1) the estimating manager
 - (2) the field supervisor, and
 - (3) the project manager.

- ☐ Each of these people has **profit-and-loss responsibility**, but financial management is more than that.

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Finances make or break a construction firm

- ☐ As an example, cash flow is a **key indicator**.
- ☐ Cash flow involves the **sources** and **uses of funds**.
- ☐ In some research, **long-term negative cash flow** is a sign to bankruptcy.

FIGURE 4-3

Financial processes are probably the best-defined processes in any typical construction firm. The reason: they are normally managed by one person—the Financial Manager—and they are extremely important. The challenge is to make sure they are designed to provide useful and timely information to the build work and the acquire work phases.

Finances make or break a construction firm

Have a bidding process that includes a “sizer” for overhead application costs. It is an efficiency recognizer. Larger jobs require less overhead as a percentage. Smaller jobs require more overhead as a percentage. Quite simply, costs are added to smaller-than-average jobs, while costs are reduced in larger-than-average jobs. Contractors have a formula to calculate these numbers.

What is the first rule of business?

☐ The **first rule** of business is don't run out of cash.

❖ You are taken out of the game for that.

☐ The **second through tenth rules** of business are the same:

don't run out of cash.

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Construction contracting financial fundamentals

- ☐ We have listed below the **four typical issues** for construction firms.
- ☐ **Solve these** and you will have **stronger financial health**.

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Construction contracting financial fundamentals

1. How do you decrease the cash conversion cycle (days) of your firm?

☐ The equation has two parts:

1. Income

2. Outgo

☐ Contractors **start by making sure** they have an above-average paying customer.

☐ They give (happily) the **poor paying** ones to their **competitors**.

☐ Additionally, they **make sure they bill and collect** from that client per their agreement,

not only first billings and follow-on billings,

but also change orders and retention.

Construction contracting financial fundamentals

1. How do you decrease the cash conversion cycle (days) of your firm?

- ☐ The other part of the equation is the **outgo**.
- ☐ Financially successful contractors make sure they are **conservative on their expenses**.
- ☐ They do **not spend carelessly** on investments in their business or **future opportunities** with customers. (Examples: computer software.)
- ☐ They know that **first adopters** typically are the **beta-testers** and they take a financial hit.

Combine the two and you have a cash flow or a cash-to-cash cycle.

This determines your financial success.

Construction contracting financial fundamentals

2. How do you improve the return on investment (ROI) of a project?

- ☐ Take a look at the cash-to-cash cycle of a construction project and its profit margin.
- ☐ These **two are the major parts** of a return on investment.
- ☐ Keep these **favorable more often** and your company's financial performance will be above average.

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Construction contracting financial fundamentals

3. What are the key financial control measures you should review at least monthly?

- ❖ Company profit and loss
- ❖ Job cost with cost-to-complete calculations
- ❖ Cash flow
- ❖ Gross profit per man-hour or man-week

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Construction contracting financial fundamentals

4. Which construction factor is the true profit opportunity for most firms?

- ☐ **Labor** is the true profit opportunity.
- ☐ Over the history of the United States' construction market, for some 200+ years, **labor management** has determined the **success or failure in 90 percent** of the projects.
- ☐ Do your senior and middle managers know **these answers**?
- ☐ Do they actively try to **increase the financial performance** of your firm?
- ☐ **Could education** in these areas help them **work smarter**?
- ☐ As an aside, **understanding risk** is part of any financial management improvement.

Construction contracting financial fundamentals

4. Which construction factor is the true profit opportunity for most firms?

- ☐ The **construction industry** is **one of the top five riskiest** industries in the United States based on **bankruptcy statistics**.
- ☐ **Your employees** must have this type of **financial education** to keep you profitable.
- ☐ In fact, **best of class contractors** are determined by their financial result,
not by their technical ability.

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Exercises

1. What is the purpose of job cost reports?
2. What are the primary factors that should be included in a cost report?
3. What is a good measure of productivity in financial terms?
4. What are two financial accounts used in construction contracting that are unusual in general business? What is their purpose?

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1. Create an incentive program for a field manager in a company. Do the same for a project manager. Why will the incentive program work? What are its potential weaknesses?

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موسسه مهندسی و مدیریت ساخت علوی پور (ACEMI)

دفتر آموزش



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