



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

ماژول ۲: مدیریت کسب و کار

بخش سوم: مدیریت منابع انسانی

ارائه دهنده:

سید محمدرضا علوی پور

(PhD, PMP, CMIT)

CMAA Authorized Trainer

دانشگاه Illinois Tech آمریکا

What we will learn?

- ☐ Human Resources
- ☐ The Challenge
- ☐ Decision-Making Processes
- ☐ Company Culture
- ☐ Organizational Design
- ☐ The Key Role of the Human Resources Manager in Construction Companies
- ☐ Who Are the Right People?
- ☐ Staffing
- ☐ Employment manual
- ☐ Managing Employees For the Long Term
- ☐ Employee Development

What we will learn?

- ☐ Self-Actualization Motivates More Than Money
- ☐ Knowing Yourself Well Is Critical to Management and Leadership
- ☐ Personality Assessment
- ☐ Leadership Development
- ☐ Leadership/Management Assessment
- ☐ Teaching and Mentoring: Investment with Hard-Core Results
- ☐ Leader-Manager: New Definition of Leadership in Construction Contracting
- ☐ Performance Management
- ☐ Compensation and Employee benefits
- ☐ Employee Retention
- ☐ Employee Termination
- ☐ Professional Employer Organizations

Human Resources

❑ **Managing people** is complicated because **people are more complex** than any machine.

- ❖ They defy many preconceived notions regardless of gender, nationality, beliefs system, ethnicity, or other characteristics.
- ❖ Unlike Swiss watches, and regardless of their origins, when you look inside people, I guarantee you will always be surprised by at least one thing, probably many.
 - ✓ Consequently, we are wise to understand people from many different angles.

- ☐ We don't all manage in the same way.
- ☐ Some of us lead from the front and others stay in the background.
- ☐ There is no precise prescription to managing effectively.

In this section, we will share those ideas that many construction consultants have found work well for many.

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- ❑ The complex process of managing people **starts with a simple assumption:**

To lead and manage others well, you must first know yourself well.

- ❖ If you have **great personal insight**, you will use your strengths and involve others where you are weak.
- ❖ You will know where you can **help** or **hurt the organization** and its people.
- ❑ Wise leaders and managers **don't fake anything** because they know **that's not in the long-term best interest** of their company.

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- ☐ After you gain these personal strengths, **then** you must **invest in learning** more about **others**.

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The Challenge

The challenge

❑ There are **two major challenges** relating to human resources management that company leaders face.

1. The first is to attract employees, develop them, and retain them.

✓ This is primarily a function of **how employees are treated** within the company.

✓ Meeting this challenge is becoming **more difficult** as current employees **retire**, and **talented replacements are hard** to find.

2. The second challenge is to ensure that company human resources management **policies** and **procedures** conform to **legal requirements**.

Suggested strategies to meet both of these challenges are addressed in this section.

Suggested strategies

- ❑ The **chief executive officer** or **owner** of a construction company is the **focal point** that **everyone** within the company looks to for direction, for leadership, for values, for recognition, and for assurance that everyone within the company is moving in the **correct direction**.
- ❑ **Company leaders**, knowingly or not, form their companies in their **own image**.
- ❑ They **set the standards** for company ethics and values.
- ❑ These leaders must understand that the **success** of their companies **lies in their abilities** to meet the needs and expectations of both their employees and their customers.
- ❑ **Company leaders** need to **listen** to their firms' employees and customers and **then formulate** goals, methods, and directions for their companies.

Suggested strategies

❑ The **effectiveness** of the company **leadership** can be measured in the following three ways:

1. The company's business results
2. Its organizational structure
3. Its culture

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Suggested strategies

❑ Company leaders affect the business results **not only through changes** in the organizational structure,

but **also in the work culture** that they create.

❖ They establish the **company culture** by

- ✓ Identifying and communicating core values,
- ✓ Specifying expected employee behaviors,
- ✓ Establishing methods for providing performance feedback to employees, and
- ✓ Creating supporting recognition and reward systems.

Suggested strategies

- ❑ The **quality of job performance** is influenced by
 - ❖ An employee's understanding of the importance of the job,
 - ❖ The employee's perception of how he or she is valued within the company,
 - ❖ The employee's compensation,
 - ❖ Whether or not he or she is publicly recognized for the quality of work performed, and
 - ❖ The working environment.

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Suggested strategies

❑ **Absenteeism** is generally a function of an **employee's**

- ❖ Dissatisfaction with the work environment,
- ❖ Dissatisfaction with the job responsibilities, or
- ❖ Lack of recognition.

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Suggested strategies

- ❑ Turnover is influenced by the same factors as absenteeism as well as
 - ❖ Compensation,
 - ❖ The availability of opportunities for development and advancement, and
 - ❖ The perceived opportunities at another firm.

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Suggested strategies

❑ **Construction companies** are composed of **unique individuals**

who possess different personalities and attitudes that can affect their behavior at work.

❖ **Company leaders** need to determine **which positions best fit** each current and prospective employee's **personality**.

❑ Individuals whose personalities are **not compatible** with the **job requirements** of a position might **not be successful** in that position.

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Suggested strategies

- ❑ The last aspect of organizational behavior to be considered is **how people behave** within an organization.
 - ❖ Construction companies function **best** when members **work together** as **teams** to **accomplish** collective tasks.
 - ❖ These may be **formal teams**, or they may be **informal teams**.
 - ❖ The **strength** of the company comes from the **synergy** of **employees** working together to accomplish **collective goals** and **objectives**.
 - ❖ Understanding **how to motivate** people to work together is a **major challenge** for company leaders.

Decision-Making Processes

Decision-Making processes

❑ While a **company's leadership** is a **significant** shaper of the contributions of the company's employees,

the **role** that **management decisions** play in increasing or decreasing employee **motivation** often goes **unrealized**.

❖ Adopting a strategic planning process and a decentralized decision-making approach

generally **encourages employees** to invest their time and effort in cultivating new business by strengthening **existing customer relationships**.

Decision-Making processes

❑ **While compensation is increasingly cited as a much lower factor in overall employee satisfaction** than is generally thought,

management decisions regarding compensation strategies can be a **significant issue** if handled in a way that is perceived as **unfair**.

❖ **Significant horizontal pay differences** contrive a perception of **inequitable pay**—inducing

1. Job dissatisfaction,
2. Low effort, and
3. Turnover.

Decision-Making processes

- ❑ Managers **directly influence these perceptions** by their ability to **recognize all members** of the team—
 - ❖ Those with more complex and highly compensated jobs
 - ❖ As well as those whose **responsibilities** are more straightforward—as important to the success of the company.
- ❑ For **all employees** to feel **valued** and **worthwhile**, there must be a **pervasive attitude** that everyone's work is important.
 - ❖ This attitude **starts** at the **top** and is reinforced **daily** by **frontline supervisors**.

Company Culture

Company culture

- ❑ While every company has its **own unique culture**,
most companies do **not consciously** try to create a certain culture.
- ❖ Typically, the culture of the organization is **created unconsciously**, based on the values and actions of the **company leaders**.
 - ✓ **Company leaders' role** in establishing ethical standards for their employees was discussed in Professional Construction Management Course.

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- ❑ The obligation to be **accountable** and **responsible** is enhanced within a **culture that supports** individual and collective empowerment.
- ❑ The conditions that help to create a **culture of empowerment** include
 - ❖ The authority to act
 - ❖ Adequate resources to act
 - ❖ An environment of trust
 - ❖ An acceptance of the obligation to be both accountable and responsible

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☐ To the extent that **these conditions exist**,

employees will feel empowered to act **individually** and **collectively**.

❖ Individual managers then become **personally** accountable and responsible to their **supervisors** or **team leaders** for

1. Their own actions and
2. All aspects of their subordinates' activities.

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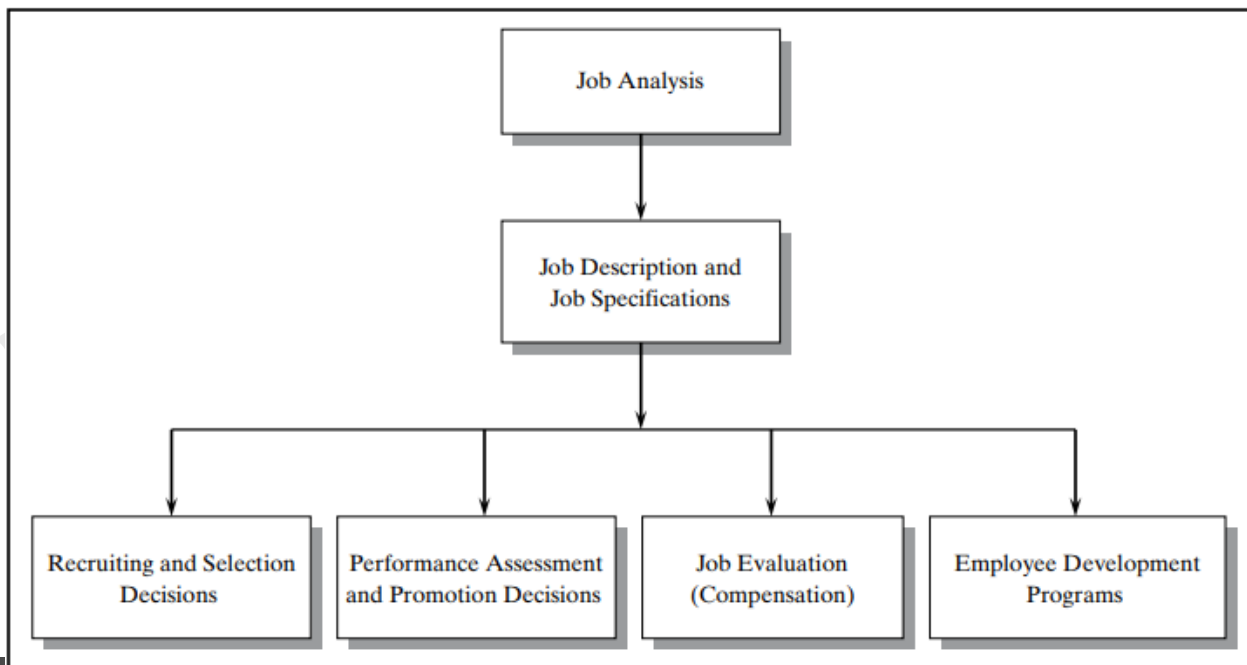
Company culture

- ❑ The **company culture** significantly influences the **company's reputation** as a **desirable place** to work.
 - ❖ How people are **valued** and **treated** will affect whether or not they wish to be **long-term employees**.
- ❑ **Most construction projects** are accomplished by **decentralized teams** working **together** to meet customer expectations.
 - ❖ Creating a **collaborative team atmosphere** is essential.
- ❑ Decision making should be **decentralized** to **empower employees** to
 - ❖ Recognize project execution issues and
 - ❖ Take action to resolve them.

Organizational Design

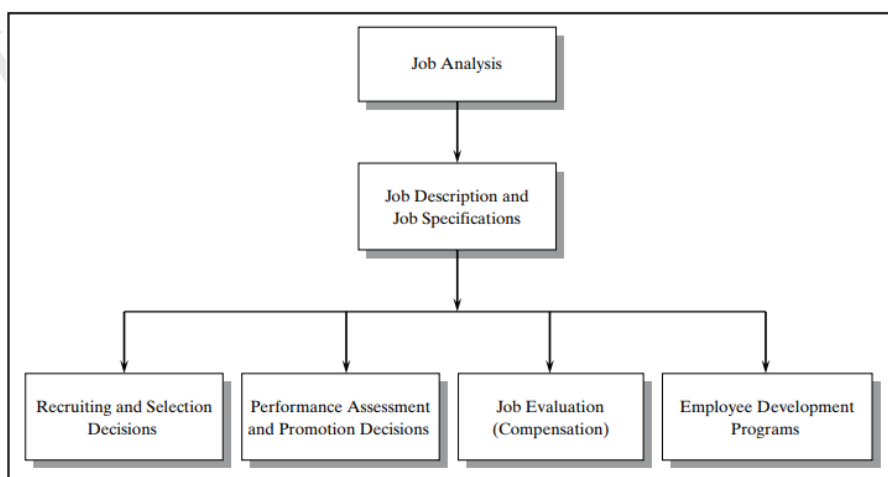
- ❑ Once the **organization chart** for the company has been **developed**,
a **job analysis** is conducted for **each position**.
- ❑ **Job analysis** is gathering information about **each job** and is the **primary building block** for most human resources management systems, as illustrated in Figure.

FIGURE 7.1 Uses of Job Analysis Information



- ❑ The major tasks, duties, and activities to be performed by the person occupying each position are identified.
- ❑ The **task inventory** includes determining
 - ❖ The information input,
 - ❖ The mental and/or physical processes to be performed,
 - ❖ The work environment,
 - ❖ The relationships to other jobs, and
 - ❖ The characteristics of the work output.

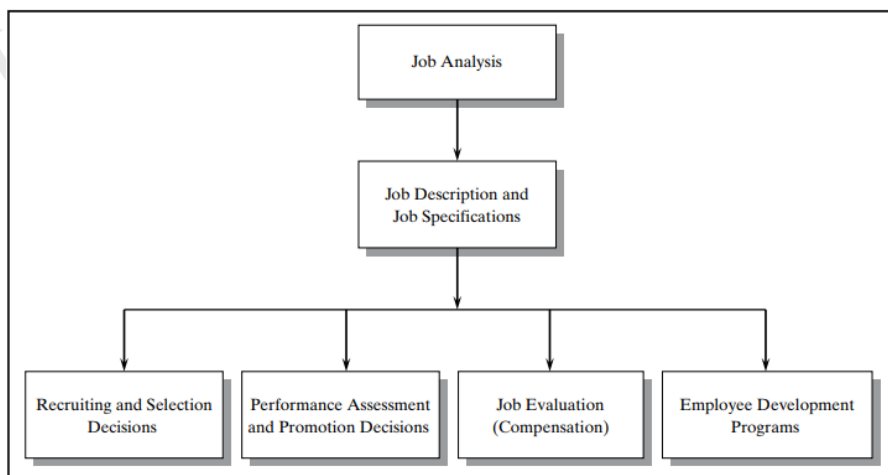
FIGURE 7.1 Uses of Job Analysis Information



❑ The **output of job analysis** is

1. A job description and
 2. A set of job specifications
- for each position.

FIGURE 7.1 Uses of Job Analysis Information



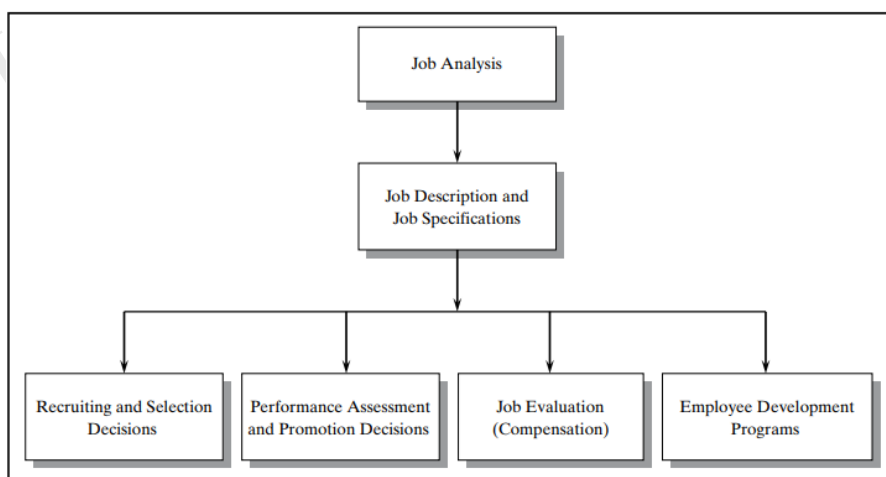
❑ The job description

defines the **major tasks** and **duties** to be performed by the **person selected** for the position.

❑ The job specifications

identify the knowledge, the abilities, and the skills needed to be able to perform the tasks and duties **contained in the job description**.

FIGURE 7.1 Uses of Job Analysis Information



Organizational design

- ❑ An example of a job description and a set of job specifications for an administrative assistant is shown in Figure 7.2.

FIGURE 7.2 Job Description and Job Specifications for an Administrative Assistant

Job Title: Administrative Assistant

Reports to: Project Manager

General Responsibilities: Provides clerical and reception services for project field office. Assists project personnel in the preparation and processing of written, verbal, and electronic communications. Responsible for the operation and maintenance of project office equipment.

Specific Responsibilities:

1. Provides reception services for the project office. Receives, records, and directs site visitors, telephone communications, electronic mail, internal distribution, parcel deliveries, and postal mail.
2. Assists the project manager in maintaining project files. Copies project documents as required by the project manager and company operating procedures.
3. Provides data processing support to the project office. Inputs data as required into computer database management, spreadsheet, and other applications programs.
4. Prepares final copies of letters, memorandums, typed standard forms, and other written communications, using conventional typewriters and word processing programs.
5. Prepares time sheets for hourly employees.
6. Coordinates maintenance of field office and office equipment to maintain a presentable, efficient, and functional environment. Ensures that all critical office equipment are operational at all times. Responsible for maintaining an operational stock of consumable office supplies.

Organizational design

Required Knowledge, Skills, and Abilities:

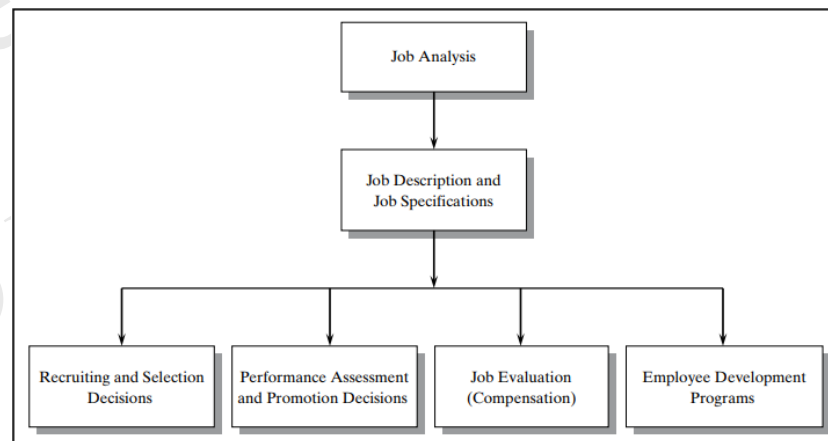
1. Knowledge of construction terms and construction documents.
2. Knowledge of the operation and user-level maintenance of standard office equipment.
3. Knowledge of computer database management, word processing, and spreadsheet software applications.
4. Skilled in keyboard operations for fast and accurate typing and data input.
5. Able to communicate effectively in person and over the telephone. Able to maintain a focus on customer service and to represent the company at the project in a professional, courteous manner.
6. Able to organize, plan, and prioritize work efficiently. Must be able to work independently and productively with limited resources.

Experience Requirements: This position requires a minimum of five years' experience in office administrative support functions, with a minimum of two years' experience in construction field offices.

❑ The **information developed** through the job analysis is used in

1. Recruiting and selecting new employees,
2. Managing employee performance and Promoting current employees,
3. Setting compensation levels, and
4. Structuring employee development programs.

FIGURE 7.1 Uses of Job Analysis Information



Responsibility vs job description

❑ While a **thorough job description** helps a new hire become familiar with his duties and responsibilities quickly, **it is only a guide.**

❖ **Consider a brain surgeon**, who **studies** a patient's MRIs and other diagnostics prior to surgery in the course of planning what he must do in the operating room to remove an invasive tumor.

❖ **Later on, during surgery**, the doctor's responsibility is **not to blindly follow** the plan he made from all the data he had at that time, but to **recognize and work** around the actual conditions he runs into in order to best deal with the tumor.

✓ Similarly, your employees must focus **not** on job **descriptions** but on **outcomes**.

Responsibility vs job description

- ❑ Your **bookkeeper's job description** may specify a list of procedures to follow in the course of providing **job cost reports**, and by **following those procedures** the bookkeeper may **satisfy the job description** requirement.
- ❖ But **unless he “owns” the data** in the resulting reports he has **not taken responsibility** for outcomes.
 - ✓ When you're mulling over your **P&L statement** for the current month, you **don't want to hear** your bookkeeper say he followed all the **rules in generating the report**; you want **him to confidently** tell you it is **accurate**. Period.

Responsibility vs job description

❑ **Rules and job descriptions** are no substitute for human initiative.

❖ **Clerks** follow rules.

❖ **People** who are given responsibility and authority are **accountable** for **outcomes**.

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Responsibility vs job description

❑ The **concept** of exercising **authority** is similar.

❖ Be sure your job superintendents, project managers, and other supervisory employees internalize and effectively exercise the **authority** they're given.

✓ For example, in dealing with a **headstrong subcontractor**,

your project manager may resort to **using you as a crutch**:

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Responsibility vs job description

❑ “Joe, my boss needs you to get this problem fixed by Thursday,”

which makes the project manager **look weak**.

❖ It **may result in Joe complying**, but your project manager just gave up his authority to effectively manage Joe, **especially when Joe is faced with a tough requirement**, in which case he will demand to **meet with you for a final decision**.

✓ **Your project manager** executes the authority you have given him by stating his instructions to Joe as his own—**not the boss's**:

“Joe, here’s how I want you to do this.”

❖ *If the subcontractor does come to you and gets nowhere, you have reinforced your employee, and Joe no longer has any illusion about who owns the authority to direct him.*

The Key Role of the Human Resources Manager in Construction Companies

The Key Role of the Human Resources Manager in Construction Companies

❑ The **assessment tools** described here offer **major benefits** to construction professionals.

- ❖ The image of a young person given this information at age 25, who works to improve on these fact-based assessments, is a powerful one.
- ❖ How good of a people manager and time manager would that person be 10 years later?

A much better manager than if that person chose an informal path of trial and error instead.

The Key Role of the Human Resources Manager in Construction Companies

❑ **Besides the regulatory role** that human resources managers fulfill, they should also **implement these assessments** and **work with supervisors** to ensure that

1. Each employee is assessed,
2. An action plan of how to improve weaknesses is created, and
3. Progress is monitored.

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The Key Role of the Human Resources Manager in Construction Companies

- ☐ One emerging human resource practice is the use of **online training courses**.
- ☐ They are **web-enabled** and can be accessed from **many different platforms**—tablet, laptop, desktop, etc.
- ☐ As the **cost of people and training** them continue to rise, these types of classes have a **value in our industry**.
- ☐ Having settled (well proven) technology means **field people** can take courses from the **trailer on a phone line**.
- ☐ The classes can be **taken any time**.
- ☐ **No one** is **called away or excused**.
- ☐ These systems such as ours, **track important metrics** such as test scores, time on the system, date completed and number of times accessed.
- ☐ **Monitoring reports** can be given weekly to senior management.

The Key Role of the Human Resources Manager in Construction Companies

- ☐ This process of employee improvement is **long term and without a definite “end.”**
- ☐ The action plan should be **updated regularly** to address other weaknesses and concerns after early goals are accomplished.
- ☐ At some point (e.g., every five years), a **new assessment** should be administered and **new objectives** created.
- ☐ When **new employees** join the firm, the process should **begin with them**, also.

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Who Are the Right People?

Who are the right people?

❑ Beyond covering your job-specific needs, here are **some important characteristics to look for in a prospective employee:**

- ❖ Ability to think outside the box Enthusiasm
- ❖ High moral and ethical standards
- ❖ Leadership qualities
- ❖ Likeability
- ❖ People savvy
- ❖ Positive attitude
- ❖ Quality consciousness
- ❖ Result oriented
- ❖ Self-confidence
- ❖ Self-control
- ❖ Solid sense of responsibility
- ❖ Strong work ethic
- ❖ Team player

Who are the right people?

Well, first of all, it starts with hiring. We are zealous about hiring. We are looking for a particular type of person, regardless of which job category it is. We are looking for attitudes that are positive and for people who can lend themselves to causes. We want folks who have a good sense of humor team results instead of individual accomplishments. If you start with the type of person you want to hire, presumably you can build a work force that is prepared for the culture you desire.

Good hiring practices

❑ Make these ideas part of your **hiring process**.

- ❖ **Develop** a **detailed description** of the **position** to be filled.
- ❖ Seek to **hire** the **best employees available** who meet your needs.
- ❖ It's **shortsighted** to make hiring decisions solely on the **basis of cost**.
- ❖ As with most things in life, **price goes up with quality**, and if your hiring threshold is mediocrity, your **performance** is limited to **mediocrity**.
- ❖ Place professional looking, **well-written ads** in local newspapers and online.
- ❖ Develop **written materials** and a **Website** that present your firm in a positive, attractive light.
- ❖ Consider using a **specialist for this** if possible.

Good hiring practices

❑ Make these ideas part of your **hiring process**.

- ❖ Set up a **screening** process to quickly **eliminate** applicants that do **not meet** your **basic requirements**.
- ❖ **Avoid** the applicant who has **changed jobs every year** or **two** in a lateral move if you're looking for a **long-term employee**.
- ❖ **Interview** promising candidates **in person**, and allow them to **express themselves**.
- ❖ Ask **open-ended questions** and questions that relate to the position you're **filling**.
- ❖ Obtain releases from the candidate that **allow you to check his history** with regard to education, former employment, criminal and driving records, and statements he makes in his application.

Good hiring practices

❑ Make these ideas part of your **hiring process**.

- ❖ When **checking references**, assume they are **reluctant to say** anything **negative** about the applicant.
- ❖ Focus on the **candidate's specific behaviors** at that employer, **not general descriptions**.
- ❖ Ask about his role, responsibilities, and specific accomplishments as **measured against expectations**.
- ❖ Listen carefully for what the reference may be **withholding** and **probe** into it.
- ❖ Be aware that it is **illegal to discriminate** on the basis of race, color, religion, sex, national origin, age over forty, and disabilities.
- ❖ Check references for the **several most recent years**.

Good hiring practices

❑ Make these ideas part of your **hiring process**.

- ❖ Applicants whose experience in construction has **no relation to your needs** may **not be qualified** for your job.
 - ❖ A project manager or superintendent who has been building **high-rises or oil refineries** won't be at **home on a \$1 million** project that requires a **lot of simultaneous activities in a small space** in a short time period.
- ❖ You can decide to develop **tests to assess** the candidate's **knowledge and skills** that pertain to a particular job.
- ❖ His **responses to a simple test** can tell you a lot about an applicant.

Staffing

Typical hiring process

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ماژول ۲: مدیریت کسب و کار

بخش سوم: مدیریت منابع انسانی

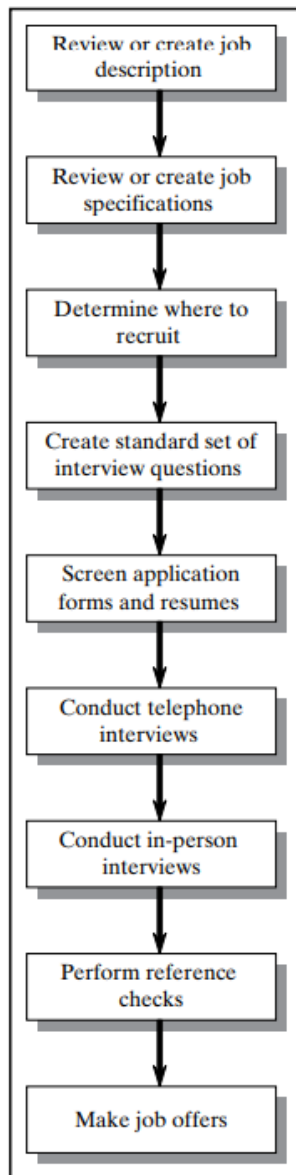


FIGURE 7.5 Typical Hiring Process

❑ There are **two major issues** associated with **attracting prospective** new employees.

- ❖ The first is to attract them to the **construction industry**, and
the second is to attract them to **one's firm**.

❑ **Internet Websites** are an effective tool for advertising career opportunities in a specific company.

- ❖ *The Web pages should clearly articulate the company's mission, vision, and values and identify the critical competencies for organizational success (knowledge, skills, and behaviors).*

1. Career development programs,
2. Types of job experiences, and
3. Total compensation packages available
should also be discussed.

☐ The key to recruiting is to

1. Emphasize the **diverse type of work** the firm does and
2. Describe the company as a **rewarding place to develop a career**.

☐ Recruiting at technical schools, community colleges, and universities is also effective.

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❑ Human resources planning involves **assessing**

- ❖ The firm's anticipated need for personnel,
- ❖ The skill sets qualified applicants must possess,
- ❖ The anticipated demand for personnel with those skills, and
- ❖ The forecast supply of qualified applicants.

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☐ **Alternatives** should also be considered while selecting; namely,

- ❖ Full-time employees,
- ❖ Temporary employees,
- ❖ Part-time employees, or
- ❖ Employees who share the jobs.

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- ☐ One of the issues to be considered in the human resources planning process is **whether or not to recruit internally.**

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❑ Internal recruiting is **less costly** than external recruiting because there is **no need**

- ❖ to advertise the positions outside the company,
- ❖ to send recruiters to recruiting activities, or
- ❖ to reimburse prospective employees for their travel to interviews.

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☐ External recruiting sources may be

1. Employee referrals,
2. Union referrals,
3. Advertising in newspapers or on company web sites,
4. Employment agencies,
5. Search firms, and
6. Campus or vocational school visits.

☐ Most construction firms require each applicant to submit a standard application form, such as the example shown in Figure 7.3.

❖ In addition, resumes are usually required.

FIGURE 7.3 Employment Application Form

Western States Construction Company
Employment Application Form
ALL INFORMATION FURNISHED IN THIS APPLICATION MUST BE ACCURATE
AND COMPLETE (IN INK). ANY FALSE STATEMENTS OR OMISSIONS OF ANY KIND
ARE GROUNDS FOR DENYING EMPLOYMENT.

IDENTIFICATION

Name: Last _____ First _____ Middle _____

Social Security Number: _____

Home Address: _____

Street City State Zip

Home Telephone (Area Code and Number): _____

Work Telephone (Area Code and Number): _____

U.S. Citizen: Yes _____ No _____

If No, Type of Visa and Expiration Date: _____

Alien Registration Number: _____

EMPLOYMENT INFORMATION

Are you a former employee of Western States Construction Company? Yes _____ No _____

Former Western States Construction Company Employment: From _____ to _____

Month/Year Month/Year

Employment Desired: Full Time _____ Temporary _____ Summer _____

Date Available: _____

Month/Year

Expected Salary/Wage: _____

Will You Accept Overtime Work, if Offered? Yes _____ No _____

EDUCATION

Circle Highest Grade Completed: Elementary Secondary Advanced

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Vocational Training/Special Courses of Study:

List Any Professional Certificates or Licenses You Have Obtained:

(continued)



List All Post High School Education Below. Show Degrees Received or Expected and Date.

School Name	Dates Attended	Major	Degree
City and State	Month/Year	Minor	Date (Month/Year)
	From		
	To		
	From		
	To		
	From		
	To		

EMPLOYMENT HISTORY

BEGINNING NOW, ACCOUNT FOR EVERY MONTH OF EMPLOYMENT OR UNEMPLOYMENT WITHIN THE LAST 48 MONTHS (4 YEARS). A RESUME MAY BE ATTACHED, BUT THIS SECTION MUST BE COMPLETED.

Firm Name: _____

Address: _____ City: _____ State: _____

Position Title/Duties: _____

Date Employed: From _____ to _____
Month/Year Month/Year

Reason for Leaving: _____

Firm Name: _____

Address: _____ City: _____ State: _____

Position Title/Duties: _____

Date Employed: From _____ to _____
Month/Year Month/Year

Reason for Leaving: _____

(continued)

FIGURE 7.3 (continued)

Firm Name: _____			
Address: _____		City: _____	State: _____
Position Title/Duties: _____ _____			
Date Employed:	From _____	to _____	
	Month/Year	Month/Year	
Reason for Leaving: _____ _____			
REFERENCES			
PLEASE PROVIDE 3 REFERENCES WHO ARE KNOWLEDGEABLE OF YOUR QUALIFICATIONS.			
Name: _____		Years Known: _____	
Occupation: _____		Employed By: _____	
Address: _____		City: _____	State: _____
Telephone Number (Area Code and Number): _____			
Name: _____		Years Known: _____	
Occupation: _____		Employed By: _____	
Address: _____		City: _____	State: _____
Telephone Number (Area Code and Number): _____			
Name: _____		Years Known: _____	
Occupation: _____		Employed By: _____	
Address: _____		City: _____	State: _____
Telephone Number (Area Code and Number): _____			
SIGNATURE			
THIS APPLICATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.			
Signature: _____		Date: _____	

(continued)

- ☐ Once the **applications** have been **received**, the **selecting authority** must decide to whom to offer each position.
- ☐ The **information** used in **making** the **decision** is generally
 1. The information contained on the application form,
 2. Any letters of recommendation provided,
 3. The applicant's resume,
 4. The contacts with listed references, and
 5. The applicant interviews.

- ☐ **Interviews** must be planned carefully to ensure that each candidate is evaluated using the **same criteria**.
- ☐ The **recommended approach** is to develop an interview checklist similar to the one illustrated in **Figure 7.4** and to use it for all interviews for the position to be filled.
- ☐ This will provide a tool to assist in **comparing the interviews** of the applicants under consideration.
- ☐ Interviews may be conducted by **one person or** by a **panel**.
- ☐ The objective of most interviews is to assess the applicant's
 1. Job skills,
 2. Ability to work with others, and
 3. Motivation for the open position.

Sample interview checklist

Interview Checklist

Name of Applicant: _____ Send Rejection Letter _____

Interview Location: _____ Second Interview _____

Hold for Future Review _____

Date Available: _____

Location Preference: _____

Interview Rating:

Category	Unsatisfactory	Below Average	Average	Above Average	Outstanding
Physical —General impression, apparent energy, grooming, and speech					
Mental —Ability to organize thoughts, self-expression, and comprehension					
Maturity —Emotional stability and apparent leadership ability					
Motivation —Realism of aspirations and positive motivation goals					
Education —Good sense of direction and consistency					
Work Experience —Career growth and general quality					
Overall Rating					
	1	2	3	4	5

Comments:

Date: _____ **Overall Rating:** _____

Interviewer: _____

FIGURE 7.4 Sample Interview Checklist

Interview

- ❑ Here are **some questions to ask and observations** to make during an interview.
- ❖ In **preparing** for the interview **write down** what you want to have learned about the applicant **after the meeting is over**.
- ❖ In **listening** to his description of **prior jobs**,
try to learn **whether the cultures** at those firms are **compatible with yours**.
- ❖ **Ask what his earlier co-workers** would say about him if asked.
- ❖ **Probe** into his possibly **unstated reasons** for leaving his last job

❑ Here are **some questions** to **ask** and **observations** to make during an interview.

- ❖ Ask what he **liked most** and **least** about his **last job**.
- ❖ Did he try to **make improvements/changes** in his previous job?
- ❖ Ask him to describe a **situation** in his previous job for which he was **praised**.
Criticized.
- ❖ Describe a **work situation in your company** and ask how he would handle it.

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- ❑ Here are **some questions to ask and observations** to make during an interview.
 - ❖ Ask him to **describe** the **duties and responsibilities** involved in the **job he's applying** for so you'll know whether he understands it.
 - ❖ Ask him to **describe** his **technical skills** as they apply to the job he's applying for.
 - ❖ Ask him to describe **his greatest** strength. Weakness.
 - ❖ Note the candidate's **mention of people** he has worked with who are **not named on his application** and **ask for his permission** to contact them.
 - ✓ There could be a **reason the candidate didn't list** them as a reference.
 - ✓ Mention that you **routinely check references**.
 - ❖ Ask if there's **anything he may have forgotten** to tell you that could show up.

- ☐ **Additional questions** you can use in prospective-employee interviews are included in **Appendix 4.**

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Questions to reveal integrity/honesty/trustworthiness

- Discuss a time when your integrity was challenged. How did you handle it?
- What would you do if someone asked you to do something unethical?
- Have you ever experienced a loss for doing what is right?
- Have you ever asked for forgiveness for doing something wrong?
- In what business situations do you feel honesty would be inappropriate?
- If you see a co-worker doing something dishonest, would you tell your boss?
What would you do about it?

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Questions to reveal personality/temperament/ability to work with others

- If you took out a full-page ad in a newspaper and had to describe yourself in only three words, what would those words be?
- How would you describe your personality?
- What motivates you the most?
- If I call your references, what will they say about you?
- Do you consider yourself a risk taker? Describe a situation in which you had to take a risk.
- What kind of environment would you like to work in?
- What kinds of people would you rather not work with?
- What kinds of responsibilities would you like to avoid in your next job?
- What are two or three examples of tasks that you do not particularly enjoy doing? Indicate how you remain motivated to complete those tasks.

- What kinds of people bug you?
- Tell me about a work situation that irritated you.
- Have you ever had to resolve a conflict with a co-worker or client? How did you resolve it?
- Describe the appropriate relationship between a supervisor and the subordinates.
- What sort of relationships do you have with your associates, both at the same level and above and below you?
- How have you worked as member of teams in the past?
- Tell me about some of the groups you've had to get cooperation from. What did you do?
- What is your management style? How do you think your subordinates perceive you?

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- As a manager, have you ever had to fire anyone? If so, what were the circumstances and how did you handle it?
- Have you ever been in a situation where a project was returned for errors? What effect did this have on you?
- What previous job was the most satisfying and why?
- What job was the most frustrating and why?
- Tell me about the best boss you ever had. Now tell me about the worst boss. What made it tough to work for him or her?
- What do you think you owe to your employer?
- What does your employer owe to you?

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Questions to reveal past mistakes

- Tell me about an objective in your last job that you failed to meet and why.
- When is the last time you were criticized? How did you deal with it?
- What have you learned from your mistakes?
- Tell me about a situation where you “blew it.” How did you resolve or correct it to save face?
- Tell me about a situation where you abruptly had to change what you were doing.
- If you could change one (managerial) decision you made during the past two years, what would that be?
- Tell me of a time when you had to work on a project that didn’t work out the way it should have. What did you do?
- If you had the opportunity to change anything in your career, what would you have done differently?

Dr.

Interview

Questions to reveal creativity/creative thinking/problem solving

- When was the last time you “broke the rules” (thought outside the box) and how did you do it?
- What have you done that was innovative?
- What was the wildest idea you had in the past year? What did you do about it?
- Give me an example of when someone brought you a new idea, particularly one that was odd or unusual. What did you do?
- If you could do anything in the world, what would you do?
- Describe a situation in which you had a difficult (management) problem. How did you solve it?
- What is the most difficult decision you’ve had to make? How did you arrive at your decision?
- Describe some situations in which you worked under pressure or met deadlines.
- Were you ever in a situation in which you had to meet two different deadlines given to you by two different people and you couldn’t do both? What did you do?
- What type of approach to solving work problems seems to work best for you? Give me an example of when you solved a tough problem.
- When taking on a new task, do you like to have a great deal of feedback and responsibility at the outset, or do you like to try your own approach?
- You’re on the phone with another department resolving a problem. The intercom pages you for a customer on hold. Your manager returns your monthly report with red pen markings and demands corrections within the hour. What do you do?
- Describe a sales presentation when you had the right product/service, and the customer wanted it but wouldn’t buy it. What did you do next?

Miscellaneous good questions

- How do you measure your own success?
- What is the most interesting thing you've done in the past three years?
- What are your short-term or long-term career goals?
- Why should we hire you?
- What responsibilities do you want, and what kinds of results do you expect to achieve in your next job?
- What do you think it takes to be successful in a company like ours?
- How did the best manager you ever had motivate you to perform well? Why did that method work?
- What is the best thing a previous employer did that you wish everyone did?
- What are you most proud of?
- What is important to you in a job?
- What do you expect to find in our company that you don't have now?
- Is there anything you wanted me to know about you that we haven't discussed?
- Do you have any questions for me?

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Employment manual

Employment manual for construction company

- ☐ A construction company should create **an employment manual** that describes its employment policies and procedures.
- ☐ An example of an employment manual for Western States Construction Company, is shown in **Appendix D**.

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Employment manual for construction company

☐ Employers should

1. Develop an employee **acknowledgment form** and
2. Require each employee to **read the employment manual** and
3. Submit a **signed** acknowledgment form.

☐ This should be done during

1. The employee's **initial orientation** to the company, and
2. Whenever the manual is **updated or modified**.

☐ Some companies require the manual to be **reviewed annually**,

while others require a review **only when the manual is changed**.

❖ Figure 7.6 is an example of an employee acknowledgment form.

Employment manual for construction company

Employment Manual Acknowledgment Form

The employment manual describes important information about Western States Construction Company, and I understand that I should consult the Human Resources Department regarding any questions not answered in the manual. I have entered into my employment relationship with the Company voluntarily and acknowledge that there is no specified length of employment. Accordingly, either the Company or I can terminate the relationship at will, with or without cause, at any time.

Since the information, policies, and benefits described here are necessarily subject to change, I acknowledge that revisions to the manual may occur, except to the Company's policy of employment-at-will. All such changes will be communicated through official notices, and I understand that revised information may supersede, modify, or eliminate existing policies. The Company reserves the right at its discretion, to revise, amend, enforce, or even rescind the manual and/or individual policies at anytime. Furthermore, I acknowledge that this manual is neither an expressed or implied contract of employment nor a legal document.

This certifies that I have received a copy of the Employment Manual for Western States Construction Company. I acknowledge my responsibility to become familiar with and adhere to the Company's policies and work rules that are contained in this manual and those that have been explained to me at orientation sessions, meetings, or through postings. I agree to conform to the instructions, rules, and policies of the Company.

I understand that my employment is at will and can be terminated at any time, with or without cause and with or without notice, at the option of either the Company or myself. I understand that no representative of the Company has any authority to enter into any agreement for employment for any specified time, or to make any agreement contrary to the foregoing.

I understand that the policies in this manual supersede all previous policies, contracts, communications, and/or practices, written or verbal. I also acknowledge that I, as an employee of Western States Construction Company, have an affirmative obligation to notify my employer of any knowledge or information that I have relating to on-the-job safety violations committed by any employee at any time.

Employee Signature

Date

Employee Name (Typed or Printed)

FIGURE 7.6 Sample Employee Acknowledgment Form

Employment manual for construction company

A p p e n d i x D

Employment Manual for Western States Construction Company

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Managing Employees For the Long Term

Managing employees for the long term

- ❑ A 2004 survey by the Corporate Executive Board, Driving Performance and Retention Through Employee Engagement, finds that only **11 percent of 50,000** employees in 59 organizations surveyed constantly try to **improve**, while at the other end of the spectrum **13 percent** exhibit little commitment at all, often give minimal effort, and have a high turnover rate.

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Managing employees for the long term

☐ I understand these survey results to mean that if you've done a **good job selecting an employee,**

his near- and long-term value to you then depends on **his commitment to you and your company.**

❖ I believe such commitment depends on **factors that are largely within your control.**

Some of these factors are described below.

- ❑ It goes without saying that it is essential to **maintain an effective relationship** with your employees, and you do this in **almost every conceivable way**.
- ❖ In a small firm, you know the husbands, wives, and children, and attend the weddings, wakes, and funerals.
 - ✓ **Not only out of duty** but because your employees and **their families become your family** and you care about their well-being and share in their lives.
 - ✓ And as the provider of perhaps most or **all of the income in any given employee family**,
you are **seen by them as an authority** figure that they **necessarily depend on**, and
this imposes on you a **certain role that you must fulfill**.

- ❑ Even so, **you're the boss**, and at times that requires the kind of tough coaching, discipline, or even firing that is difficult in **any circumstance**, but is near **impossible when** you and an employee have gone beyond the employer/employee relationship to, say, the point of becoming **drinking buddies** who have **no reserves between you**.

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Relationships

General George Washington, quoted by historian David McCullough in his book 1776, understood this pitfall, telling his Continental Army officers with regard to their relationships with the men under them,

“Be easy but not too familiar, lest you subject yourself to a want of that respect, which is necessary to support a proper command.”

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- ❑ The **deeper and longer** this kind of **fraternity** grows,
the **harder** it will be for you as the owner of your business to **revert to the superior position** if that time comes.
- ❖ Many a boss, so trapped, has **delayed or neglected to level** with an employee who, **perhaps despite his best efforts**, is not right for the job, instead of telling him up-front that he's not meeting expectations and that his future there is not what you and he would like it to be.
- ✓ Except in extenuating circumstances, that **doesn't automatically mean you'll have to fire him**.
- Faced with reality, he may make the decision to leave on his own.

❑ Some experts believe that an **employee's authority to decide how he will accomplish the requirements** of his position is the **most important factor** influencing his **job satisfaction**.

❖ **Of course** you must clearly **establish parameters and objectives**, but **within that framework** allow a capable employee to call his own plays.

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❑ One job you have as a leader is to **recognize** and **nurture** desired behaviors in your employees—**not just once a year** in a performance review

but **when**

1. **you visit his jobsite** or
2. meet with him in your **office** about something.

Send him a **note** about an **impossible schedule he managed** to meet

or

ask him about **his daughter's** recent graduation.

Employee's return on investment

- ☐ Be sure the **salaries** and, where applicable, **bonuses** you pay are competitive in your market.
- ☐ You can **increase compensation**
without locking yourself into **higher salaries**
through creative bonus plans
that are based on objective, measurable criteria for one-time events.
- ☐ **Avoid** bonus or incentive plans that require you to **make value judgments**,
which hold great **potential for creating ill** will among employees.

Employee incentive plans

❑ **Many contractors** pay bonuses/incentives as **part** of their **employee compensation** package.

❖ Merriam-Webster's Collegiate Dictionary, Tenth Edition, defines bonus as *"something in addition to what is expected or strictly due."*

❖ **Employees** too often **forget the essence** of that definition and, unless the plan is **properly designed** and **carried out**, the "bonus" becomes expected.

✓ Once the employee **begins to count** the bonus as **part of his base** pay, the power of the **bonus to influence realization** of the desired goal and its **usefulness** as a reward are lost.

✓ Additionally, this can **lead to dissatisfaction** or worse in both employees and employers.

Employee incentive plans

☐ You can **avoid** such plan failure

if you will **first define for yourself** the ultimate goal of the bonus in objective terms.

☐ If a bonus plan is to be based on **some parameter** of **performance** of your **company** as a whole,

that parameter must be **unambiguous**.

- ✓ One problem with this kind of bonus plan is that **every employee** covered under the plan is **rewarded irrespective** of his individual performance.

An **advantage** is that it tends to **promote team effort**.

Employee incentive plans

- ❑ An incentive plan that is most **likely to result in a win** for both the employer and the employee includes the following basics:
 - ❖ A **clear** management objective
 - ❖ **Management's identification** of exactly what the employee must do to accomplish that objective
 - ❖ The **employee's clear understanding** of what criteria entitle him to a bonus, as well as **factors outside his control** that may affect it
 - ❖ **Good faith intentions** by both parties
 - ❖ **Accurate and honest** administration

- ☐ While there **really is no** such thing as guaranteed job security for an employee, your integrity, company history, business philosophy, ethics, and handling of terminations and other employee situations in the past are some of the **factors that influence how your employee evaluates the security of his employment**.

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❑ Mistakes happen.

- ❖ An employee needs to know there will **not be a rush to judgment** when he makes one.
- ❖ **Weigh all the circumstances** and **judge him partly** by how he responds to his error, and
use his **mistake as an opportunity** for training.
 - ✓ Of course, **certain kinds of problems** must be dealt with **immediately** (but not irrationally).

Internal conflict

- ❑ **Some internal conflict** is probably inevitable, and it must be **handled the right way**.
- ❑ You may decide to **meet** with an employee and his manager together who are **involved in some disagreement**,
but do so **only as a last resort** if they reach an **impasse in their private discussions**.
- ❖ If **still unresolved**, you can then **meet separately** with the **manager** and **suggest or, if necessary, dictate** solutions or compromises that he can present as his own to his employee.
 - ✓ Your managers should **follow this policy** with the **employees who report** to them as well.

Employee Development

Employee development

- ❑ Creating an environment where employees can develop their skills and have upward mobility opportunity is an **essential element** for employee **retention** and **maintenance** of competitive advantage.
- ❑ Individual employees may have **different career aspirations** and **goals**.
 - ❖ As a part of a company mentoring program, individual development plans should be created for **each employee**.
 - ❖ Investing in employee development is investing in the **future of the company**.
 - ❖ **Company leaders** must ensure that individual managers within their companies **understand their critical role** in employee development and retention.

Employee development

- ❑ A **sample format** for an employee development plan is shown in Figure 7.7.
- ❑ **Training needs** should be **prioritized**, because most construction firms have limited **training budgets**.

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Employee development

- ❑ A manager's role is **first** to help employees identify their own strengths and to select **one to three of their most** important strengths for greater use.
- ❑ To make the choice, managers should consider the extent to which the greater use of that strength will
 - ❖ Benefit the company
 - ❖ Increase employee satisfaction in the current job
 - ❖ Prepare employees for their next positions
 - ❖ Help employees develop their weaker areas

Employee development

- ❑ **Specific objectives** need to be established, and specific **action plans** need to be developed for **each objective**.
- ❑ Some issues that should be considered are
 - ❖ What does the employee need to know to broaden the use of his or her skill?
 - ❖ What complementary skills would develop the use of this skill?
 - ❖ What can be done to help the employee use this skill differently?

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Employee development

- ❑ **Continuous learning** is **essential** if a company is to remain competitive.
- ❑ **Employee training** and development should be considered an **investment** rather than an expense.
- ❑ The challenge is to **create an environment** in which employees consider **continuous learning as personal investment** and not just time away from work.
- ❑ Companies that invest in the **education of their employees** and take **advantage of the latest technologies** realize increased business and profitability.
 - ❖ A typical company budget for training and development is about **2 to 3 percent** of the **company payroll**.
 - ❖ **Employees with updated** skills and expanded knowledge enable a construction company to **adapt to market changes quickly**.

**Self-Actualization Motivates More Than
Money**

Self-actualization motivates more than money

❑ A recent survey of employees illustrates **characteristics of people** who work in our field.

❖ There is no perfect job.

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Self-actualization motivates more than money

Attribute	RANKS	
	Employees	Supervisors
Full appreciation of work done	1	8
Feeling "in" on things	2	10
Sympathetic help on personal problems	3	9
Job security	4	2
Good wages	5	1
Work that keeps you interested	6	5
Personal growth in company/promotion	7	3
Personal loyalty to workers	8	6
Good working conditions	9	4
Tactful discipline	10	7

Table 5.1 Common Workplace Attributes as Ranked by Employees and Supervisors

Self-actualization motivates more than money

- ❑ **Self-actualized people** are fully **cognizant of their own personality** and they know the **work style that suits** them best.

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Self-actualization motivates more than money

- ❑ As an example, if you **mention a personal weakness** to self-actualized persons, they usually **already know** it as a personal weakness and will **readily admit it**.
 - ❑ You can more **readily challenge** self-actualized people about a **specific need** to improve.
 - ❖ They **may laugh** about their shortcoming(s).
 - ❖ It is **part of their mental makeup** that they **know everyone has weaknesses and strengths** in their professional character, and they **don't feel threatened** by facing the issue.
- More often, **they'll appreciate** help to make corrections.

Self-actualization motivates more than money

- ❑ People at the **opposite end of the spectrum** also exist.
- ❑ They may be **young** or **just sensitive**, but they **don't like to hear you mention** what they need to improve.
 - ❖ We **never place all young** people on a team but **spread them out**.
 - ❖ If the **team fails** at an exercise, the **self-actualized people** may **laugh**, which often helps the **others feel less personally** responsible.
 - ✓ In the end, they are **less likely to feel embarrassed** in front of their employer.

We spread out any negative by mixing the group.

Self-actualization motivates more than money

- ☐ More importantly, when we **build work against time**, pride is involved.
- ☐ When we work through our project execution work in **workshops**, teams compete.
- ☐ We try to **mix** the thick-skinned with the thin-skinned.
- ☐ During the building process, we give **encouragement** and don't let the faster teams have fun at the expense of the slower teams.

Knowing Yourself Well Is Critical to Management and Leadership

Knowing yourself well is critical to management and leadership

□ Simply put, you are who you are and change is very hard.

- ❖ You can't be someone else.
- ❖ So, use who you are as your power not your excuse.
- ❖ Make your strengths work in your favor and find other ways to do things in areas where you are weak.

For example, if you tend to rush when under stress and thereby make more mistakes,

slow down.

Knowing yourself well is critical to management and leadership

☐ Take a **cold assessment** of yourself now.

❖ You **won't regret** it.

❖ If you don't take a **personal inventory**, it will be **painful later**.

It is said that a pound of regret is much heavier than a pound of failure.

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Knowing yourself well is critical to management and leadership

- ❑ So, be **brutally honest** and **not overly optimistic**.
 - ❖ Taking a **self-inventory** allows you to **correct what you can** and **understand what you can't** change about yourself.
- ❑ You can use these **same assessments** to get to know **your people better**.
 - ❖ If **they know themselves** well, then they can
 1. **Manage themselves** and
 2. The people **around them**better.

Personality Assessment

Personality assessment

❑ There are **several** in the market.

- ❖ This assesses one's **emotional** makeup.
- ❖ These **emotions** are **what drive behaviors**.
- ❖ Along with technical skill, **behaviors** are **what employers hire**.

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- ☐ Our firm is certified to use the **Dominance Inspirationalism Steadiness Consistency (DISC)** assessment and has used it for many years.
- ☐ Designed to **examine the behavior** of individuals in a particular context, it has several advantages over, similar instruments.
- ☐ In use for several decades, the **test has passed the scrutiny of regulatory agencies** and the **legal profession**.

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- ☐ DISC is an inexpensive, efficient, and quick tool to use.
- ☐ It takes about **10 minutes** to complete.
- ☐ The **basic level asks 28 questions** and is available in English and Spanish.

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- Let's walk through the **structure of DISC**, which outlines four basic interaction styles and assesses for the strength of each.



Disk assessment

☐ Dominance or Driven (D).

- ❖ This spectrum measures the need to **exert control**.
- ❖ People who score high tend to **take over a situation** at some point or **feel frustrated if they cannot**.
- ❖ These people **evinced high intensity** and **tend to take over** at the **very beginning of any meeting** or project.
- ❖ People **lower on this component** may **wait** until sometime later to interject their **opinion**.

☐ Inspirational or Individualistic (I).

- ❖ This component measures **one's preference** for people over things.
- ❖ **High "I"** persons are **energized** by **being around people**.
- ❖ They find them **interesting and engaging**.
- ❖ Certainly, people with this emotion **cannot be locked away alone**.
- ❖ If they are, they will be **very slow and unhappy** to accomplish **whatever task**

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☐ Steady or Systematic (S).

- ❖ People with this characteristic **like to have a process** for **many things**.
 - ✓ “First things first and second things second” are common thoughts.
- ❖ As you might guess, they **make few mistakes** and are **not confrontational** about things.
- ❖ The **process** and **structure** is **important to them** in anything they may do.

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☐ Critical or Conscientiousness (C).

- ❖ This emotion drives a **preference** for **rules and details**.
- ❖ The people who score **high “C”** look for **imperfection** and **lack of detailed explanations**.
- ❖ They know that a **casual approach** invites **disaster**,
especially in anything that is highly demanding in time, effort, and resources.
- ❖ They will **read everything**.
 - ✓ This is a **good trait** for someone **responsible for understanding** the tax code or researching how to hook up a computer.
- ❖ “C” persons search, **find**, and **read information**.
- ❖ They **question everything** to become more comfortable.

Disk assessment

DiSC Style	Communication Approach	Collaboration Tendencies
D-style	• Direct and to the point • Focuses on results	• Prefers taking the lead • Moves the team toward action
I-style	• Open and expressive • Enjoys sharing ideas	• Thrives in group settings • Brainstorms exciting possibilities
S-style	• Listener-oriented • Seeks consensus	• Prefers collaboration • Maintains stability
C-style	• Detailed and analytical • Values clarity	• Focuses on precision • It takes time to get it right

Disk assessment

Type	Approach	Benefit
D	• Direct, to the point • Results-focused	• Encourages decisiveness and change • Provides a clear path to success
I	• Build connection • Inspirational	• Fosters enthusiasm and alignment • Ignites exciting possibilities
S	• Patience • Collaborative	• Builds safety and reduces uncertainty • Enhances stability and team morale
C	• Data-focused • Analytical	• Builds trust through evidence • Ensures thorough, informed choices



Disk assessment

مدیریت کسب و کار در صنعت ساخت (CBM)

ماژول ۲: مدیریت کسب و کار

بخش سوم: مدیریت منابع انسانی

❑ <https://esanj.ir/disc-test>

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Leadership Development

Leadership development

- ☐ Construction companies need **leaders at all levels**, from the project superintendent to the company president.
- ☐ Construction company leaders today have to grow, develop, and **renew their leadership talent** in order to ensure the **future success** of their industry.
- ☐ The key is to **identify individuals** who are **motivated to seek leadership positions**, and
then **develop their leadership skills** through education and experience.
- ☐ Good leaders are those who can **inspire** and **ensure quality work** from others.

Leadership development

- ☐ What **employees are looking** for in their leaders are basic principles put in practice, such as honesty, integrity, ethics, and caring.
- ☐ A good leader must also be motivational, dedicated, fair, and a good listener.

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Leadership development

❑ There are **three basic steps** to leadership development:

1. Experience.

- ❖ Potential leaders should be assigned a **variety of assignments** throughout the company to ensure that they have **specific experiences** that are **orchestrated** to create **specific learning outcomes**.

2. Assessment.

- ❖ **Key lessons** should be **extracted** from each set of **experiences** and mentors or coaches should provide **feedback** on how well the **potential leaders performed**.

3. Preparation.

- ❖ The **feedback received** from mentors or coaches during the assessment becomes a **springboard for preparation** for the next experience.

Leadership development

- ❑ A critical element in leadership development is to **identify a mentor or coach** for **each prospective leader**.
- ❑ It is **vital to learn** from the **experience of others** and apply that knowledge to future decisions.
 - ❖ Most company leadership development programs are a **blending of mentoring** and participation in **formal education programs**.

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Leadership development

- ☐ Senior managers must make a **commitment to identifying and developing** a company's future leaders.
- ☐ The **secret** is to identify **ambitious employees** who aspire to leadership positions and **craft leadership development programs** to allow these people to acquire a variety of experiences.

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Leadership/Management Assessment

Leadership/management assessment

❑ Assessing leadership and management characteristics with the **360 review** does **not actually measure** how a person performs each day as much as it **measures habitual attitudes** toward factors that are **key for success at this level**.

❖ So assessing these basic attitudes helps **identify personal strengths and weaknesses** in these areas.

1. Character profile
2. Ability analysis
3. Accomplishment focus
4. Interaction tendencies

A 360 review

- ☐ The 360 review looks at leadership and management characteristics **from all angles**.
- ☐ The question-and-answer instrument **concerns professional life** and not personal life.
- ☐ The questions are designed to be **objective, not subjective**.
- ☐ It's used by **several consulting firms** who specialize in construction.

<https://www.ennova.com/en/resources/blog/ex/20-important-questions-for-your-360-leadership-feedback>

A 360 review

- ❑ Besides the assessment taker, key people in the firm also get to **express their perceptions** about that person **anonymously**.
- ❑ As each person is part of a large group (**360 reviews** are best if done with **dozens of respondents who work with the assessment taker**),
the commonalities of responses carry weight and thus, **should be true**.
 - ❖ To wit, if **25 people say you consistently miss deadlines**, we assume there **must be some truth to it**.

☐ Perceptions of the **person's expertise** are rated in the following areas:

1. Creating and maintaining organization
2. Setting priorities/setting goals
3. Communication
4. Coordination/interpersonal skills
5. Delegating
6. Knowledge

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- ☐ The report from a 360 review is **always a surprise** to the participant in some way.
- ☐ Although some of the information may be well known, in our experience, the **results always differ** from what the **person expected**.
- ☐ **Several clients** have expressed feeling upset by their report.

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**Teaching and Mentoring:
Investment with Hard-Core Results**

Teaching and mentoring

- According to U.S. Census Department statistics, the number of people in the United States with **college degrees** has nearly **tripled since 1970**.

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Teaching and mentoring

- ❑ **Our young people** now are coming from an education system that has evolved from the **basics** of reading, writing, and arithmetic to **something far more complex**.
- ❑ **No longer** are students simply **memorizing** the state capitals or the elemental chemical content of any common substance such as water, salt, or steel.
- ❑ Theirs is a far more complex world than mine was, and they **learn by elementary school** things I had never even heard about **until much later**.
- ❑ They **grow up using technology** only the beginnings of which were dreams in my school days.
- ❑ Of course, **seeing adults who cannot perform** as well as little children on elementary topics also has to be **very sad**.

Teaching and mentoring

- ☐ We must **become experts at educating consistently** if we are to grow **above-average** **staffs**.
- ☐ You should include in your training all the areas discussed in this document, in addition to all the **practical knowledge** and **field skills necessary** to be successful.

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Teaching and mentoring

❑ **Contractors** who are also **excellent teachers** ask many questions instead of merely lecturing, this prompts thinking.

- ❖ **Well-planned questions** direct people in a **non-confrontational way**.
- ❖ I have personally seen **how this teaching method** can change the dynamics of a leader-follower relationship.
- ❖ It is something I think we should all use to build a **better skill set in our employees**.

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Teaching and mentoring

- ❑ People can **buy the material** and **rent equipment** without much knowledge or experience.
- ❖ **Many naïve people** have tried to be contractors or consultants **without knowing the basics**, but often with terrible physical and financial results.
- ❖ Keep reinforcing the central themes of **safety, quality, cost, and schedule** and you will see profits and better business relationships emerge.

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Leader-Manager: New Definition of Leadership in Construction Contracting

Leader-Manager: New Definition of Leadership in Construction Contracting

- ❑ Construction's management challenge is unique.
- ❑ This is an **owner-operator business**.
- ❑ The **person who owns** the shop has to **run the shop**.
 - ❖ Therefore, We submit that we must also be **leader-managers**.
 - ❖ One **cannot separate** the highly technical demands of construction (craftsmanship) from its people focus (marketing, selling, negotiating, and dealing with employees and customers).

Leader-Manager: New Definition of Leadership in Construction Contracting

❑ A **construction firm** has only one true leader,

typically called the president, CEO, or chairman.

- ❖ To be successful, this person performs true **visionary leadership**.
- ❖ He or she must successfully set the company direction, align company resources (material and human), and motivate people.
 - ✓ However, in an industry that typically realizes **only 3 percent profit**, we **can't be successful** if all we do is lead.
 - o We need leaders who know **how to do all the practical** aspects of the firm as well.

Leader-Manager: New Definition of Leadership in Construction Contracting

All companies have workplace cultures. We believe that the best company culture to cultivate is family-orientated, honors employees with long standing, and allows for celebration. These organizational attitudes address three industry characteristics: (1) Your people and their families are inseparable in many ways such as emotions and goals. (2) Tenured employees possess much more knowledge than any new employee—if encouraged, they can share significant knowledge. (3) Our industry is slightly negative, so balancing that with worthwhile and sincere celebrations relieves stress.

Twelve Dimensions of the Leader-Manager

- ❑ In consulting company's seminars and consulting work, we use an **assessment** based on the innovative work of **Miriam Kragness** to measure the **12 dimensions of leader-managers**.
- ❑ **Some facets describe aspects of leading people** and others focus on **managing the business processes**.

Enthusiasm

Judgment

Courage

Inspiring

Integrity

Performing

Collaboration

Perceiving

Self-renewal

Problem-solving

Team-building

Serving others

Four Habits of Highly Effective Construction Managers

❑ These **four habits** have been distilled from observations of **many characteristics** over consultant years of experience in the **construction industry**.

❖ They are the following:

1. Planning, communicating, measuring, and adjusting the work cycle continuously
2. Managing by exception
3. Managing in the present
4. Competing against yourself

Performance Management

Performance management

☐ **Performance management** involves

1. The **establishment** of performance standards for each position and
2. The **creation** of a performance appraisal system.

☐ Performance standards are **developed jointly** by the employee and his or her supervisor.

☐ An **example** of a set of performance standards for an administrative assistant is shown in **Figure 7.8**.

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Performance management

FIGURE 7.8 Sample Performance Standards Form

Performance Standards for Administrative Assistant

Name of Employee: _____

Supervisor: _____

Performance Standards:

1. Receive visitors, record their presence, and direct to appropriate office with no more than one error per month.
2. Receive telephone communications, electronic mail, and written documents and direct to appropriate individual with no more than 2 errors per month.
3. Maintain project files and misfile no more than 2 documents per month.
4. Prepare final copies of written communication with no more than one error per week.
5. Maintain time sheets for hourly employees without error and submit on time to payroll office.
6. Ensure reception area in project office is well organized and presents a professional image to visitors.
7. Keep office reproduction and facsimile machines operational by contacting appropriate vendor to perform any needed repairs.
8. Maintain a 30-day supply of consumable office supplies.

Employee Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

Performance management

- ☐ A **performance appraisal** is a written evaluation of an employee's performance during a **specific review period**, typically one year.
- ☐ **Forms similar** to the one shown in Figure 7.9 are used to document this evaluation in an objective manner.

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FIGURE 7.9 Sample Performance Appraisal Form

Western States Construction Company
Annual Performance Appraisal

Name of Employee: _____

Name of Supervisor: _____

Evaluation Period: From _____ to _____

For each applicable performance area, mark the box that most closely reflects the employee's performance using the following scale: 1 = unacceptable; 2 = needs improvement; 3 = satisfactory; 4 = above average; and 5 = outstanding

Performance Area	1	2	3	4	5
Ability to make job-related decisions					
Accepts responsibility					
Attendance					
Attitude					
Cooperation					
Dependability					
Effective under stress					
Initiative					
Leadership					
Operation and care of equipment					
Quality of work					
Safety practices					
Technical abilities					

Job Strengths: _____

Areas for Improvement: _____

Training Needed: _____

Supervisor Comments: _____

Employee Comments: _____

Employee Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

Appraisal evaluation

- ☐ The appraisal is **prepared** by the employee's supervisor and **describes** how well the employee has performed the **tasks identified** in the performance standards during the **review period**.
- ☐ The appraisal should **focus only on performance attributes** that relate to organizational success.
- ☐ Appraisals are often **used to** determine
 1. Compensation increases,
 2. Annual bonuses, and
 3. Employee training needs.

Appraisal evaluation

- ☐ The appraisal system **works best when**
there is frequent feedback and mentoring
provided by the supervisor to the employee
throughout the **review period**,
not just when the appraisal **form is completed**.
- ☐ **Training needs** identified during the appraisal process should be included in the
employee development plan discussed in the section “**Employee Development.**”

Compensation and Employee benefits

Compensation and employee benefits

- ❑ **Compensation levels** are set for **each position** based on the **relative worth** of the position to the company and in the external labor market.
- ❑ Compensation levels must be set **high enough** to
 1. Attract **prospective** qualified applicants and
 2. Provide incentives for **experienced personnel** to remain with the company.
- ❑ Compensation levels **typically increase** with
 - ❖ Experience and increased responsibility and
 - ❖ At **times when** there is a shortage of qualified people in the labor market.

Compensation and employee benefits

- ❑ Annual compensation is typically composed of **two components**:
 1. Base compensation and
 2. Pay for performance.
- ❑ Base compensation may be set as an **hourly wage rate** or a **monthly salary rate**.
 - ❖ Factors considered in establishing the base compensation are
 1. Skills necessary to perform the duties of the position,
 2. Effort required to perform the duties of the position, and
 3. Working conditions.

Employee Retention

Employee retention

❑ The **primary reasons** why **people leave** a company are

1. Lack of opportunity for advancement
2. Dissatisfaction with management
3. Dissatisfaction with compensation or benefits
4. Conflict with coworker or manager
5. Lack of recognition or appreciation
6. Uncomfortable work environment

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Employee retention

- ❑ By **helping employees build these skills**, managers provide employees with **opportunities for growth** that will increase the employees' ties to the company, thus **keeping them focused** on their roles within the company instead of searching for alternatives.
- ❑ The **top motivators to retain** valued team members are
 - ❖ Importance of the work to be performed
 - ❖ Appreciation of others
 - ❖ Interesting work
 - ❖ Enjoyable coworkers
 - ❖ Expectation of financial reward

Employee retention

❑ The message for company leaders is that the way to keep employees satisfied is to **understand what drives them**, and

through this understanding, **implement strategies to increase** their resistance to alternatives (employment) and respond to their needs.

❖ In doing so, the company should **realize direct economic gains** from

1. The reduction of operating costs and
2. The avoidance of lost productivity.

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Employee retention

- ☐ The lost **productivity** caused by **turnover** is evident in
 1. The **inability** of the **company** to handle the **abandoned responsibilities** in an efficient manner,
 2. The **period of time** in which a **new employee** comes up the **learning curve**, and
 3. The **managerial oversight** and **participation** that is required in the **training of a new employee**.

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Employee Termination

Employee termination

- ❑ Just about the **hardest** job you will ever have to do is **fire** someone.
 - ❖ It goes to the innermost part of the terminated **employee's psyche** as well as to many other **aspects of his life**.
- ❑ It is almost **impossible to be indifferent** about letting someone go even for cause, but there are **times when termination is unavoidable** due to
 - job performance,
 - conduct, or
 - economic reasons.

Employee termination

- ☐ Once you've **decided** that termination of an employee is inevitable, **do not delay**.
- ☐ If the employee happens to get **hurt on the job** or becomes **pregnant** or files any **sort of lawsuit against you**,
termination of that employee **becomes impossible**, at least for some time.

Above all, avoid spur-of-the-moment firings.

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Conducting the termination meeting

- ❑ After you've done your homework and made the firm decision to terminate an employee, **follow these guidelines:**
 - ❖ Meet with the employee where you can **speak privately without interruption.**
 - ✓ **Factually** state the reasons for your decision.
 - ❖ Say **clearly** and **without rancor** that you're letting him go and that your decision is **not negotiable.**
 - ❖ Don't be dragged into an **argument** or cloud the issue with **blame** and **recrimination** at this point.
 - ✓ Your **objective** is to **end** this on as **positive** a note as possible.
 - ❖ Be **professional** and stay **above the fray.**

Conducting the termination meeting

- ❑ After you've done your homework and made the firm decision to terminate an employee, **follow these guidelines:**
 - ❖ Explain vacation pay, **available continuation** of health insurance, etc.
 - ✓ **Put everything** he needs to remember in **writing**.
 - ❖ **Go over** the terms of any **non-compete** or **non-disclosure agreements** in place and
tell him you **expect** that he will **abide** by their terms.
 - ✓ Give him a **copy** of the **agreements**.

Conducting the termination meeting

❑ After you've done your homework and made the firm decision to terminate an employee, **follow these guidelines:**

❖ **Give the employee** a note **listing everything** you **expect** him to **do before leaving**, such as

- ✓ **Turning files** over to another employee,
- ✓ **Settling** expense and other company accounts, and
- ✓ **Returning all company** property, records, lists, keys, credit cards, company identity card, etc.

Conducting the termination meeting

- ❑ After you've done your homework and made the firm decision to terminate an employee, **follow these guidelines:**
 - ❖ Tell him the **effective date** of **termination**.
 - ✓ If it is **immediate**, have his **final check ready** to give to him, subject to **anything** you **require him** to do **before receiving** it.
 - ❖ In **our experience**, it is often better for all concerned to **make termination effective immediately**.
 - ❖ Deal with any **unfulfilled commitments** **you had made** to the employee during the course of his employment.

Conducting the termination meeting

- ❑ After you've done your homework and made the firm decision to terminate an employee, **follow these guidelines:**
 - ❖ **Mention** that you expect **lines of communication** to **remain open** between him and the company to facilitate any **outstanding matters**.
 - ❖ When terminating an employee that you **have reason to believe** may take legal action against you,
discuss in advance your termination plans with an **employment attorney**.
 - ❖ It is probably a good idea to have **another manager present** at the termination **meeting**.
 - ❖ At the end of the meeting, offer your hand and wish the person well.

Professional Employer Organizations

Professional employer organizations

- ☐ A **professional employer organization (PEO)** is a firm that takes over a **small company's human resources duties** and **becomes a co-employer** to the company's employees.
- ☐ It **manages** the company's human resources **administration** and usually can provide the company's **employees better benefits** through **group buying power**.
- ☐ Use of a PEO may result in **lower labor costs** to the **small business owner** and allow him to **concentrate more** on his **business**.
- ☐ This arrangement should **not interfere** with **your management** of your employees.

Professional employer organizations

☐ Be sure to

1. **Learn** all the implications through a neutral source before taking this route and
2. **Talk** to other **business owners** who have **used PEOs** including those you are considering for your firm.

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Exercises

1. Prepare a job description and a set of job specifications for a construction manager.
2. Prepare a set of performance standards for a construction manager.

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

ماژول ۲: مدیریت کسب و کار

بخش چهارم: مدیریت مالی

ارائه دهنده:

سید محمدرضا علوی پور

(PhD, PMP, CMIT)

CMAA Authorized Trainer

دانشگاه Illinois Tech آمریکا

What we will learn?

- ☐ Accounting versus Financial Management
- ☐ Accounting Systems
- ☐ Financial Statements
- ☐ Financial Management
- ☐ Financial Analysis
- ☐ Using Financial Data
- ☐ Measuring Financial Risk
- ☐ Financial Distress – Turnaround Management
- ☐ Banking and Finance
- ☐ Exercises

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Accounting versus Financial Management

- ☐ Accounting at its **most basic level** may be characterized as the capturing of **transactions**.
- ☐ These transactions are **sources of information**.
- ☐ They build a **financial picture** of a firm.
- ☐ If the accounting of the transactions is **faulty** or **inconsistent**, a **false or distorted picture** emerges.

Tracking revenue and expenses is accounting. Acting on the information is financial management.

❑ Your chief financial officer (CFO) will typically be, or supervise, a certified public accountant (CPA), who offers **three levels of service** relating to financial statements:

1. Audit.

- ❖ A thorough, in-depth **examination** of financial statements.
- ❖ **Detailed testing** is part of the process.
- ❖ Source documents are **inspected** for **errors** and for **fraud**.
- ❖ Material misstatements are vigilantly sought and **discovered** if they exist.

- ❑ Your chief financial officer (CFO) will typically be, or supervise, a certified public accountant (CPA), who offers **three levels of service** relating to financial statements:

2. Review.

- ❖ **Some**, but **not extensive inspection** of the financial statements will be done.
- ❖ **Testing** is done on a macro, or global, basis.
- ❖ The **cost** to the contractor is **less than** for the audited report.

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- ❑ Your chief financial officer (CFO) will typically be, or supervise, a certified public accountant (CPA), who offers **three levels of service** relating to financial statements:

3. Compile.

- ❖ This is the **least expensive** and **least assured** function.
- ❖ An inspection is **not executed**.
- ❖ The CPA uses the **company's books** and **records** to put together the financial statements.
- ❖ This type of examination is **not for setting value** on a construction firm in any way.
- ❖ It should **not be one that gives confidence** or upon which **major decisions** are based, but does give an overall picture.

Accounting and information management

❑ While most contractors and senior construction executives have a technical background and **few have formal accounting education or training**, they are **not exempt** from **responsibility** for selecting, overseeing, and managing data and accounting operations of the organization.

Cash Basis versus Accrual Basis Accounting

The net profit number may be positive or negative. It can be real (cash basis), which means it is immediately felt in the bank account.

It can be theoretical (accrual basis), which means it will impact when checks have to be cut at some time in the future. Either method indicates something very close to the truth.

For those of you without a financial background, let me explain the difference between cash basis and accrual basis.

Cash Basis: This accounting method recognizes income when it is received and expenses when they are paid. You may have earned the income in one year, but the client paid you in the next. Therefore, in that case, you'd enter the expenses to do the work in the year you actually paid for them, but you would not enter the payment from the client until the next year. Put simply, you record income when you get it, and record expenses when you pay them.

Accrual Basis: This accounting method recognizes income when it is earned (not when paid) and expenses when they are due (not when paid).

Each method has its advantages. Certain rules and exceptions to those rules apply and affect how you submit your tax forms. This is only a brief description of the concepts. Contact your accounting professional for expert advice about which method to use and how to do your accounting correctly based on that method.

Accounting and information management

❑ They **obviously are not responsible** for completing the accounting work themselves but must

1. Use basic logic and
2. Investigative reasoning

to determine the **viability** and **appropriateness** of results that are generated by the accounting systems and accounting personnel.

❖ A **captain** of a battle ship **may not know how to operate the engine** systems on the ship,

but **he is certainly responsible** to see that

1. They function properly,
2. The people who operate them know what they are doing, and
3. The results are appropriate.

Financial management

❑ **Financial management** is all about

1. analyzing accounting information and then
2. acting.

❑ Senior management may make decisions about projects, clients, markets, work type, and employees **based on what this analysis** tells them.

❑ It is important to note that the **financial management office** is not the profit center, but the place where **decisions are made** about how to generate profit.

❑ A **negative profit** makes us **change**

1. Our work acquisition and
2. The building of the project,

but it should **not change** the reporting or management functions.

Who is responsible?

The primary responsibility for accurate accounting information always remains with the top management of the company.

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Accounting Systems

Primary accounting system

- ☐ The **primary accounting system** is known as a **general ledger system**, which is used by an **accountant** to generate financial statements.
- ☐ The basic accounts within the general ledger system are
 1. Assets
 2. Liabilities
 3. Owners' Equity
 4. Revenue
 5. Expenses

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Primary accounting system

☐ **Secondary or subsidiary systems** are used to generate management reports, such as

1. Accounts receivable,
2. Accounts payable, or
3. Project cost reports.

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Primary accounting system

FIGURE 4.1 Example of a Chart of Accounts for a Construction Company

Chart of Accounts	
Code	Accounting Category
100	Assets
110	Cash
112	Cash on Hand
114	Cash in Bank
120	Short-Term Investments
130	Receivables
132	Receivables from Current Contracts
134	Retention
136	Receivables from Sale of Vehicles and Equipment
140	Inventory
150	Construction Work in Progress

(continued)

Primary accounting system

Code	Accounting Category
154	Direct Construction Cost
156	Indirect Construction Cost
158	Warranty Cost
160	Other Current Assets
170	Investments
180	Property, Plant, and Equipment
182	Buildings and Land
184	Construction Equipment
186	Administrative Vehicles
188	Office Equipment
190	Accumulated Depreciation
200	Liabilities and Owners' Equity
210	Accounts Payable
212	Accounts Payable to Subcontractors
214	Accounts Payable to Suppliers
216	Accounts Payable on Vehicles and Equipment
220	Notes Payable
230	Other Current Liabilities
240	Long-Term Liabilities Payable
250	Owners' Equity
300	Revenues and Cost of Sales
310	Revenues
320	Cost of Sales
400	Financing Expense
500	Marketing Expense
600	General and Administrative Expense
610	Salaries
620	Office Expense
630	Computer Expense
640	Professional Services
650	Insurance
660	Taxes
662	Payroll Taxes
664	FICA Taxes
666	Income Taxes
668	Property Taxes
670	Depreciation Expense
700	Other

Primary accounting system – Disputed invoices

- ❑ The **management** of data concerning liabilities and the **accurate recording** of accounts payable is a **prerequisite** to accurate **financial information**.
- ❑ **Disputed invoices** are common in any business whereby a supplier or subcontractor invoices the company for an amount that the company **disagrees with**.
 - ❖ **Many organizations** have excellent systems to **assure** that disputed invoices **do not get paid**,
but the same systems sometimes **prevent** the liability from **being recorded**.

Primary accounting system – Disputed invoices

❑ The proper way to record accounts payable are in the **month they were incurred** and **not when they are dated or received**.

❖ This includes **disputed payables**.

We have observed \$100,000 invoices left off accounts payable because they were returned to the sender with a \$1,000 disputed amount with neither the disputed \$1,000 nor the undisputed \$99,000 recorded as a payable.

Some companies **inadvertently do this regularly**, which can result in **substantial distortions** in accounts payable.

Primary accounting system – Disputed invoices

There is enough potential for error in data collection without building it into the system.

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Primary accounting system – recording liabilities

❑ The **appropriate way** to record invoices as accounts payable is **upon receipt**.

❖ **Disputed invoices** can be recorded as **“not approved for payment”**

but **must be captured** by the system as **potential liabilities** before

they are **passed** around the company, and the accounting department loses track and control of the information.

❑ It is **inappropriate** to work **under** the **assumption** that invoices are **not liabilities until approved**.

❖ If a disputed invoice is **disapproved**, or substantially **reduced** at a later date,

it is **prudent** and **conservative** to use a reversing entry rather than not record every disputed invoice.

It is a matter of control and accuracy.

Secondary accounting system

- ❑ One type of secondary accounting system is a **project cost ledger** system, which is used to account for financial data relative to **individual construction projects**.
- ❑ Both project costs and revenues are tracked in this system to allow company managers to **monitor** the **financial status** of individual projects.
- ❑ A typical chart of accounts for a **project cost ledger** system is shown in Figure 4.2.
- ❑ Another secondary accounting system used by many construction companies is an equipment cost ledger, which is used to determine the **hourly rates** to be charged to **individual projects** for the use of **company-owned equipment**.

Secondary accounting system

Project Cost Control Chart of Accounts	
Code	Description
01100	Project Supervision
01200	Temporary Facilities
01300	Temporary Utilities
01400	Project Support Equipment
02100	Site-Work Demolition
02200	Earthwork
02300	Utility Line Construction
02400	Paving and Surfacing
02500	Landscaping
03100	Cast-in-Place Concrete
03200	Precast Concrete
03300	Tilt-up Concrete Panels
04100	Brick Masonry
04200	Concrete Unit Masonry
04300	Stonework
05100	Structural Steel
05200	Metal Joists
05300	Metal Decking
05400	Miscellaneous Metal
06100	Rough Carpentry
06200	Finish Carpentry
06300	Casework
06400	Stair Work
07100	Waterproofing
07200	Insulation
07300	Fire Proofing
07400	Roofing
08100	Metal Doors and Frames
08200	Wood Doors
08300	Windows
09100	Drywall
09200	Tile
09300	Floor Covering
09400	Painting
10100	Partitions
10200	Toilet and Bath Accessories
11000	Appliances
14000	Elevators
15000	Mechanical
16000	Electrical

FIGURE 4.2 Example of a Chart of Accounts for a Project Cost Ledger

Secondary accounting system

- ❑ An example of a project cost coding system, using the chart of accounts shown in Figure 4.2, is

(project number) * (chart of accounts code) * (element of cost)

- ❑ Here the **project number** is assigned by the construction firm, the **chart of accounts code** comes from Figure 4.2, and the **element of cost** is the type of cost.
- ❑ An **example** of an element of cost coding is 1. labor 2. equipment 3. incorporated materials 4. subcontract 5. supplies and materials not incorporated into project
 - ❖ Using this system, the cost code for project 9562 for cast-in-place concrete labor would be 9562.03100.1 and for incorporated materials, would be 9562.03100.3

Accounting methods

- ❑ There are **two methods** of construction accounting that a construction firm may use to account for profit on a construction project.
 - ❖ One is the percentage-of-completion method, and the other is the completed-contract method.
- ❑ In the percentage-of-completion method, the company **estimates the percentage completion** of each construction project at the **end of the accounting period**, using the following equation:

$$\frac{\text{cost incurred to date}}{\text{cost incurred to date} + \text{estimated cost to complete}}$$

Financial Statements

Financial statements

❑ **Financial statements** provide a **picture** of the **financial condition** of the construction company.

- ❖ They are used by managers, bankers, bonding companies, and customers in assessing the **financial health of the firm**.
- ❖ The **ability** to read and understand these statements is an **essential business management skill**.

❑ The **two most commonly used** financial statements are the

1. Balance sheet and the
2. Income statement.

Balance sheet

❑ The **balance sheet** represents

the **financial condition** of the company as of the **date of the balance sheet**,
usually the end of a month, a quarter, or a year.

❖ A typical balance sheet is illustrated in **Figure 4.3**.

✓ This balance sheet was developed for an accrual accounting system
using the **percentage-of-completion accounting method**.

○ By definition, accounts shown on the balance sheet must balance
in accordance with the following equation:

$$\text{assets} = \text{liabilities} + \text{owners' equity}$$

FIGURE 4.3 Balance Sheet for Western States Construction Company

	Current Year	Last Year
ASSETS		
Current Assets		
Cash	\$809,675	\$870,650
Accounts Receivable—Trade	\$1,863,150	\$1,287,690
Accounts Receivable—Retention	\$172,200	\$105,875
Inventory	\$35,785	\$23,487
Prepaid Expenses	\$20,769	\$25,345
Total Current Assets	\$2,901,579	\$2,313,047
Fixed Assets		
Land	\$165,890	\$150,735
Buildings	\$785,970	\$697,658
Furniture and Equipment	\$150,987	\$140,685
Motor Vehicles	\$224,775	\$201,425
Construction Equipment	\$980,725	\$875,943
Subtotal	\$2,308,347	\$2,066,446
Less Accumulated Depreciation	(\$925,340)	(\$797,780)
Total Fixed Assets	\$1,383,007	\$1,268,666
TOTAL ASSETS	\$4,284,586	\$3,581,713

(continued)

FIGURE 4.3 (continued)

	Current Year	Last Year
LIABILITIES AND OWNERS' EQUITY		
Current Liabilities		
Notes Payable	\$100,000	\$75,000
Accounts Payable—Trade	\$967,050	\$894,300
Accounts Payable—Retention	\$35,600	\$88,400
Accrued Payables	\$114,350	\$144,775
Accrued Taxes	\$67,950	\$60,125
Current Maturity—Long-Term Debt	\$125,000	\$95,000
Total Current Liabilities	\$1,409,950	\$1,357,600
Long-Term Debt	\$450,000	\$500,000
TOTAL LIABILITIES	\$1,859,950	\$1,857,600
OWNERS' EQUITY		
Capital Stock	\$500,000	\$500,000
Retained Earnings	\$1,924,636	\$1,224,113
TOTAL OWNERS' EQUITY	\$2,424,636	\$1,724,113
TOTAL LIABILITIES AND OWNERS' EQUITY	\$4,284,586	\$3,581,713

Table 12.1 A Sample Balance Sheet Format

ABC CONSTRUCTION BALANCE SHEET December 31, 20xa	
ASSETS	
CURRENT ASSETS	
Cash	\$ 166,685
Contract receivables	1,347,367
Inventory	169,463
Prepaid expenses and other current assets	172,240
Costs and estimated earnings in excess of billings on uncompleted contracts	455,605
TOTAL CURRENT ASSETS	2,311,360
PROPERTY AND EQUIPMENT	444,492
OTHER ASSETS	22,225
	\$ 2,778,077
LIABILITIES AND SHAREHOLDERS' EQUITY	
CURRENT LIABILITIES	
Current portion of long-term debt	\$ 44,449
Accounts payable	711,188
Accrued liabilities	147,400
Billings in excess of costs and estimated earnings on uncompleted contracts	341,703
TOTAL CURRENT LIABILITIES	1,244,740
LONG-TERM DEBT, less current portion	238,915
	1,483,655
SHAREHOLDERS' EQUITY	
Common stock, no par value, 1,000,000 shares authorized, 100,000 shares issued and outstanding	100,000
Retained earnings	1,194,422
	1,294,422
	\$ 2,778,077

Income statement

□ The following equations summarize the data shown on an income statement:

1. $\text{gross profit} = \text{sales} - \text{cost of sales}$
2. $\text{net profit before taxes} = \text{gross profit} - \text{operating expenses}$
3. $\text{net profit after taxes} = \text{net profit before taxes} - \text{taxes}$

FIGURE 4.4 Income Statement for Western States Construction Company

	Current Year	Last Year
Revenues		
Sales	\$22,698,572	\$18,875,342
Cost of Sales	(\$17,854,395)	(\$15,150,360)
Gross Profit	\$4,844,177	\$3,724,982
Operating Expenses		
Financing	\$250,875	\$150,230
Marketing	\$376,980	\$250,760
General and Administrative	\$2,796,845	\$2,167,549
Operating Expenses	\$3,424,700	\$2,568,539
Net Profit before Taxes	\$1,419,477	\$1,156,443
State and Federal Taxes	(\$236,579)	(\$192,740)
Net Profit after Taxes	\$1,182,898	\$963,703

Table 12.2 A Sample Income Statement

ABC CONSTRUCTION STATEMENT OF INCOME AND RETAINED EARNINGS Year Ended December 31, 1996	
CONSTRUCTION REVENUE	\$ 8,056,423
COST OF CONSTRUCTION	6,654,605
	GROSS PROFIT 1,401,818
GENERAL AND ADMINISTRATIVE EXPENSES	1,087,618
	INCOME FROM OPERATIONS 314,200
OTHER EXPENSE	(24,169)
	INCOME BEFORE INCOME TAXES 290,031
INCOME TAX EXPENSE	(116,012)
	NET INCOME 174,019
BEGINNING RETAINED EARNINGS	1,020,403
	ENDING RETAINED EARNINGS \$ 1,194,422

Financial Management

Financial management

- ❑ A **key component** of financial management is the **development** of an **annual operations budget**,
which is used to **forecast anticipated** revenues and expenses.
- ❑ An operations budget is a **numerical plan** of operations that is used as a benchmark in **evaluating** the company's financial **performance during the year**.
- ❑ The major components of an operating budget are
 1. Revenue
 2. Project Costs
 3. Company Overhead
 4. Profits

- ❑ **Actual performance** should be measured each month and **compared to budgeted values** as illustrated in Figure 4.16.
- ❖ This budget was developed using an accrual accounting system and a percentage-of-completion accounting method.

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❑ Note that **while** company **revenues to date** are only 5 percent less than the value **anticipated** in the budget,

the **net profit before taxes** is **63 percent below** the budgeted amount.

FIGURE 4.16 Operations Budget for Western States Construction Company

	Annual Budget	Year-to-Date Budget	Year-to-Date Actual	Variance
Revenue	\$23,000,000	\$6,900,000	\$6,548,600	\$351,400
Direct Cost	\$18,000,000	\$5,400,000	\$5,297,500	\$102,500
Gross Profit	\$5,000,000	\$1,500,000	\$1,251,100	\$248,900
Financing Expenses	\$275,000	\$82,500	\$75,978	\$6,522
Marketing Expenses	\$400,000	\$120,000	\$122,759	-\$2,759
General & Administrative Expenses				
Salaries	\$650,000	\$195,000	\$206,865	-\$11,865
Travel	\$150,000	\$45,000	\$37,800	\$7,200
Office Expenses	\$400,000	\$120,000	\$118,765	\$1,235
Computer Expenses	\$150,000	\$45,000	\$41,798	\$3,202
Insurance	\$600,000	\$180,000	\$186,256	-\$6,256
Professional Services	\$150,000	\$45,000	\$37,865	\$7,135
Taxes	\$180,000	\$54,000	\$53,875	\$125
Depreciation	\$450,000	\$135,000	\$137,854	-\$2,854
Administrative Vehicles	\$268,000	\$80,400	\$76,567	\$3,833
Warranty Expenses	\$60,000	\$18,000	\$13,876	\$4,124
Total	\$3,733,000	\$1,119,900	\$1,110,258	\$9,642
Net Profit before Taxes	\$1,267,000	\$380,100	\$140,842	\$239,258

- ❑ **Another major** financial management issue is the development of a **budget for the overhead operations** of the company.
- ❑ This budget would include the **salaries of personnel** who are **not assigned to specific projects**, such as
the president, the marketing department, the accounting department, and human resources management, and the costs of operating the home office of the company.

An example of an overhead budget is shown in Figure 4.17.

Element of Expense	Annual Budget
Charitable Contributions	\$15,000
Computer Equipment	\$45,000
Custodial Services	\$22,500
Employee Recruiting	\$22,000
Employee Taxes	\$75,000
Employee Training	\$45,000
Financing Expenses	\$295,000
Furniture Expenses	\$24,000
Insurance	\$125,000
Legal Services	\$23,000
License Fees	\$2,000
Marketing Expenses	\$320,000
Office Rent	\$50,000
Office Supplies	\$25,000
Office Utilities	\$10,500
Postage	\$5,000
Salaries	\$865,000
Telephone	\$10,500
Travel Expenses	\$20,500
Total	\$2,000,000

FIGURE 4.17 Example of an Overhead Budget

Financial Analysis

Financial analysis

- There are **two major aspects** of analyzing the financial condition of a company.
1. First is the **analysis** of the financial statements to assess the **overall financial health** of the company.
 2. The other is a cash flow analysis to determine **cash flow requirements**, so **financial management strategies** can be crafted to ensure that the firm has adequate cash resources to **meet anticipated requirements**.

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Financial statement analysis

❑ The major financial characteristics of interest in **evaluating financial statements** are

1. Liquidity,
2. Profitability, and
3. Leverage or debt-to-equity.

❖ **Ratio analysis** is used to assess these characteristics at **single points in time**, and

❖ **Trend analysis** is used to determine how they have **changed over time**.

In other words, has profitability increased, decreased, or remained the same over the past five years?

Financial statement analysis



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مدیریت مالی: آنالیز گزارشات مالی در سازمان پروژه محور

What you will learn?

- ☐ Introduction to financial analysis
- ☐ Financial ratios
- ☐ Quick ratio
- ☐ Current ratio
- ☐ Current liabilities to net worth ratio
- ☐ Debt to equity ratio
- ☐ Fixed assets to net worth ratio
- ☐ Current assets to total assets ratio
- ☐ Collection period
- ☐ Receivable period
- ☐ Receivable turns (turnover)
- ☐ Average age of accounts payable
- ☐ Payable turns
- ☐ Assets to revenues ratio

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What you will learn?

- ☐ Working capital turns
- ☐ Accounts payable to revenues ratio
- ☐ Gross profit margin
- ☐ Return on assets
- ☐ General overhead ratio
- ☐ Profit margin
- ☐ Return on equity
- ☐ Degree of fixed asset newness
- ☐ Month in backlog

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3

Financial statement analysis

❑ **Typical ratios** for various industries are published **annually by several sources**.

- ❖ Dun & Bradstreet publish one such source, Industry Norms and Key Business Ratios, which was used to create the typical value figures provided in this section.
- ❖ Data from 1997 through 2005 were analyzed to create the values shown.

FIGURE 4.11 Selective Financial Data for Western States Construction Company

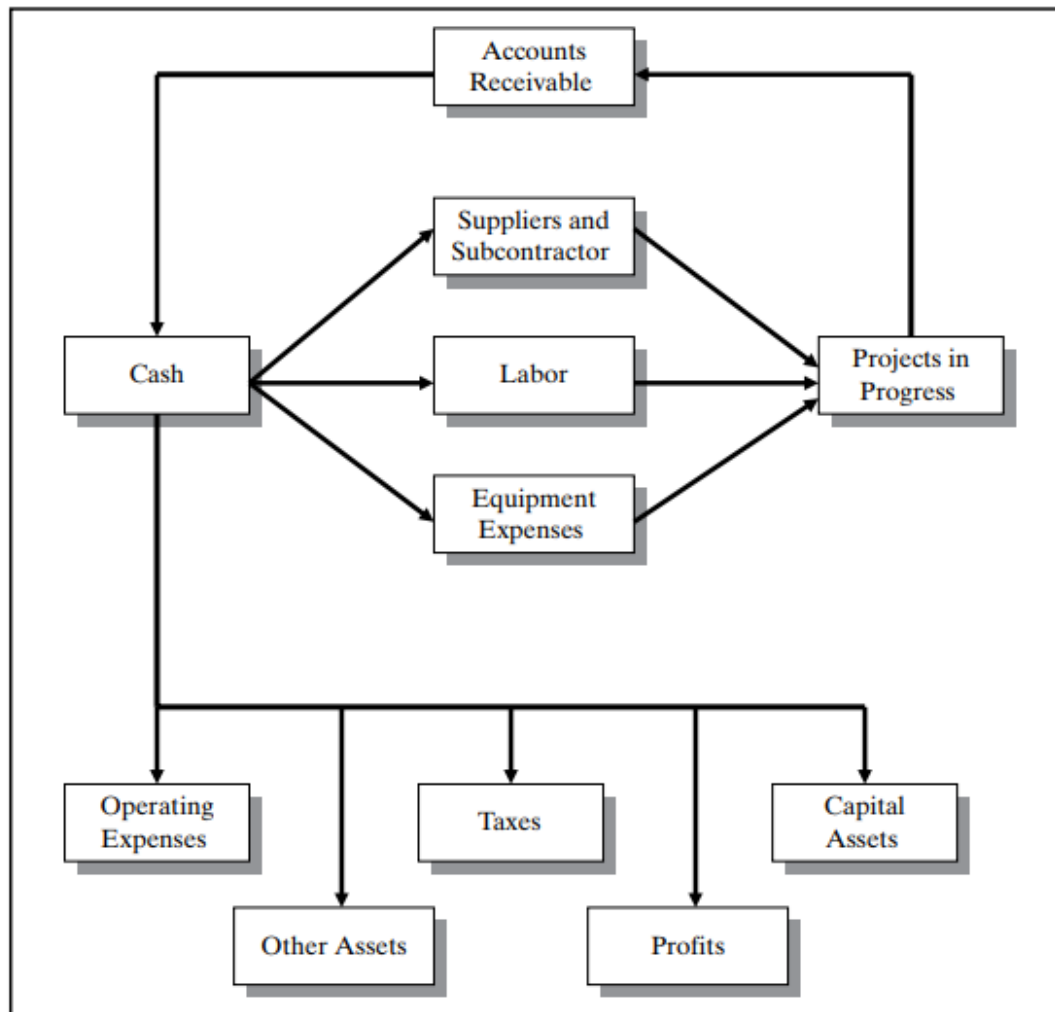
Financial Measure	Current Year-4	Current Year-3	Current Year-2	Current Year-1	Current Year
Total Sales	\$13,271,608	\$15,275,362	\$17,136,547	\$18,875,342	\$22,698,572
Cost of Sales	\$11,736,205	\$13,165,268	\$14,276,302	\$15,150,360	\$17,854,395
Operating Expenses	\$976,321	\$1,536,275	\$1,896,275	\$2,568,539	\$3,424,700
Net Profit after Taxes	\$459,715	\$477,991	\$801,987	\$963,703	\$1,182,898
Working Capital	\$612,067	\$696,371	\$853,167	\$955,447	\$1,491,629
Owners' Equity	\$988,675	\$996,486	\$1,637,894	\$1,724,113	\$2,424,636
Current Ratio	1.50	1.55	1.65	1.70	2.06
Quick Ratio	1.49	1.53	1.64	1.67	2.03
Return on Assets	16%	15%	23%	27%	28%
Return on Equity	46%	48%	49%	56%	49%
Return on Sales	3.5%	3.1%	4.7%	5.1%	5.2%
Debt-to-Equity Ratio	173%	177%	111%	109%	77%

Cash flow analysis

- ❑ A **construction company** is totally **dependent** on maintaining a **sufficient level of cash** to finance its **daily operations**.
- ❑ If adequate cash reserves are **not maintained**, the company must either
 1. Borrow from lending institutions or
 2. Default on its obligations.
 - ❖ If the **cost of borrowing** was **not included** in a project budget, the **interest charges** on borrowed cash may **significantly erode** the **anticipated profit**.

The cash flow cycle within the company is illustrated in Figure 4.12.

FIGURE 4.12 Cash Flow Cycle



Cash flow analysis

- ❑ Project expenditures and receivables are estimated for each month, and the difference between expenses and receivables determines the net cash flow requirements, as illustrated in Figure 4.13

FIGURE 4.13 Cash Flow Analysis for Job #1

	Estimate	January	February	March	April	May	June	July	August	September	October	November
Total Job Revenue												
Total Draw	\$1,000,000	\$60,000	\$80,000	\$100,000	\$120,000	\$140,000	\$150,000	\$120,000	\$100,000	\$80,000	\$50,000	
Retainage	\$50,000	\$(3,000)	\$(4,000)	\$(5,000)	\$(6,000)	\$(7,000)	\$(7,500)	\$(6,000)	\$(5,000)	\$(4,000)	\$(2,500)	
Net Receipt	\$1,000,000		\$57,000	\$76,000	\$95,000	\$114,000	\$133,000	\$142,500	\$114,000	\$95,000	\$76,000	\$97,500
Direct Job Costs												
Labor	\$25,500	\$1,530	\$2,040	\$2,550	\$3,060	\$3,570	\$3,825	\$3,060	\$2,550	\$2,040	\$1,275	
Material	\$176,700	\$10,602	\$14,136	\$17,670	\$21,204	\$24,738	\$26,505	\$21,204	\$17,670	\$14,136	\$8,835	
Subcontractor	\$632,000	\$37,920	\$50,560	\$63,200	\$75,840	\$88,480	\$94,800	\$75,840	\$63,200	\$50,560	\$31,600	
Equipment	\$10,700	\$642	\$856	\$1,070	\$1,284	\$1,498	\$1,605	\$1,284	\$1,070	\$856	\$535	
Total Direct Job Costs	\$844,900	\$50,694	\$67,592	\$84,490	\$101,388	\$118,286	\$126,735	\$101,388	\$84,490	\$67,592	\$42,245	
Net Job Cash Flow		\$(50,694)	\$(10,592)	\$(8,490)	\$(6,388)	\$(4,286)	\$6,265	\$41,112	\$29,510	\$27,408	\$33,755	\$97,500
Cumulative Cash Flow	\$155,100	\$(50,694)	\$(61,286)	\$(69,776)	\$(76,164)	\$(80,450)	\$(74,185)	\$(33,073)	\$(3,563)	\$23,845	\$57,600	\$155,100

Cash flow analysis

- ❑ A plot of the cumulative cash flow requirements for the project is shown in Figure 4.14.
- ❑ Note that cash flow for Job #1 is negative during the early months of the project and positive during the later months.

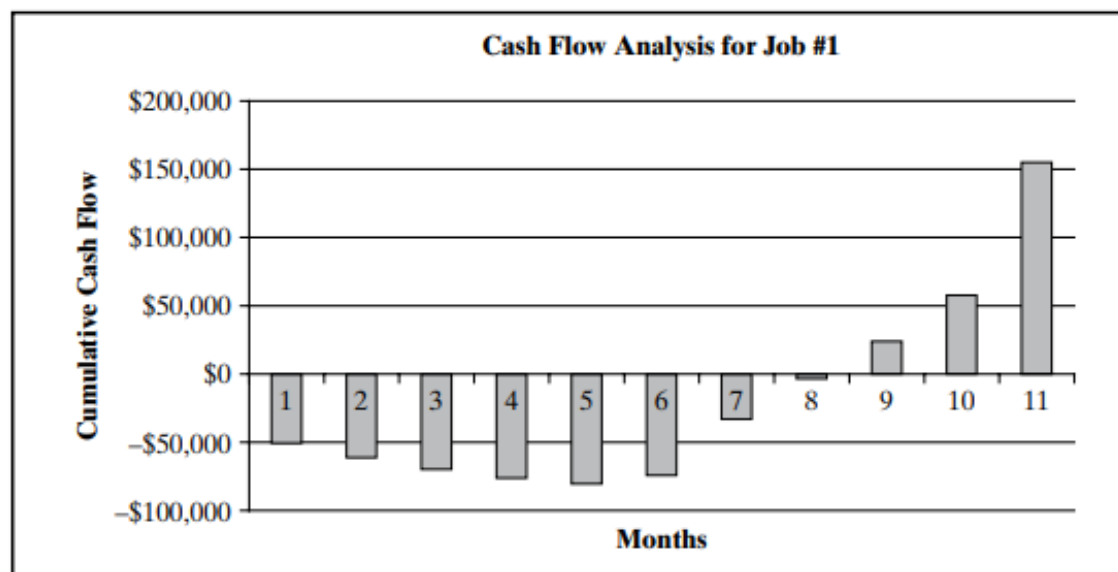


FIGURE 4.14 Cumulative Cash Flow for Job #1

Cash flow analysis

- ❑ The monthly cash flow requirements for each project are summed in a spreadsheet, as shown in Figure 4.15, to determine overall cash requirements for the company.

FIGURE 4.15 Company Cash Flow Analysis

Projects	January	February	March	April	May	June	July	August	September	October
Beginning Balance	\$200,000	\$186,306	\$22,714	\$(95,776)	\$(137,164)	\$(125,950)	\$(163,185)	\$(134,073)	\$(127,563)	\$(80,855)
<u>In Process:</u>										
Job #1	\$(50,694)	\$(10,592)	\$(8,490)	\$(6,388)	\$(4,286)	\$6,265	\$41,112	\$29,510	\$27,408	\$33,755
Job #2	\$120,000	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
Job #3	\$(48,000)	\$(22,000)	\$(15,000)	\$20,000	\$45,000	\$1,500	\$65,000	\$—	\$—	\$—
Job #4	\$—	\$(40,000)	\$(25,000)	\$(10,000)	\$5,000	\$15,000	\$26,000	\$30,000	\$35,000	\$50,000
Job #5	\$—	\$(56,000)	\$(35,000)	\$(10,000)	\$500	\$25,000	\$35,000	\$26,000	\$35,000	\$28,000
<u>Projected New Jobs:</u>										
Job #6	\$—	\$—	\$—	\$—	\$—	\$(50,000)	\$(35,000)	\$(20,000)	\$(5,000)	\$6,000
Job #7	\$—	\$—	\$—	\$—	\$—	\$—	\$(40,000)	\$(15,000)	\$(10,000)	\$4,000
Job #8	\$—	\$—	\$—	\$—	\$—	\$—	\$(28,000)	\$(9,000)	\$(700)	\$5,000
Net Cash Flow	\$21,306	\$(128,592)	\$(83,490)	\$(6,388)	\$46,214	\$(2,235)	\$64,112	\$41,510	\$81,708	\$126,755
Total Cash Available	\$221,306	\$57,714	\$(60,776)	\$(102,164)	\$(90,950)	\$(128,185)	\$(99,073)	\$(92,563)	\$(45,855)	\$45,900
Operating Expenses	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
Ending Cash Balance	\$186,306	\$22,714	\$(95,776)	\$(137,164)	\$(125,950)	\$(163,185)	\$(134,073)	\$(127,563)	\$(80,855)	\$10,900

Using Financial Data

Using financial data

- ❑ **Following over 30 years** of researching, identifying, and cataloging the causes of construction business failures and participating in the resolution of hundreds of distressed firms, the authors **discovered a remarkable truth**.
- ❑ **Many construction company failures** were predictable, and, in many cases, the **in-house accounting staff** saw it coming two **or three years before** it happened.
- ❑ A key reason **some contractors** experienced financial trouble was the **lack of listening** to the **CFO** or **accounting staff** who tried to sound the alarm **before disaster struck**.

Using financial data

- ❑ Construction business failures **don't happen overnight**; they can take years.
- ❑ In the hundreds of failures the authors have studied,
 - most of the **CFOs warned management** about financial issues, problems, or exposures before they occurred.
 - ❖ To which management often reacted by saying,
 - ✓ “You don’t understand” or
 - ✓ “You don’t know what you are talking about,” or
 - ✓ “It’s just that one bad job” or
 - ✓ “that unreasonable owner” or
 - ✓ “that unbuildable design.”

These managers saw the problem as an “event,” but it was a “symptom.”

Using financial data

❑ To provide an analogy:

it is like a person in the boiler room of a ship calling the captain to tell him or her that the ship is leaking, and the captain on deck responding,

“Everything looks good from here.”

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Construction Business Financial Reality: Financial Self-Analysis

- ☐ Many contractors are working in an **information vacuum**.
- ☐ **Many complain** that even in **good times** they are **never sure** their organization is performing at **optimum levels**.
- ☐ Some contractors state **difficulty** in defining and judging their **own performance** because they **do not know** the **margins** for similar contractors.

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Managing the financial self-analysis process

- ❑ The **first step** is collecting and compiling the required financial data listed in **Table 5.1**.
- ❑ This information is taken **directly from the company's annual financial statements** prepared by the firm's **independent outside accountants**;
 - it is **not recommended** to use internally **prepared statements** unless **all five years** are internally prepared.
- ❖ The information is to be transcribed directly from the **most recent five years** of annual statement available and **recorded on a spreadsheet**.
- ❖ A **three-year study** is the minimum length one can learn from;
 - five years is preferred, and
 - any **duration longer** than five years does **not appear to enhance** the evaluation.

Managing the financial self-analysis process

Table 5.1 Key to Data Required for Financial Self-Analysis

Financial Data	Description
Year	Plan year-5; plan year-4; plan year-3; etc.
Sales	Total sales for each year
GP	Gross profit
GP/S	Gross profit divided by sales
G&A	General and administrative expenses (overhead)
G&A/S	General and administrative expenses divided by sales
NP OPS	Net profit from operations
NP/S	Net profit divided by sales
NNP	Net net profit (includes profit from other sources)
NNP/S	Net net profit divided by sales
Cash	Cash plus any securities such as CDs
AR	Accounts receivable
AP	Accounts payable
AR-AP	Accounts receivable minus accounts payable
Cash+AR-AP	Cash plus accounts receivable minus accounts payable
CIEB	Cost In excess of billings
BIEC	Billings in excess of cost
BIEC-CIEB	Billings in excess of cost minus cost in excess of billings
Debt	Total debt
Cash+(AR-AP)-Debt	Cash plus (accounts receivable minus accounts payable) minus debt

Managing the financial self-analysis process

- ☐ The **ratios** are calculated from the **formulas in the sample financial self-analysis calculation** sheet shown in Table 5.2.
- ☐ Both the data collection and the calculations of the ratios
 1. Can be assigned to the accounting department or
 2. Can be carried out by executive staff if **confidentiality** is a concern for any reason.
- ☐ It should be noted that a major concern throughout this process is transcription error; therefore, it is prudent to have a **second person double-check the data**.
- ☐ As time progresses, the financial analysis can be easily **updated** and used in **subsequent years**.

Managing the financial self-analysis process

Table 5.2 Financial Self-Analysis Calculation Sheet

	A	B	C	D	E	F	G	H
1								
2		YEAR -5	YEAR -4	YEAR -3	YEAR -2	YEAR -1	5-YEAR AVERAGE	2-YEAR AVERAGE
3	Sales						SUM (B3 to F3)/5	(E3+F3)/2
4	GP						SUM (B4 to F4)/5	(E4+F4)/2
5	GP/S	B4/B3	C4/C3	D4/D3	E4/E3	F4/F3	SUM (B5 to F5)/5	(E5+F5)/2
6	G&A						SUM (B6 to F6)/5	(E6+F6)/2
7	G&A/S	B6/B3	C6/C3	D6/D3	E6/E3	F6/F3	SUM (B7 to F7)/5	(E7+F7)/2
8	NP						SUM (B8 to F8)/5	(E8+F8)/2
9	NP/S	B8/B3	C8/C3	D8/D3	E8/E3	F8/F3	SUM (B9 to F9)/5	(E9+F9)/2
10	Cash						SUM (B10 to F10)/5	(E10+F10)/2
11	AR						SUM (B11 to F11)/5	(E11+F11)/2
12	AP						SUM (B12 to F12)/5	(E12+F12)/2
13	AR-AP	B11-B12	C11-C12	D11-D12	E11-E12	F11-F12	SUM (B13 to F13)/5	(E13+F13)/2
14	Cash+AR-AP	B10+B13	C10+C13	D10+D13	E10+E13	F10+F13	SUM (B14 to F14)/5	(E14+F14)/2
15	CIEB						SUM (B15 to F15)/5	(E15+F15)/2
16	BIEC						SUM (B16 to F16)/5	(E16+F16)/2
17	BIEC-CIEB	B16-B15	C16-C15	D16-D15	E16-E15	F16-F15	SUM (B17 to F17)/5	(E17+F17)/2
18	Debt						SUM (B18 to F18)/5	(E18+F18)/2
19	Cash+(AR-AP)-D	B14-B18	C14-C18	D14-D18	E14-E18	F14-F18	SUM (B19 to F19)/5	(E19+F19)/2

Using the information

☐ **Financial performance** is the starting point.

❖ A **number of other topics** also should be on the agenda and discussed in detail.

☐ These include but are not limited to:

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Using the information

❑ These include but are not limited to:

- ❖ The company's current market position.
- ❖ What does available work look like for the next year or two?
- ❖ How does the company compare with its competition and what are its competitive advantages and disadvantages?
- ❖ Are current operations/production optimized and to your satisfaction?
- ❖ Is the structure of the organization suitable to its current workload, and will it remain the same or change if you plan to grow?
- ❖ Is there a clear chain of command and do all the people in the organization understand the reporting chain and their responsibilities?

Using the information

- ❑ Next are a **couple of examples** to illustrate some of the potential benefits gained from applying **financial self-analysis**.

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Using the information

- ❑ *Example 1: A construction firm using the financial self-analysis program noted that that their overhead had increased steadily over the five years at a greater rate than sales had increased.*
- ❖ They determined that the increases were **not a result of any added categories**, but that most line **items had grown annually**.
 - ✓ They considered **inflation** too, but the rate was **far greater**.
 - ❖ The group **reviewed every item** carefully, and reduced overhead where possible.
 - ❖ They then decided to keep a closer eye on **monthly expenses**.
 - ❖ In one year, overhead expenses were **reduced** to the **five-year average**.
 - ❖ The **self-analysis exposed the problem**, and the solution was obvious and easy.
 - ❖ In the **second year**, sales improved a little resulting in the general and administrative overhead to sales **ratio decreasing even further**.
 - ❖ **Nonfinancial managers** can learn from this effort.

Using the information

- ❑ *Example 2: In another case, a contractor discovered net profit was decreasing slightly but steadily over the prior two years, while overhead expenses were consistent, indicating a deterioration in gross profit margin.*
- ❖ This is **far more serious** than the previous case because it indicates a **problem in operations/production**, which can be much **harder to rectify** than controlling general and administrative expenses.
 - ❖ After a serious discussion with all concerned parties, they realized that a **number of new field superintendents with limited experience** were promoted during the **company's rapid growth** over the two years, and they were **not producing the work as profitably** as the more experienced superintendents.
 - ❖ The **principals** concluded that **further growth** would be a **mistake** and could put their **entire operation** in **jeopardy**.

Using the information

❑ Example 2:

- ❖ They **cut down** the volume by taking **no new work for six months** and instead concentrated their efforts on an **intensive training program** for new superintendents.
- ❖ They decided that **sales should not grow** until the organization **returned to the average gross profit margin** they had experienced in **four out of the five previous years**.
- ❖ Their goal was **achieved in nine months**, and was **further exceeded** the **following year** when their gross profit percentage went up by **1.5% compared** to their five-year average.
- ❖ In this example, the **owners** of the construction company were **unaware** of the problem until they **performed the financial self-analysis**.
- ❖ They made the **common error of thinking** the slippage in profit was the price to **pay for growth**.

Using the information

❑ Example 2:

- ❖ The owners fell into the trap of believing it was something they called “**growing pains**” until they realized that their **future success was in jeopardy**.
- ❖ The financial self-analysis allowed **near-immediate discovery** of the problem, which helped focus the **company’s energy on the solution**.

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Measuring Financial Risk

Measuring financial risk

❑ The focus of this section is

1. On the **measurement** of financial risk and performance in construction companies and
2. To look for **early warning indicators** of financial distress.

❑ Spending over a decade assisting financially distressed construction companies, the authors are strong **advocates** of recognizing and avoiding the causes of business failure.

❖ In our experience, many **contractors** who thought they had a **minor cash flow problem** were **shocked to discover the depth and seriousness** of their financial difficulty when it finally came to light.

❑ With that being said, it comes as no surprise that the construction industry has the **second-highest business failure rate** in the country, after the restaurant business.

Measuring financial risk

- ☐ **Financial data** that will be discussed in this section should be **taken from financial statements** prepared by an **independent outside** accountant or accounting firm.
- ☐ These statements can be reviewed, audited, or otherwise qualified.
- ☐ What matters is that statements be **consistent**.
- ☐ Data from **internally prepared** financial statements are **not recommended**.

Traditional financial performance measures

- ❑ A construction company may evaluate its financial performance using various **standardized financial ratios**.
- ❑ This includes examining the organization's
 1. gross profit,
 2. net profit,
 3. equity, and
 4. capital structure.
- ❖ However, these standard ratios **alone** do **not** adequately reveal the **performance** of the organization.

Traditional financial performance measures

- ❑ Gross profit is the amount earned in the production of the work **before general and administrative costs** are deducted.
- ❑ Net profit is the amount made **after** subtracting **all general and administrative** costs from the gross profit.
- ❑ Both gross profit and net profit do **not accurately report** an organization's financial performance,
 - as there is **no standard for measuring** either of these measures consistently in the **construction industry**.
 - ❖ There is **no agreement** regarding **which costs are to be charged directly** to projects and which are general and administrative overhead costs.
 - ❖ As a result, **comparisons** of gross profits and net profits **cannot** be used as accurate measurements of a construction company's financial performance.

Traditional financial performance measures

- ❑ Equity, which is the **company's assets after** subtracting all associated debts, is a significant measurement **anchoring the capital structure** that underpins the company and supports credit facilities that provide **cash flow during peak needs**.
- ❑ Capital structure is the **organization's unique combination** of debt and equity used to **finance its overall operations and growth**.

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Traditional financial performance measures

- ❑ Equity **alone** is **not an absolute indicator** of an organization's financial performance.
- ❑ Moreover, the capital structures of construction companies **differ significantly** by **type of work performed**.
 - ❖ **Highway contractors** who own their equipment have different capital structures than a **building contractor** who subcontracts a great deal of their work.
 - ✓ Therefore, **equity** and **capital** structure are also insufficient measures of a construction company's financial performance.

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The R-Score formula

- ❑ This led the authors to develop the **R-score formula**, which:
 - ❖ Measures an organization's current financial performance;
 - ❖ Compares an organization's current performance to past performance; and
 - ❖ Identifies an organization's current financial risks, strengths, and weaknesses.

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The R-Score formula

- ❑ As noted previously, **changes** in one **financial ratio** inevitably **change other ratios**.
- ❑ The problems of **different bookkeeping methods** and **treatment of work in progress**

suggest that gross ratios

rather than **ratios found internally** should be used.

❖ The **significant standard financial** ratio categories are

1. Turnover,
2. Profit, and
3. Debt ratios.

✓ Ratios are **selected from these categories** that are least affected by **internal bookkeeping methods**.

The R-Score formula

□ These are explained below as the **three key elements** of the R-score formula:

1 Sales-to-Total Assets:

- ❖ This is known as the **turnover ratio** and is a measure of operational efficiency.
- ❖ The **higher** the ratio, the **more efficient** the utilization of assets.
- ❖ The ratio is a composite of
 1. Receivable management,
 2. Inventory management,
 3. Fixed asset management, and
 4. Liquidity management.
 - ✓ The ratio is the **relative efficiency** with which the **construction firm** uses its resources to generate output

The R-Score formula

❑ These are explained below as the **three key elements** of the R-score formula:

1 Sales-to-Total Assets:



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Assets to revenues ratio (دارایی کل به درآمد)

❑ Measurement of **how efficiently** the company is **using its assets**

❑ Also known as the **assets to sales ratio**.

❑ *Assets to Revenues (assets to sale ratio) = $\frac{\text{Total Assets}}{\text{Revenues}}$*

❖ The recommended range for the ratio varies from industry to industry.



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Typical Assets to revenues for construction industry

Typical Assets to Revenues Ratios
(percentages)

Industry Sector	Median	Range
Single-Family Residential	30	18-50
Commercial	30	20-55
Heavy and Highway	46	34-62
Specialty Trades	33	25-45

❑ Companies with assets to revenues ratios significantly lower than other companies:

❖ May be performing too much work for their assets
✓ Which may be a sign of pending financial difficulties if left uncorrected.

❑ Companies with assets to revenues ratios significantly higher than other companies:

❖ Are underutilizing their assets and should consider taking on more work.

❑ Heavy and highway have a **higher median** assets to revenues ratio because of:

❖ Its extensive investment in construction equipment.

The R-Score formula

❑ These are explained below as the **three key elements** of the R-score formula:

2 Net Profit-to-Sales:

- ❖ This is known as the **net profit margin** and is a measure of **operating efficiency** after all costs and expenses have been accounted for.
- ❖ While the **external marketplace** affects the sales-to-assets and net profit margins,
they largely capture an organization's **internal management efficiency**.

The R-Score formula

❑ These are explained below as the **three key elements** of the R-score formula:

2 Net Profit-to-Sales:

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Profit margin (بازده فروش یا بازده درآمد)

- ❑ Also know as the **return on revenues** or **return on sales**.
- ❑ **Percentage of the revenues that becomes profit** and may be measured:
 - ❖ **Before income taxes**
 - ✓ $\text{Pretax PM} = \frac{\text{Net Profit Before Taxes}}{\text{Revenues}}$
 - Highway, residential, and specialty contractors: $4\% < \text{Ideal} < 6\%$
 - Commercial contractors: $2\% < \text{Ideal} < 3\%$

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Profit margin (بازده فروش یا بازده درآمد)

- ❑ Also know as the **return on revenues** or **return on sales**.
- ❑ **Percentage of the revenues that becomes profit** and may be measured:
 - ❖ **After income taxes**
 - ✓ $\text{After-tax PM} = \frac{\text{Net Profit After Taxes}}{\text{Revenues}}$

Typical After-Tax Profit Margins (percentages)

Industry Sector	Median	Range
Single-Family Residential	3.0	7.5-0.8
Commercial	1.9	8.1-0.5
Heavy and Highway	2.8	6.6-0.7
Specialty Trades	2.3	5.9-0.5

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The R-Score formula

❑ These are explained below as the **three key elements** of the R-score formula:

3 Total Liabilities-to-Equity:

- ❖ This is known as the **debt ratio** and it tests **long-term liquidity**.
- ❖ The ratio is like debt-to-equity; however,
total liabilities (all debt) are used instead of long-term bank debt
because the latter **can easily be reduced**, temporarily,
particularly at year-end, by
 1. Extending accounts payable or
 2. Substituting short-term borrowing.
- ❖ The ratio is applied here as a measure of the **firm's ability to sustain itself** over the long term.
- ❖ This is a broad ratio **ignoring most internal manipulations** or **differences in bookkeeping methods**
because it **captures all** liabilities and equity not easily manipulated.

The R-Score formula

❑ These are explained below as the **three key elements** of the R-score formula:

3 Total Liabilities-to-Equity:



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Debt to equity ratio (نسبت بدهی کل به ارزش ویژه یا خالص)

❑ The **debt to equity** ratio is a **measurement** of the **risk** in the company **all creditors** are taking compared to the **risk** the **company's owners** are taking.

❑ $Debt\ to\ Equity = \frac{Total\ Liabilities}{Net\ Worth}$

❖ **Less than 1: Company is reluctant to debt financing:**

✓ The company is **not using debt** to **expand** the business.

❖ **Less than 2: Desired ratio**

❖ **More than 2: Care should be taken**

✓ One begins to **question** whether the **company can service its debt**, **particularity** during a **downturn** in the industry.

❖ **Less than 3: At least**

✓ **Recommended** by Financial Management Association



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Debt to equity ratio – Example

Example: Determine the **debt to equity ratio** for the commercial construction company in Figures. What insight does this give you into the company's financial operations?

LIABILITIES			
Current Liabilities			
Accounts Payable-Trade	325,458	228,585	
Accounts Payable-Retention	22,546	18,254	
Billings in Excess of Costs and Profits	5,218	11,562	
Notes Payable	15,514	45,250	
Accrued Payables	15,648	16,658	
Accrued Taxes	10,521	8,254	
Accrued Vacation	3,564	3,002	
Capital Lease Payable	0	0	
Warranty Reserves	0	0	
Other Current Liabilities	25,438	35,648	
Total Current Liabilities	423,907	367,213	
Long-Term Liabilities	153,215	99,073	
Total Liabilities	577,122	466,286	

OWNER'S EQUITY			
Capital Stock	10,000	10,000	
Retained Earnings	436,917	358,904	
Current Period Net Income	0	0	
Total Equity	446,917	368,904	
Total Liabilities and Equity	1,024,039	835,190	

Solution:

Debt to equity Ratio = $\$577,122 / \$446,917 = 1.29 < 1.4$ and between 0.5 and 2.8

The debt to equity ratio is slightly below the median for a commercial construction company. Because the ratio is **less than 2**, it appears that the company **will be able to service its debt**.

If needed, may be able to obtain **additional financing** through debt.

The R-Score formula

- ❑ The **three key elements** shown were **combined to develop** the risk factor score (R-score formula),
an **effective** and **comprehensive** financial risk management formula.

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The R-Score formula – Development

□ The authors define **AP** as the portion of profits that can be

1. Taken out of the company or
2. Applied to business expansions

without materially affecting the financial foundation of the firm in its existing operations.

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The R-Score formula – Development

□ The formula for AP is:

where

NP/S is net profit/sales,

TL is total liabilities, and

TA is total assets.

$$AP = \left(1 - NP/S - \left(10 \left(TL / (TL + TA) \right) \times (NP/S) \right) \right)$$

The R-Score formula – Development

□ However, “**real earning power (REP)**” of the company can be determined by multiplying the AP by the asset turnover ratio of sales to total assets (S/TA).

❖ The formula for REP is:

where $REP = (AP) (S/TA)$

AP is available profit and S/TA is sales/total assets.

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The R-Score formula – Development

- ❑ To determine the **overall financial risk** of a company, its debt structure must be considered.
- ❑ Combining the **firm's debt ratio** of total liabilities to equity **with REP**, also referred to as the **financial “risk factor,”** represents the **financial risk** of the company at the present time.

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The R-Score formula – Development

□ The R-score formula is:

where

R is risk factor and TL/E is total liability/equity

$$R = (\text{Available Profit}) \times (\text{Real Earning Power}) \times (\text{Debt Structure})$$

And can be used as:

$$R = \left(1 - NP/S - \left(10 \left(TL / (TL + TA) \right) (NP/S) \right) \right) (S/TA) (TL/E)$$

Financial Distress – Turnaround Management

موسسه مهندسی و مدیریت ساخت علوی پور (ACEMI)

دفتر آموزش



تهران، بلوار فردوس شرق، مجتمع آبگینه، طبقه سوم اداری، واحد C42



+۹۸ ۲۱ ۴۶ ۱۰۰ ۴۴۵



+۹۸ ۲۱ ۴۶ ۱۰۰ ۴۵۰



info@dralavipour.com



www.dralavipour.com



@alavipour_pm



@acemi_social



@alavipour_pm



@IRANACEMI

