

SUSTAINABLE ENTREPRENEURSHIP PROJECT

Introduction to Management Studies

**SUSTAINABLE ENTREPRENEURSHIP PROJECT
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Preface

This Research Paper provides an introduction to the central and important topic of “management studies”, which covers a wide array of topics such as organizational theory and behavior, strategic and human resources management, managerial functions and roles and identification and training of management skills. The Research Paper includes a brief description of the history and evolution of management studies, which has now reached the point where management has gone “main stream” as books by authors such as Drucker and Peters have rocketed to the top of “best seller” lists.

§1 Introduction

This Research Paper provides an introduction to the central and important topic of “management studies”. The “study of management” covers a wide array of topics such as organizational theory and behavior, strategic and human resources management, managerial functions and roles and identification and training of management skills. The tools used by practitioners of management studies to collect and analyze information and disseminate findings within the research community and to practicing managers are similarly diverse. This Part includes a brief description of the history and evolution of management studies, a daunting topic given that it is generally recognized that economic and military activities have been raising issues of planning, directing and control for thousands of years and that one can find useful illustrations of management in the building of the pyramids in ancient Egypt, the operation of the complex trade routes during the Middle Ages and the commercial activities of the wealthy family businesses throughout the Renaissance. Over the last few decades hundreds of journals and periodicals devoted to management studies have been launched and management has gone “main stream” as books by authors such as Drucker and Peters have rocketed to the top of “best seller” lists. The rise of management education, both at universities and through commercial private sector initiatives, has been fertile ground for textbooks.¹

§2 Definitions of management

Given that “management” has been so widely studied and practiced for literally thousands of years, it is not surprising to find a wide array of possible definitions of the term. At the most basic level, the verb “manage” derives from the Italian word “maneggiare”, which means “to handle”. A number of definitions of “management” have focused on the specific tasks and activities that all managers, regardless of whether they are overseeing a business, a family or a social group, engage in, such as planning, organizing, directing, coordinating and controlling. One of the simplest, and often quoted, definitions of management was offered by Mary Parker Follett, who described it as “the art of getting things done through people”.² The notion of “management through people” can also be found in the work of Wehrich and Koontz, who began with a basic definition of management as “the process of designing and maintaining an environment in which individuals, working together in groups, accomplish efficiently selected aims”.³ They then went on to expand this basic definition with the following observations:

¹ There are a number of outstanding and comprehensive textbooks that cover a wide range of subjects pertaining to “management”, including G. Jones and J. George, *Essentials of Contemporary Management* (3d Ed) (New York, NY: McGraw-Hill Higher Education, 2009); J. Scott, *The Concise Handbook of Management: A Practitioner’s Approach* (London: Routledge, 2005); J. Schermerhorn, *Management* (11th Ed) (New York: Wiley, 2011); R. Griffin, *Management* (10th Ed) (Boston, MA: South-Western College Publishing, 2010); and S. Robbins, M. Coulter and D. DeCenzo, *Fundamentals of Management* (7th Ed) (Upper Saddle River, NJ: Prentice Hall, 2010).

² M. Follett, “Dynamic Administration” in H. Metcalf and L. Urwick (Eds.), *Dynamic Administration: The Collected Papers of Mary Parker Follett* (New York: Harper & Row, 1942).

³ H. Wehrich and Koontz, *Management: A Global Perspective*, 10th Edition (New York: McGraw-Hill, 1993) (as summarized in H. Wehrich, “Management: Science, Theory, and Practice”, <http://moosehead.cis.umassd.edu/cis365/reading/Management.pdf> [accessed November 2, 2011])

- Managers carry out certain universally recognized basic managerial functions, including planning, organizing, staffing, leading and controlling
- Management applies to any kind of organization.
- Management principles apply to managers at all levels of the organization, not just executives and senior managers positioned at the top of the organizational hierarchy.
- The goal of all managers is the same: to create a “surplus”.
- Managers are concerned with improving productivity, which implies both effectiveness and efficiency.⁴

Elements mentioned by Wehrich and Koontz in the explanations and observations above have figured prominently in other definitions of management. For example, Jones et al. referred to management as “the process of using an organization’s resources to achieve specific goals through the functions of planning, organizing, leading and controlling”.⁵ The importance of the managerial functions was also emphasized by Wehrich in his explanation of the “systems approach to organizational management” based on an “input-output” model in which “inputs” from an organization’s external environment (i.e., people, capital and technology) were transformed into “outputs” demanded by various organizational stakeholders in a transformation process based on and guided by managerial functions such as planning, organizing, staffing, leading and controlling.⁶

Others infer that merely carrying out the functions typically associated with management is not sufficient and it is necessary to add certain other concepts such as “value creation”, “wealth creation”, “efficiency” and “productivity” to the equation. In fact, well-known management guru Peter Drucker proposed a definition of management that focused on “the process of administering and coordinating resources effectively, efficiently, and in an effort to achieve the goals of the organization”.⁷ In other words, the efforts of managers need to be “effective”, as demonstrated by the degree to which the goals of the organization are achieved, and they need to be “efficient”, which is measured by productivity (i.e., generating a given output by using the fewest inputs, including capital and human resources).⁸ In another one of his publications Drucker observed that with respect to economic and business activities “. . . management has failed if it fails to produce economic results. It has failed if it does not supply goods and services desired by the consumer at a price the consumer is willing to pay. It has failed if it does not improve or at least maintain the wealth producing capacity of the economic resources entrusted to

⁴ Id.

⁵ G. Jones, J. George and C. Hill, *Contemporary Management* (2nd Ed) (New York: Irwin/McGraw-Hill, 2000).

⁶ H. Wehrich, “Management: Science, Theory, and Practice”, <http://moosehead.cis.umassd.edu/cis365/reading/Management.pdf> [accessed November 2, 2011]

⁷ P. Drucker, *The Effective Executive* (New York: Harper & Row, 1967); and P. Drucker, “What Makes an Effective Executive”, *Harvard Business Review*, 82 (June 2004), 58.

⁸ P. Lewis, S. Goodman, P. Fandt and J. Michlitsch, *Management: Challenges for Tomorrow’s Leaders* (5th Edition) (Mason, OH: Thomson South-Western, 2007), 5 (also quoting from D. Foust, “Gone Flat”, *Business Week*, December 20, 2004, 76-82 (“effectiveness means ‘doing the right things’ to achieve the appropriate goal, and efficiency means ‘doing things right’”).

it.”⁹ Therefore, in the business context, effective managers carry out a wide array of tasks and activities as they seek to combine capital, people, machines, equipment and technology to produce goods and services that create profits and wealth for the owners of the business.

§3 Management: Science, art or both?

Wehrich has discussed the interesting question of whether management is best seen as a “science” or as “art” and has suggested that “[m]anaging, like so many other disciplines—medicine, music composition, engineering, accountancy, or even baseball—is in large measure an art but founded on a wealth of science.”¹⁰ He went on to caution that “[e]xecutives who attempt to manage without . . . management science must trust to luck, intuition, or to past experience” and that managers seeking to avoid the tedious and dangerous path of learning through “trial and error” must be able to access the knowledge that has been accumulated regarding the practice of management.¹¹ Wehrich wrote that application of scientific methods to management, including determination of facts through observation followed by identification of causal relationships that can have value in predicting what might happen in similar circumstances, allows us to classify significant and pertinent management knowledge and derive certain principles that can be used as guidelines for managerial decisions and instructions. For example, a manager in a growing organization will eventually be confronted with the need to begin delegating authority and Wehrich suggests that the manager can turn to various principles of management that are relevant such as “the principle of delegating by results expected, the principle of equality of authority and responsibility, and the principle of unity of command”. Principles are merely predictive; they do not guarantee a particular result. However, they do provide a tested starting point for the manager. Also important in the management field are “techniques”, which Wehrich defined as “ways of doing things, methods for accomplishing a given result”.¹² Like principles, techniques are originally based in theory and are tested to validate their effectiveness. Examples of management techniques listed by Wehrich include budgeting, cost accounting, networking planning and control techniques, managing-by-objectives and total quality management.

§4 Management and performance

As time has passed, management has come to be recognized as one of the core factors of production along with machines, materials, money, technology and people. It is well-known that productivity has become a leading indicator of organizational performance and Drucker has argued that “[t]he greatest opportunity for increasing productivity is surely to be found in knowledge, work itself, and especially in management”.¹³ Bloom et al. coordinated a survey and analysis of more than 4,000 medium-sized manufacturing

⁹ P. Drucker, *The Practice of Management* (New York, NY: Harper & Row, 1954)

¹⁰ H. Wehrich, “Management: Science, Theory, and Practice”, <http://moosehead.cis.umassd.edu/cis365/reading/Management.pdf> [accessed November 2, 2011]

¹¹ Id.

¹² Id.

¹³ P. Drucker, *Management, Tasks, Responsibilities, Practices* (New York: Harper & Row, 1973), 69.

operations in Europe, the US and Asia and their findings released in 2007 confirmed that “firms across the globe that apply accepted management practices well perform significantly better than those that do not”.¹⁴ Surveyed management practices included activities relating to shop floor operations, performance management and talent management, and performance metrics included labor productivity, sales growth and return on capital employed. The US led the way with respect to the quality of management among firms included in the survey; however, companies from other countries were gaining ground quickly and, in fact, at that time over 15% of the Indian and Chinese firms included in the survey were characterized as “better managed” than the average US firm.

Strong support for the importance of management practices in generating better firm performance was also found in an extensive survey by Bloom and Van Reenen involving firms in seventeen countries.¹⁵ Specifically, Bloom and Van Reenen confirmed that firms with “better” management practices tended to larger, more productive, grew faster and had higher survival rates. Bloom and Ven Reenen also identified interesting differences between the surveyed countries with respect to management practices and they described their key findings as follows¹⁶:

- Management practices vary tremendously across firms and countries. Most of the difference in the average management score of a country was due to the size of the “long tail” of very badly managed firms. For example, relatively few US firms were very badly managed, while Brazil and India had many firms in that category.
- Countries and firms specialized in different styles of management. For example, firms in the US scored much higher than firms in Sweden with respect to incentives; however, Swedish firms were stronger than US firms when it came to monitoring.
- Strong product market competition appeared to boost average management practices through a combination of eliminating the tail of badly managed firms and pushing incumbents to continuously improve their management practices.
- In general, multinationals were better managed regardless of the location of their headquarters office and were prone to transplanting their preferred management styles into their foreign subsidiaries. For example, subsidiaries of US multinationals operating in the UK were better at incentives and worse than monitoring than subsidiaries of Swedish multinationals also operating in the UK.
- Firms that exported into foreign markets, but did not manufacture in foreign markets, were better managed than those firms who stayed home and neither exported into or manufactured in foreign markets; however, firms that only exported were not as well managed as the multinationals who also manufactured in foreign markets.

¹⁴ N. Bloom, S. Dorgan, J. Dowdy and J. Van Reenen, “Management Practice & Productivity: Why they matter”, <http://www.stanford.edu/~nbloom/ManagementReport.pdf> [accessed November 29, 2011] The surveyed companies were located in the US, India, Italy, Germany, Portugal, Sweden, United Kingdom, Poland, France, Greece and China.

¹⁵ N. Bloom and J. Van Reenen, “Why Do Management Practices Differ across Firms and Countries”, *Journal of Economic Perspectives*, 24(1) (Winter 2010), 203-224.

¹⁶ *Id.* at 205.

- Family-owned firms that appointed a family member, such as the oldest son, to serve as the chief executive officer tended, on average, to be very badly managed.
- Government-owned firms tended to be extremely badly managed while publicly-owned firms and firms owned by private equity investors were usually well managed.
- Firms that were more reliant on human capital, as measured by the percentage of educated workers, tended to have much better management practices.
- At the country level, easing up on regulation of labor market practices tended to result in a better use of incentives by management.

Research results of this type have placed even more pressure on firms to take steps to improve their management practices in order to remain competitive with peers operating from other countries throughout the world. The growing intensity of competition has made it incumbent on firms to embrace globalization as a core strategic principle given the findings of researchers such as Bloom and Van Reenen that multinationals scored higher on management practices and performance than companies that continued to restrict their activities to their own domestic market.¹⁷

§5 Management and leadership

One threshold question that should be addressed when studying management systems and practices is the differences between “management” and “leadership” and, correspondingly, the distinctions between “managers” and “leaders” in the context of operating an organization.¹⁸ One way to approach this topic is to review some of the opinions of various researchers and commentators who have devoted a substantial amount of time to the topic of leadership and understanding just what makes an “effective leader”. For example, Bennis has said: "There is a profound difference between management and leadership, and both are important. To manage means to bring about, to accomplish, to have charge of or responsibility for, to conduct. Leading is influencing, guiding in a direction, course, action, opinion. The distinction is crucial." Bennis has also compiled the following list of differences between managers and leaders¹⁹:

- The manager administers; the leader innovates.
- The manager is a copy; the leader is an original.
- The manager maintains; the leader develops.
- The manager focuses on systems and structure; the leader focuses on people.
- The manager relies on control; the leader inspires trust.
- The manager accepts reality; the leader investigates it.

¹⁷ For further discussion of organizational performance, see “Organizational Performance and Effectiveness” in “Management: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

¹⁸ Portions of the discussion in this section are adapted from material in G. Ambler, “Leaders vs. Managers ... Are they really different?”, *The Practice of Leadership*, April 8, 2008, <http://www.thepracticeofleadership.net/leaders-vs-managers-are-they-really-different> [accessed July 11, 2011] For further discussion of the relationship between management and leadership, see “Leadership: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

¹⁹ W. Bennis, *On Becoming a Leader* (Reading, MA: Addison-Wesley, 1989).

- The manager has a short-range view; the leader has a long-range perspective.
- The manager asks how and when; the leader asks what and why.
- The manager has his or her eye always on the bottom line; the leader has his or her eye on the horizon.
- The manager imitates; the leader originates.
- The manager accepts the status quo; the leader challenges it.
- The manager is the classic good soldier; the leader is his or her own person.
- The manager does things right; the leader does the right thing.

Kotter has also addressed the distinction between management and leadership. After joining Bennis in noting the importance of both activities—“Leadership and management are two distinctive and complementary systems of action . . . Both are necessary for success in an increasingly complex and volatile business environment”—Kotter elaborates on some of the differences: “Management is about coping with complexity . . . Without good management, complex enterprises tend to become chaotic . . . Good management brings a degree of order and consistency . . . Leadership, by contrast, is about coping with change . . . More change always demands more leadership.”²⁰ Kotter also provided a short list of some of the principal activities associated with management and leadership, noting the manager, who is concerned with managing complexity, is expected to focus on planning and budgeting, organizing and staffing and controlling and problem solving while the leader, who should be guiding his or her organization through “constructive change”, must be adept at setting the direction for the organization (i.e., a vision of the future and strategies that should be followed to achieve that vision) and aligning the human resources of the organization and motivating and inspiring them to move in the direction established by the leader.²¹

The topic of “leaders versus managers” was also explored by Zaleznik, whose views were described in the following way by Estill: “The difference between managers and leaders, he wrote, lies in the conceptions they hold, deep in the psyches, of chaos and order. Managers embrace process, seek stability and control, and instinctively try to resolve problems quickly – sometimes before they fully understand a problem’s significance. Leaders, in contrast, tolerate chaos and lack of structure and are willing to delay closure in order to understand the issues more fully in this way, Zaleznik argued, business leaders have much more in common with artists, scientists and other creative thinkers than they do with managers. Organizations need both managers and leaders to succeed, but developing both requires a reduced focus on logic and strategic exercises in favour of an environment where creativity and imagination are permitted to flourish.”²²

§6 History and evolution of management studies

²⁰ J. Kotter, John P. Kotter on What Leaders Really Do (Cambridge, MA: Harvard Business Publishing, 1999).

²¹ Id.

²² J. Estill, “Managers and Leaders—Are They Different?”, CEO Blog—Time Leadership, <http://www.jimestill.com/2008/03/managers-and-leaders-are-they-different.html> [accessed July 18, 2011] (citing, A. Zaleznik, “Managers and Leaders: Are They Different?”, Harvard Business Review, 55(3) (1977), 67-78.

In order to understand management studies it is useful to have some sense of the historical development of “management” (see Table 1.1). There is debate about how the “history of management” should be presented. Some argue that it is appropriate to focus primarily on the antecedents of the management tools that are widely used today, which means that management “begins” with the works of some of the classical economists in the 18th century and then really takes hold with the blooming of the Industrial Revolution in the 19th century which ushered in the separation of ownership and management and the need to rely on professional managers using increasingly sophisticated tools for planning and controlling the activities within their organizations. Others point out that economic and military activities have been raising issues of planning, directing and control for thousands of years and that one can find useful illustrations of management in the building of the pyramids in ancient Egypt, the operation of the complex trade routes during the Middle Ages and the commercial activities of the wealthy family businesses throughout the Renaissance.

Table 1.1
History and Evolution of Management Studies

Pre-industrial: Evidence of sophisticated management and planning techniques used by Egyptians to create magnificent pyramids, roads, canals and cities. Roman Empire and China also relied upon uniform formal rules, policies and processes for security and expansive military campaigns, public works projects and education. However, low value placed on commerce and business and both Greeks and Romans had little regard for trade and commerce.

Renaissance and Reformation: Rise of “mercantilism” accompanied by development of supply and production chains and accounting systems. The “Protestant Ethic” emerged, which emphasized work and engagement in continuous physical and mental labor, self-discipline and pursuit and wise use of wealth.

Industrial Revolution: New technologies combined with changes in social, political and legal conditions to create an economic infrastructure that relied on the power of machines rather than humans and animals. Large industrial organizations arose and technical and engineering advances caused work to become highly specialized. Firms began engaging in continuous research and development activities to solve technical problems and disseminated information and solutions to other firms, thus accelerating the rate of technological advances.

Adam Smith: Championed the then-radical notion that people should be allowed to follow their own self-interested in the commercial arena without excessive government interference in the market and highlighted the influence of organizational design and structure on productivity (i.e., division of labor and specialization).

Capitalism in America: Early Industrial Revolution activities in the US included implementation of the “Waltham system” in Massachusetts, which featured women and child laborers and indoctrination in the moral advantages of factory work, and impressive inventive breakthroughs that included not only technologies and products necessary for establishing new industries and revolutionizing existing industries but also improvements to the transport and communications infrastructure. In order to take advantage of opportunities to expand into larger and more remote markets, American firms introduced division of labor and specialization, standardization, quality control procedures, cost accounting and work planning. The first attempt at creating and offering formalized training in “management” was launched by Wharton in 1881 and first formal master’s degree program in management—the “MBA”—introduced at the Harvard Business School in 1921.

Railroads and the rise of professional management: In the US, railroads served as the foundation for many elements of the modern business enterprise including the corporation with its hallmark feature of separation of ownership from management and the recognition of the previously non-existent “professional manager”. Management and operation of railroads required a large number of professional “middle managers” to assist in planning and coordination and oversee operational activities along portions of the

track and/or markets identified by reference to particular stations along the line. In addition, the organizational structure had to account for and support a large array of specialized tasks and activities and larger railroads began to abandon the traditional functional structures in favor of multi-divisional structures build on a multi-level hierarchy of managers all engaged in a range of coordination and control activities.

Classical management theory: Classical management theory focused on finding the “one best way” to perform and manage tasks and developed in two branches referred to as “classical scientific” and “classical administrative”. The classical scientific school, championed by Taylor, emphasized finding ways to increase productivity and efficiency and was based on the belief that it was possible to examine the work process and the skills of workers and develop the “best way” to get the most work done in an efficient manner. Proponents of, and contributors to, the classical administrative school (e.g., Weber, Fayol and Follett) were more interested in developing universal management principles that could make the operation of the entire organization, rather than individual workers, more efficient and introduced new ideas about the specific functions and roles of managers, promoting participation by employees in decisions and the need for managers to focus on the development and motivation of people rather than on mechanical techniques.

Behavioral management theory: Proponents of behavioral management theories (e.g., Mayo, Barnard, Maslow and McGregor), sometimes referred to as the “human relations movement” because of the emphasis on the human dimension of work, believed that the key to increasing productivity was to pay more attention to issues such as motivation, conflict, expectations and group dynamics. Behavioral management theorists made a clear and substantial break from the predecessors in the classical schools by recognizing that employees are not simply machines but are individuals who should be considered resources of the organization to be nurtured, developed and positively motivated to act in ways that would benefit the firm and satisfy their individual needs for esteem, self-fulfillment and self-actualization.

Quantitative school of management: Quantitative management theorists and researchers relied on sophisticated quantitative techniques, such as statistics information models and computer simulations, to develop methods that managers could use to improve the quality of their decision making activities. There are a number of different branches of the quantitative school including management science, operations management, management information systems (“MIS”) and systems management theory.

Contingency school of management: Proponents of the contingency school of management believed that there is no single best way to manage and that what constitutes the most appropriate and effective management decision or action at a given time would depend on the situational factors confronting the manager such as the type of organization, business purpose and activities of the organization, size of the organization, operating environment, corporate and societal culture, information technology and communication and the personal style and behavior of the owner or chief executive.

Quality school of management: The quality school of management focused on “continuous improvement” of quality and performance to meet and exceed the needs and expectations of customers. Two well-known quality-based initiatives are the Kaizen (pronounced ky-zen) and reengineering approaches. In order for quality management approaches to be successful, the organizational culture must create an environment in which all employees work together in harmony and seek to develop and maintain cooperative relationships with their peers and everyone above or below them in the organizational hierarchy.

§7 --Pre-industrial

One can find examples of managerial activities, often quite impressive and of a scope difficult to image today, going well back into pre-industrial times.²³ A number of scholars are diligently studying the history of Ancient Egypt, a society that is believed to have relied on a strong bureaucratized central state to create magnificent pyramids, roads, canals and cities. Historians have found evidence of sophisticated management and planning techniques being used by Egyptian officials including predictions of weather events, forecasts of crops and budgeting based on projections of tax revenues. China has

²³ Elements of the discussion of the history of pre-industrial management are derived from essays prepared by E. Makamson on the topic and which were found at http://www.mgmtguru.com/mgt301/301_Lecture1Page2.htm [accessed November 29, 2011]

contributed a legacy of a large and efficient civil service that managed a vast territory using uniform formal policies that anticipated the processes seen in modern global firms. China also produced Sun Tsu, a 13th century military strategist and historian who wrote a handbook called the Art of War which is a regular part of the assigned reading for management students learning about strategy. The Roman Empire served as the foundation for management and governance of modern nations and its state hierarchy introduced rules and processes that were adroitly used for security and expansive military campaigns, public works projects and education. The reign of the Medici family in Italy featured its own unique set of somewhat brutal managerial practices which were described near the turn of the 16th century by Machiavelli in *The Prince*, a book that is also still widely read by management students.

While the achievements of rulers, generals and senior government ministers during pre-industrial times are impressive, particularly given the challenges confronting them with respect to resources, there is little from that period that qualifies as “business management”. Historians have attributed this to the low value that was placed on commerce and business noting, for example, that both the Greeks and the Romans has little regard for trade and commerce. For example, the Greeks denied citizenship to manual workers and merchants and their activities were generally performed by foreigners and slaves. While the Romans did promote the formation of joint stock companies, they were used only to raise capital for projects undertaken by the state and could not be established for private enterprise. The early Church made it difficult to borrow money for mercantile activities by prohibiting usury (i.e., charging interest on borrowed money). With prospective entrepreneurs deprived of opportunities to attract capital to support any private business ventures, most areas relied heavily on agricultural production rather than manufactured goods and aristocrats and bureaucrats were allowed to govern in traditional ways without much need for business management principles.

§8 --Renaissance and Reformation: Rise of mercantilism

The disdain for commercial activities and pre-occupation with local markets continued during most of the Middle Ages; however, important changes arose out of the Crusades that brought feudal Europe in contact with the East and exposed Europeans to trading opportunities that formed the foundation for “mercantilism”. Mercantilism had existed in a primitive form within the Roman Empire but beginning in the later part of the 13th century Europeans proactively established and expanded trade systems across North Africa, Spain, the Middle East and Asia. In fact, the focus of warfare shifted from political and religious objectives to seizing and controlling trade routes. Once the Renaissance began, merchants began to develop the first supply and production chains using raw materials obtained from the East which were sent to individual workers or families who used their own equipment to produce finished goods that were delivered to the merchants in exchange for wages. This domestic production system spawned the first accounting systems and the first book on “double entry bookkeeping” appeared in 1494 from the hand of a Venetian mathematician named Luca Paciolo. Restrictions on lending began to erode and large banks, such as those operated by the Peruzzi and Medici

families in Italy, provided funding for businesses and a safe and efficient means for transferring funds between accounts to complete commercial transactions.²⁴

While mercantilism was a dramatic and welcome development, it remained a tool that largely benefitted the state and not individual merchants or workers. According to Colbert, writing in the late 17th century, the characteristics of mercantilism included “bullionism”, favorable balance of trade, economic self-sufficiency, agriculture as the basis for national wealth, tariffs, national power emanating from a strong navy and colonies that provided captive markets for manufactured goods and sources of raw material and recognition of the state as the guide for economic development through the promulgation and enforcement of economic and trade policies.²⁵ To the extent that large-scale enterprises existed, they operated in the form of state monopolies as part of the government’s economic development role. However, the joint stock companies formed to pursue financial opportunities, particularly in the colonies, eventually became the model for capitalizing private corporations. In addition, the Reformation undermined the prescriptions of the Roman Church and encouraged uprising against traditional authorities that eventually led to a new social order that recognized the value of the individual. Max Weber later wrote about the “Protestant Ethic” and the impact that it had on the emergence of what came to be known as “capitalism” in his 1905 book titled “The Protestant Ethic and the Spirit of Capitalism” and noted that Protestants were taught to Emphasize work and engage in continuous physical and mental labor, take responsibility for finding and pursuing their “calling”, practice self-discipline and pursue and use wealth wisely in order to obtain salvation.

§9 --Industrial Revolution

A number of the basic elements of modern management began to take root during the Industrial Revolution, which is generally thought to have taken place during the period beginning around 1750 and ending in 1870.²⁶ New technologies combined with changes in social, political and legal conditions to create an economic infrastructure that relied on the power of machines rather than humans and animals. Large industrial organizations arose and work became highly specialized. In Great Britain, often thought to be the birthplace of the Industrial Revolution, laws were implemented to recognize and protect private and intellectual property, taxes were reduced to relatively modest levels in relation to other parts of Europe, the powers of the King were limited and government policies toward matters of commerce were relatively “hands off”. The central bank, the Bank of England, actively promoted economic development through the issuance of

²⁴ Elements of the discussion of the rise of mercantilism during the Renaissance and Reformation are derived from essays prepared by E. Makamson on the topic and which were found at http://www.mgmtguru.com/mgt301/301_Lecture1Page3.htm [accessed November 29, 2011]

²⁵ Mercantilism is so closely associated with Colbert, the chief minister of French king Louis XIV for over 20 years during the late 17th century, that it is also often referred to as “Colbertism”. See G. Ames, *Colbert, Mercantilism and the French Quest for the Asian Trade* (DeKalb, IL: Northern Illinois University Press, 1996).

²⁶ Elements of the discussion of management during the Industrial Revolution are derived from essays prepared by E. Makamson on the topic and which were found at http://www.mgmtguru.com/mgt301/301_Lecture1Page4.htm [accessed November 29, 2011]

currency and the creation of stable national monetary system. In general, citizens were given more freedom to engage in entrepreneurial risk-taking and pursue the creation of wealth through commercial activities.

An important development during the 18th century was the evolution of the joint stock company, previously used only for state-controlled activities, into what eventually became the modern corporation. The drive to harvest the vast natural resources believed to exist in the colonies created an urgent need for capital which was satisfied by the sale of stocks in private companies. Orderly exchange of these stocks was facilitated by the expansion of exchanges throughout Europe beyond commodities and currencies to include stocks in commercial ventures. During the mid-19th century new laws were passed to limit the liability of investors and require that managers of companies provide a public accounting of profits and losses and how funds raised through stock offerings were actually invested.

However, the defining events of the Industrial Revolution were the technical and engineering achievements that transformed the way that work was done throughout Europe and, eventually, the entire world. In 1765, James Watt improved on the prior work of others to develop the first workable steam engine that provided a reliable source of power for use in a wide range of industrial activities. Perhaps just as important was Watt's partnership with Boulton, which not only focused on manufacturing of steam engines but also on continuous research and development activities to solve technical problems and, quite significantly, disseminate information and solutions to other firms. The sharing of information and widespread collaboration, a familiar sight today, was a radical change in the way commercial activities were carried out and accelerated the rate of the technological advances. The introduction of the steam engine freed manufacturers from the need to be close to sources of water power and allowed them to set up operations almost anywhere. Improvements in rail and steamship services supported transport of raw materials and finished goods. The Industrial Revolution even sowed the seeds of the later Computer Revolution with the invention of the first mechanical calculator, predecessor to the modern computer, by Babbage in 1822.

§10 --Adam Smith

The economic theory underlying much of what occurred during the Industrial Revolution was provided in the work of so-called "classical" economists such as Adam Smith, whose seminal work—*An Inquiry into the Nature and Causes of the Wealth of Nations*—was published in 1776 as the Industrial Revolution was just taking off. Simply put, Smith believed that people wanted to follow their own self-interest and that they should be allowed to do so in the commercial arena without excessive interference from the government (i.e., the government should take a "laissez faire" attitude" toward the market). The essential terms of what eventually became known as Smith's version of "capitalism" include the following²⁷:

²⁷ E. Makamson, "Adam Smith" http://www.mgmtguru.com/mgt301/301_Lecture1Page5.htm [accessed November 29, 2011]

- (1) Private ownership and control of the means of production, including land and the plant and equipment used to produce goods and services (plant and equipment were referred to in Smith's work as "capital").
- (2) "Markets" are the foundation for organization and coordination of the economy and consist of direct interactions between buyers and sellers (producers).
- (3) Suppliers, which include both the owners of land and capital and laborers offering and providing their services, pursue their own self-interest with the goal of maximizing their gain and profits from the use of their resources.
- (4) Buyers of the goods and services offered by suppliers also pursue their self-interest and seek to spend their money in ways that maximize their satisfaction.
- (5) Suppliers and buyers reconcile their simultaneous pursuit of their self-interest by "haggling" over the value of the goods and services in order to establish the price at which exchanges can occur.

Smith believed that a competitive market that includes buyers and sellers both pursuing their own self-interest would be self-regulating and that there was little need for government to intervene in the marketplace. Smith suggested that the State should focus its efforts on "public goods" and other activities that would protect society and its private markets, including a military force to protect from foreign attack, a police force to protect private property rights, laws to guarantee contracts and, when necessary, support for "infrastructure" projects that benefit everyone (i.e., roads and canals). Smith's ideas were clearly at odds with the mercantilism that dominated most parts of Europe during the early years of the Industrial Revolution. Moreover, Smith's theories assumed that individuals were linked together and organized into communities through economic markets, a far different formulation from the views of philosophers such as Locke and Rousseau which envisioned a "social contract" in which the State played a powerful role in creating and unifying communities of individuals.

Smith also took note of concepts that have become the lynchpins of discussions regarding organizational design and structure. He specifically emphasized the progress that had been made with respect to productivity and attributed it to the discovery and development of new manufacturing technologies and innovations that had occurred in the way that work activities were organized. Specifically, he focused on how the division of labor that occurred on the assembly line permitted necessary tasks and activities to be done more quickly due to specialization as well as the way that machinery reduced the time and number of works required to complete activities. One thing that Smith did not build into his model was the concept of "management" as a valuable and distinguishable activity and he, like many others, assumed that the owner and manager were one and the same.²⁸

§11 --Capitalism in America

²⁸ Other economists followed Smith during the 19th century to make additional contributions to the theoretical underpinnings of economics and management. For example, Mill wrote about resource allocation, production and pricing issues and other well-known scholars of the time included Marshall and Walras.

The initial activities of the European nations with their colonies in America focused on a variety of trade opportunities primarily for the benefit of the home country.²⁹ Spain concentrated on the areas of West of the Mississippi and South America; the Dutch and Swedes were interested in fur trading along the Hudson River and in Delaware, respectively; and the English set up the London and Plymouth companies to develop Virginia and England, respectively. The early efforts of the English colonies failed to achieve the expected and desired financial success and eventually investors in England either gave up or allowed their stakes to be repurchased by the colonists, which left the economic future of colonies largely in the hands of the settlers who had been granted stock and land. Entrepreneurism took hold quickly and the colonies were soon engaged in a wide range of trading activities which have been described as follows: “The early colonial enterprise rested largely on the triangular trade routes: rum to Africa from New York and Philadelphia, people from Africa to Cuba, and molasses and coin from Cuba to New York/Philadelphia; and, sugar and molasses to England from Cuba, manufactured goods from England to New York/Philadelphia, and grains and meat from New York/Philadelphia to Cuba.”³⁰ However, England repeatedly interfered with the economic interests of its colonies through mercantilist policies, particularly taxes on exports and imports, eventually leading to the rebellion that culminated in the independence of the colonies and the creation of the United States.

The Constitution of the United States provided an opportunity for the founders to develop a blueprint for economic activities in the new nation. The Constitution provided for a limited national government; however, it still had the power and authority to regulate interstate commerce, control national defense and impose taxes. Individual economic rights could be found throughout the Constitution, including private intellectual property rights (i.e., patents and copyrights), restrictions on the ability of the national government to seize property without “due process” and prohibitions on attempts by the states to interfere with contractual obligations. There was real debate, however, about the preferred direction for national business development and the role that the central government would play in that development. Jefferson, who came out of the Southern plantation society, had a preference for continuing to focus on agricultural activities and wrote about his preference to “let our work-shops remain in Europe”. In contrast, Hamilton from the North argued for a strong national government and a national bank that would serve as the focal point for an economic policy that relied on mustering available land, labor and foreign capital to pursue industrialization. While Hamilton’s national bank for economic development was never created, the US eventually entered the Industrial Revolution on the back of a burgeoning textiles industry built on technology first brought from England by Slater, improved by Whitney and his cotton gin and innovatively implemented by the “Waltham system” in Massachusetts which featured women and child laborers and indoctrination in the moral advantages of factory work.

²⁹ Elements of the discussion of capitalism in America are derived from essays prepared by E. Makamson on the topic and which were found at http://www.mgmtguru.com/mgt301/301_Lecture1Page6.htm [accessed November 29, 2011]

³⁰ Id.

America's industrial prowess soon grew beyond textiles through the amazing and wide-ranging activities of its own inventors throughout the 19th century. American inventors not only devised the technologies and products necessary for establishing new industries and revolutionizing existing industries, they also facilitated the improvements to the transport and communications infrastructure required for trading volumes to accelerate and for information, raw materials, people and finished goods to move efficiently around the country. Well-known examples include the steamboat (Fitch (1789) and Fulton (1807)); iron plow (Wood (1817)); reaper (McCormick (1831)); electric motor (Davenport (1834)); telegraph (Morse (1844)); sewing machine (Howe (1849)); Pullman car (Pullman (1858)); suspension bridge (Roebing (1868)); refrigerated freight car (Swift (1875)); telephone (Bell (1876)); gasoline carriage, the precursor to the automobile (Selden (1879)); the Kodak camera (Kodak (1880)) and the light bulb (Edison (1880)).³¹

Historians have referred to the period during which these inventions appeared as the Second Industrial Revolution, a time when steam technologies gave way to advances in other areas of manufacturing and the emergence of the power of electricity. The numbers support this categorization by showing that the number of industrial wage earners in the US grew from 957,000 in 1849 to 4,252,000 in 1889 and that by 1894 the US was the world leader in the value of factory-made goods. Industrialization also had a dramatic impact on the demographic profile of the US: in 1840 8.5% of the population lived in 44 cities; however, by 1890 urbanization had increased dramatically as 32% of the population was then living in 547 cities.³²

Technological innovation was accompanied by improvements in production processes that were needed to support the pace of manufacturing and attempts by American firms to expand into larger and more remote markets. For example, this period saw the introduction of standardization, quality control procedures, cost accounting, work planning and "interchangeable parts". The factory system first developed in the textile industry quickly spread to all market-oriented industries in the US by the 1860s and 1870s³³ and featured mass manufacturing by power-driven machines in a way that became known as the "American system of manufacturing".³⁴ The lack of uniformity on the factory floor that had been the hallmark of activities at the beginning of the century had disappeared in favor increasingly sophisticated methods for effectively applying the powerful concepts of division of labor, specialization and mechanization. Another interesting development was the first attempt at creating and offering formalized training in "management" launched by Wharton in 1881 when he underwrote a new business school at the University of Pennsylvania; however, the "Wharton school" did not have professors and the only literature it offered was "how to" manuals and trade publications and it was not until 1921 that the first formal master's degree program in management—the "MBA"—would be introduced at the Harvard Business School.

³¹ Id.

³² Id.

³³ D. Nelson, *Taylor and scientific management* (Madison, WI: The University of Wisconsin Press, 1980).

³⁴ R. Woodbury, "The legend of Eli Whitney and interchangeable parts" in M. Kranzberg and W. Davenport (Eds.), *Technology and culture* (New York: Schocken Books, 1972), 318-336.

§12 --Railroads and the rise of professional management

The ongoing industrial transformation that was occurring in the US was accompanied by similar progress in England and Germany and in each instance the development of the railroad industry played a major role. What was different about the US, however, was the way in which its railroads served as the foundation for many elements of the modern business enterprise, particularly the corporation. The size of the railroads in the US, and the amount of capital invested for expansion and improvements, was extremely impressive and by the late 1880s the Pennsylvania RR, for example, employed over 50,000 workers and railroads in general had been operated profitably for decades. Also of interest in the context of the discussion of organizational structure and governance was the reliance that railroads placed on incorporating so that they could sell stock to investors to raise the substantial amount of capital that their businesses managers required. By the middle of 19th century more than half of the negotiable securities in the US had been offered and sold by railroads and transactions in rail stocks were key factors in the establishment of the main US financial markets on Wall Street and in Philadelphia. These developments were important because they legitimized the hallmark feature of the corporate form—separation of ownership from management—and ushered in the era of the previously non-existent “professional manager”.³⁵

The size and complexity of the US market and the corresponding need for rail lines that extended for thousands of miles impacted not only the amount of capital that was required but also the way that railroads were managed and operated. The need for comprehensive planning and coordination to complete projects such as the “transcontinental railroad” undertaken by the Union Pacific and Central Pacific called for large number of professional “middle managers” who were charged with overseeing operational activities along portions of the track and/or markets identified by reference to particular stations along the line. In addition, the organizational structure had to account for and support all of the specialized tasks and activities that needed to be completed in order for the railroad to perform efficiently such as scheduling, pricing, the logistics of handling passengers and freight, maintenance and establishment and enforcement of corporate policies. All of this called out for attention to division and specialization of labor that has become a dominant feature of modern organizational design.

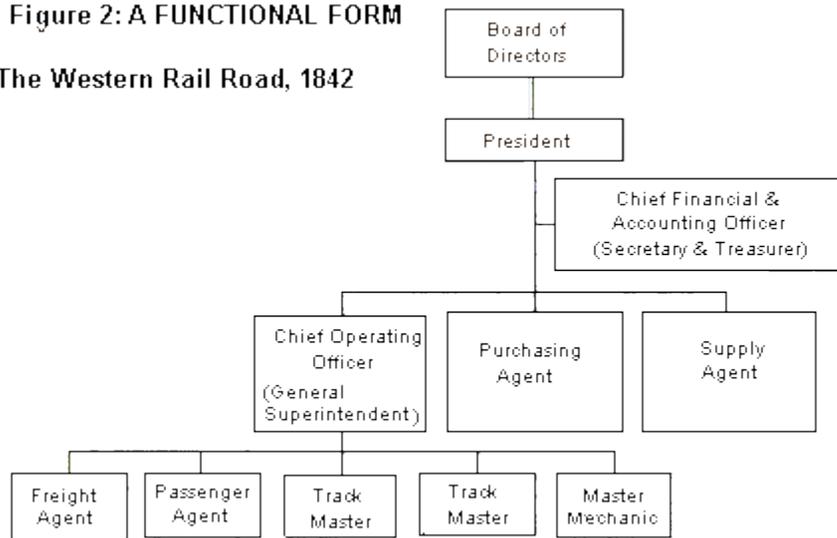
McCallum, who managed the Erie line for the New York and Erie Railroad Company, analyzed the progress and requirements of organizational structure for railroad and proposed what became the first principles for organization of the “modern” corporation in the mid-1850s in the his reports to the board of directors. He did this by comparing and contrasting the “functional” organizational structure, which theretofore had been the dominant form used by many enterprises, with the emerging “multi-divisional” organizational structure that was being developed to address the specific needs of the larger railroads. The functional structure, which allocates and organizes labor and other resources based on function or task, was thought to be suitable only for smaller

³⁵ Elements of the discussion of the rise of professional management in America are derived from essays prepared by E. Makamson on the topic and which were found at http://www.mgmtguru.com/mgt301/301_Lecture1Page7.htm [accessed November 29, 2011]

businesses operating in a single market and selling a single product. In the railroad context, the functional structure could be depicted as follows³⁶:

Figure 2: A FUNCTIONAL FORM

The Western Rail Road, 1842



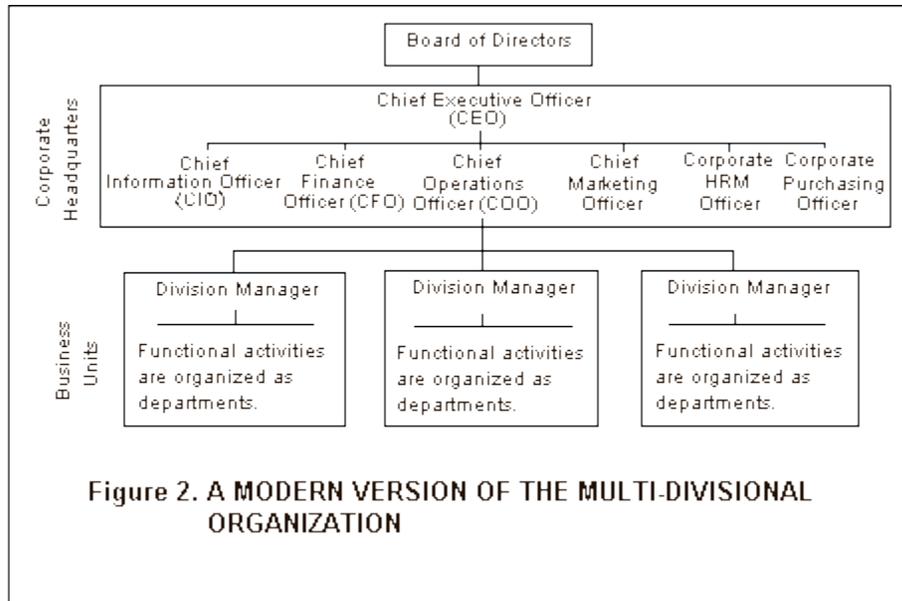
McCallum argued that the functional structure might be suitable for rail lines that were relatively short, say no longer than 500 miles, because it was still possible for one superintendent to effectively oversee operations³⁷; however, when a railroad reached the point where it was operating on a much larger scale the preferred organizational approach was adoption of a multi-divisional structure³⁸ which, in its “modern” form, could be depicted as follows³⁹:

³⁶ Id.

³⁷ He explain that: “[a] superintendent of a road fifty miles in length can give its business his professional attention and may be constant[ly] on the line engaged in die direction of its details; each person is personally known to him, and all questions in relation to its business are at once presented and acted upon; and any system however imperfect may under such circumstances prove comparatively successful.” As quoted in A. Chandler, *Strategy and Structure: Chapters in the History of the American Industrial Enterprise* (Cambridge, MA: MIT Press, 1962).

³⁸ McCallum explained that when one attempts to manage a railroad “five hundred miles in length a very different state exists. Any system which might be applicable to the business and extent of a short road would be found entirely inadequate to the wants of a long one.” As quoted in A. Chandler, *Strategy and Structure: Chapters in the History of the American Industrial Enterprise* (Cambridge, MA: MIT Press, 1962).

³⁹ E. Makamson, “Rise of Professionals” http://www.mgmtguru.com/mgt301/301_Lecture1Page7.htm [accessed November 29, 2011]



When applied to railroads the multi-divisional structure operated as follows:

- Rail lines were broken up into manageable pieces that were placed into geographical divisions that were managed by a divisional supervisor, thereby allowing each division to be efficiently operated in much the same way as a small business.
- Each divisional supervisor reported to headquarters, which ensured that information from each division was being collected and analyzed for facilitate planning and coordination for the entire railroad.
- The planning and coordination activities occurring at headquarters were facilitated by development of “staff” functions concentrating on planning, financial controls and development and implementation of general business policies.

The multi-division structure, with multiple operating units in different locations carrying out different activities and reporting to a centralized headquarters unit, eventually became the preferred model for US companies operating in other industries that grew and expanded into new markets and product lines. This development confirmed and solidified the role of “professional manager” since the multi-divisional structure was built on a multi-level hierarchy of managers—senior managers at the top, middle managers at each level and line managers interacting directly with workers—who all engaged in a range of coordination and control activities with respect to the piece of the operations for which they were responsible with the common goal of achieving the goals and objectives of the entire firm.

§13 --Classical management theory

The Industrial Revolution and the rise of the “factory system” created a number of challenges and problems for managers, notably questions about how to organize and oversee the myriad range of tasks that needed to be performance by a continuously expanding group of workers. Managers needed ways to cope with training and

motivating workers, a problem that was made all the more difficult in the US as more and more non-English speaking immigrants entered the workforce, and diffuse worker dissatisfaction with factory conditions and their role in designing their jobs. The first attempts to solve these issues came from what has come to be referred to as “classical management theory”, which focused on finding the “one best way” to perform and manage tasks and developed in two branches referred to as “classical scientific” and “classical administrative”.

§14 ----Taylor and “Scientific Management”

The “classical scientific” school is known for its emphasis on finding ways to increase productivity and efficiency and its belief that it was possible to examine the work process and the skills of workers and develop the “best way” to get the most work done in an efficient manner. The most well-known contributor to this school is Frederick Winslow Taylor (1856-1915), who has often been referred to as the “Father of Modern Management” and widely recognized as one of the first management theorists.⁴⁰ His background was in engineering and he had spent time as a common laborer and apprentice foreman before rising to the level of chief engineer. As such, it was not surprising that his theories were based on the fundamental premise that that human labor could be organized and managed in much the same way as machine work and that the activities of workers can and should be “engineered” in order to achieve efficiency and productivity. Taylor argued that “inefficiency” caused losses not only for firms but the country as a whole and provided the following explanation for why he wrote the essays that appeared in his *Principles of Scientific Management*, which was published in 1911⁴¹:

“First: To point out, through a series of simple illustrations, the great loss which the whole country is suffering through inefficiency in almost all of our daily acts. Second: To try to convince the reader that the remedy for this inefficiency lies in systematic management, rather than in searching for some unusual or extraordinary man. Third: To prove that the best management is a true science, resting upon clearly defined laws, rules, and principles, as a foundation. . . . The illustrations chosen are such as, it is believed, will especially appeal to engineers and to managers of industrial and manufacturing establishments, and also quite as much to all of the men who are working in these establishments. It is hoped, however, that it will be clear to other readers that the same principles can be applied with equal force to all social activities: to the management of our homes; the management of our farms; the management of the business of our tradesmen, large and small; of our churches, our philanthropic institutions, our universities, and our governmental departments.”

In this book *Shop Management*, which was published in 1903, Taylor began with the argument that workers were inefficient for several reasons. First, he believed that

⁴⁰ Elements of the discussion of Taylor and “Scientific Management” are derived from essays prepared by E. Makamson on the topic and which were found at http://www.mgmtguru.com/mgt301/301_Lecture1Page8.htm [accessed November 29, 2011]

⁴¹ F.W. Taylor, *The Principles of Scientific Management* (New York: Harper Bros., 1911), 5-29.

workers tended to ration their work load or work less than they should because if they worked harder and faster there would be no work to do in the future and they would not have any source of income in the future. Second, he blamed management for failing to structure work activities effectively and not providing appropriate incentives for workers.⁴² It should be noted that at that time firms tended to compensate workers using a day- or hourly-rate, a practice that Taylor felt rewarded workers for simply showing up and not for their actual performance from a production perspective. “Piece-rate” compensation was also used in some instances; however, this approach was often not effective due to the failure to set and maintain adequate quality standards.⁴³

Taylor believed that worker inefficiency could be solved by observing how the work is performed to determine the appropriate work standard and then fitting the compensation for the work to the standard. This required a careful investigation of each job by dividing it into discrete tasks in order to identify the most efficient way to perform that task and then reconstructing all of the tasks into an efficient job. Taylor used time and motion studies and advised that once the best method for performing a job had been identified it should be recorded so that procedures could be taught to all of the workers who would be asked to perform the same activity. Managers could do their part by setting specific performance targets for their workers, paying them for meeting those targets and providing workers with regular feedback on their performance. The main elements of Taylor’s theory have been explained as follows⁴⁴:

“1. Management is a true science. The solution to the problem of determining fair work standards and practices could be discovered by experimentation and observation. From this, it follows, that there is "one right way" for work to be performed.

2. The selection of workers is a science. Taylor's "first class worker" was someone suitable for the job. It was management's role to determine the kind of work for which an employee was most suited, and to hire and assign workers accordingly.

3. Workers are to be developed and trained. It is management's task to not only engineer a job that can be performed efficiently, but management is responsible for training the worker as to how the work is to be performed and for updating practices as better ones are developed. This standardizes how the work is performed in the best way.

⁴² Taylor explained that workers failed to act “efficiently” when performing their jobs for several reasons: “First: The fallacy, which has from time immemorial been almost universal among workmen, that a material increase in the output of each man or each machine in the trade would result in the end in throwing a large number of men out of work. Second: The defective systems of management which are in common use, and which make it necessary for each workman to soldier, or work slowly, in order that he may protect his own best interests. Third: The inefficient rule-of-thumb methods, which are still almost universal in all trades and in practicing which our workmen waste a large part of their effort.” F.W. Taylor, *The Principles of Scientific Management* (New York: Harper Bros., 1911), 5-29.

⁴³ Makamson explained that the “piece-rate” system “generally failed because standards were poorly set, employers cut rates when workers earned ‘too much’, and workers would conceal their real capacity for production to keep standards low”.

⁴⁴ E. Makamson, “Taylor and Scientific Management” http://www.mgmtguru.com/mgt301/301_Lecture1Page8.htm [accessed November 29, 2011]

4. Scientific management is a collaboration of workers and managers. Managers are not responsible for execution of work, but they are responsible for how the work is done. Planning, scheduling, methods, and training are functions of the manager.”

Taylor's Four Core Principles of Scientific Management

Jones and George observed that Taylor believed that the systematic study of the relationships between people and tasks using “scientific management” techniques, rather than intuition or informal rule-of-thumb knowledge, was the best way to determine the most efficient division of labor and capitalize on the advantages of using specialization in the production process. In general, Taylor pushed for employers to take steps to reduce the amount of time and effort expended by workers in producing a unit of output and Jones and George summed up the four core principles of “scientific management” that Taylor developed from his experiments and observations as follows:

- Study the way workers perform their tasks, gather all the informal job knowledge possessed by workers, and experiment with ways of improving the way tasks are performed to increase efficiency.
- Codify the new methods of performing tasks into written work rules and standard operating procedures.
- Carefully select workers to ensure that they possess the skills and abilities that match the needs of the task and train them to perform the tasks according to the established rules and procedures.
- Establish a fair or acceptable level of performance for a task and then develop a pay system that provides a higher reward for performance above the acceptable level.

Jones and George noted that scientific management was widely known and practiced by 1910. For example, executives at Ford Motor Company celebrated that scientific management had allowed them to achieve the right mix of worker-task specialization and align people and tasks with the desired speed of the production line. Franklin Motor Company reported that it had redesigned its work process using scientific management principles and had seen daily production averages increase from 45 to 100 vehicles. At the same time, however, scientific management was subject to widespread criticism from individual workers and the unions that represented them. Among the problems reported by Jones and George were the failure of employers to share gains in productivity and performance with workers in the form of bonuses; increased job dissatisfaction due to job redesign that resulted in specialized, simplified jobs that were monotonous and repetitive; unreasonable expectations from managers who believed that as performance improved workers should do even more work for the same pay; and concerns among workers that advances in productivity would reduce the number of workers required and eventually lead to employers pushing to reduce their workforces through layoffs. While Jones and George concluded that selective application of scientific management principles often did more harm than good, Taylor's theories had an enduring influence on management of production systems.

Source: G. Jones and J. George, *Essentials of Contemporary Management* (6th Ed) (New York: McGraw-Hill Professional Publishing, 2014), Appendix A (“History of Management Thought”) to Chapter 1.

Taylor wrote that the process of job design provided an opportunity for collaboration between labor and management that would generate more wealth for everyone involved; however, critics claimed that workers had little or no input into selecting their jobs, or how their jobs were designed, and that this ultimately led to higher levels of worker alienation. Labor unions saw “Taylorism” as exploitive and his approach eventually fell out of favor in the US as unions pushed for minimum hourly wage guarantees that were at odds with the “pay for performance” approach that was implicit in Taylor's system. Nonetheless, it is generally conceded that Taylor made a major contribution to elevating management to a level that it was considered a legitimate subject for scholarly work and

professional practice. Moreover, while scientific management ran into significant opposition in the US and Europe, Taylor's theories were quite influential in other parts of the world. For example, Taylor was quite popular in Japan where Yoichi Ueno introduced Taylorism in 1912 and went on to create what became known as the "Japanese management style". Ueno's son Ichiro later pioneered quality assurance in Japan.

While Taylor is the most celebrated and discussed proponent of the classical scientific school, others also made significant, interesting and sometimes controversial contributions. Gantt, an associate of Taylor, developed the "Gantt chart", which is still in use today as a tool for graphing the scheduling of tasks and work flows and thus providing managers with a means for carrying out their planning and controlling roles. The Gilbreths, a husband-and-wife team, developed photographic methods for conducting "time and motion" studies that could be used to break down and analyze each component action associated with a particular task in order to identify the "best way" to perform specific tasks and entire jobs. The results of these studies were used to reorganize each component action so that the entire tasks could be performed more efficiently and with less time and effort.⁴⁵ The Gilbreths were also pioneers in the study of fatigue in the workplace and led the way in analyzing how the physical characteristics of the environment in which employees worked (i.e., lighting, heating, color of walls and design of tools and machines) might contribute to their job stress.⁴⁶ Other contributors included Munsterberg, the founder of the discipline of industrial psychology; and McKinsey, the developer of budgeting practices used as a means of accountability and measurement of performance.

§15 ----Classical administrative school

While the focus of scientific management was on increasing the efficiency of production and the productivity of individual workers, proponents of the classical administrative school were more interested in developing universal management and organizational design principles that could make the operation of the entire organization more efficient and effective. One of the earliest, and well-known, contributors to the administrative school was Max Weber. Weber wrote extensively about his ideas regarding the definition and benefits of bureaucratic administration of organizations.⁴⁷ Weber was one of the first to argue that businesses should not allow their managers to exercise control arbitrarily and without any explanation to the impacted workers. He believed that rational legal authority was the preferred approach to control within an organization and that "bureaucracy" was the most efficient form of organization. While bureaucracy today

⁴⁵ G. Jones and J. George, *Essentials of Contemporary Management* (6th Ed) (New York: McGraw-Hill Professional Publishing, 2014), Appendix A ("History of Management Thought") to Chapter 1.

⁴⁶ See F. Gilbreth and L. Gilbreth, *Fatigue Study: The Elimination of Humanity's Greatest Waste--A First Step in Motion Study* (New York: The Macmillan Company, 1919). For a contemporary survey of research on the effects of the physical environment on job performance, see J. Vischer, "The effects of the physical environment on job performance: towards a theoretical model of workspace stress", *Stress and Health*, 23 (2007), 175.

⁴⁷ Weber, Max., "Bureaucracy", In *From Max Weber*, eds. Hans Gerth and C. Wright Mills, 196-244. (New York: Oxford University Press, 1946). See also M. Weber, *The Theory of Social and Economic Organization*, Translated by A. M. Henderson & Talcott Parsons, (The Free Press, 1947).

has a negative connotation and is generally associated with organizational practices that are slow and inflexible, Weber championed bureaucracy to his contemporaries as a necessary and preferred alternative to the other forms of authority which he believed led to unfairness within the workplace and corruption among those in authority at major corporations during the late 19th century.⁴⁸

Another important figure in the classical administrative school was Henri Fayol, who promulgated a detailed set of “principles of management” as another means for effectively controlling an organization. His ideas touched on many of the topics that are still hotly debated in the world of organizational design and did so in a way that recognized that there are tradeoffs that must be made when creating the optimal structure for an organization at any point in time. Fayol was one of the first to focus on the specific functions and roles of managers and famously observed that managers had five principle roles: planning, organizing, commanding, coordinating and controlling. He went to develop and explain fourteen “principles of administration” to be followed by managers when performing their roles including now well-known concepts such as specialization/division of labor, authority with responsibility, unity of command, unity of direction, centralization and line of authority.⁴⁹

Also associated with the classical administrative school is Mary Parker Follett, who was one of the first management theorists who advocated greater participation by employees in decision making and establishment of the overall goals and objectives of the organization. She disfavored the command-style hierarchical organizations advocated by her contemporaries and argued that managers should focus on the development and motivation of “people” rather than on mechanical techniques. She also argued that managers should not impose their own will on subordinates but instead should take steps to organize the groups that they oversee in a manner that allows for discovering and harmonizing the views of the members of the group. In her own words: “... The leader guides the group and is at the same time himself guided by the group, is always a part of the group. No one can truly lead except from within. ... [A leader] must be able to lead us to wise decisions, not to impose his own wise decisions upon us. We need leaders, not masters or drivers.”⁵⁰ Her teachings were not widely accepted during her career; however, as time has gone by her guidelines, which ironically were not originally intended for business managers, have become part of the mainstream of contemporary management recommendations and are now widely followed by today’s managers. In fact, a collection of her writings published in 2003 bears the descriptive title of “Prophet

⁴⁸ For further discussion Weber, see “Organizational Design: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁴⁹ H. Fayol (translated from the French edition (Dunod) by Constance Storrs), *General and Industrial Management*, (Pitman: 1949). For further discussion of these principles, see “Organizational Design: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁵⁰ M. Follett, *The New State - Group Organization, the Solution for Popular Government* (University Park, PA: Pennsylvania State University Press, 1918).

of Management”.⁵¹ Follett’s emphasis on human relations and how managers interacted with their workers could also be easily placed within the behavioral management theories discussed below and she was also among the first to give serious attention to conflict resolution in the workplace.

Finally, Chester Barnard, who was president of the New Jersey Bell Telephone Company, introduced the “acceptance” theory of management, which was based on establishing conditions within the organization that led to employees accepting the legitimate authority of their managers to make decisions and set directions for the organization. Barnard argued that acceptance was based on several factors, including the ability of the employees to understand communications from their managers; employee acceptance of the communication as being consistent with the goals and purposes of the organization; the belief by employees that their actions will be consistent with the needs and desires of other employees; and the belief of employees that they are mentally and physically able to carry out orders issued by their managers. In order to achieve acceptance, managers needed to focus on developing a sense of common purpose among employees and an organizational culture that recognized the need for cooperation and valued those who were willing to cooperate to achieve the goals and purposes of the organization. Barnard also was among the first to acknowledge the existence of an “informal organization”, which refer to the cliques or other groups that inevitably form within an organization and which can provide a valuable service in collecting and disseminating information. Barnard’s focus on the mindset of employees previewed the emergence of the next major school of management thought discussed below: behavioral management theory.⁵²

The Classical Administrative School of Management

Jones and George summarized the core principals of several of main theories associated with the “classical administrative school”. They described Weber’s principals of bureaucracy as follows:

- Managers in a bureaucracy have formal authority which they derive from the position they hold in the organization.
- Managerial authority is the legitimate power to hold people accountable for their actions and thus provides managers with the legal right to exert direction and control over the behavior of their subordinates.
- Positions in a bureaucracy should be given to people based on their performance rather than social standing or personal contacts.
- The formal authority and task responsibilities associated with each position in a bureaucracy, and the relationship of that position to other positions in the organization, should be clearly specified so as to ensure that everyone—managers and workers—understand exactly what is expected of them and can be held accountable.
- Effective exercise of authority in an organization requires that positions be arranged hierarchically so

⁵¹ P. Graham (Ed), Mary Parker Follett Prophet of Management (2003). See also D. Mele, “Ethics in Management: Exploring the Contribution of Mary Parker Follett”, <http://www.iese.edu/research/pdfs/DI-0618-E.pdf> [accessed December 1, 2011]

⁵² See generally C. Barnard, *The Functions of the Executive* (Cambridge, MA: Harvard University Press, 1938). See also J. Mahoney, “The Relevance of Chester I. Barnard’s Teachings to Contemporary Management Education: Communicating the Aesthetics of Management”, *International Journal of Organizational Theory and Behavior*, 5(1) & (2) (2002), 159-172.

that everyone knows who to report to and who reports to them.

- Managers must create a well-defined system of rules (i.e., formal written instructions that specify actions that should be taken under different circumstances to achieve specific goals), standard operating procedures (i.e., specific sets of written instructions about how to perform a certain aspect of a task), and norms (i.e., unwritten, informal codes of conduct that govern how people should act) so that they can provide guidelines for effectively control behavior within an organization and increasing the performance of a bureaucratic system.

Jones and George commented that strong and skillful management was essential to making a bureaucratic system work and that poor management could quickly lead to the complex system of rules and procedures impeding operations and causing decision making to become slow and inefficient.

Jones and George summarized Fayol's principles of management as follows:

- Division of labor: Job specialization and the division of labor should increase efficiency
- Authority and responsibility: Managers have the right to give orders and the power to exhort subordinates for obedience
- Unity of command: An employee should receive orders from only one superior
- Line of authority: The length of the chain of command that extends from the top to the bottom of an organization should be limited
- Centralization: Authority should not be concentrated at the top of the chain of command
- Unity of direction: Operations within the organization that have the same objective should be directed by only one manager using one plan
- Equity: Managers should be both friendly and fair to their subordinates
- Order: Materials and people should be in the right place at the right time
- Initiative: Subordinates should be given the freedom to conceive and carry out their plans, even though some mistakes may result
- Discipline: Members in an organization need to respect the rules and agreements that govern the organization
- Remuneration: Compensation for work done should be fair to both employees and employers
- Stability of tenure of personnel: High employee turnover rate undermines the efficient functioning of an organization
- Subordination of individual interests: Interests of employees should not take precedence over the interests of the organization as a whole
- Esprit de corps: Promoting team spirit will give the organization a sense of unity

Finally, Jones and George emphasized the following points regarding Follett's concerns about emphasizing the "human side of the organization" and encouraging managers to involve their subordinates in planning and decisions:

- Workers are the people who know the most about their jobs and they should be involved in job analysis and participate with their managers in the work development process.
- Provided that workers have the relevant knowledge, they, rather than their managers, should be in control of the work process and the role of managers should be limited to coaching and facilitating.
- Organizations should rely upon cross-departmental teams composed of persons from different functional departments to carry out required projects.
- Leadership should be based on knowledge and expertise rather than upon formal authority given to a manager based on his or her position in the hierarchy.
- Power and authority in the organization should be fluid and flow to those persons who are best able to assist the organization in achieving its goals.

Jones and George commented that Follett's approach was considered to be quite radical during her time and clearly her principals flew in the face of much of what Taylor advocated in pushing organizations to adopt "scientific management". For example, scientific management had no place for worker input into job

analysis. Not surprisingly, most organizations operating at the time Follett was writing continued to embrace Taylorism; however, Follett's ideas regarding "cross-functioning", the creation and use of cross-departmental teams, are now commonly applied by managers and modern organizations also rely heavily on self-managed teams and empowerment initiatives that allow employees to contribute their knowledge and expertise.

Source: G. Jones and J. George, *Essentials of Contemporary Management* (6th Ed) (New York: McGraw-Hill Professional Publishing, 2014), Appendix A ("History of Management Thought") to Chapter 1.

§16 --Behavioral management theory

Behavioral management theory was a response to some of the shortcomings associated with the classical theories, particularly the inability of the classical theories to explain the behaviors of individual employees in many situations and the lack of guidance they provided to managers with respect to motivating employees to accept and carry out their directives. Proponents of behavioral management theories, sometimes referred to as the "human relations movement" because of the emphasis on the human dimension of work, believed that the key to increasing productivity was to pay more attention to issues such as motivation, conflict, expectations and group dynamics. In short, behavioral management theorists made a clear and substantial break from the predecessors in the classical schools by recognizing that employees are not simply machines but are individuals who should be considered resources of the organization that should be nurtured and developed. As a practical matter, this shift would mean that managers could no longer limit their activities to explaining and controlling technical aspects of the work performed by their subordinates but must instead be able to understand human needs and behavior in their organizations and the workings of the "informal organization", which is the system of behavioral rules and norms that emerge in a group and must be taken into account in any attempt to manage or change the behavior of members of the group.⁵³

The foundation for behavioral management theory included studies by Mayo and others that provided evidence that human relations and the social needs of workers are important factors for effective organizational management. Mayo's studies are referred to as the "Hawthorne Studies" and were conducted from 1924 to 1932 at the Hawthorne Works of the Western Electric Company.⁵⁴ While conducting various tests to determine how characteristics of the work setting, such as lighting, influenced fatigue and performance among employees the researchers found that their presence affected the results and that employees enjoyed the attention and were eager to cooperate with the researchers by producing the results that the employees believed the researchers were expecting. This result, which became known as the "Hawthorne effect", supported the argument that workers' performance could be positively influenced by managerial attitudes and provided a foundation for the human relations movement that was based on the

⁵³ G. Jones and J. George, *Essentials of Contemporary Management* (6th Ed) (New York: McGraw-Hill Professional Publishing, 2014), Appendix A ("History of Management Thought") to Chapter 1; and G. Jones and J. George, *Contemporary Management* (5th Ed.) (New York: McGraw-Hill/Irwin, 2007), 46. Jones and George commented that the study of informal organizations and other factors that impacted how individuals and groups responded to and acted in organizations became the focus of a research field which eventually became known as "organizational behavior".

⁵⁴ E. Mayo, *The Human Problems of an Industrial Civilization* (New York, NY: Macmillan, 1933).

proposition that managers should be trained in behaviors that elicit cooperation from employees and increased their productivity.⁵⁵ Maslow developed his well-known theory of human needs based on the assumptions that human behavior is purposeful and motivated by the need for satisfaction and that human needs could be classified according to a hierarchical structure of importance that had five levels that ranged from lowest to highest.⁵⁶ Managers with this information and understanding of the needs of their subordinates could presumably tailor their instructions in ways that were most likely to resonate with subordinates at that time and motivate them to act in the manner deemed necessary for organizational efficiency.

One of the most well-known behavioral management models is McGregor's Theory X and Theory Y, which was heavily influenced by the work of both Mayo and Maslow.⁵⁷ McGregor posited various principles that he believed managers should follow in order to increase their effectiveness in motivating employees to act in ways that would benefit the firm. He began by arguing that all managers held one of two very different views regarding the abilities and motivations of their subordinates, which he dubbed Theory X and Theory Y, and that these views influenced the way that managers treated their subordinates and the way in which subordinates performed. The key assumptions for Theory X were that the average worker: dislikes work and attempts to avoid it (i.e., "lazy"); has no ambition or desire for responsibility and prefers to follow rather than lead; is self-centered and has no interest in the goals and objectives of the firm as a whole; is untrustworthy; is resistant to change; and is gullible and lacks intelligence. The bottom line is that Theory X implicitly assumes that employees only work for money and security and that motivational policies of firms, if they can really be called that, should be confined to providing cash compensation and basic benefits and that such employees should be given little in the way of discretion and flexibility. Theory X managers closely supervise their subordinates to make sure that they work hard, create strict work rules and implement a well-defined system of rewards and punishments in order to exert control over those who work for them.⁵⁸

Theory Y, on the other hand, is based on the belief that employees have the higher level needs identified in Maslow's hierarchy (i.e., esteem and self-actualization) and calls for the following very different assumptions about workers and workplace: work can be as natural as play and rest; employees will be self-directed to fulfill the workplace objectives if they are personally committed to them and the requisite level of commitment can be achieved by providing rewards that address higher needs such as self-fulfillment; if employees are personally committed and properly rewarded they will

⁵⁵ G. Jones and J. George, *Essentials of Contemporary Management* (6th Ed) (New York: McGraw-Hill Professional Publishing, 2014), Appendix A ("History of Management Thought") to Chapter 1.

⁵⁶ See A. Maslow, *Motivation and Personality* (New York, NY: Harper, 1954). For further discussion, see also "Human Resources: A Library of Resources for Sustainable Entrepreneurs" prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁵⁷ The ideas underlying Theory X and Theory Y first appeared in D. McGregor, *The Human Side of Enterprise* (New York, NY: McGraw Hill, 1960).

⁵⁸ G. Jones and J. George, *Contemporary Management* (5th Ed.) (New York: McGraw-Hill/Irwin, 2007), 46-47 (noting also that Henry Ford's practice of closely supervising and managing his workforce was a good illustration of Theory X management style).

act in a responsible fashion; and workers are trustworthy and it is therefore justifiable to expect that most employees can handle responsibility since they are inherently creative and ingenuous. Firms and managers that believe in Theory Y will not only offer materialistic rewards but will also provide other opportunities for subordinates to pursue and achieve their inner needs (i.e., the needs at the top of Maslow's needs hierarchy such as social needs, ego-based needs and self-fulfillment). For example, such firms and managers are likely to implement strategies such as decentralization and delegation, job enlargement, participative management and performance appraisals against objectives that are established jointly by the firm and its employees. Gareth and George explained that in Theory Y organizations "individuals and groups are still accountable for their activities, but the manager's role is not to control employees but to provide support and advice, to make sure employees have the resources they need to perform their jobs and to evaluate them on their ability to help the organization meet its goals".⁵⁹

§17 --Quantitative school of management

Another well-known school of management, which had its origins in research conducted during World War II by mathematicians, physicists and other scientists focused on finding solutions for military problems, is the "quantitative" school. Quantitative management theorists and researchers rely on sophisticated quantitative techniques, such as statistics information models, computer simulations, linear and nonlinear programming, queuing theory and chaos theory, to develop methods that managers can use to improve the quality of their decision making activities. For example, quantitative management tools have become essential for managers trying to determine how much inventory should be held at a particular time of the year, where to build a new factory, or how to invest the firm's capital.⁶⁰

There are a number of different branches of the quantitative school and some of the commonly recognized include management science, which uses techniques such as mathematic forecasting for improving the planning process, inventory modeling and queuing theory; operations management (or operations research), which focuses on the analysis of the essential process of transforming various inputs (i.e., materials, labor and capital) into finished products and services that are competitive and meet the demands of customers with respect to utility, quality and pricing; and management information systems ("MIS"), which focuses on collection, analysis and dissemination of data and information regarding financial and operational activities of the organization.

Another theory, referred to as "systems management", emphasizes the importance of looking at organizations as "systems" with various interrelated parts that can be classified as inputs, transformation processes, outputs and feedback. Systems management theory generally discusses and focuses on two types of systems: a "closed" system, which is an organization that has relatively little interaction with its external environment and thus gets little or no feedback and is at risk to suffer entropy, loses its ability to control itself

⁵⁹ Id. at 47 (noting also that Fayol's approach to administration, the "principles of management" discussed above, reflected many of the assumptions associated with Theory Y).

⁶⁰ G. Jones and J. George, *Contemporary Management* (5th Ed.) (New York: McGraw-Hill/Irwin, 2007), 47.

and eventual dissolve; and an “open” system, which is an organization that interacts frequently with its external environment and thus receives information, feedback and resources that can be used to make changes in transformation processes and outputs that are necessary in order for the organization to survive. Katz and Kahn were among the first to view organizations as open systems that appropriated resources (i.e., raw materials, capital and human resources) from their external environment, converted or transformed those resources into goods and services using appropriate tools and techniques, and then released those goods and services into the environment where they were purchased by customers to satisfy their needs. Money received from these purchases allowed the organization to acquire new resources that could be used to start the process again.⁶¹

§18 --Contingency school of management

As the name implies, proponents of the contingency school of management believe that there is no single best way to manage and that what constitutes the most appropriate and effective management decision or action at a given time will depend on the situation that is confronting the manager.⁶² Managers acknowledging the contingency view have a good deal of flexibility; however, they also have a challenging task in figuring out which of the other various available theories of organizational design, control and motivation offers the best solution. Under the contingency view, the experience, education and judgment of the particular manager is extremely important for organizational effectiveness and managers must appreciate the potential influence of a diverse range of situational factors including type of organization, business purpose and activities of the organization, size of the organization, operating environment, corporate and societal culture, information technology and communication and, finally, the personal style and behavior of the owner or chief executive.

The rate of change in the organization’s external environment is certainly an important contingency that managers need to take into account. Change can occur in a number of ways including the introduction of new technologies and products, entry of new competitors and changes in overall economic conditions. Burns and Stalker, two of the pioneers in the development of contingency theory, argued that the optimal structure for an organization was related to the level of stability in the organization’s external environment.⁶³ Organizations operating in a stable environment were likely to prefer a “mechanistic” structure based on Theory X management principles such as centralized authority, clearly defined tasks and rules and close supervision. Jones and George explained that “[a] mechanistic structure provides the most efficient way to operate in a stable environment because it allows managers to obtain inputs at the lowest cost, giving an organization the most control over its conversion processes and enabling the most

⁶¹ Id. at 48-49 (citing D. Katz and R. Kahn, *The Social Psychology of Organizations* (New York: Wiley, 1966)).

⁶² Id. at 49-50.

⁶³ Id. at 50-51. See also T. Burns and G.M. Stalker, *The Management of Innovation* (Oxford University Press, 1961). For further discussion of mechanistic and organic organizational structures, see “Organizational Design: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

efficient production of goods and services with the smallest expenditure of resources”.⁶⁴ In contrast, managers of organizations that are operating in a rapidly changing and relatively unstable environment may be forced to use an “organic” structure in which authority is decentralized and delegated downward in the hierarchy, roles are left ambiguous, employees are encouraged and expected to cooperate and control is based not on fixed rules but on more informal shared norms for the conduct of organizational activities. Organic structures are better suited than mechanistic structures to cope with a turbulent environment; however, they are more expensive to operate and require new and different managerial skills.

§19 --Quality school of management

The quality school of management focuses on “continuous improvement” of quality and performance to meet and exceed the needs and expectations of customers. Quality becomes the overriding priority for organizational activities and quality management techniques rely heavily on input from employees and close collaboration within the organization through teams of managers and employees that work together to set plans and identify and solve problems. Emphasis on quality management actually began during the era of Taylorism when researchers analyzed methods for controlling production and costs and acknowledged the need to attend to customer service as well as profits. As time went by more and more work was done on statistical quality control and companies were urged to rely on internal customers and partnerships with suppliers in order to identify and resolve quality issues. Quality was an important element of emerging proposals for managerial priorities such as the system advocated by Deming, who is sometimes referred to as the “Father of Quality”, which included calls for managers to stop depending on inspections to achieve quality and focus instead on building quality into the product in the first place; continuously improve systems of production and service in order to improve quality and productivity and decrease costs; and break down barriers between departments to allow specialists in research, design, sales, and production to work as a team in order to foresee and resolve problems of production and use that may be encountered in connection with a product or service.⁶⁵

Two well-known quality-based initiatives are the Kaizen (pronounced ky-zen) and reengineering approaches. Imai has defined Kaizen as “ongoing improvement involving everyone – top management, managers, and workers”⁶⁶ and Kaizen is supported by organizational norms that value learning and experimenting with respect to ideas that might lead to changes that enhance the quality of organizational outputs. Kaizen has its roots in Japanese manufacturing processes and has been incorporated into a similar concept of “total quality management” (“TQM”), which Davenport has defined to include programs and initiatives that emphasize incremental improvement in work processes and outputs over an open-ended period of time. Jones and George explained that “TQM focuses on analyzing an organization’s input, conversion, and output activities to increase product quality”.⁶⁷

⁶⁴ Id. at 50.

⁶⁵ W. Deming, *Out of the Crisis* (Cambridge, MA: Cambridge University Press, 1986), 23-24.

⁶⁶ M. Imai, *KAIZEN: The Key to Japan's Competitive Success* (New York: Random House Business Division, 1986), xxix.

⁶⁷ G. Jones and J. George, *Contemporary Management* (5th Ed.) (New York: McGraw-Hill/Irwin, 2007), 47.

Reengineering, on the other hand, has been defined by Davenport to include discrete initiatives intended to achieve radically redesigned and improved work processes in a bounded time frame.⁶⁸ Reengineering is sometime referred to as “business process redesign” or “process innovation” and requires participation by everyone in the organization to seek and achieve dramatic improvements in cost, quality and service. Reengineering is often controversial given its cost and the potential disruption that may result due to the need to reconfigure jobs and eliminate workers.⁶⁹ In order for either of the quality management approaches to be successful, the organizational culture must create an environment in which all employees work together in harmony and seek to develop and maintain cooperative relationships with their peers and everyone above or below them in the organizational hierarchy. The assumptions and values underlying this form of culture have been referred to by Ouchi as “Theory Z”.⁷⁰

§20 Other contributions to the development of management studies

The foregoing brief history of the development of “management” necessarily omits much in the way of important detail and debate and cannot possibly capture the diversity of thought and scholarship on the topic. For example, when one seeks to learn about “management” he or she inevitably is drawn to the collective works of Peter Drucker, who began his career by publishing one of the earliest books on applied management in 1946 and eventually became known as the “creator and inventor of modern management” in the words of well-known management commentator Tom Peters.⁷¹ The field of management studies has also been overtaken by a seemingly endless stream of “new ideas” for management systems and practices such as “management-by-objectives”, Six Sigma and “agile” software development. In addition, various sub-areas of management have developed their own body of scholarship as evidenced by the work being done under the umbrellas of human resource management, marketing management, strategic management and financial management. However, the utility of these function-based initiatives has been questioned by those who argue that effective management in the 21st century requires an understanding of all of these categories and thus it is best to focus on specific processes or objectives such as product development. Finally, while much of what has been described above has been introduced in the for-profit arena, there is a substantial amount of interest in management of public enterprises, non-profit organizations and organizations seeking to achieve both financial sustainability and societal benefits (e.g., social entrepreneurship).

One of the most striking developments over the last few decades has been the emergence of “management” as a formal business discipline with its own body of scholarly work and

⁶⁸ T. Davenport, *Process Innovation* (Boston, MA: Harvard Business School Press, 1993).

⁶⁹ T. Davenport, “Reengineering: Business Change of Mythic Proportions?”, *MIS Quarterly*, July 1994, 121-127.

⁷⁰ See generally W. Ouchi, *Theory Z: How American Business Can Meet the Japanese Challenge*, (Reading, MA: Addison-Wesley, 1981).

⁷¹ J. Byrne, “The Man Who Invented Management: Why Peter Drucker’s ideas still matter”, *Bloomberg Businessweek*, November 28, 2005 http://www.businessweek.com/magazine/content/05_48/b3961001.htm [accessed November 29, 2011]

a wide array of professional activities among educators, researchers and others. The notion that management is just “common sense” and “cannot be taught” has been replaced by a complex model of formal education that produces graduates who have completed a curriculum that spans a wide range of sub-topics. The formalization of “management” training has been accompanying by the development of other related business specialties such as finance, marketing, operations management and human resources. Accounting and economics also play an important role in organizational strategy and operations; however, they both had already been recognized as established professions before the managerial profession began its rise. Today, integration of management skills into the local population is seen as essential to potential prosperity for developing countries.

§21 Managerial challenges in the early 21st century

The governance structure of for-profit organizations, generally corporations, in the US has evolved to the point where one can identify several layers of stakeholders: the shareholders, who provide the capital to operate the business in exchange for retaining the right to receive profits generated from such operations; the directors, who are elected by the shareholders to oversee the operations of the business; the senior managers, who are employed by the directors to establish and execute a strategic plan for the business and manage day-to-day operations; and the lower-level managers and employees who carry out the various tasks and activities necessary for the organization to pursue, and hopefully achieve, its goals and objectives. For-profit organizations seek to generate profits for the shareholders, which also increase the compensation for the senior managers; create and distribute products and services that are valued by customers such that they will pay the price sought by the organization; and, at least under contemporary theories of human resources, provide rewarding opportunities for employees. Some countries use somewhat different governance models that feature a higher level of employee participation in governance through opportunities to elect worker representatives to the governing body (i.e., the board of directors). There is also a growing trend toward requiring that the needs and concerns of other stakeholders, such as the community in which the organization is operating, be taken into account when setting goals for, and making decisions about, the organization.

The 21st century began with celebration of a “New Economy” in which many of the traditional tools upon which management studies had been based with no longer be valid and managers would be challenged to cope with a variety of issues arising out of rapid and sweeping changes in society and the economy. While it may not be wise or necessary to throw out all of the “old”, it is certainly important to pay attention to the several important factors identified and discussed by manager scholars and researchers such as Lewis et al.: continuous advances in information technology; the rise of the Internet; increasing globalization; increasing diversity in the workplace and the marketplace; growing recognition of the importance of intellectual capital including, but not limited to, intellectual property; and more focused attention on ethical behavior by

firms and their managers.⁷² Each of these factors has had, and will continue to have, a significant influence on core managerial activities, notably each of the elements of organizational design.⁷³ In addition, of course, management must remain focused on creating value for customers in an efficient manner and on developing and implementing strategies to attract necessary inputs such as capital, technology and human resources.

§22 --Internet and information technology

The maturation of the Internet and evolution of information technology has had a dramatic impact on management tools, strategies and challenges. After an initial period of colossal failures, including the so-called “Internet bust” at the beginning of the new century, the success rate of e-businesses finally began to rise as companies realized how they could develop business tools and strategies that had traditionally been practiced in the pre-Internet world: operational efficiencies, cost containment and control and intelligently designed strategic alliances. Concurrently, “brick-and-mortar” companies began to figure how they could use the Internet to compliment, rather than replace, their existing businesses, which meant that consumers began to have real choices about where and how they could purchase products and services and how they could communicate with their preferred vendors. Improvements in information technology facilitate rapid dissemination of information within organizations and efficient broadcast of information to the marketplace. Information technology also supports strong supply chain relationships which, in turn, allow companies to reduce costs and improve service and product availability. Finally, there is no doubt that the Internet has changed the competitive landscape for businesses of all sizes: consumers can get more information about products, services and vendors and can “comparison shop” quickly and efficiently; consumers can share information about their experiences with products, services and vendors through social networking and, finally, competition can now arise from anywhere in the world where a person or firm can set up a website and ship products efficiently by taking advantage of improvements in logistics and transportation.⁷⁴

§23 --Globalization

Businesses and their managers have had to come to grips with the fact that they need to think “globally” when making decisions about organizational strategy and design. The importance of globalization has increased with advances in information technology and transportation and firms of all sizes can now easily reach to customers and business partners around the world. Larger companies in particular have decided to move major parts of their operations to foreign countries to take advantage of cost advantages, gain access to talent and technology and have more direct contact with consumers in large emerging markets. Interestingly, manufacturing is just one of the activities going on in

⁷² P. Lewis, S. Goodman, P. Fandt and J. Michlitsch, *Management: Challenges for Tomorrow's Leaders* (5th Edition) (Mason, OH: Thomson South-Western, 2007), 12-16.

⁷³ For detailed discussion of the elements of organization design, see “Organizational Design: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁷⁴ P. Lewis, S. Goodman, P. Fandt and J. Michlitsch, *Management: Challenges for Tomorrow's Leaders* (5th Edition) (Mason, OH: Thomson South-Western, 2007), 12-13.

foreign countries and companies have increasingly looked to foreign scientists and engineers to carry out sophisticated research and development projects. There has also been a steady rise in strategic alliances between companies in different countries including, in many cases, acquisitions of controlling interests in US companies by foreign firms. In addition, the domestic marketplace in the US has been transformed by inbound investment by foreign firms interested in setting up manufacturing and sales subsidiaries in the US to increase the efficiency of their efforts to penetrate the US market.⁷⁵ Finally, globalization means that countries all around the world are developing their own indigenous management practices that leverage their specific resources and core competencies and help to create powerful local firms that quickly capture domestic market share and make it difficult for foreign companies to enter and gain access to growing middle classes with disposable income.

Emerging Interest in the Chinese Approach to Management

An article appearing in *The Economist* in September 2014 cautioned against thinking that rapid growth of Chinese firms in recent years could be written off to cheap labor and/or financial support from the government rather than to the ability of managers of those firms to adopt and implement innovative managerial practices and strategies. The article suggested that firms outside of China would do well to begin understanding Chinese management ideas before they overwhelmed foreign markets in the same way that Japanese companies practicing “lean production” stormed into the US several decades ago and highlighted the following principles based on two then-recent reports from scholars and consultants who had been studying the “Chinese approach to management”:

- Mass production techniques, traditionally limited to manufacturing activities, are being used to accelerate product development. Chinese companies attempt to break up the innovation process into a number of small steps and then assign large groups of people to work on each step and rely on software originally developed for managing assembly lines to coordinate the activities of each group involved in the innovation process.
- Chinese software firms are more likely than their Western competitors to launch their new products directly into the market and rely on customers to provide feedback that can be used to rapidly make adjustments. This approach is quite different from the traditional practice among Western firms of treading carefully into the market by releasing a “beta” version of new products to a small and select group of early users.
- Large Chinese companies involved in technology-related industries have been willing to dispense with the hierarchy and time-consuming consensus building popular in Japanese firms and delegate authority in order to achieve and retain flexibility. An example was provided of one company that had created large number of “mini-companies” internally, each of which reported directly to the chairman.
- In order to attract and retain talented people with the potential to step into managerial positions Chinese companies are creating comprehensive support systems for the best candidates that include training, housing, education for their children and opportunities to travel abroad for learning and expanding their horizons.

The consensus was that Chinese companies were becoming interesting case studies of the potential advantages of accelerated product development and rapid and continuous introduction of new products; however, it was noted that these approaches made particular sense in an environment in which companies were happy to be “fast followers” that relied on copying innovations first developed in foreign markets and then adapting them quickly to distribute into the enormous mass markets in China filled with consumers hungry for Western products. In addition, segmentation of innovation process, and aggressive staffing of each step, leveraged what the article referred to as “one of the country’s most important resources—a pool

⁷⁵ Id. at 13.

of competent but unexceptional technicians”.

Sources: “The China Wave”, *The Economist* (September 13, 2014), 76. References cited in the article included P. Williamson and E. Yin, “Accelerated Innovation: the New Challenge from China”, *MIT Sloan Management Review* (Summer 2014), <http://sloanreview.mit.edu/article/accelerated-innovation-the-new-challenge-from-china/>; and T. Hout and D. Michael, “A Chinese Approach to Management”, *Harvard Business Review* (September 2014), <https://hbr.org/2014/09/a-chinese-approach-to-management/ar/1>.

§24 --Diversity

Communication and organizational culture are two key concerns for managers of all businesses and the challenges in both of these areas have increased as the workplace and consumer marketplace have each become more diverse. Immigration and shifts in societal ideas about the roles of women have transformed the labor force to a dynamic and complex mix of men, women, Caucasians, Hispanics, African Americans, Asian Americans and others with diverse racial, national and ethnic backgrounds. As a result, issues have arisen in achieving the consensus necessary to set and pursue common goals and objectives and creating and maintaining a strong organizational culture is a much more difficult task for managers. The response has been an increase in diversity training within organizations to provide everyone with a better understanding of the perspectives of others with different backgrounds. Workplace diversity matches changes in the marketplace and companies must take into account the specific preferences of each of the groups mentioned above when designing and marketing their products and services.⁷⁶

§25 --Intellectual capital

Intellectual capital has joined the traditional factors of land, labor, money and raw materials as essential contributors to the efficiency and competitiveness of business organizations and managers must have a clear understanding of the elements of intellectual capital and how they can be used in developing and implementing strategies. Intellectual capital appears in the growing sophistication and educational background of the workforce and in the nature of the products and services developed and marketed by business organizations. As noted by Lewis et al.: “More and more products will become intellectual, or knowledge-based (for example, investment services and advice, registering for classes at a school, computer software), and may be better referred to as services. Services such as travel and entertainment are becoming more important, and they rely on knowledge. Even the traditional products will make more use of knowledge in design, production and marketing of them.”⁷⁷

Intellectual capital does not simply mean technology and intellectual property rights; instead, it is a concept that is much broader and includes identification, categorization, protection and effective use of the totality of the organization’s “knowledge”. The three major categories of “intellectual capital” identified by Stewart include structural capital, which includes the accumulated knowledge and know-how of the organization

⁷⁶ Id. at 13-14.

⁷⁷ P. Lewis, S. Goodman, P. Fandt and J. Michlitsch, *Management: Challenges for Tomorrow’s Leaders* (5th Edition) (Mason, OH: Thomson South-Western, 2007), 14.

represented by its patents, trademarks, copyrights, trade secrets and proprietary claims to information in its databases and systems; customer capital, which includes the value of established relationships with customers and suppliers; and human capital, which includes the cumulative skills and knowledge of the organization.⁷⁸ Management of intellectual capital is tightly aligned with human resource management since managers must recruit and retain the best talent, mine their knowledge for the benefit of the organization and establish systems for ensuring that their knowledge is available to others and that they have access to all of the organizational intellectual capital that they need in order to successfully carry out their activities.

§26 --Ethics

Ethical behavior and social responsibility have become two important topics for managers, particularly in light of the scandals and difficult economic times that have made their marks on the first decade of the new century.⁷⁹ Government regulations such as the Sarbanes Oxley Act of 2002 have transformed the landscape for corporate governance of public companies in the US, with a particular focus on great disclosure and transparency, and ethical guidelines have been promulgated by respected groups around the world including the OECD Guidelines for Multinational Enterprises and the United Nations Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises. Management concerns regarding compliance are no longer limited to their own organizations and are now being extended to business partners such as suppliers under new laws that call for firms to monitor their supply chains for evidence of human trafficking and subpar working conditions.

Another interesting development in the US is the recognition of new legal forms of corporations that explicitly allow directors to consider not only the interests of shareholders but also other important stakeholders such as employees, consumers and the community. California, for example, permits the formation of “benefit corporations” for the purpose of creating general public benefit, which is defined by statute as a material positive impact on society and the environment, taken as a whole, as assessed against a third-party standard that satisfies certain requirements. Directors of benefit corporations are required to consider the impacts of any action or proposed action upon specified considerations including, among others, the shareholders and employees of the corporation, customers of the corporation who are beneficiaries of the general or specific public benefit purposes and the environment. A handful of other states have adopted similar legislation covering benefit corporations, sometimes referred to as “B corporations”, and their viability will depend in large part on the development of case law regarding the permissible purposes of such corporations and the flexibility afforded to directors in discharging their fiduciary duties.

The Ethical Manager

⁷⁸ Id. (citing T. Stewart, *Intellectual Capital: The New Wealth of Organizations*, (New York: Currency Doubleday, 1997).

⁷⁹ Id. at 15-16.

When carrying out their duties and responsibilities managers may often find themselves confronted with an “ethical dilemma”, which a situation in the manager must decide whether to take a certain course of action that helps another person or group and which is the “right thing to do” even if the action is not in the manager’s own self-interest. In order for the manager to act effectively and appropriately in those instances, he or she needs to have a fundamental understanding of ethics and how ethical principles apply to managers and their organizations.

According to Kelly and Williams, ethics are the inner-guiding moral principles, values, and beliefs that individuals and groups use to analyze or interpret a situation and then decide what is right and the appropriate way to behave. The concept of ethics can be viewed at several levels:

- Individual ethics are personal standards and values that determine how people view their responsibilities to other people and groups and how they should act in situations where their own self-interest is at stake
- Occupational ethics are standards that govern how members of a particular profession, trade or craft should conduct themselves when performing their work-related activities
- Organizational ethics are the guiding principles through which an organization and its managers view their duties and responsibilities to the organization’s stakeholders (e.g., owners, managers, employees, suppliers and distributors, customers and the surrounding community)
- Societal ethics are standards that govern how the members of a society deal with one another in matters that involve issues such as fairness, justice, poverty and individual rights

Van Auken argued that ethical managers demonstrated certain characteristics including:

- Looking out for the interests of others, including customers, employees and minority members of society
- Valuing employees as people as well as workers and giving respect to their family responsibilities, community involvement and religious beliefs
- Not deceiving people and simply telling them what they want to hear rather than the truth
- Not playing psychological games with others, such as blame-shifting, practicing one-upmanship or playing favorites
- Valuing people over pragmatism and recognizing that how things are achieved is just as important as what is achieved.
- Focusing on the ultimate objective or mission (the “ends”) more than rules and regulations (the “means”)
- A commitment to ideals beyond self, such as honesty, fair play, and quality work

Van Auken went on to recommend that managers understand and adhere to several guiding ethical principles when engaging in supervisory behavior:

- The “mission” principle: Stick to the basic mission of the organization (e.g., service, quality, value to the customer) as the day-to-day guide to supervisory behavior and decision making
- The “consistency” principle: Demand the same fair and objective standards from every employee.
- The “constituency” principle: Consider the needs and rights of as many organizational stakeholders as possible in decision making
- The “proactive” principle: Seek to exceed minimum expectations or rules when taking action and strive to find ways to deliver as much as possible to others
- The “holism” principle: Remember to keep the “big picture” in mind at all times and recognize the importance of the personal side of employees in addition to their professional activities, the service side of business along with the profit side and the needs of the minority as well as the majority

Kelly and Williams also offered ethical rules and principles that managers could use to analyze the impact of their decisions on organizational stakeholders:

- The “utilitarian” rule: An ethical decision is one that produces the greatest good for the greatest

number of people, which means that managers should compare alternative courses of action based on the benefits and costs of each alternative for different organizational stakeholders

- The “moral rights” rule: An ethical decision is the one that best maintains and protects the fundamental rights and privileges of the people affected by it, which means managers must take into account the effective of each alternative decision on the rights of each affected stakeholder group.
- The “justice” rule: An ethical decision is one that distributes both the benefits and the harms among the organizational stakeholders in a fair, equitable or impartial manner
- The “practical” rule: An ethical decision is one that a manager would have no hesitation communicating to others both inside and outside of the organization because they would find it to be reasonable and acceptable (i.e., consistent with values, norms and standards typically acknowledged and applied within the organization)

Legal and ethical principles are not necessarily the same; however, laws generally reflect the ethical norms at a particular time. Ethical principles are also subject to change over time as societies evolve. Kelly and Williams noted that there are no absolute or indisputable ethical rules or principals, but it has been suggested the following core values arguably transcend political, religious, class and ethnic differences: trustworthiness (i.e., honesty and following through on promises made); respect (i.e., showing consideration for others and treating them as you would like to be treated); responsibility (i.e., perseverance, self-discipline and personal accountability); fairness (i.e., providing equal opportunities and being open-minded); caring (i.e., kindness and compassion); and citizenship (i.e., cooperation and willingness to contribute to the broader community).

Effective managers understand the beliefs and behaviors of ethical individuals and attempt to practice them as they engaged in their managerial roles and activities. Trevino et al. suggested that this means managing with integrity and honesty, inspiring trust from subordinates, treating people the right way and playing fairly and striving for a high level of moral development. In addition, managers must do what they can to create and maintain an ethical organization that is based on ethical leadership (i.e., leader communications regarding ethics and values, role modeling, rewards for ethical behavior and swift and sure discipline for unethical behavior) and structures and systems that support and reinforce ethical behavior (i.e., organizational culture, code of ethics, ethics committee and chief ethics office, ethics training and procedures for anonymous reporting of ethical concerns (“whistleblowing”)).

Sources: M. Kelly and C. Williams, “Business Ethics and Social Responsibility”, in M. Kelly and C. Williams, *BUSN: Introduction to Business, Business Ethics and Social Responsibility* (Independence, KY: Cengage Learning, 2015); P. Van Auken, http://business.baylor.edu/Phil_VanAuken/EthicalSupvr.html; Josephson Institute’s 2009 Report Card on the Ethics of American Youth Summary (“Universal Ethical Standards”); and L. Trevin, L. Harman and M. Brown, “Moral Person and Moral Manager”, *California Management Review*, 42(4) (Summer 2000), 128.