AFRICA POPULATION INSTITUTE (API)

BUSINESS ADMINISTRATION MANAGEMENT (HRM) HANDBOOK

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TABLE OF CONTENTS

Forward:
API is a registered organization with 4 years' experience of supporting voluntary organizations, agencies and individuals in developing quality systems. A major part of our work is providing external evaluations and trainings to organizations or specific projects and also building capacities of the members to have relevant skills applicable to their working environment.

How we work:
We aim to understand the precise needs of your organization and to offer you good value, an integrated service, and work which is based on clear principles. Our style is inclusive, participatory and flexible.

We aim to help you:
- Develop your skills, reflect and gain focus
- Make your organization more confident, effective and efficient, and able to demonstrate this to others
- Help you plan more effectively and strategically for the future
- Demonstrate the benefits (or outcomes) for your service users.

Our approach
- Starts by listening carefully to what you need and tailoring our services accordingly
- Includes clear and practical advice, plans and reports
- Is based on extensive knowledge and experience of the voluntary sector
- Is supportive and friendly.

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Public Health and HIV/AIDS management
Guidance and Counseling Techniques
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Specialized Statistical Packages for data analysis (SPSS, STATA, EVIEWs, ATLAS TI, SUDAN, EPINFO and Epi Data etc)
Training of Trainers Course
Management and Leadership Skills Development
Procurement and Contract Management
Peace and conflict Management/Resolution
Disaster Preparedness and Management Course
Communication Skills and Technique
Heath Care Administration (HCAD)
Interdisciplinary Environmental Health Studies (ENVHs)
Substance Abuse and Addictions Management (SAAM)
Advocacy and Lobbying Techniques
Strategic Planning and Management
Business Sales and Marketing Strategies
Health Marketing and Health Promotion
Logistics, Transport and Supply Chain Management

Business Concepts

A **business** (also called a **firm** or an **enterprise**) is a legally recognized organization designed to provide goods and/or services to consumers. Businesses are predominant in capitalist economies, most being privately owned and formed to earn profit that will increase the wealth of its owners and grow the business itself. The owners and operators of a business have as one of their main objectives *the receipt or generation of a financial return* in exchange for work and acceptance of risk. Notable exceptions include cooperative businesses and state-owned enterprises. Socialist systems involve either government agencies, public, or worker ownership of most sizable businesses.

The etymology of "business" relates to the state of being busy either as an individual or society as a whole, doing commercially viable and profitable work. The term "business" has at least three usages, depending on the scope — the singular usage (above) to mean a particular company or corporation, the generalized usage to refer to a particular market sector, such as "the music business" and compound forms such as agribusiness, or the broadest meaning to include all activity by the community of suppliers of goods and services. However, the exact definition of business, like much else in the philosophy of business, is a matter of debate.

Business Studies, the study of the management of individuals to maintain collective productivity to accomplish particular creative and productive goals (usually to generate profit), is taught as an academic subject in many schools.

Basic forms of ownership

Although forms of business ownership vary by jurisdiction, there are several common forms:

- **Sole proprietorship:** A sole proprietorship is a business owned by one person. The owner may operate on his or her own or may employ others. The owner of the business has total and unlimited personal liability of the debts incurred by the business.
- **Partnership:** A partnership is a form of business in which two or more people operate for the common goal of making profit. Each partner has total and unlimited personal liability of the debts incurred by the partnership. There are three typical classifications of partnerships: general partnerships, limited partnerships, and limited liability partnerships.
- **Corporation:** A business corporation is a for-profit, limited liability entity that has a separate legal personality from its members. A corporation is owned by multiple shareholders and is overseen by a board of directors, which hires the business's managerial staff.
- **Cooperative:** Often referred to as a "co-op business" or "co-op", a cooperative is a for-profit, limited liability entity that differs from a corporation in that it has members, as opposed to shareholders, who share decision-making authority. Cooperatives are typically classified as either consumer cooperatives or worker cooperatives. Cooperatives are fundamental to the ideology of economic democracy.

Classifications

There are many types of businesses, and, as a result, businesses are classified in many ways. One of the most common focuses on the primary profit-generating activities of a business:

- Agriculture and mining businesses are concerned with the production of raw material, such as plants or minerals.

- Financial businesses include banks and other companies that generate profit through investment and management of capital.
- Information businesses generate profits primarily from the resale of intellectual property and include movie studios, publishers and packaged software companies.
- Manufacturers produce products, from raw materials or component parts, which they then sell at a profit. Companies that make physical goods, such as cars or pipes, are considered manufacturers.
- Real estate businesses generate profit from the selling, renting, and development of properties, homes, and buildings.
- Retailers and Distributors act as middle-men in getting goods produced by manufacturers to the intended consumer, generating a profit as a result of providing sales or distribution services. Most consumer-oriented stores and catalogue companies are distributors or retailers. *See also:* Franchising
- Service businesses offer intangible goods or services and typically generate a profit by charging for labor or other services provided to government, other businesses or consumers. Organizations ranging from house decorators to consulting firms to restaurants and even to entertainers are types of service businesses.
- Transportation businesses deliver goods and individuals from location to location, generating a profit on the transportation costs
- Utilities produce public services, such as heat, electricity, or sewage treatment, and are usually government chartered.

There are many other divisions and subdivisions of businesses. The authoritative list of business types for North America is generally considered to be the North American Industry Classification System, or NAICS. The equivalent European Union list is the NACE.

Management

The study of the efficient and effective operation of a business is called management. The main branches of management are financial management, marketing management, human resource management, strategic management, production management, service management, information technology management, and business intelligence.

Government regulation

The major factors affecting how a business is organized are usually:

- **The size and scope of the business**, and its anticipated management and ownership. Generally a smaller business is more flexible, while larger businesses, or those with wider ownership or more formal structures, will usually tend to be organized as partnerships or (more commonly) corporations. In addition a business which wishes to raise money on a stock market or to be owned by a wide range of people will often be required to adopt a specific legal form to do so.
- **The sector and country.** Private profit making businesses are different from government owned bodies. In some countries, certain businesses are legally obliged to be organized certain ways.
- **Limited liability.** Corporations, limited liability partnerships, and other specific types of business organizations protect their owners from business failure by doing business under a separate legal entity with certain legal protections. In contrast, unincorporated businesses or persons working on their own are usually not so protected.
- **Tax advantages.** Different structures are treated differently in tax law, and may have advantages for this reason.

- **Disclosure and compliance requirements**. Different business structures may be required to make more or less information public (or reported to relevant authorities), and may be bound to comply with different rules and regulations.

Many businesses are operated through a separate entity such as a corporation, limited partnership or limited liability company. Most legal jurisdictions allow people to organize such an entity by filing certain charter documents with the relevant Secretary of State or equivalent and complying with certain other ongoing obligations. The relationships and legal rights of shareholders, limited partners, or members are governed partly by the charter documents and partly by the law of the jurisdiction where the entity is organized. Generally speaking, shareholders in a corporation, limited partners in a limited partnership, and members in a limited liability company are shielded from personal liability for the debts and obligations of the entity, which is legally treated as a separate "person." This means that unless there is misconduct, the owner's own possessions are strongly protected in law, if the business does not succeed.

Where two or more individuals own a business together but have failed to organize a more specialized form of vehicle, they will be treated as a general partnership. The terms of a partnership are partly governed by a partnership agreement if one is created, and partly by the law of the jurisdiction where the partnership is located. No paperwork or filing is necessary to create a partnership, and without an agreement, the relationships and legal rights of the partners will be entirely governed by the law of the jurisdiction where the partnership is located.

A single person who owns and runs a business is commonly known as a *sole proprietor*, whether he or she owns it directly or through a formally organized entity.

A few relevant factors to consider in deciding how to operate a business include:

1. General partners in a partnership (other than a limited liability partnership), plus anyone who personally owns and operates a business without creating a separate legal entity, are personally liable for the debts and obligations of the business.
2. Generally, corporations are required to pay tax just like "real" people. In some tax systems, this can give rise to so-called double taxation, because first the corporation pays tax on the profit, and then when the corporation distributes its profits to its owners, individuals have to include dividends in their income when they complete their personal tax returns, at which point a second layer of income tax is imposed.
3. In most countries, there are laws which treat small corporations differently than large ones. They may be exempt from certain legal filing requirements or labor laws, have simplified procedures in specialized areas, and have simplified, advantageous, or slightly different tax treatment.
4. To "go public" (sometimes called IPO) -- which basically means to allow a part of the business to be owned by a wider range of investors or the public in general -- you must organize a separate entity, which is usually required to comply with a tighter set of laws and procedures. Most public entities are corporations that have sold shares, but increasingly there are also public LLCs that sell units (sometimes also called shares), and other more exotic entities as well (for example, REITs in the USA, Unit Trusts in the UK). However, you cannot take a general partnership "public."

Commercial law

Most commercial transactions are governed by a very detailed and well-established body of rules that have evolved over a very long period of time, it being the case that governing trade and commerce was a strong driving force in the creation of law and courts in Western civilization.

As for other laws that regulate or impact businesses, in many countries it is all but impossible to chronicle them all in a single reference source. There are laws governing treatment of labor and generally relations with employees, safety and protection issues (OSHA or Health and Safety), anti-discrimination laws (age, gender, disabilities, race, and in some jurisdictions, sexual orientation), minimum wage laws, union laws, workers compensation laws, and annual vacation or working hours time.

In some specialized businesses, there may also be licenses required, either due to special laws that govern entry into certain trades, occupations or professions, which may require special education, or by local governments. Professions that require special licenses range from law and medicine to flying airplanes to selling liquor to radio broadcasting to selling investment securities to selling used cars to roofing. Local jurisdictions may also require special licenses and taxes just to operate a business without regard to the type of business involved.

Some businesses are subject to ongoing special regulation. These industries include, for example, public utilities, investment securities, banking, insurance, broadcasting, aviation, and health care providers. Environmental regulations are also very complex and can impact many kinds of businesses in unexpected ways.

Capital

When businesses need to raise money (called 'capital'), more laws come into play. A highly complex set of laws and regulations govern the offer and sale of investment securities (the means of raising money) in most Western countries. These regulations can require disclosure of a lot of specific financial and other information about the business and give buyers certain remedies. Because "securities" is a very broad term, most investment transactions will be potentially subject to these laws, unless a special exemption is available.

Capital may be raised through private means, by public offer (IPO) on a stock exchange, or in many other ways. Major stock exchanges include the New York Stock Exchange and Nasdaq (USA), the London Stock Exchange (UK), the Tokyo Stock Exchange (Japan), and so on. Most countries with capital markets have at least one.

Business that have gone "public" are subject to extremely detailed and complicated regulation about their internal governance (such as how executive officers' compensation is determined) and when and how information is disclosed to the public and their shareholders. In the United States, these regulations are primarily implemented and enforced by the United States Securities and Exchange Commission (SEC). Other Western nations have comparable regulatory bodies.

As noted at the beginning, it is impossible to enumerate all of the types of laws and regulations that impact on business today. In fact, these laws have become so numerous and complex, that no business lawyer can learn them all, forcing increasing specialization among corporate attorneys. It is not unheard of for teams of 5 to 10 attorneys to be required to handle certain kinds of corporate transactions, due to the sprawling nature of modern regulation. Commercial law spans general corporate law, employment and labor law, healthcare law, securities law, M&A law (who specialize in acquisitions), tax law, ERISA law (ERISA in the United States governs employee benefit plans), food and drug regulatory law, intellectual property law (specializing in copyrights, patents, trademarks and such), telecommunications law, and more.

In Thailand, for example, it is necessary to *register* a particular amount of capital for each employee, and pay a fee to the government for the amount of capital registered. There is no legal requirement to prove that this capital actually exists, the only requirement is to pay the fee. Overall, processes like this are detrimental to the development and GDP of a country, but often exist in "feudal" developing countries.

Intellectual property

Businesses often have important "intellectual property" that needs protection from competitors for the company to stay profitable. This could require patents or copyrights or preservation of trade secrets. Most businesses have names, logos and similar branding techniques that could benefit from trademarking. Patents and copyrights in the United States are largely governed by federal law, while trade secrets and trademarking are mostly a matter of state law. Because of the nature of intellectual property, a business needs protection in every jurisdiction in which they are concerned about competitors. Many countries are signatories to international treaties concerning intellectual property, and thus companies registered in these countries are subject to national laws bound by these treaties. The treaties themselves are not intellectual property.

Exit plans

Businesses can be bought and sold. Business owners often refer to their plan of disposing of the business as an "exit plan." Common exit plans include IPOs, MBOs and mergers with other businesses. Businesses are rarely liquidated, as it is often very unprofitable to do so.

Business operations

Business operations are those ongoing recurring activities involved in the running of a business for the purpose of producing value for the stakeholders. They are contrasted with project management, and consist of business processes. The **outcome** of business operations is the *harvesting* of **value** from **assets** owned by a business. Assets can be either *physical* or *intangible*. An example of value derived from a physical asset like a **building** is **rent**. An example of value derived from an intangible asset like an **idea** is a **royalty**. The effort involved in "harvesting" this value *is* what constitutes **business operations**.

Business operations encompasses three fundamental **management imperatives** that collectively aim to maximize value harvested from business assets (this has often been referred to as "sweating the assets"):

1. **Generate** recurring income.
2. **Increase** the value of the business assets.
3. **Secure** the income and value of the business.

All three imperatives are mutually dependent. The following basic tenets illustrate this interdependency:

- *The more recurring income an asset generates, the more valuable it becomes*. For example, the products that sell at the highest volumes and prices are usually considered to be the most valuable products in a business's *product portfolio*.

- *The more valuable a product becomes the more recurring income it generates*. For example, a luxury car can be leased out at a higher rate than a normal car.

- *The intrinsic value and income-generating potential of an asset cannot be realized without a way to secure it*. For example, petroleum deposits are worthless unless processes and equipment are developed and employed to extract, refine, and distribute it *profitably*.

The **business model** of a business describes the **means** by which the three management imperatives are achieved. In this sense, business operations is the **execution** of the business model.

Generating recurring income

This is the most straightforward and well-understood management imperative of business operations. The primary goal of this imperative is to implement a *sustained* delivery of goods and services to the business's customers at a cost that is less than the funds acquired in exchange for said goods and services -- in short, making a profit.

The funds directly acquired by the business in exchange for the goods and services it delivers is the business's revenue.

The cost of developing, producing, and delivering these goods and services is the business's expenses.

A business whose revenues are greater than its expenses makes a profit. Such a business is **profitable**.

Securing the income and value of the business

- Desirability or **demand** for its goods and services
- Ability of its customers to **pay** for its goods and services
- **Uniqueness** and **competitiveness** of its business model
- **Control** exerted over the quality and efficiency of production activities
- Public regard for the business as a member of the **community**

A business that can harvest a significant amount of value from its assets but cannot *demonstrate* an ability to **sustain** this effort cannot be considered a viable business.

Administration (business)

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In business, **administration** consists of the performance or management of business operations and thus the making or implementing of major decisions. Administration can be defined as the universal process of organizing people and resources efficiently so as to direct activities toward common goals and objectives.

The word is derived from the Middle English word *administracioun*, which is in turn derived from the French *administration*, itself derived from the Latin *administratio* — a compounding of *ad* ("to") and *ministratio* ("give service").

Administrator can serve as the title of the general manager or company secretary who reports to a corporate board of directors. This title is archaic, but, in many enterprises, this function, together with its associated Finance, Personnel and management information systems services, is what is intended when the term "the administration" is used.

In some organizational analyses, management is viewed as a subset of administration, specifically associated with the technical and mundane elements within an organization's operation. It stands distinct from executive or strategic work.

In other organizational analyses, administration can refer to the bureaucratic or operational performance of mundane office tasks, usually internally oriented and reactive rather than proactive.

France's business school, Ecole Supérieure de Commerce in Paris, was established in 1819. The first business school in the United States, the Wharton School of the, was founded in 1881.

Administrative functions

Administrators, broadly speaking, engage in a common set of functions to meet the organization's goals. These "functions" of the administrator were described by Henri Fayol.

- Planning is deciding in advance what to do, how to do it, when to do it, and who should do it. It maps the path from where the organization is to where it wants to be. The planning function involves establishing goals and arranging them in logical order. Administrators engage in both short-range and long-range planning.
- Organizing involves identifying responsibilities to be performed, grouping responsibilities into departments or divisions, and specifying organizational relationships. The purpose is to achieve coordinated effort among all the elements in the organization. Organizing must take into account delegation of authority and responsibility and span of control within supervisory units.
- Staffing means filling job positions with the right people at the right time. It involves determining staffing needs, writing job descriptions, recruiting and screening people to fill the positions.
- Directing is leading people in a manner that achieves the goals of the organization. This involves proper allocation of resources and providing an effective support system. Directing requires exceptional interpersonal skills and the ability to motivate people. One of the crucial issues in directing is to find the correct balance between emphasis on staff needs and emphasis on economic production.
- Controlling is the function that evaluates quality in all areas and detects potential or actual deviations from the organization's plan. This ensures high-quality performance and satisfactory results while maintaining an orderly and problem-free environment. Controlling includes information management, measurement of performance, and institution of corrective actions.
- Budgeting, exempted from the list above, incorporates most of the administrative functions, beginning with the implementation of a budget plan through the application of budget controls.

Management

Management in all business and human organization activity is simply the act of getting people together to accomplish desired goals and objectives. Management comprises planning, organizing, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. Resourcing encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources.

Management can also refer to the person or people who perform the act(s) of management.

Overview

The verb *manage* comes from the Italian *maneggiare* (to handle — especially a horse), which in turn derives from the Latin *manus* (hand). The French word *mesnagement* (later *ménagement*) influenced the development in meaning of the English word *management* in the 17th and 18th centuries.

Some definitions of management are:

- Organization and coordination of the activities of an enterprise in accordance with certain policies and in achievement of clearly defined objectives. Management is often included as a factor of production along with machines, materials, and money. According to the management guru Peter Drucker (1909–2005), the basic task of a management is twofold: marketing and innovation. Practice of modern management owes its origin to the 16th century enquiry into low-efficiency and failures of certain enterprises, conducted by the English statesman Sir Thomas More (1478–1535).

- Directors and managers who have the power and responsibility to make decisions to manage an enterprise. As a discipline, management comprises the interlocking functions of formulating corporate policy and organizing, planning, controlling, and directing the firm's resources to achieve the policy's objectives. The size of management can range from one person in a small firm to hundreds or thousands of managers in multinational companies. In large firms the board of directors formulates the policy which is implemented by the chief executive officer.

Theoretical scope

Mary Parker Follett (1868–1933), who wrote on the topic in the early twentieth century, defined management as "the art of getting things done through people". She also described management as philosophy. One can also think of management functionally, as the action of measuring a quantity on a regular basis and of adjusting some initial plan; or as the actions taken to reach one's intended goal. This applies even in situations where planning does not take place. From this perspective, Frenchman Henri Fayol[3] considers management to consist of seven functions:

Some people, however, find this definition, while useful, far too narrow. The phrase "management is what managers do" occurs widely, suggesting the difficulty of defining management, the shifting nature of definitions, and the connection of managerial practices with the existence of a managerial cadre or class.

One habit of thought regards management as equivalent to "business administration" and thus excludes management in places outside commerce, as for example in charities and in the public sector. More realistically, however, every organization must manage its work, people, processes, technology, etc. in order to maximize its effectiveness. Nonetheless, many people refer to university departments which teach management as "business schools." Some institutions (such as the Harvard Business

School) use that name while others (such as the Yale School of Management) employ the more inclusive term "management."

English speakers may also use the term "management" or "the management" as a collective word describing the managers of an organization, for example of a corporation. Historically this use of the term was often contrasted with the term "Labor" referring to those being managed.

Nature of managerial work

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In for-profit work, management has as its primary function the satisfaction of a range of stakeholders. This typically involves making a profit (for the shareholders), creating valued products at a reasonable cost (for customers), and providing rewarding employment opportunities (for employees). In nonprofit management, add the importance of keeping the faith of donors. In most models of management/governance, shareholders vote for the board of directors, and the board then hires senior management. Some organizations have experimented with other methods (such as employee-voting models) of selecting or reviewing managers; but this occurs only very rarely.

In the public sector of countries constituted as representative democracies, voters elect politicians to public office. Such politicians hire many managers and administrators, and in some countries like the United States political appointees lose their jobs on the election of a new president/governor/mayor.

Public, private, and voluntary sectors place different demands on managers, but all must retain the faith of those who select them (if they wish to retain their jobs), retain the faith of those people that fund the organization, and retain the faith of those who work for the organization. If they fail to convince employees of the advantages of staying rather than leaving, they may tip the organization into a downward spiral of hiring, training, firing, and recruiting. Management also has the task of innovating and of improving the functioning of organizations.

Historical development

Difficulties arise in tracing the history of management. Some see it (by definition) as a late modern (in the sense of late modernity) conceptualization. On those terms it cannot have a pre-modern history, only harbingers (such as stewards). Others, however, detect management-like-thought back to Sumerian traders and to the builders of the pyramids of ancient Egypt. Slave-owners through the centuries faced the problems of exploiting/motivating a dependent but sometimes unenthusiastic or recalcitrant workforce, but many pre-industrial enterprises, given their small scale, did not feel compelled to face the issues of management systematically. However, innovations such as the spread of Arabic numerals (5th to 15th centuries) and the codification of double-entry book-keeping (1494) provided tools for management assessment, planning and control.

Given the scale of most commercial operations and the lack of mechanized record-keeping and recording before the industrial revolution, it made sense for most owners of enterprises in those times to carry out management functions by and for themselves. But with growing size and complexity of organizations, the split between owners (individuals, industrial dynasties or groups of shareholders) and day-to-day managers (independent specialists in planning and control) gradually became more common.

Early writing

While management has been present for millennia, several writers have created a background of works that assisted in modern management theories.

Sun Tzu's *The Art of War*

Written by Chinese general Sun Tzu in the 6th century BC, *The Art of War* is a military strategy book that, for managerial purposes, recommends being aware of and acting on strengths and weaknesses of both a manager's organization and a foe's.

Niccolò Machiavelli's *The Prince*

Believing that people were motivated by self-interest, Niccolò Machiavelli wrote *The Prince* in 1513 as advice for the leadership of Florence, Italy. Machiavelli recommended that leaders use fear—but not hatred—to maintain control.

Adam Smith's *The Wealth of Nations*

Written in 1776 by Adam Smith, a Scottish moral philosopher, *The Wealth of Nations* aims for efficient organization of work through Specialization of labor.[5] Smith described how changes in processes could boost productivity in the manufacture of pins. While individuals could produce 200 pins per day, Smith analyzed the steps involved in manufacture and, with 10 specialists, enabled production of 48,000 pins per day.

19th century

Classical economists such as Adam Smith (1723 - 1790) and John Stuart Mill (1806 - 1873) provided a theoretical background to resource-allocation, production, and pricing issues. About the same time, innovators like Eli Whitney (1765 - 1825), James Watt (1736 - 1819), and Matthew Boulton (1728 - 1809) developed elements of technical production such as standardization, quality-control procedures, cost-accounting, interchangeability of parts, and work-planning. Many of these aspects of management existed in the pre-1861 slave-based sector of the US economy. That environment saw 4 million people, as the contemporary usages had it, "managed" in profitable quasi-mass production.

By the late 19th century, marginal economists Alfred Marshall (1842 - 1924), Léon Walras (1834 - 1910), and others introduced a new layer of complexity to the theoretical underpinnings of management. Joseph Wharton offered the first tertiary-level course in management in 1881.

20th century

By about 1900 one finds managers trying to place their theories on what they regarded as a thoroughly scientific basis (see scientism for perceived limitations of this belief). Examples include Henry R. Towne's *Science of management* in the 1890s, Frederick Winslow Taylor's *The Principles of Scientific Management* (1911), Frank and Lillian Gilbreth's *Applied motion study* (1917), and Henry L. Gantt's charts (1910s). J. Duncan wrote the first college management textbook in 1911. In 1912 Yoichi Ueno introduced Taylorism to Japan and became first management consultant of the "Japanese-management style". His son Ichiro Ueno pioneered Japanese quality assurance.

The first comprehensive theories of management appeared around 1920. The Harvard Business School invented the Master of Business Administration degree (MBA) in 1921. People like Henri

Fayol (1841 - 1925) and Alexander Church described the various branches of management and their inter-relationships. In the early 20th century, people like Ordway Tead (1891 - 1973), Walter Scott and J. Mooney applied the principles of psychology to management, while other writers, such as Elton Mayo (1880 - 1949), Mary Parker Follett (1868 - 1933), Chester Barnard (1886 - 1961), Max Weber (1864 - 1920), Rensis Likert (1903 - 1981), and Chris Argyris (1923 -) approached the phenomenon of management from a sociological perspective.

Peter Drucker (1909 – 2005) wrote one of the earliest books on applied management: *Concept of the Corporation* (published in 1946). It resulted from Alfred Sloan (chairman of General Motors until 1956) commissioning a study of the organisation. Drucker went on to write 39 books, many in the same vein.

H. Dodge, Ronald Fisher (1890 - 1962), and Thornton C. Fry introduced statistical techniques into management-studies. In the 1940s, Patrick Blackett combined these statistical theories with microeconomic theory and gave birth to the science of operations research. Operations research, sometimes known as "management science" (but distinct from Taylor's scientific management), attempts to take a scientific approach to solving management problems, particularly in the areas of logistics and operations.

Some of the more recent developments include the Theory of Constraints, management by objectives, reengineering, Six Sigma and various information-technology-driven theories such as agile software development, as well as group management theories such as Cog's Ladder.

As the general recognition of managers as a class solidified during the 20th century and gave perceived practitioners of the art/science of management a certain amount of prestige, so the way opened for popularised systems of management ideas to peddle their wares. In this context many management fads may have had more to do with pop psychology than with scientific theories of management.

Towards the end of the 20th century, business management came to consist of six separate branches, namely:

21st century

In the 21st century observers find it increasingly difficult to subdivide management into functional categories in this way. More and more processes simultaneously involve several categories. Instead, one tends to think in terms of the various processes, tasks, and objects subject to management.

Branches of management theory also exist relating to nonprofits and to government: such as public administration, public management, and educational management. Further, management programs related to civil-society organizations have also spawned programs in nonprofit management and social entrepreneurship.

Note that many of the assumptions made by management have come under attack from business ethics viewpoints, critical management studies, and anti-corporate activism.

As one consequence, workplace democracy has become both more common, and more advocated, in some places distributing all management functions among the workers, each of whom takes on a portion of the work. However, these models predate any current political issue, and may occur more naturally than does a command hierarchy. All management to some degree embraces democratic principles in that in the long term workers must give majority support to management; otherwise they leave to find other work, or go on strike. Despite the move toward workplace democracy, command-and-control organization structures remain commonplace and the *de facto* organization structure. Indeed, the entrenched nature of command-and-control can be seen in the way that recent layoffs have been conducted with management ranks affected far less than employees at the lower levels of organizations. In some cases, management has even rewarded itself with bonuses when lower level employees have been laid off.

Management topics

Basic functions of management

Management operates through various functions, often classified as planning, organizing, leading/motivating, and controlling.

- **Planning**: Deciding what needs to happen in the future (today, next week, next month, next year, over the next 5 years, etc.) and generating plans for action.
- **Organizing**: (Implementation) making optimum use of the resources required to enable the successful carrying out of plans.
- **Staffing**: Job Analyzing, recruitment, and hiring individuals for appropriate jobs.
- **Leading**: Determining what needs to be done in a situation and getting people to do it.
- **Controlling: Monitoring**, checking progress against plans, which may need modification based on feedback.
- **Motivating**: the process of stimulating an individual to take action that will accomplish a desired goal.

Formation of the business policy

- The **mission** of the business is its most obvious purpose -- which may be, for example, to make soap.
- The **vision** of the business reflects its aspirations and specifies its intended direction or future destination.
- The **objectives** of the business refers to the ends or activity at which a certain task is aimed.
- The business's **policy** is a guide that stipulates rules, regulations and objectives, and may be used in the managers' decision-making. It must be flexible and easily interpreted and understood by all employees.
- The business's **strategy** refers to the coordinated plan of action that it is going to take, as well as the resources that it will use, to realize its vision and long-term objectives. It is a guideline to managers, stipulating how they ought to allocate and utilize the factors of production to the business's advantage. Initially, it could help the managers decide on what type of business they want to form.

How to implement policies and strategies

- All policies and strategies must be discussed with all managerial personnel and staff.
- Managers must understand where and how they can implement their policies and strategies.
- A plan of action must be devised for each department.
- Policies and strategies must be reviewed regularly.
- Contingency plans must be devised in case the environment changes.
- Assessments of progress ought to be carried out regularly by top-level managers.
- A good environment and team spirit is required within the business.

- The missions, objectives, strengths and weaknesses of each department must be analysed to determine their roles in achieving the business's mission.
- The **forecasting method** develops a reliable picture of the business's future environment.
- A **planning unit** must be created to ensure that all plans are consistent and that policies and strategies are aimed at achieving the same mission and objectives.
- Contingency plans must be developed, just in case.

All policies must be discussed with all managerial personnel and staff that is required in the execution of any departmental policy.

- Organizational change is strategically achieved through the implementation of the eight-step plan of action established by John P. Kotter: Increase urgency, get the vision right, communicate the buy-in, empower action, create short-term wins, don't let up, and make change stick.

Where policies and strategies fit into the planning process

- They give mid- and lower-level managers a good idea of the future plans for each department.
- A framework is created whereby plans and decisions are made.
- Mid- and lower-level management may add their own plans to the business's strategic ones.

This is a component of accounting which is a process made up of several stages of a step by Step means to an end.

Steps:
(I) Collecting financial data which is quantifiable in monetary terms.
(ii) Recording all what has been collected
(iii) Classifying data
(iv) Summarising data
(v) Analysing data

The above steps give rise to financial statements that are interpreted, used as a basis for forecasting, reporting, decision-making.

Definition:
Accounting is the art of recording, classifying and summarising in a significant manner and in terms of money, transactions and events which are at least of a financial character and interpreting the result thereof.

1. Any events and transactions of financial nature are recorded in books of accounts. Events of non-financial nature say the quarrel between the project manager and the chairman Board of trustees cannot find room in the books of accounts.

2. The records must portray the significance of all transactions and events individually and collectively class by class and as a whole.

3. The partners involved must be able to gather the true message of the results as embodied in the statement finally prepared.

Accounting comprises two elements.

1. Recording of the transactions of a business to provide information of for the day-to-day management.
2. Summarising: the transactions of a period to provide information about the performance and position of a business to interested parties.

The principal statements being the Statement of Financial Position and the Statement of Comprehensive Income. The principle business forms are

- sole traders
- partnerships and
- companies or any body corporate

The account process involves identifying, measuring and communicating economic information to permit judgement and decision by the user of the information.
Measurement is concerned with assessing or evaluating data so as to state its significance correctly.
Communication is done through reports and financial statements.

IMPORTANCE OF ACCOUNTING INFORMATION

Financial statements are prepared and presented for different users by many enterprises around the world.

Users want to make economic decisions as follows:-

- decide when to buy, hold or sell on equity investment
- assess the stewardship or accountability of management
- assess the ability of the enterprise to pay and provide other benefits to its employees
- assess the security for amounts lent to the enterprise
- determine taxation policies
- determine distributable profits and dividends
- prepare and use national income statistics or
- regulate the activities of enterprises.

Some user groups use financial accounting primarily for standard purposes and others for decision-making purposes.
Managers of all forms of organisations whether profit making or non-profit making require information to assist them in their decision making and control activities. Information is required about the viability of a project; whether to lease or buy, profitability of production line, the competitive position in the market, the introduction of a new product and whether to recruit or retrench.

Financial Statements:
Financial statements are commonly prepared in accordance with an accounting model based on recoverable historical cost and the nominal financial capital maintenance concept. Other models and concepts may be more appropriate in order to meet the objective of providing information that is useful for making economic decisions although there is presently no consensus for change.

Financial statements form part of the process of financial reporting. A complete set of financial statements normally includes a balance sheet, an income statement, a statement 1 of change in financial position, which many be presented by way of a cash flow statement, a statement of total recognised gains and losses, and those notes and other statements and explanatory material that are an integral part of the financial statements. This may also include supplementary schedules and information based on or derived from, and expected to be read with, such statements.

Such schedules and supplementary information may deal, for example, with financial information about industrial and geographical. Segments and disclosures about the effects of changing prices.

Financial statements do not, however, include such items as reports by directors, statements by the chairman, discussion and analysis by management and similar items that may be included in a financial or annual report.

Many users, however, have to rely on the financial statements as their major source of financial information and such financial statements should therefore be prepared and presented with their needs in view.

The corporate Report and the Framework.

The effort to recognise and address the many users was emphasised way back and in 1974 the Accounting Standards Committee set up a working party to re-examine the scope and aims of published financial reports in the light of modern needs and conditions. The conclusions of the working party were published in June 1975 as a discussion document entitled The Corporate Report. The slow progress of accounting reform can be gauged by the observation that a report published in the mid- 1970's is still of great relevance some 25 years later. All serious students of accounting should read The Corporate Report. The report listed seven user groups. This was an attempt to identify user groups besides the traditional view that the most significant or, in the extreme case, the only user groups were those comprising the company's shareholders and creditors.

In the report, Macve concluded as follows;

- "The user on whose decisions attention is focused are investors and creditors, but other users have similar needs
- The main factor of importance for the decision they have to take is the assessment of that amount, timing and uncertainty of the future cash flows of the business enterprises in which they are interested.
- The primary focus of financial reporting is on the provision of measures of enterprise income together with information about enterprises' economic resources, obligations and owners' equity"

The suggestion that the assessment of future cash flows is the major factor is, of course, well rooted in economic theory but still leaves open the question of the extent and the manner by which this need can be satisfied by the publication of financial reports.

The seven user groups identified by the corporate report and the framework are the equity-investor group, the loan-creditor group; the employee group, the analyst adviser group, the business contact group, the government and agencies and the public users and their information needs.

Users and their information needs

The main users of published accounts of large companies are now identified with the main reasons they require the accounts as follows;

The shareholders of the company, both existing and potential, will want to know how effectively the directors are performing their stewardship function. They will use the accounts as a base for decisions to dispose of some or all of their shares, or to buy some.

The loan -creditor group which consists of existing and potential providers of risk capital such as debentures and loan stock holders and providers of short-term secured funds. Their advisers are concerned with the risk inherent in, and return provided by, their investments. The loan creditors are also interested in information which enables them to assess the ease with which they may dispose of their debentures or loan stocks, should they so wish.

The employee groups including existing, potential and past employees and their representative groups (trade unions)
Past employees will be mainly concerned with ensuring that any pensions or retirement benefits paid by the enterprise are maintained.
Present employees will be interested in ensuring that the company is able to keep on operating, so maintaining their jobs and paying them acceptable wages, and that any pension contributions are maintained. In addition they may also want to ensure that the enterprise is fair to them, so that they get a reasonable share of the profits accruing to the firm from their efforts.
Trade unions will be upholding the interests of their members, and will possibly use the accounts in wage and pension negotiations.
Potential employees will be interested in assessing whether or not it would be worth seeking employment with the company.

The business contact group - which includes trade creditors and suppliers, who will want to know whether or not they will continue to be paid, and the prospects for a profitable future association. Customers are included, since they will want to know whether or not the company is a secure source of supply, especially when they have a long-term involvement with, or are dependent on the enterprise.
Business rivals in this group will be trying to assess their own position compared with the enterprise.
Potential take over bidders, or those interested in a merger, will want to assess the desirability of any such more on the basis of the enterprise’s book value and market value.
Trade creditors are likely to be interested in an enterprise over a shorter period than lenders unless they are dependent upon the continuation of the enterprise as a major customer. They may end up assessing the profitability and liquidity of the enterprise.

The bankers are identified separately where the bank has given a loan or granted an overdraft to the enterprise. The bankers would want to ensure that payments of interest will be made when due, and that the firm will be able to repay the loan or overdraft at the correct time. The bankers will be keen to monitor the enterprises gearing and relevant term solvency and ensure it takes recovery procedures in time.

The government should comprise the inland revenue who require information in order to assess the tax payable by the enterprise.
The analyst/adviser group will need information for their clients or their readers.
Financial journalists need information for their readers. Stock brokers need it to advise investors.
Credit agencies want it to be able to advise present and possible suppliers of goods and services to the enterprise as to its creditworthiness.
Other official agencies are interested in the allocation of resources and, therefore, to regulate the activities of the enterprise and determine policies such as the fiscal policies or taxation policies and as a basis for national income and similar statistics.

In addition to the internally produced management accounts, the management is also vitally concerned with any published accounts. It has to consider the effect of such accounts to stakeholders and the world at large. At least the accounts should show a true and fair view and at the same time show that management uses the resources of the enterprise to satisfy the stakeholders!!

The public consists of groups such as rate payers, tax payers, potential parties, pressure groups, consumers and any such users not identified above. The enterprise affects members of the public in a variety of ways by making a substantial contribution to the local economy in Financial Statements may assist the public by providing information about the trends and recent development in the propriety of the enterprise and the range of its activities.

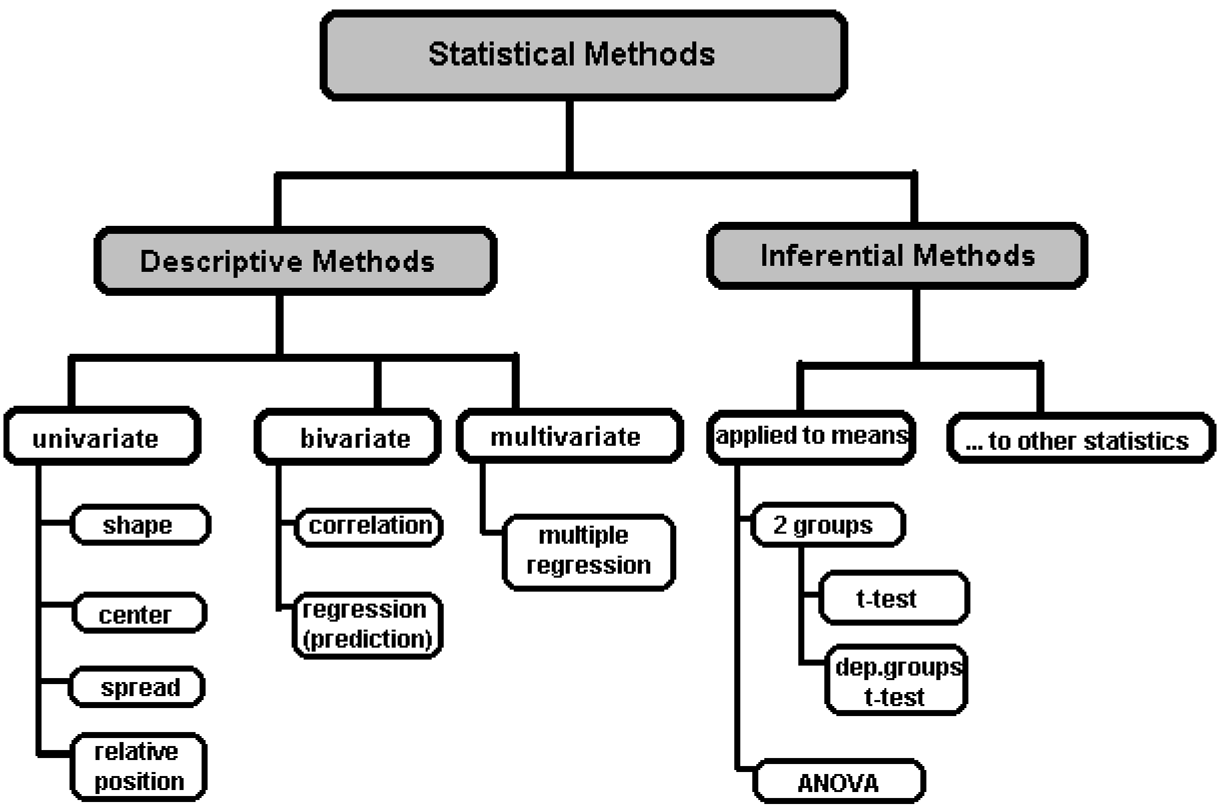
Conclusion
On the basis of the user groupings, it is clear that financial statements may not meet the information needs of all users and there are needs which are common to all users.

The management of an enterprise has the primary responsibility for the preparation and presentation of the financial statements of the enterprise.

Additional statements such as the value added statements, employee reports and social responsibility accounting will go to addressing specific requirements.

Introduction to Statistical Methods

The more important notion to be got across at this early stage is how the subject of statistical methods is organized. This diagram may help:



Statistical methods has two major branches: Descriptive and Inferential . The first half of this course will deal with Descritptive Statistical Methods; the second half, with Inferential Statistical Methods.

Descriptive Statistics

Example: "The average income of the 104 families in our company is $28,673."
In descriptive statistics, our objective is to describe the properties of a group of scores or data that we have "in hand," i.e., data that are accessible to us in that we can write them down on paper or type them into a spreadsheet. In descriptive statistics we are not interested in other data that were not gathered but might have been; that is the subject of inferential statistics. What properties of the set of scores are we interested in? At least three: their **center**, their **spread**, and their **shape**. Consider the following set of scores, which might be ages of persons in your bridge club:

28, 38, 45, 47, 51, 56, 58, 60, 63, 63, 65, 66, 66, 67, 68, 70

We could say of these ages that they range from 28 to 70 (**spread**), and the middle of them is somewhere around 60 (**center**). Now their shape is a property of a graph that can be drawn to depict the scores. If I marked the scores along a number line, like so

Ages of the Bridge Club Members

then we can see that the ages tend to bunch at the older ages and trail off very gradually for the younger ages. Later we will learn that this distribution of data is said to be **negatively skewed,** because the "trailing off" is toward the negative end of the number line.

Inferential Statistics

Example: "This sample of 512 families from Maricopa county indicates with 95% confidence we can conclude that the average family income in the county is between $25,187 and $29,328."
In inferential statistics, our interest is in large collections of data that are so large that we can not have all of them "in hand." We can, however, inspect samples of these larger collections and use what we see there to make inferences to the larger collection. How **samples** relate to larger collections of data (called **populations**) from which they have been drawn is the subject of inferential statistical methods. Inferential statistics are frequently used by pollsters who ask 1000 persons whom they prefer in an election and draw conclusions about how the entire state or county will vote on election day. Scientists and researchers also employ inferential statistics to make conclusions that are more general than the conclusions they could otherwise draw on the basis of the limited number of data points they have recorded.

Tabulating and Graphing Data

Before we get started in learning somethings about statistical methods, we'll need a set of data to practice on and use as an illustration. I have prepared an Excel worksheet that contains the salaries of several hundred teachers in two school districts: Desertview and Mountainview (don't look for these districts in your directory, they are fictitious). **By clicking on the link immediately below, you should--assuming you are working on a machine properly configured--start a**

chain of events that will bring the Excel data file from my server to your computer. If you are asked for a logon id, use "anonymous."
You need to SAVE a copy of the data file (its name when it arrives is something like sal.xls for Windows and sal.csv for Macintosh) on your diskette. The computer you are working on may either ask you before downloading if you want to "Save to Disk" or "Open in Excel". If you have the choice, select the Save option and choose your diskette in the floppy drive as the destination for saving. If the data file is opened immediately upon downlaoding in Excel, one of the first things you should do is Save it onto your floppy diskette (in Excel, go to the top menu bab, click on File, then click on Save As..., then direct the saving to your floppy.) It's not a bad idea to save a coy of sal.xls to two different floppies as a backup. If you do lose the data file, you can always come back to this point an dpwnload a new copy.

Reading Assignment

Please study carefully, the following Sections in the textbook: 2.1-2.7, 3.1-3.13.
"Open" the datafile by starting the Excel program, then selecting File --> Open from the top menu bar. (This notation with an arrow is a way of indicating that the Open option will be found on a submenu of the File option.)
The first job of any data analysis--one that is so simple that it is frequently overlooked or give short shrift--is to inspect the data for "bad" values. Bad data points are entries in a datafile that are unreasonable and represent clerical errors or misunderstandings by persons collecting or reporting the raw data, e.g., 1340 lbs. in a datafile of persons' weights. In nearly every case, bad data points are simply deleted before data analysis begins. This is known as "cleaning the datafile." So your first job is to clean the teacher salaries datafile that you have been given.
Fortunately, Excel (and nearly any spreadsheet program) is a wonderful program for detecting bad data points. About all you need to do is

- Click in the lettered box at the head of a particular column in the spreadsheet;
- Select Data --> Sort from the top menu bar;
- And sort the column of data in either ascending or descending order.

The bad data points will appear at either the top or bottom (or both) of the column as "outliers," i.e., numbers that fall so far from the bulk of the remaining numbers that they raise suspicions as to their accuracy. In the case of teacher salaries, you can probably judge for yourself whether the extreme numbers are reasonable or not. When you find a bad data point or egregious "outlier," you can eliminate it in a couple of ways: highlight the cell it is in by clicking on that cell, and either delete the entry by pressing the backspace key or selecting Edit --> Cut from the top menu. **Please make a note of the data points you eliminate. Later I will ask you to send them to me.**
Once you have "cleaned the data" (be sure to clean both Desertview and Mountainview data), be sure to File --> Save a cleaned copy of the datafile to your floppy diskette.

Percentiles, 5-Number Summaries, Box-and-Whisker Plots,

Frequency Distributions, Histograms

The above are all ways of describing sets of scores (or "observations of variables" to use the technical term). Box-and-Whisker plots and 5-number Summaries are constructed from percentiles; Histograms are constructed from Frequency Distributions. So let's take these two groups of things separately.

Percentiles and Other Things

A **percentile** is just a score that has a certain percent of the cases below it: the 75th Percentile is the score below which 75% of the cases fall; the 50th Percentile (sometimes written "50th %-ile") is the score below (and above) which half the scores in the datafile fall. Percentiles used to be difficult to calculate, but now thanks to computers and spreadsheets, they are real easy to find.

Find Percentiles in a Spreadsheet

1. Click in the lettered box at the head of a particular column in the spreadsheet;
2. Select Data --> Sort from the top menu bar;
3. And sort the column of data in either ascending or descending order.
4. Look at the bottom of the column to see how many cases there are for this Variable (e.g., the Variable "Teacher Salaries in Desertview"). Call this number **n**.
5. Suppose you want the 75th percentile: calculate .75(n) and count up the sorted column of scores until you rech that number (e.g., if there are 200 cases for the Variable you are working on, .75(200) = 150, so the 75th percentile will be the 150th score from the bottom (or the 50th from the top which is the same thing).
6. The Pth percentile is found by multiplying (P/100)(n) and counting up that many scores from the bottom of the column.

(There's more explanation of percentiles on pages 18-19 of the textbook.)

A **5-Number Summary** is a very concise way to describe the major features of a set of scores without getting bogged down in details. The 5 numbers in question are the 10th, 25th, 50th, 75th and 90th percentiles. In mathematical notation, these are denoted as follows: P_{10}, P_{25}, P_{50}, P_{75}, and P_{90}. P_{50} is the 50th Percentile, the score that divides the set of scores into two halves; in this sense, it is a middle score and is commonly called the **Median.** The 25th and 75th Percentiles have an obvious meaning, and noting how far they lie from the Median tells us how spread out the distribution of scores is. P_{25} and P_{75} are known by their synonyms as well: Q_1, the First Quartile, and Q_3, the Third Quartile. By what other name do you think the second quartile, Q_2, is known? Between Q_1 and Q_3 lies half of all the scores. Knowing that much is to know quite a bit. Between P_{10} and P_{90} lies the middle 80% of all the scores, or all but the 10% highest and 10% lowest. These five numbers together, then, give a pretty informative description of the set of scores, without distracting us with too many details that may not be informative or stable. We call them the "5-Number Summary" of a distribution.

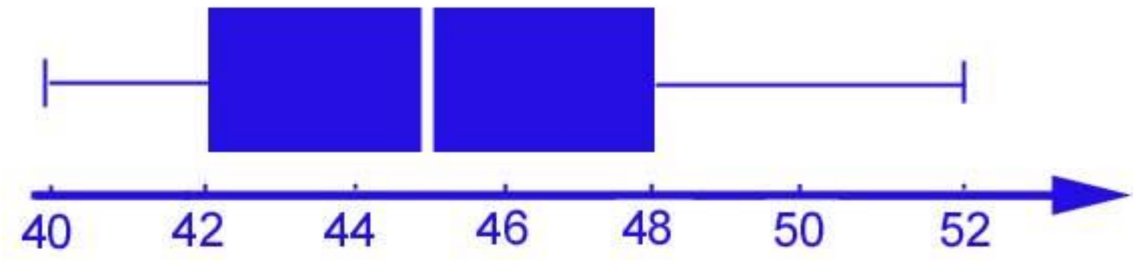
$\mathbf{P_{10}}$	$\mathbf{P_{25}}$	$\mathbf{P_{50}}$	$\mathbf{P_{75}}$	$\mathbf{P_{90}}$

When the 5-Number Summary is converted to a graph, the **Box and Whisker Plot** results. We establish a ruled line horizontally across the page and mark off the full range of scores that we see in the set of scores we are analyzing. Then we draw a rectangle above the ruled scale such that the right edge is above the point on the scale

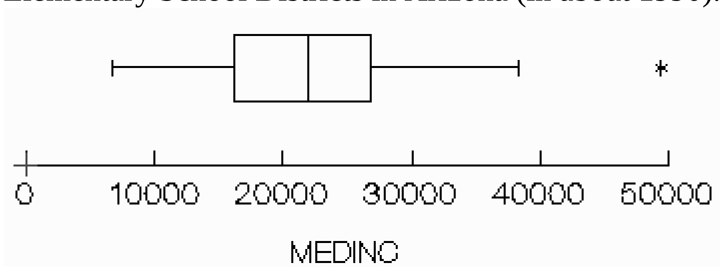
corresponding to P_{75} and the left edge of the rectangle is above the 25th Percentile. We draw a line inside the rectangle at the Median. Then we draw "whiskers that extend out from the sides of the rectangle in each direction unitl they reach the 10th and 90th Percentiles. Like so:
Suppose a set of 150 chidlren's heights had the following 5-Number Summary:

P_{10}= 40"	**P_{25}= 42"**	**P_{50}= 45"**	**P_{75}= 48"**	**P_{90}=52"**

Ten percent of the children are shorter than 40 inches; half the children are taller than 45". Here's what the box-and-whisker plot looks like:



Here's another box-and-whiskers plot. It describes the distribution of Median Family Incomes for 97 Elementary School Districts in Arizona (in about 1990).



What family income is exceeded by half of the Median Family Incomes for Arizona's 97 Elementary School Districts?
John Behrens offers a detailed treatment of how to construct Box-and-Whisker plots.

Frequency Distributions and Histograms

Frequency distributions and histograms are ways of portraying the complete shape of a set of scores. There is quite a bit of discussion of both these techniques in the textbook on pages 9 through 17. Suffice it to say that frequency distributions are built by dividing the range of the scores into some number of equal size classes and then counting and reporting the number (or frequency) of scores in each class. For example, if my set of scores is as follows:

2, 3, 3, 4, 5, 6, 6, 6, 7, 10, 11, 13, 15, 16, 21

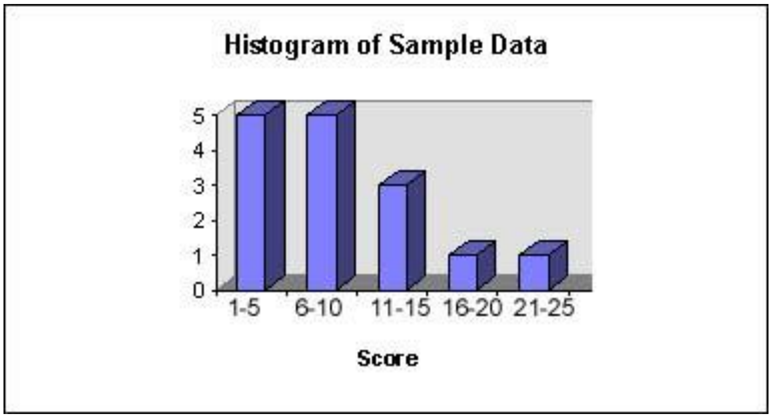
and I form the classes 1-5, 6-10, 11-15, 16-20, and 21-25, then the grouped frequency distribution looks like this:

Class	**Freq.**
1-5	5
6-10	5
11-15	3
16-20	1

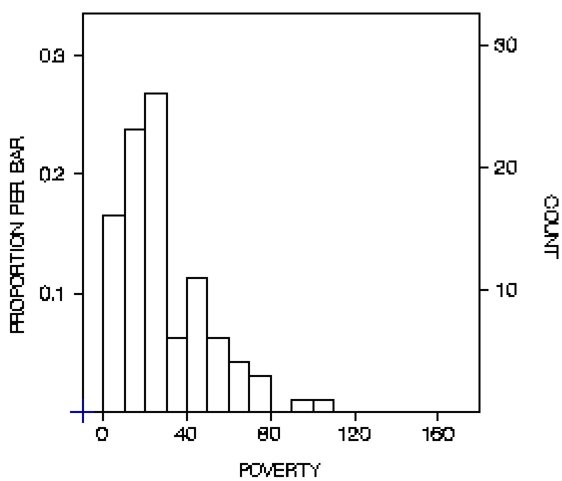
21-25 1

Question: What five scores constitute the three frequencies in the class 6-10?

A **Histogram** is simply a bar graph where the bar lengths are determined by the frequencies in each class of a grouped frequency distribution. Notice how the bar graph below (an example of a histogram) has five bars that represent the numbers of cases in each of the five classes in the above frequency distribution.



The histogram below describes the 97 elementary school districts in Arizona in terms of the proportion of poor people in the school district boundaries.



Notice that about 15 school districts are in the lowest poverty category and about 25 districts are in the third from lowest poverty category.

Describing Central Tendency, Variability and Skew

We will be using the Teacher Salary datafile again for this lesson. If you don't have a copy or have overwritten your old copy, you can download another here:

If asked for a logon id, use "anonymous."

Reading Assignment

Please study carefully, the following Sections in the textbook: 4.1 - 4.15, 4.17; 5.1 - 5.2, 5.4 - 5.12.

Describing the Central Tendency of a Set of Scores

Two properties of distributions of measures are important to describe: their **center** and their **spread**.

Set A:	**Set B:**
12,34,36,42,52 54,68,72,81,93	**152,154,155,155,156 158,159,161,163,163**

- Set A has greater spread (over 80 points from 12 to 93)
- Set B has a higher center: the center of A is around 50, whereas the center of B is around 155

Measures of Center (Central Tendency)

There are three common measures of the center of a distribution:

- The **mode**

  The mode is the most frequent score in a set of measures. Some distributions have no mode, e.g., 123, 154, 167, 132. What is the mode of Set B, above?
  The mode is very unstable--minor fluctuations in the data can change it substantially; for this reason it is seldom calculated. Its principal use is colloquial:"The distribution of X is 'bimodal.'"

- The **median**

  The median is the middle score in the distribution. In the distribution 32, 35, 36, 43, 74, the median is 36. By convention, the median of the distribution 123, 154, 160, 187 is taken to be half way between the two center values: Median = (154 + 160)/2 = 157.

- The **mean**

  The mean (average, or arithmetic mean) is the sum of the scores in the distribution divided by the number of such scores. The mean of 12, 13, 23, 43, 32 is

  $$\text{Mean} = (12 + 13 + 23 + 43 + 32)/5 = 24.6$$

  The mean (or aritmetic mean as it is called) has the property that it is the point on the number line which minimizes the sum of squared distances to all the points in the sample. That is, if the numbers 2, 4, 5, 6 and 8 have a mean of 5, then if we substitute the mean, 5, into the following formula, the sum will be as small as it can possibly be for any value of M:

$$\textbf{Sum} = (2 - M)^2 + (4 - M)^2 + (5 - M)^2 + (6 - M)^2 + (8 - M)^2$$

When M is the mean, 5, the Sum equals 9 + 1 + 0 + 1 + 9 = 20. Try putting any number but 5 in place of M and see if you can get a smaller Sum than 20; and remember, a "minus times a minus is a plus."

Properties of Mean and Median

The most important property of the mean and median is embodied in a simple example. Observe what happens to a set of five scores when the largest one is increased by several points:

Set A: 12, 13, 23, 32, 43
Mean = 24.6
Median = 23

Set A Altered: 12, 13, 23, 32, 143
Mean= 44.6
Median = 23

The Mean changes but the Median does not.

The Mean of Combined Groups

The following situation arises not infrequently. One knows the mean of a group of some number of scores, call it Group A with n<SUBA< sub> scores in it, and the mean of another group of scores, Group B, but the original scores are not in hand and one wishes to know the mean of both groups combined. For example, Crestwood school district issues a report in which it is stated that the average salary of its 36 "probationary" teachers is $24,560, and the average salary of its 215 "tenured" teachers is $38,630. You want to know the average teacher salary in the whole district (i.e., the average of the group of probationary and tenured teaches combined).

Notice right off that the average of the combined group is NOT ($24,560 + $38,630)/2, that is, it is NOT the average of the two averages. That would only be true if the two groups being combined had equal numbers of cases in them. **As a general principle, the mean of the combined group will be closer to the mean of the larger (in terms of number of cases) group**. So we know without even making any exact calculations that the mean teacher salary in Crestwood district will be closer to $38,630 than it will be to $24,560.

But here is how the exact calculations are made even when the original scores, all 36 + 215 = 251 of them, are not available for analysis:

The mean of Groups A & B combined will be the sum of the scores in Group A plus the sum of the scores in Group B divided by the number of scores in the combined group; symbolically, it looks like this:

$$\textbf{Mean(A\&B)} = [(\textbf{Sum of A}) + (\textbf{Sum of B})] / (n_a + n_b)$$

Since Mean(A) = Sum (A) / n_a, then n_aMean(A) = Sum(A).
Consequently, Mean(A&B) = [n_aSum(A) + n_bSum(B)] / ($n_a + n_b$)
That's all there is to it. Multiply the number of cases times each group mean, add those two figures together and divide by the combined number of cases and you have the combined group mean.

Describing the Variability of a Set of Scores

There are a few common measures of variability of a distribution:

- The **Range**

  The range is the distance from the smallest to the largest score: in Set A at the top of this page, Range = 93 - 12 = 81.

- The **Hinge Spread**

  The Hinge Spread, H, is the distance from the 75th Percentile to the 25th Percentile.

- The **Semi-Interquartile Range**

  The Semi-Interquartile Range is half the Hinge Spread

  $$\mathbf{Q = H/2}$$

  In distributions that are not too terribly strange in their configuration, the Median plus and minus Q creates an interval that contains approximately the middle 50% of the distribution. If you learned that for heights of American males Median = 67" and Q = 1.5", then you could calculate that about half of all American males are between the heights of 65.5" and 68.5"

- The **Variance**

  The two most common measures of variability, namely the Variance and its close descendant the Standard Deviation, owe their popularity to the importance of the Normal Distribution, which we shall study later. Normal distributions, which play an important role in both descriptive and inferential statistics, are completely determined by two "parameters": their mean and their variance.
  The variance describes the heterogeneity of a distribution and is calculated from a formula that involves every score in the distribution. It is typically symbolized by the letter *s* with a superscript "2". The formula is

  $$\textbf{Variance} = s^2 = \textbf{Sum (Scores - Mean)}^2/(n - 1)$$

The square root (the positive one) of the variance is known as the "standard deviation." It is symbolized by ***s*** with no superscript.

Sq. Root of Variance = Standard Deviation, denoted by *s*

Use the formula for the variance and standard deviation to calculate both for these scores: 8, 10, 12, 14, 16. Note that $n = 5$. Make the calculations on a piece of paper. You should get a variance of 10 and a standard deviation equal to the square root of 10 which is 3.16.

Properties of the Standard Deviation As the scores in a distribution become more heterogeneous, more "spread out" and different, the value of the standard deviation grows larger.

If I told you that the standard deviation of 6th grade students Reading grade equaivalent scores was 1.68 yrs (in Grade Equivalent units) and the standard deviation of their Math scores was 0.94 yrs, you would know that the students are more varied in Reading performance than in Math performance. **Can you come up with an educationally sound explanation of why this might be so?**

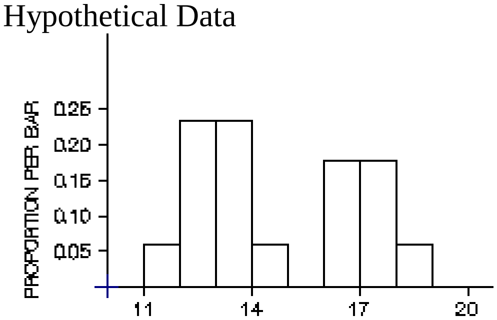
In normal distributions, roughly two-thirds of the scores lie within a distance of one standard deviation of the mean; 95% lie within two standard deviations of the mean; and 99.7% lie within 3 standard deviations.

Modality and Skewness

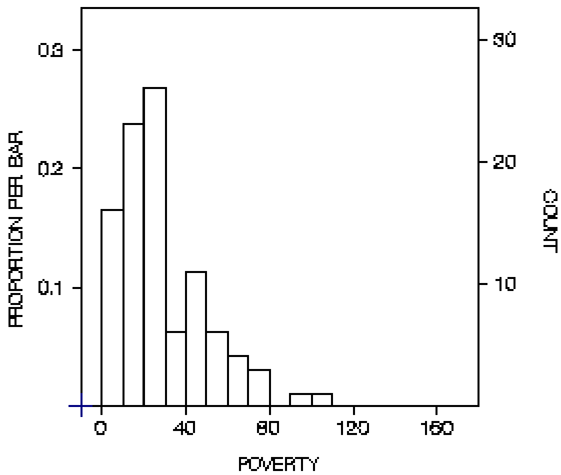
Persons talking informally about distributions of scores commonly refer to two properties: modality and skewness. **Modality** refers to the number of modes a distribution has. If the histogram of the set of scores has "one hump," it is said to be **unimodal**; two humps, and it's **bimodal**. Truly bimodal distributions are seldom encountered.

A Bimodal Distribution

Hypothetical Data



Skewness refers to the asymmetry of a histogram. If the histogram is perfectly symmetrical around its middle, the it has "no skewness." If the histogram has a hump toward the left and the right-hand tail stretches out longer than the left-hand tail, then the distribution is said to be **positively skewed.** Like this one:

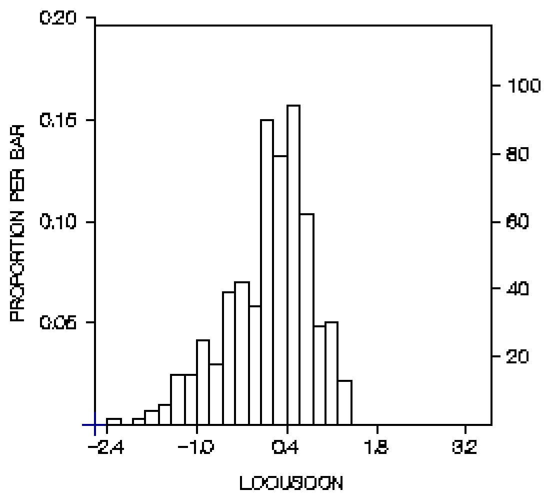


A Positively Skewed Distribution

The histogram above describes the 97 elementary school districts in Arizona in terms of the proportion of poor people in the school district boundaries.

Negative skewness is observed when the hump is to the right and the left-tail (toward the negative numbers) is elongated.

Locus of Control measures for a sample (n=600) of the High School and



Beyond Survey.

A Negatively Skewed Distribution

There exists a summary statistic that measures the degree of skewness; it is not often reported, but merely inspected as to its algebraic sign to confirm an impression of either negative or positive skew from a histogram. It is roughly equivalent to an average of (standardized) third powers (cubes) of deviations of scores from the mean. Forget about it.

The Mean, the Median and Skewness

There is a relationship among the mean, the median and skewness that is important in descriptive statistics. To put it in common language, **the mean**

is drawn in the direction of the skew more than is the median. That is, in a very positively skewed distribution, the mean will be higher than the median. In a very negatively skewed distribution, the mean will be lower than the median. The median is less affected by extreme scores in a distribution than is the mean. Recall the earlier example: when the largest of 5 scores is increased by several points the mean is drawn toward the elongated tail of the distribution:

Set A: 12, 13, 23, 32, 43
Mean = 24.6
Median = 23

Set A Altered: 12, 13, 23, 32, 143
Mean= 44.6
Median = 23

The Mean changes but the Median does not.

Because of this sensitivity of the mean to extreme scores, it is sometimes not favored for describing central tendency of very skewed dstributions. Often, distributions of financial statistics (income, poverty rates, expenditures and the like) are very skewed. One will find the median preferred for describing the centers of skewed distributions.

Exercises

You can use the online stats calculator to make some very quick calculations of means, medians, variances, standard deviations, and skewness so that you get a feel for what these summary statistics mean.

Exercises

1. Enter the following numbers into the online calculator and observe the mean, median, variance and standard deviation:

   12.3 21.4 34.5 32.8 42.3 18.6 25.2 28.3 27.1 24.3 31.7

2. Here's the same set of scores as in #1 above except, the largest score, 42.3, has been increased to 68.2. What will happen to the mean and median of thisgroup of scores compared to the group of scores in #1?

   12.3 21.4 34.5 32.8 68.2 18.6 25.2 28.3 27.1 24.3 31.7

Using Excel to Calculate Summary Statistics

Fortunately, it is a whole lot easier to calculate things like means, medians, variances and standard deviations in Excel than it was to construct a frequency distribution.

Calculating the Mean in Excel

1. Suppose that the numbers whose mean you want are in Rows a3 through a156 of the spreadsheet.

2. First, find an empty spot in the spreadsheet where you want the answer to appear and click on it, e.g., cell e5.
3. Click on the Function icon (it looks like this, remember: $\boldsymbol{f_x}$).
4. In the left box that appears, click on "Statistical." In the right hand box, click on "AVERAGE." Then click on Next at the bottom of the dialogue box.
5. Then in the dialogue box that appears next, type this in the first window labeled **number 1** $\boldsymbol{f_x}$: a3:a156 . (Obviously, if your data are in some other rows, enter the proper symbols, e.g., b1:b100). Finally, click on "Finish" at the bottom of the dialogue box.
6. That's all; by now you should be seeing the mean of the numbers in Rows a3 through a156 in the cell at e5.

Calculating the Standard Deviation in Excel

- Do exactly as you did to calculate the Mean, only pick "STDEV" in the "Statistical" dialogue box instead of "AVERAGE."

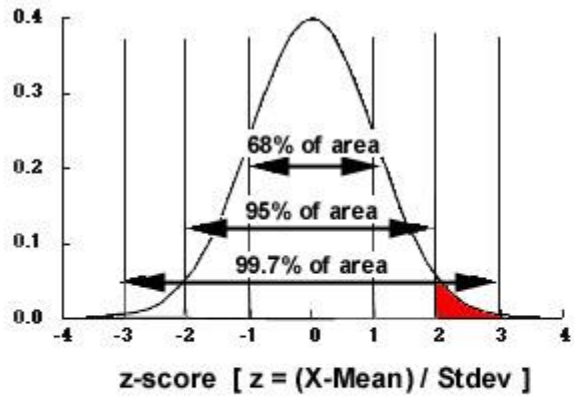
And now, experiment with these other **Statistical Functions** that you'll find in your **Excel** spreadsheet:
If the Excel program you are working on has the **Tools ---> Data Analysis** package installed on it, then you can get all these statistics in one fel swoop. Just select **Tools ---> Data Analysis ---> Descriptive Statistics** and when you reach the Descriptive Statistics dialgoue box, fill in the "Input Range" with the location of your scores (e.g., a3:a391) and be sure to check Summary Statistics at the very bottom of the box. That's all there is to it.

Normal Distribution & Standard Scores

Normal Distribution

Sections Covered: 6.1 - 6.3; 6.5 - 6.8.

The normal (or Gaussian) distribution is the familiar unimodal, symmetric curve with thin tails that every introductory psychology textbook calls the "bell curve." (Many years ago when I was teaching at the University of Illinois, which was a leader in accommodating students with disabilities, I lectured to a class that included a blind student. I scribbled a replica of the normal curve on the chalk board and described it as looking like a bell. After class, the student politely explained to me that there are many kinds of bells--door bells, sleigh bells and the like--and would I please be a bit more specific. Touche!) The normal curve looks like a vertical cross section of the Liberty bell--with all the top attachments removed--oh, forget it.
Here is a picture of a normal distribution showing the important facts about areas under the normal curve within various standard devistion units of the center.



Certain things follow from the facts about areas in the graph for the normal curve:

- 50% of the area (and hence, half the cases in a set of data that is normally distributed) lies below the middle or mean.
- 34% of the area lies between the mean and a point one standard deviation above. Likewise, there is 34% between the mean and a standard deviation below the mean.
- It follows, then, that 16% of the data in a normal distribution lies below a point one standard deviation below the mean.

Answer each of the following questions--write down your answers. At the end, you can click on the Answers.

What percent of the normal distribution lies between one and two standard deviations above the mean?

What percent of the normal distribution lies above three standard deviations above the mean?

If there were 100,000 persons arrayed in a normal distribution of heights, how many would be expected to lie more than three standard deviations above the mean?

It is not a simple matter to calculate the area under the normal curve between to arbitrary points like 1.25 and 2.38 standard deviations above the mean.
You have four options:

1. look up values of areas under the normal curve in a printed table in a statistics textbook,
2. hope that these good people in the Netherlands have their server functioning when you need a quick reading of normal curve areas. **Please note: when you enter a z-value of 1.5, say, into the calculator in the Netherlands, the area returned is the probability of being greater than 1.5 or less than -1.5; i.e., it is a two-tailed probability and must be divided by 2 to give a single tail area.**
3. **your best bet,** if your browser will handle the Java, is to use Gary McClelland's nice Java program from the University of Colorado.
4. and, finally, just in case none of these utilities is available when you need them on the internet, you can always resort to the old-fashion way of finding normal curve areas by looking them up in a table like this one.

Please exercise either option now in answering the following questions:

What percent of the normal distribution lies below a point .675 standard deviations above the mean?

What percent of the normal distribution lies above a point that is 1.96 standard deviations above the mean?

Unit Normal Scores: the z-Score

All normal distributions have the same "shape" but they can have different means and different standard deviations. Once one specifies the mean and standard deviation of a normal distribution, everything alse about it is fixed (e.g., the percent of area between any two points). For this reason, all the various normal distributions (of people's heights and weights and IQ scores) can be referred to a single table of the normal curve by standardizing a variable to a common mean and standard deviation. The simplest standardization measures the position of any point in a normal distribution in terms of its distance above or below the mean in units of the standard deviation. Thus, a *standard unit normal variable* has the formula

$$\mathbf{z = (X-m)/s} \,,$$

where **m** is the mean, and **s** is the standard deviation of the distribution of scores. Consequently, a person with a **z** score of +1.5 lies one and one-half standard deviations above the mean.

You are given that the distribution of adolescents IQ scores is normal in shape with a mean of 100 and a standard deviation of 15 points.

1. What is the percentile rank of a child whose IQ is 120?
2. What percent of the population of adolescents have IQ scores below 90?

Standard Scores

Unit normal z-scores are useful, but their properties are sometimes viewed as a disadvantage for particular applications. In these cases, one transforms them to scales that have more convenient means and standard deviations. For example, if one would multiply each z-score by 200 and then add 1000 to the product, the resulting new standard scores would have a mean of 1000 and a standard deviation of 200.

There are several particular standard score scales in such common use that it is useful to look more closely at them. In general, if a *z-score* is transformed via the following formula:

$$\mathbf{Z = Bz + A} \,,$$

then the *Z-score* has a mean of **A** and a standard deviation of **B**.

Some Popular Standard Scores

A **Mean**	**B** **St Dev**	**Scale Name**
500	100	SAT; GRE; LSAT; GMAT
100	15	Wechsler IQ
100	16	Stanford Binet IQ

20	5	ACT (Amer College Testing Co.)
50	10	T-scale (MMPI)

Standard scores vs. percentiles

If all one does with standard scores is convert them to percentiles, then why have both? Percentiles and standard scores have slightly different information in them. Another way to put this is that the transformation from standard scores to their normal curve percentile equivalents is a "non-linear transformation." Very large differences between extremely large of extremely small standard scores correspond to small differences in percentiles; likewise, very small differences in standard scores near the mean correspond to large differences in percentiles. Consider two groups of three persons each whose heights are measured both in inches and in percentiles among adult males:

	Heights-inches	Heights-percentiles
Group A:	70", 72", 84"	80, 92, 99.999
Group B:	70", 74", 76"	80, 95, 99.9

	Group A	Group B
Mean in inches	75.333	73.333
Mean Percentiles	90.67	91.63

Notice that Group A is taller than Group B when heights are expressed in inches, but Group B is "taller" when heights are expressed in percentiles. Is this possible? Or did I make a calculation error?

Business communication skills (Sales and Marketing)

The Communication Process

Although all of us have been communicating with others since our infancy, the process of transmitting information from an individual (or group) to another is a very complex process with many sources of potential error.

Consider the simple example:

Terry: "I won't make it to work again tomorrow; this pregnancy keeps me nauseous and my doctor says I should probably be reduced to part time.

Boss: Terry, this is the third day you've missed and your appointments keep backing up; we have to cover for you and this is messing all of us up.

Message to be sent	Decode some error likely	encoded by receiver some error likely)	message received

In any communication at least some of the "meaning" lost in simple transmission of a message from the sender to the receiver. In many situations a lot of the true message is lost and the message that is heard is often far different than the one intended. This is most obvious in cross-cultural situations where language is an issue. But it is also common among people of the same culture.

Look at the example. Terry has what appears to be a simple message to convey-she won't make it to work today because of nausea. But she had to translate the thoughts into words and this is the first potential source of error. Was she just trying to convey that she would be late; was she trying to convey anything else. It turns out she was. She was upset because she perceived that her co-workers weren't as sympathetic to her situation as they should be. Her co-workers, however, were really being pressured by Terry's continued absences, and her late calls. They wished she would just take a leave of absence, but Terry refuses because she would have to take it without pay. Thus what appears to be a simple communication is, in reality, quite complex. Terry is communicating far more than that she would miss work; she is conveying a number of complex emotions, complicated by her own complex feelings about pregnancy, work, and her future. She sent a message but the message is more than the words; it includes the tone, the timing of the call, and the way she expressed herself.

Similarly, the boss goes through a complex communication process in "hearing" the message. The message that Terry sent had to be decoded and given meaning. There are many ways to decode the simple message that Terry gave and the way the message is heard will influence the response to Terry.

In this case the boss heard far more than a simple message that Terry won't be at work today. The boss "heard" hostility from Terry, indifference, lack of consideration, among other emotions. Terry may not have meant this, but this is what the boss heard.

Communications is so difficult because at each step in the process there major potential for error. By the time a message gets from a sender to a receiver there are four basic places where transmission errors can take place and at each place, there are a multitude of potential sources of error. Thus it is no surprise that social psychologists estimate that there is usually a 40-60% loss of meaning in the transmission of messages from sender to receiver.

It is critical to understand this process, understand and be aware of the potential sources of errors and constantly counteract these tendencies by making a conscientious effort to make sure there is a minimal loss of meaning in your conversation.

It is also very important to understand that a majoring of communication is non-verbal. This means that when we attribute meaning to what someone else is saying, the verbal part of the message actually means less than the non-verbal part. The non-verbal part includes such things as body language and tone.

Barriers to Effective Communication

There are a wide number of sources of noise or interference that can enter into the communication process. This can occur when people now each other very well and should understand the sources of error. In a work setting, it is even more common since interactions involve people who not only don't have years of experience with each other, but communication is complicated by the complex and often conflictual relationships that exist at work. In a work setting, the following suggests a number of sources of noise:

- Language: The choice of words or language in which a sender encodes a message will influence the quality of communication. Because language is a symbolic representation of a phenomenon, room for interpreation and distortion of the meaning exists. In the above example, the Boss uses language (this is the third day you've missed) that is likely to convey far more than objective information. To Terry it conveys indifference to her medical problems. Note that the same words will be interpreted different by each different person. Meaning has to be given to words and many factors affect how an individual will attribute meaning to particular words. It is important to note that no two people will attribute the exact same meaning to the same words.
- defensiveness, distorted perceptions, guilt, project, transference, distortions from the past
- misreading of body language, tone and other non-verbal forms of communication (see section below)
- noisy transmission (unreliable messages, inconsistency)
- receiver distortion: selective hearing, ignoring non-verbal cues
- power struggles
- self-fulfilling assumptions
- language-different levels of meaning
- managers hesitation to be candid
- Assumptions-eg. assuming others see situation same as you, has same feelings as you
- distrusted source, erroneous translation, value judgment, state of mind of two people
- Perceptual Biases: People attend to stimuli in the environment in very different ways. We each have shortcuts that we use to organize data. Invariably, these shortcuts introduce some biases into communication. Some of these shortcuts include stereotyping, projection, and self-fulfilling prophecies. Stereotyping is one of the most common. This is when we assume that the other person has certain characteristics based on the group to which they belong without validating that they in fact have these characteristics.
- Interpersonal Relationships: How we perceive communication is affected by the past experience with the individual. Perception is also affected by the organizational relationship two people have. For example, communication from a superior may be perceived differently than that from a subordinate or peer
- Cultural Differences: Effective communication requires deciphering the basic values, motives, aspirations, and assumptions that operate across geographical lines. Given some dramatic differences across cultures in approaches to such areas as time, space, and privacy, the opportunities for mis-communication while we are in cross-cultural situations are plentiful.

You work in a Japanese company in the US. You have noticed that the Japanese staff explains only the conclusion to Americans when they address a problem, rather than discussing the steps to the conclusion. Also, the Japanese staff sends reports directly to Japan without showing them to you.

Reading Nonverbal Communication Cues

A large percentage (studies suggest over 90%) of the meaning we derive from communication, we derive from the non-verbal cues that the other person gives. Often a person says one thing but communicates something totally different through vocal intonation and body language. These mixed signals force the receiver to choose between the verbal and nonverbal parts of the message. Most often, the receiver chooses the nonverbal aspects. Mixed messages create tension and distrust because the receiver senses that the communicator is hiding something or is being less than candid.

Nonverbal communication is made up of the following parts:

1. Visual
2. Tactile
3. Vocal
4. Use of time, space, and image
5. Physical Space

Visual:

This often called body language and includes facial expression, eye movement, posture, and gestures. The face is the biggest part of this. All of us "read" people's faces for ways to interpret what they say and feel. This fact becomes very apparent when we deal with someone with dark sunglasses. Of course we can easily misread these cues especially when communicating across cultures where gestures can mean something very different in another culture. For example, in American culture agreement might be indicated by the head going up and down whereas in India, a side-to-side head movement might mean the same thing.

We also look to posture to provide cues about the communicator; posture can indicate self-confidence, aggressiveness, fear, guilt, or anxiety. Similarly, we look at gestures such as how we hold our hands, or a handshake. Many gestures are culture bound and susceptible to misinterpretation

Tactile:

This involves the use of touch to impart meaning as in a handshake, a pat on the back, an arm around the shoulder, a kiss, or a hug.

Vocal:

The meaning of words can be altered significantly by changing the intonation of one's voice. Think of how many ways you can say "no"-you could express mild doubt, terror, amazement, anger among other emotions. Vocal meanings vary across cultures. Intonation in one culture can mean support; another anger

Use of Time as Nonverbal Communication:

Use of time can communicate how we view our own status and power in relation to others. Think about how a subordinate and his/her boss would view arriving at a place for an agreed upon meeting..

Physical Space:

For most of us, someone standing very close to us makes us uncomfortable. We feel our "space" has been invaded. People seek to extend their territory in many ways to attain power and intimacy. We tend to mark our territory either with permanent walls, or in a classroom with our coat, pen, paper, etc. We like to protect and control our territory. For Americans, the "intimate zone" is about two feet; this can vary from culture to culture. This zone is reserved for our closest friends. The "personal zone" from about 2-4 feet usually is reserved for family and friends. The social zone (4-12 feet) is where most business transactions take place. The "public zone" (over 12 feet) is used for lectures.

At the risk of stereotyping, we will generalize and state that Americans and Northern Europeans typify the noncontact group with small amounts of touching and relatively large spaces between them during transactions. Arabs and Latins normally stand closer together and do a lot of touching during communication. Similarly, we use "things" to communicate. This can involve expensive things, neat or messy things, photographs, plants, etc. Image: We use clothing and other dimensions of physical appearance to communicate our values and expectations Nonverbal Communication:

The use of gestures, movements, material things, time, and space can clarify or confuse the meaning of verbal communication. In the above example, factors such as Terry's tone, the time of Terry's call, will probably play a greater role in how the message is interpreted than the actual words themselves. Similarly, the tone of the boss will probably have a greater impact on how his message is interpreted than the actual words.

A "majority" of the meaning we attribute to words comes not from the words themselves, but from nonverbal factors such as gestures, facial expressions, tone, body language, etc. Nonverbal cues can play five roles:

Repetition: they can repeat the message the person is making verbally

Contradiction: they can contradict a message the individual is trying to convey

Substitution: they can substitute for a verbal message. For example, a person's eyes can often convey a far more vivid message than words and often do

Complementing: they may add to or complement a vebal message. A boss who pats a person on the back in addition to giving praise can increase the impact of the message

Accenting: non-verbal communication may accept or underline a verbal message. Pounding the table, for example, can underline a message.

Skillful communicators understand the importance of nonverbal communication and use it to increase their effectiveness, as well as use it to understand more clearly what someone else is really saying. A word of warning. Nonverbal cues can differ dramatically from culture to culture. An American hand gesture meaning "A-OK" would be viewed as obscene in some South American countries, A kiss or hag has different meanings in different cultures. Be careful.

Developing Communication Skills: Listening Skills

There are a number of situations when you need to solicit good information from others; these situations include interviewing candidates, solving work problems, seeking to help an employee on work performance, and finding out reasons for performance discrepancies.

Skill in communication involves a number of specific strengths. The first we will discuss involves listening skills. The following lists some suggests for effective listening when confronted with a problem at work:

- Listen openly and with empathy to the other person
- Judge the content, not the messenger or delivery; comprehend before you judge
- Use multiple techniques to fully comprehend (ask, repeat, rephrase, etc.)
- Active body state; fight distractions
- Ask the other person for as much detail as he/she can provide; paraphrase what the other is saying to make sure you understand it and check for understanding
- Respond in an interested way that shows you understand the problem and the employee's concern
- Attend to non-verbal cues, body language, not just words; listen between the lines
- Ask the other for his views or suggestions
- State your position openly; be specific, not global

- Communicate your feelings but don't act them out (eg. tell a person that his behavior really upsets you; don't get angry)
- Be descriptive, not evaluative-describe objectively, your reactions, consequences
- Be validating, not invalidating ("You wouldn't understand"); acknowledge other;'s uniqueness, importance
- Be conjunctive, not disjunctive (not "I want to discuss this regardless of what you want to discuss");
- Don't totally control conversation; acknowledge what was said
- Own up: use "I", not "They"... not "I've heard you are noncooperative"
- Don't react to emotional words, but interpret their purpose
- Practice supportive listening, not one way listening
- Decide on specific follow-up actions and specific follow up dates

A major source of problem in communication is defensiveness. Effective communicators are aware that defensiveness is a typical response in a work situation especially when negative information or criticism is involved. Be aware that defensiveness is common, particularly with subordinates when you are dealing with a problem. Try to make adjustments to compensate for the likely defensiveness. Realize that when people feel threatened they will try to protect themselves; this is natural. This defensiveness can take the form of aggression, anger, competitiveness, avoidance among other responses. A skillful listener is aware of the potential for defensiveness and makes needed adjustment. He or she is aware that self-protection is necessary and avoids making the other person spend energy defending the self. In addition, a supportive and effective listener does the following:

- Stop Talking: Asks the other person for as much detail as he/she can provide; asks for other's views and suggestions
- Looks at the person, listens openly and with empathy to the employee; is clear about his position; be patient
- Listen and Respond in an interested way that shows you understand the problem and the other's concern
- is validating, not invalidating ("You wouldn't understand"); acknowledge other;'s uniqueness, importance
- checks for understanding; paraphrases; asks questions for clarification
- don't control conversation; acknowledges what was said; let's the other finish before responding
- Focuses on the problem, not the person; is descriptive and specific, not evaluative; focuses on content, not delivery or emotion
- Attend to emotional as well as cognitive messages (e.g., anger); aware of non-verbal cues, body language, etc.; listen between the lines
- React to the message, not the person, delivery or emotion
- Make sure you comprehend before you judge; ask questions
- Use many techniques to fully comprehend
- Stay in an active body state to aid listening
- Fight distractions
- (if in a work situation) Take Notes; Decide on specific follow-up actions and specific follow up dates.

Constructive Feedback: Developing your Skills

"I don't know how to turn her performance around; she never used to have these attendance problems and her work used to be so good; I don't know why this is happening and what to do." This manager is struggling with one of the most important yet trickiest and most difficult management tasks: providing constructive and useful feedback to others. Effective feedback is absolutely essential to organizational effectiveness; people must know where they are and where to go next in terms of expectations and goals-yours, their own, and the organization. Feedback taps basic human needs-to improve, to compete, to be accurate; people want to be competent. Feedback can be reinforcing; if given properly, feedback is almost always appreciated and motivates people to improve. But for many people, daily work is like bowling with a curtain placed between them and the pins; they receive little information. Be aware of the many reasons why people are hesitant to give feedback; they include fear of causing embarassment, discomfort, fear of an emotional reaction, and inability to handle the reaction. It is crucial that we realize how critical feedback can be and overcome our difficulties; it is very important and can be very rewarding but it requires skill, understanding, courage, and respect for yourself and others. Withholding constructive feedback is like sending people out on a dangerous hike without a compass. This is especially true in today's fast changing and demanding workplace

Other factors get in the way of effective communication or feedback sessions. Some of these reasons are:

- defensiveness, distorted perceptions, guilt, project, transference, distortions from the past
- misreading of body language, tone
- noisy transmission (unreliable messages, inconsistency)
- receiver distortion: selective hearing, ignoring non-verbal cues
- power struggles
- self-fulfilling assumptions
- language-different levels of meaning
- managers hesitation to be candid
- assumptions-eg. assuming others see situation same as you, has same feelings as you
- distrusted source, erroneous translation, value judgment, state of mind of two people

Characteristics of Effective Feedback

Effective Feedback has most of the following characteristics:

- descriptive (not evaluative)(avoids defensiveness.) By describing one's own reactions, it leaves the individual fee to use it or not to use it as he sees fit.
- avoid accusations; present data if necessary
- describe your own reactions or feelings; describe objective consequences that have or will occur; focus on behavior and your own reaction, not on other individual or his or her attributes
- suggest more acceptable alternative; be prepared to discuss additional alternatives; focus on alternatives
- specific rather than general.
- focused on behavior not the person. It is important that we refer to what a person does rather than to what we think he is. Thus we might say that a person "talked more than anyone else in this meeting" rather than that he is a "loud-mouth."
- It takes into account the needs of both the receiver and giver of feedback. It should be given to help, not to hurt. We too often give feedback because it makes us feel better or gives us a psychological advantage.

- It is directed toward behavior which the receiver can do something about. A person gets frustrated when reminded of some shortcoming over which he has no control.
- It is solicited rather than imposed. Feedback is most useful when the receiver himself has formulated the kind of question which those observing him can answer or when he actively seeks feedback.
- Feedback is useful when well-timed (soon after the behavior-depending, of course, on the person's readiness to hear it, support available from others, and so forth). Excellent feedback presented at an inappropriate time may do more harm than good.
- sharing of information, rather than giving advice allows a person to decide for himself, in accordance with his own goals and needs. When we give advice we tell him what to do, and to some degree take away his freedom to do decide for himself.
- It involves the amount of information the receiver can use rather than the amount we would like to give. To overload a person with feedback is to reduce the possibility that he may be able to use what he receives effectively. When we give more than can be used, we are more often than not satisfying some need of our own rather than helping the other person.
- It concerns what is said and done, or how, not why. The "why" involves assumptions regarding motive or intent and this tends to alienate the person generate resentment, suspicion, and distrust. If we are uncertain of his motives or intent, this uncertainty itself is feedback, however, and should be revealed.
- It is checked to insure clear communication. One way of doing this is to have the receiver try to rephrase the feedback. No matter what the intent, feedback is often threatening and thus subject to considerable distortion or misinterpretation.
- It is checked to determine degree of agreement from others. Such "consensual validation" is of value to both the sender and receiver.
- It is followed by attention to the consequences of the feedback. The supervisor needs to become acutely aware of the effects of his feedback.
- It is an important step toward authenticity. Constructive feedback opens the way to a relationship which is built on trust, honest, and genuine concern and mutual growth.

Part of the feedback process involves understanding and predicting how the other person will react. Or in the case of our receiving feedback, we need to understand ways that we respond to feedback, especially threatening feedback. People often react negatively to threatening feedback. This reaction can take a number of forms including:

- selective reception and selective perception
- doubting motive of the giver
- denying validity of the data
- rationalizing
- attack the giver of the data

Following the guidelines to effective feedback can go a long way to limit these kinds of reactions but we need to be conscious of them nonetheless and be ready to react appropriately. When we are on the receiving end of feedback we should be careful to avoid these pitfalls. Try to keep these points in mind.

- try not to be defensive
- check on possible misunderstanding ("Let me restate what I am hearing")
- gather information from other sources
- don't overreact
- ask for clarification

A Planning Form for Constructive Feedback

Instructions: Before the feedback session, answer these questions:

- what is your purpose in giving the feedback
- what specific actions do you want to reinforce or correct? what are the consequences of the action?
- what do you want to accomplish in this discussion
- what specific information do you need to learn; what questions do you need answered
- what issues of timing, location, advance preparation, or other logistics do you need to consider to get the most out of the discussion

Observe the basic principles of communication

- use open ended and close ended questions appropriately
- use eye contact, encouraging gestures
- focus on the situation, issue, behavior, not the person
- maintain the self-confidence and self-esteem of others
- maintain constructive relationships with your employees, peers, managers
- use active listening techniques such as stating your understanding of what you are hearing
- make sure you summarize
- lead by example

What pitfalls do you need to watch out for and how will these be overcome: from your experience, what potential pitfalls will you need to overcome in order ot achieve success in giving constructive feedback? How will you overcome these pitfalls.

Evaluating the Feedback Session

1. State the constructive purpose of your feedback
2. describe specifically what you have observed
3. describe your reactions
4. give the other person an opportunity to respond
5. offer specific suggestions
6. summarize and express your support

How well did the manager:

- focus on the situation,
- issue or behavior, not on the person
- maintain the self-confidence
- and self-esteem of the other
- maintain constructive relationships
- with your employees, peers, and managers
- take initiative to make things better
- lead by example

The Four Basic Styles of communication:

The way you communicate has a big impact on your ability to get on with people and get the things that you want. Good communication skills can help you to avoid conflict and to solve problems. Open and honest communication is also important for making friends and having healthy relationships. Those of us who grew up in dysfunctional families may have never learned to communicate effectively in relationships. We may be passive and not advocate for ourselves, aggressive and attempt to run roughshod over others, or passive-aggressive and smile while sabotaging others behind their backs. No wonder we have so many problematic relationships and feel so isolated! In order to build healthy relationships, we must learn to be assertive-that is, to be clear, direct, and respectful in how we communicate.

Passive, Aggressive, Passive-Aggressive and Assertive communication styles

PASSIVE COMMUNICATION is a style in which individuals have developed a pattern of avoiding expressing their opinions or feelings, protecting their rights, and identifying and meeting their needs. Passive communication is usually born of low self-esteem. These individuals believe: "I'm not worth taking care of." As a result, passive individuals do not respond overtly to hurtful or anger-inducing situations. Instead, they allow grievances and annoyances to mount, usually unaware of the build up. But once they have reached their high tolerance threshold for unacceptable behavior, they are prone to explosive outbursts, which are usually out of proportion to the triggering incident. After the outburst, however, they feel shame, guilt, and confusion, so they return to being passive.

Passive communicators will often:
- fail to assert for themselves
- allow others to deliberately or inadvertently infringe on their rights
- fail to express their feelings, needs, or opinions
- tend to speak softly or apologetically
- exhibit poor eye contact and slumped body posture

The impact of a pattern of passive communication is that these individuals:
- often feel anxious because life seems out of their control
- often feel depressed because they feel stuck and hopeless
- often feel resentful (but are unaware of it) because their needs are not being met
- often feel confused because they ignore their own feelings
- are unable to mature because real issues are never addressed

A passive communicator will say, believe, or behave like:
- "I'm unable to stand up for my rights."
- "I don't know what my rights are."
-"I get stepped on by everyone."
-"I'm weak and unable to take care of myself."
- "People never consider my feelings."

2. AGGRESSIVE COMMUNICATION is a style in which individuals express their feelings and opinions and advocate for their needs in a way that violates the rights of others. Thus, aggressive communicators are verbally and/or physically abusive. Aggressive communication is born of low self-esteem (often caused by past physical and/or emotional abuse), unhealed emotional wounds, and feelings of powerlessness.

Aggressive communicators will often:
- try to dominate others
- use humiliation to control others
- criticize, blame or attack others
- be very impulsive
- have low frustration tolerance
- speak in a loud, demanding, and overbearing voice

- act threateningly and rudely
- not listen well
- interrupt frequently
- use “you” statements
- have piercing eye contact and an overbearing posture

The impact of a pattern of aggressive communication is that these individuals:
- become alienated from others
- alienate others
- generate fear and hatred in others
- always blame others instead of owning their issues, and thus are unable to mature

The aggressive communicator will say, believe, or behave like:
-“I’m superior and right and you’re inferior and wrong.”
- “I’m loud, bossy and pushy.”
- “I candominate and intimidate you.”
-“I can violate your rights.”
- “I’ll get my way no matter what.”
-“You’re not worth anything.”
- “It’s your entire fault.”
- “I react instantly.”
- “I’m entitled.”
- “You owe me.”
- “I own you.”

3. PASSIVE-AGGRESSIVE COMMUNICATION is a style in which individuals appear passive on the surface but are really acting out anger in a subtle, indirect, or behind-the-scenes way. Prisoners of War (POWs) often act in passive-aggressive ways to deal with an overwhelming lack of power. POWs may try to secretly sabotage the prison, make fun of the enemy, or quietly disrupt the system while smiling and appearing cooperative.

People who develop a pattern of passive-aggressive communication usually feel powerless, stuck, and resentful – in other words, they feel incapable of dealing directly with the object of their resentments. Instead, they express their anger by subtly undermining the object (real or imagined) of their resentments. They smile at you while setting booby traps all around you.

Passive-Aggressive communicators will often:
- mutter to themselves rather than confront the person or issue
- have difficulty acknowledging their anger
- use facial expressions that don’t match how they feel – i.e., smiling when angry
- use sarcasm
- deny there is a problem
- appear cooperative while purposely doing things to annoy and disrupt
- use subtle sabotage to get even

The impact of a pattern of passive-aggressive communication is that these individuals:
- become alienated from those around them
- remain stuck in a position of powerlessness (like POWs)
- discharge resentment while real issues are never addressed so they can’t mature

The passive-aggressive communicator will say, believe, or behave like:

- "I'm weak and resentful, so I sabotage, frustrate, and disrupt."
- "I'm powerless to deal with you head on so I must use guerilla warfare."
- "I will appear cooperative but I'm not."

4. ASSERTIVE COMMUNICATION is a style in which individuals clearly state their opinions and feelings, and firmly advocate for their rights and needs without violating the rights of others. Assertive communication is born of high self-esteem. These individuals value themselves, their time, and their emotional, spiritual, and physical needs and are strong advocates for themselves while being very respectful of the rights of others.

Assertive communicators will:
- state needs and wants clearly, appropriately, and respectfully
- express feelings clearly, appropriately, and respectfully
- use "I" statements
- communicate respect for others
- listen well without interrupting
- feel in control of self
- have good eye contact
-speak in a calm and clear tone of voice
-have a relaxed body posture
-feel connected to others
-feel competent and in control
- not allow others to abuse or manipulate them
- stand up for their rights

The impact of a pattern of assertive communication is that these individuals:
- feel connected to others
- feel in control of their lives
- are able to mature because they address issues and problems as they arise
- create a respectful environment for others to grow and mature

The assertive communicator will say, believe, or behave in a way that says:

- "We are equally entitled to express ourselves respectfully to one another."
- - "I am confident about who I am."
  - "I realize I have choices in my life and I consider my options."
  - "I speak clearly, honestly, and to the point."
  - "I can't control others but I can control myself."
  - "I place a high priority on having my rights respected."
  - "I am responsible for getting my needs met in a respectful manner."
  - "I respect the rights of others."
  - "Nobody owes me anything unless they've agreed to give it to me."
  - "I'm 100% responsible for my own happiness."

Assertiveness allows us to take care of ourselves, and is fundamental for good mental health and healthy relationships. For a related topic,

Marketing

Marketing is an integrated communications-based process through which individuals and communities discover that existing and newly-identified needs and wants may be satisfied by the products and services of others.

Marketing is defined by the American Marketing Association as the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. The term developed from the original meaning which referred literally to going to market, as in shopping, or going to a market to buy or sell goods or services.

The Chartered Institute of Marketing, which is the world's largest marketing body, defines marketing as "The management process responsible for identifying, anticipating and satisfying customer requirements profitably."

Marketing practice tended to be seen as a creative industry in the past, which included advertising, distribution and selling. However, because marketing makes extensive use of social sciences, psychology, sociology, mathematics, economics, anthropology and neuroscience, the profession is now widely recognised a science, allowing numerous universities to offer Master-of-Science (MSc) programmes. The overall process starts with marketing research and goes through market segmentation, business planning and execution, ending with pre and post-sales promotional activities. It is also related to many of the creative arts. The marketing literature is also infamous for re-inventing itself and its vocabulary according to the times and the culture.

Seen from a systems point of view, sales process engineering views marketing as a set of processes that are interconnected and interdependent with other functions, whose methods can be improved using a variety of relatively new approaches.

The marketing concept

The term *marketing concept* pertains to the fundamental premise of modern marketing. This can be laid out as recognising consumer needs/wants, and making products that correlate with consumer desires.

Marketing orientations

An orientation, in the marketing context, relates to a perception or attitude a firm holds towards its product or service, essentially concerning consumers and end-users. There exist several common orientations:

Product orientation

A firm employing a product orientation is chiefly concerned with the quality of its own product, and not in necessarily ascertaining consumer desires. A firm would also assume that as long as its product was of a high standard, persons would buy and consume the product.

However, utilising a product orientation has a prime disadvantage of making a firm lose out to competitors, who may produce technologically superior goods that engender higher consumer demand and thus market share. A product orientation may perhaps work best in a monopolistic market form, due to the inherent high barriers to entry within a monopoly.

Sales orientation

A firm using a sales orientation focuses primarily on the selling/promotion of a particular product, and not determining new consumer desires as such. Consequently, this entails simply selling an already existing product, and using promotion techniques to attain the highest sales possible.

Such an orientation may suit scenarios in which a firm holds dead stock, or otherwise sells a good that is in high demand, with little likelihood of changes in consumer tastes diminishing demand.

Production orientation

A firm focusing on a production orientation specialises in producing as much as possible of a given good. Thus, this signifies a firm exploiting economies of scale, until the minimum efficient scale is reached.

A production orientation may be deployed when a high demand for a good exists, coupled with a good certainty that consumer tastes do not rapidly alter (similar to the sales orientation).

Marketing orientation

The marketing orientation is perhaps the most common orientation used in contemporary marketing. It involves a firm essentially basing its marketing plans around the marketing concept, and thus forging products to suit new consumer tastes.

As an example, a firm would employ market research to gauge consumer desires, use R&D to develop a good attuned to the revealed information, and then utilise promotion techniques to ensure persons know the good exists. The marketing orientation often has three prime facets, which are:

Customer orientation

A firm in the market economy survives by producing goods that persons are willing and able to buy. Consequently, ascertaining consumer demand is vital for a firm's future viabilty and even existence as a going concern.

Organisational orientation

All departments of a firm should be geared to satisfying consumer wants/needs.

Mutually beneficial exchange

In a transaction in the market economy, a firm gains revenue, which thus leads to more profits/market share/sales. A consumer on the other hand gains a need/want that is satisfied, utility, reliability and value for money from the purchase of a good. As no one has to buy goods from any one supplier in the market economy, firms must entice consumers to buy goods, and thus seek to satisfy consumers' utility. If an exchange is not mutually beneficial in nature, it is not consistent with contemporary marketing ideals.

Four Ps

In the early 1960s, Professor Neil Borden at Harvard Business School identified a number of company performance actions that can influence the consumer decision to purchase goods or services. Borden suggested that all those actions of the company represented a “Marketing Mix”. Professor E. Jerome

McCarthy, also at the Harvard Business School in the early 1960s, suggested that the Marketing Mix contained 4 elements: product, price, place and promotion.

Product: The product aspects of marketing deal with the specifications of the actual goods or services, and how it relates to the end-user's needs and wants. The scope of a product generally includes supporting elements such as warranties, guarantees, and support.

Pricing: This refers to the process of setting a price for a product, including discounts. The price need not be monetary; it can simply be what is exchanged for the product or services, e.g. time, energy, or attention. Methods of setting prices optimally are in the domain of pricing science.

Placement (or distribution): refers to how the product gets to the customer; for example, point-of-sale placement or retailing. This third P has also sometimes been called *Place*, referring to the channel by which a product or service is sold (e.g. online vs. retail), which geographic region or industry, to which segment (young adults, families, business people), etc. also referring to how the environment in which the product is sold in can affect sales.

Promotion: This includes advertising, sales promotion, publicity, and personal selling. Branding refers to the various methods of promoting the product, brand, or company.

These four elements are often referred to as the marketing mix,[4] which a marketer can use to craft a marketing plan.

The four Ps model is most useful when marketing low value consumer products. Industrial products, services, high value consumer products require adjustments to this model. Services marketing must account for the unique nature of services.

Industrial or B2B marketing must account for the long term contractual agreements that are typical in supply chain transactions. Relationship marketing attempts to do this by looking at marketing from a long term relationship perspective rather than individual transactions.

As a counter to this, Morgan, in *Riding the Waves of Change* (Jossey-Bass, 1988), suggests that one of the greatest limitations of the 4 Ps approach "is that it unconsciously emphasizes the inside–out view (looking from the company outwards), whereas the essence of marketing should be the outside–in approach".

Product Development

Branding

A brand is a name, term, design, symbol, or other feature that distinguishes products and services from competitive offerings. A brand represents the consumers' experience with an organization, product, or service. A brand is more than a name, design or symbol. Brand reflects personality of the company which is organizational culture.

A brand has also been defined as an identifiable entity that makes a specific value based on promises made and kept either actively or passively.

Branding means creating reference of certain products in mind.

Co-branding involves marketing activity involving two or more products.

Marketing communications

Marketing communications breaks down the strategies involved with marketing messages into categories based on the goals of each message. There are distinct stages in converting strangers to customers that govern the communication medium that should be used.

Personal sales

Oral presentation given by a salesperson who approaches individuals or a group of potential customers:

- Live, interactive relationship
- Personal interest
- Attention and response
- Interesting presentation
- Clear and thorough.

Sales promotion

Short-term incentives to encourage buying of products:

Instant appeal

Anxiety to sell

An example is coupons or a sale. People are given an incentive to buy, but this does not build customer loyalty or encourage future repeat buys. A major drawback of sales promotion is that it is easily copied by competition. It cannot be used as a sustainable source of differentiation.

Customer focus

Many companies today have a customer focus (or market orientation). This implies that the company focuses its activities and products on consumer demands. Generally there are three ways of doing this: the customer-driven approach, the sense of identifying market changes and the product innovation approach.

In the consumer-driven approach, consumer wants are the drivers of all strategic marketing decisions. No strategy is pursued until it passes the test of consumer research. Every aspect of a market offering, including the nature of the product itself, is driven by the needs of potential consumers. The starting point is always the consumer. The rationale for this approach is that there is no point spending R&D funds developing products that people will not buy. History attests to many products that were commercial failures in spite of being technological breakthroughs.[5]

A formal approach to this customer-focused marketing is known as SIVA[6] (Solution, Information, Value, Access). This system is basically the four Ps renamed and reworded to provide a customer focus.

The SIVA Model provides a demand/customer centric version alternative to the well-known 4Ps supply side model (product, price, place, promotion) of marketing management.

Product → Solution

Promotion → Information

Price → Value

Placement → Access

The four elements of the SIVA model are:

1. Solution: How appropriate is the solution to the customer's problem/need?
2. Information: Does the customer know about the solution? If so, how and from whom do they know enough to let them make a buying decision?
3. Value: Does the customer know the value of the transaction, what it will cost, what are the benefits, what might they have to sacrifice, what will be their reward?
4. Access: Where can the customer find the solution? How easily/locally/remotely can they buy it and take delivery?

This model was proposed by Chekitan Dev and Don Schultz in the Marketing Management Journal of the American Marketing Association, and presented by them in Market Leader, the journal of the Marketing Society in the UK.

Product focus

In a product innovation approach, the company pursues product innovation, then tries to develop a market for the product. Product innovation drives the process and marketing research is conducted primarily to ensure that profitable market segment(s) exist for the innovation. The rationale is that customers may not know what options will be available to them in the future so we should not expect them to tell us what they will buy in the future. However, marketers can aggressively over-pursue product innovation and try to overcapitalize on a niche. When pursuing a product innovation approach, marketers must ensure that they have a varied and multi-tiered approach to product innovation. It is claimed that if Thomas Edison depended on marketing research he would have produced larger candles rather than inventing light bulbs. Many firms, such as research and development focused companies, successfully focus on product innovation. Many purists doubt whether this is really a form of marketing orientation at all, because of the ex post status of consumer research. Some even question whether it is marketing.

- An emerging area of study and practice concerns internal marketing, or how employees are trained and managed to deliver the brand in a way that positively impacts the acquisition and retention of customers (employer branding).
- Diffusion of innovations research explores how and why people adopt new products, services and ideas.
- A relatively new form of marketing uses the Internet and is called Internet marketing or more generally e-marketing, affiliate marketing, desktop advertising or online marketing. It tries to perfect the segmentation strategy used in traditional marketing. It targets its audience more precisely, and is sometimes called personalized marketing or one-to-one marketing.

- With consumers' eroding attention span and willingness to give time to advertising messages, marketers are turning to forms of permission marketing such as branded content, custom media and reality marketing.
- The use of herd behavior in marketing.

  The Economist reported a recent conference in Rome on the subject of the simulation of adaptive human behavior.[7] It shared mechanisms to increase impulse buying and get people "to buy more by playing on the herd instinct." The basic idea is that people will buy more of products that are seen to be popular, and several feedback mechanisms to get product popularity information to consumers are mentioned, including smart-cart technology and the use of Radio Frequency Identification Tag technology. A "swarm-moves" model was introduced by a Florida Institute of Technology researcher, which is appealing to supermarkets because it can "increase sales without the need to give people discounts."
  Marketing is also used to promote business' products and is a great way to promote the business.

References

1. ^ Oxford English Dictionary
2. ^ *Vocational Business: Training, Developing and Motivating People* by Richard Barrett - Business & Economics - 2003. - Page 51.
3. ^ *Administration industrielle et générale - prévoyance organisation - commandement, coordination – contrôle*, Paris : Dunod, 1966
4. ^ Gomez-Mejia, Luis R.; David B. Balkin and Robert L. Cardy (2008). *Management: People, Performance, Change, 3rd edition*. New York, New York USA: McGraw-Hill. pp. 19. ISBN 978-0-07-302743-2.
5. ^ Gomez-Mejia, Luis R.; David B. Balkin and Robert L. Cardy (2008). *Management: People, Performance, Change, 3rd edition*. New York, New York USA: McGraw-Hill. pp. 20. ISBN 978-0-07-302743-2.
6. ^ Craig, S. (2009, January 29). Merrill Bonus Case Widens as Deal Struggles. *Wall Street Journal*.
7. ^ Kotter, John P. and Dan S. Cohen. The Heart of Change. Boston: Harvard Business School Publishing,