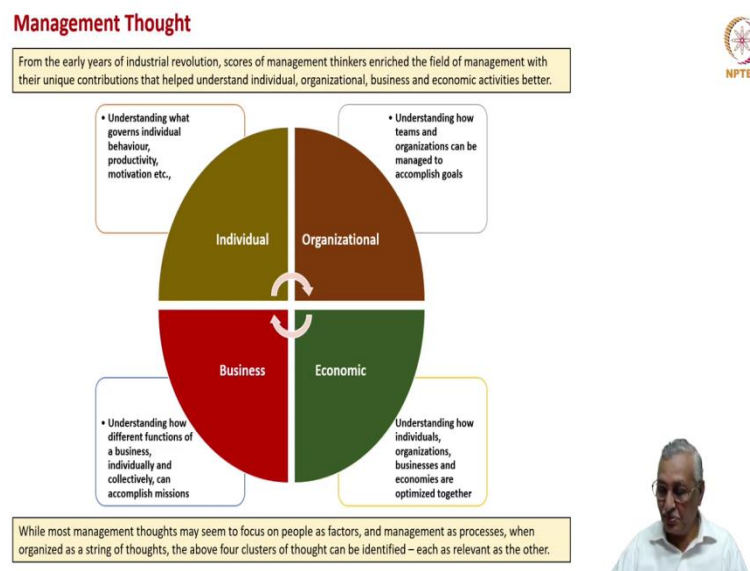


**Leadership for India INC: Practical Concepts and Constructs**  
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**Indian Institute of Technology, Madras**

**Week – 01**  
**Introduction to Leadership**  
**Lecture – 03**  
**Management Thought – 1**

Hi Friends, welcome to the NPTEL course on Leadership. We are in Week 1, dealing with Introduction to Leadership. This lecture considers Management Thought.

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Before we delve into leadership in a detailed manner, it would be appropriate to consider how several exponents of management over the last several decades shape management thinking and leadership thinking. There are four aspects of thoughts that have emanated from noted exponents of management over the last 50 years.

The first level is the individual level. The management thoughts help us understand what governs individual behaviour, productivity, motivation, etcetera. At a second level, which is an organizational level these management thoughts help us understand how teams and organizations can be managed to accomplish goals.

At a third business level, these management constructs help us understand how different functions of a firm or a business and how different businesses can work together to make gross domestic product of a country great. At an economic level, we can understand, how individuals, organizations, businesses and economies are woven together and can be optimized together.

These management thoughts generally are seemed to be focused on people and processes. But, if we delve into each of these management thoughts, we will find that they can be classified into these four clusters of individual oriented, organizational oriented, business oriented and economic oriented impactful insights.

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### Management Thought Leaders

Over this lecture and the next two, we will review the contributions of nearly 100 management thinkers who made major contributions to the foundations of management thought and practice over the last several decades.

Frank Gilbreth, Lillian Gilbreth, Henry Gantt, Karol Adamiecki, Frederick Taylor, Joseph Juran, Shigeo Shingo, Henri Fayol, Herbert Simon, Walter Shewhart, Chester Barnard, Ronald Fisher, Oliver Sheldon, Elton Mayo, Genichi Taguchi, Mary Follett, Russell Ackoff, Edward Deming, Peter Drucker, Philip Crosby, David Ogilvy, Theodore Levitt, Henry Markovitz, Chris Argyris, Alfred Chandler, Rensis Likert, Douglas McGregor, Henry Mintzberg, Franco Modigliani, Merton Miller, Lawrence Peter, Philip Kotler, C K Prahalad, Michael Porter, Kenichi Ohmae, Tom Peters, Eliyahu Goldratt, Stephen Covey, Masaaki Imai, Michael Hammer, Gary Hamel, Robert Kaplan, David Norton, Pankaj Ghemawat, Sumantra Ghoshal, Abraham Maslow, Taiichi Ohno, Richard Rumelt, Clayton M Christensen, Frederick Herzberg, Kurt Lewin, Jagdish Sheth, W. Chan Kim, Renee Mauborgne, Nitin Nohria, Vijay Govindarajan, John Kotter, Daniel Goleman, Don Tapscott, Rita McGrath, Cynthia A Montgomery, Ram Charan, Marshall Goldsmith, Subir Chowdhry, Stew Friedman, Roger Martin, Rosabeth Moss Kanter, Anil Gupta, Haiyan Wang, Anil K Gupta, Eric Ries, Yves Pigneur, Steve Blank, Richard D Aveni, Igor Insoff, Edward de Bono, Dale Carnegie, Albert Mehrabian, Warren Bennis, Hermann Simon, Linda Hill, Amy Edmondson, Erik Brynjolfsson, Andrew McAfee, Francesca Gino, Nirmalya Kumar, Gary Pisano, Charles Handy, Jeff Pfeffer, Gerald Salancik, Ikujiro Nonaka, Hirotaka Takeuchi, Howard Gardner, Geert Hofstede

The key aspects of management thought from each of the management thinkers are summarized over this and the following lectures. These are not meant to be comprehensive, given the sweep of thinking by these experts.



I was first exposed to several management thought leaders, when I joined my M. Tech. Industrial Engineering Program at IIT madras in 1972. During that course, as well as through my research studies thereafter and my experiential episodes thereafter, I could understand and appreciate how foundational and how pioneering the thought processes of these management pioneers had been.

I have sought to lay out for you the thoughts of nearly 100 management thinkers who could be seen to have made pioneering contributions to management thought and practice over the last several decades.

I would not claim that this is a completely comprehensive list of management stalwarts, but I would say that this is a very representative cross section of management thinkers both general management as well as specific management streams.

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**Management Thought Leaders: Frank and Lillian Gilbreths**

Frank Bunker Gilbreth Sr (July 7, 1868 – June 14, 1924) and Lillian Moller Gilbreth (May 24, 1878 – January 2, 1972) were pioneers in analysing and optimizing human and workplace productivity.

Frank Gilbreth was an American Engineer, Consultant and Author

Lillian Gilbreth was an American psychologist, industrial engineer, consultant, and educator

Together, Gilbreths developed Time and Motion Study as a discipline. Gilbreths reduced all motions of hand into combinations of 18 basic motions

Gilbreths pioneered development of workplace standards



They focused on reducing fatigue at work. Their prescriptions included reduced motions, tool redesign, parts placement, and bench and seating height.

The Gilbreths' work broke ground for development of scientific management and contemporary understanding of ergonomics.

There are 18 basic human motions proposed by Gilbreths to optimise work efficiency

- Search
- Find
- Select
- Grasp
- Hold
- Transport Loaded
- Transport Empty
- Position
- Assemble
- Use
- Disassemble
- Inspect
- Preposition
- Release Load
- Unavoidable Delay
- Plan
- Rest

Frank and Lillian Gilbreths published several works on bricklaying system, workman efficiency, scientific management, fatigue study, waste elimination, and applied motion study that focused on workplace efficiency and ergonomics.



First of all, I will talk about Frank and Lillian Gilbreths. They were pioneers in defining work and motion study. They studied human movements and reduce them to 18 basic movements. Their study of workplace standards and their study of human motions was not essentially based only on productivity improvement.

Their focus was more on reducing workplace fatigue. They believe that if the human motions that are required at work are reduced, if the tools are redesigned in an optimal manner, if the workplace is planned better and if the ergonomics were ensured the worker would automatically be more productive.

So, in a way they laid the foundation for scientific management in shop floor. They also started the pioneering ergonomics field at the point of time. They published several books on bricklaying, workman efficiency, scientific management, fatigue study, waste elimination and applied motion study.

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### Management Thought Leaders: Henry Gantt and Karol Adamiecki

Henry Laurence Gantt (May 20, 1861 – November 23, 1919) was an American engineer and management consultant. Karol Adamiecki (18 March 1866 – 16 May 1933) was a Polish economist, engineer and management researcher.

**Four Key Contributions**

- Gantt Chart
- Industrial Efficiency
- Task and Bonus System
- Social Responsibility of Business

Henry Gantt and Karol Adamiecki laid the Foundations of Modern Project Management

A Contemporary, Karol Adamiecki, a Polish economist, engineer and management researcher, pioneered Gantt Chart which Henry Gantt popularized.

Both laid additional foundations of scientific management. Gantt emphasized balance in manufacture and work, wages, profits and leadership, among other topics. Karol Adamiecki focused on harmony of choice, doing and spirit (tooling, scheduling and team building).



We also have Henry Gantt and Karol Adamiecki who were pioneers in Gantt chart and PERT chart respectively. The key contributions were in terms of Gantt chart, the basic planning tool for projects big or small, their approach towards ensuring industrial efficiency, the task and bonus system so that workers can perform their tasks with the productivity and motivation and the social responsibility of business. These two gentlemen have laid the basic foundations what we see today as modern project management.

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### Management Thought Leaders: Frederick Taylor

Frederick Winslow Taylor (March 20, 1856 – March 21, 1915), an American engineer, was a foremost proponent of time and motion study and industrial engineering. He is popularly considered the Father of Scientific Management.

**Taylor's Four principles of Scientific Management**

- Replace rule-of-thumb work methods with methods based on a scientific study of the tasks
- Scientifically select, train, and develop each employee rather than passively leaving them to train themselves
- Provide detailed instruction and supervision of each worker in the performance of that worker's discrete task
- Divide work nearly equally between managers and workers so that the managers scientifically plan the work and the workers actually perform the tasks

Time and Motion study by stopwatch to find out the least time required to perform a task by a worker

Taylor summed up his efficiency techniques in his book *The Principles of Scientific Management*. In 2001, Fellows of the Academy of Management voted Taylor's book as the most influential management book of the twentieth century.



The real father of scientific management of course, is Frederick Taylor. He came up with the use of stopwatch for conducting time and motion study to ensure that workers perform their tasks with productivity. He had four principles of scientific management. Fundamentally he replaced rule of thumb work methods with scientific study of workplaces and work tasks.

He scientifically selected trained and developed each employee. He did not want workers to be passively trade at their own free will in a random manner. He provided detailed instruction and supervision for each worker. So, that he could be clear and efficient in the performance of the work duties.

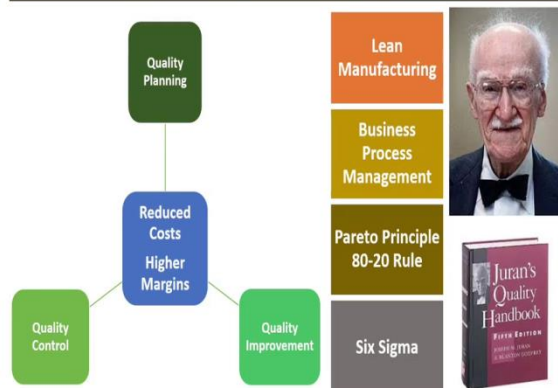
He divided the work equally between managers and workers and he said that the task of the managers is to plan and ensure that the work is executed and the duty of the workers is to understand the task and execute and implement those tasks in a methodical and productive manner. He saw therefore, the factory operations in terms of two layers; labour as one part and capital as another part.

He also saw the total employee force divided between workers and managers with clear cut roles and responsibilities for these two groups. He summed up his efficiency techniques in the book 'The Principles of Scientific Management'. This was published long ago, but in 2001, the fellows of Academy of Management voted Taylors book as the most influential management book of the 20th century.

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### Management Thought Leaders: Joseph Juran

Joseph Moses Juran (December 24, 1904 – February 28, 2008) was a Romanian-born American engineer and management consultant. He was an evangelist for Quality and Quality Management.



Juran's Quality Control Handbook, first published in 1951, caught the attention of the Japanese Union of Scientists and Engineers, leading to a series of evangelical lectures by him in Japan on managing for quality. Japan as a nation eventually became a globally reputed Quality Leader.



Another thought leader, particularly in the quality area has been Joseph Juran. He was a Romanian born American engineer and management consultant who eventually became an evangelist for quality and quality management. His proposals were the following.

He said that if quality was planned meticulously into operations if quality was controlled with diligence and if quality was improved on a consistent basis every plant will have reduce cost and ensure higher margins for the business.

Through proper quality management he laid the base for lean manufacturing. He understood how business process have to be managed. He suggested Pareto principle to control operational expenditures as well as operational efforts and he brought in the concept of Six Sigma first time into the operational arena.

His handbook, Juran's quality handbook has been one of the best sellers in the domain of quality. Japan took to Joseph Juran's preaching's very seriously and enthusiastically and he was invited several times to Japan to spread his message of quality and over years Japan embraced his quality principles and became the leader in quality management as we all know.

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**Management Thought Leaders: Shigeo Shingo**

Shigeo Shingo (1909 - 1990), was a Japanese Industrial Engineer who was considered as the world's leading expert on manufacturing practices and the Toyota Production System. Also, he was a noted management trainer and consultant.

Toyota Production System  
Kaizen   Poka-yoke   Pull-type Production

Lean Manufacture  
SMED System   Quick Changeover   Plant Versatility

Shingo Systems  
Continuous Improvement   Production Management System   Non-stock Production

Prolific author of several books on TPS

Shigeo Shingo, along with Taichi Ohno, is considered the architect of Toyota Production System which provided enduring competitive advantage to the Japanese automobile industry, and transformed the way automobiles are produced globally.



Shigeo Shingo who comes from industrial engineering background and also from Toyota operational system, he is considered the leading expert in the world on manufacturing practices. He along with Taichi Ohno another Toyota engineer was responsible for formulating the Toyota production system. As we all know, Toyota production system gave incomparable

competitive advantage not only to Toyota, but to the Japanese automobile industry in the overall.

Today, many companies in the automobile field globally follow the Toyota production system. In a way it has become a generic contribution very valuable contribution made by Toyota to the world automotive industry. Briefly Toyota production system comprises Kaizen which is continuous improvement, Poka-Yoke fool proofing and pull type production that is ordering based on customer requirements and producing based on customer requirements.

He also proposed lean manufacture which included SMED system which is single minute exchange of dies, quick changeover therefore, and plant versatility and he also published several books. He was a prolific publisher of books on Shingo systems aiming at continuous improvement, production management, and nonstop production. Together with Taichi Ohno as I said he is clearly the architect of many Japanese productivity techniques and productivity systems.

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**Management Thought Leaders: Henri Fayol**

Henri Fayol (29 July 1841 – 19 November 1925), a French mining engineer and director, and author, developed a general theory of business administration that is often called Fayolism. Considered a founder of modern management.

**Henri Fayol's 14 Principles of Management**

Division of Work	Authority and Responsibility	Discipline	Unity of Command
Unity of Direction	Subordination of Individual Interests to General Interest	Remuneration	Centralization
Scalar Chain	Order	Equity	Stability of Tenure of Personnel
Henri Fayol first set out five principles in his work <i>General and Industrial Management</i> published in 1949, and expanded them	Initiative	Espirit de Corps	Seventy years later, the principles set out by Henri Fayol continue to be valid, given one or two tweaks here and there

Five Primary Functions of Management: Planning → Organizing → Commanding → Coordinating → Controlling → 14 Principles of Management

Another management thought leader is Henri Fayol. He brought out several principles of management. Out of these, 14 principles are worth mentioning here and they even today determine how organizations are structured and how organizations are managed. Division of work, authority and responsibility, discipline, unity of command, unity of direction, subordination of individual interest to general interest, remuneration, centralization, scalar chain, order, equity, stability of tenure of personnel, initiative and esprit de corps.

Even 70 years later the principles set out by Henri Fayol continue to be valid given one or two changes here and there and you can see that organizations today incorporate these principles in their design, planning and management. The five primary functions of management as he saw was planning, organizing, commanding, coordinating and controlling and 14 principles of management have been enunciated by him to describe the management processes in greater detail.

In all of these management thought slides, I have provided not only the images of the respected management gurus, but also gave some snapshots of their books so that you know you can kind of take them for further reading at your leisure.

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**Management Thought Leaders: Herbert Simon**

Herbert Alexander Simon (June 15, 1916 – February 9, 2001) was an American economist, political scientist and cognitive psychologist, whose primary research interest was decision making within organizations.

**Choice and Evaluation**



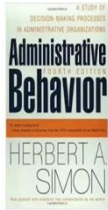

- Identifying and listing all the alternatives
- Determining all the consequences resulting from each of the alternatives
- Comparing the accuracy and efficiency of each of these sets of consequences

**Decision Making**

Correctness of administrative decisions is measured by:

- Adequacy of achieving the desired objective
- Efficiency with which the result is obtained

Decision making is recognized as one of the most important managerial and leadership tasks. It is notable that Herbert Simon laid the foundations of decision making practice decades ago.

Another thought leader is Herbert Simon. He looked at different research interests. He looked at how administrative decisions are made by managers. He had two streams of study. One related to choice and evaluation. He said that managers need to identify and list all the alternatives.

Then they should determine the consequences resulting from each of the alternatives and finally, he suggested the accuracy and efficiency of each of these sets of consequences should be weighed against each other and a final decision made. Through his three step approach he was the founding father of the science of decision making. His book Administrative Behavior has decision making as its core.



So, he said that the correctness of administrative decisions is measured by the adequacy of achieving the desired objective and the efficiency with which the result is obtained.

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**Management Thought Leaders: Walter Shewhart**

Walter Andrew Shewhart (March 18, 1891 – March 11, 1967) was an American physicist, engineer, and statistician, sometimes known as the *Father of Statistical Quality Control* and also as the creator of the *Shewhart Cycle*.

Shewhart framed the problem in terms of 'assignable-cause' and 'chance-cause' variation and introduced the control chart as a tool for distinguishing between the two.

Number of Defects  
40  
35  
30  
25  
20  
15  
10  
5  
0  
1 2 3 4 5 6 7 8 9 10 11 12  
Sample number

Act Plan  
Check Do

Context  
Signal  
Noise

- Provides meaning
- Signal to be separated from noise
- Noise distorts information

Statistical Method  
from the Viewpoint of Quality Control  
Walter A. Shewhart

Economic Control of Quality of Manufactured Product  
Walter A. Shewhart

Shewhart stressed that bringing a production process into a state of statistical control, where there is only chance-cause variation and keeping it in control, is necessary to predict future output and to manage a process economically.

Walter Shewhart belongs to another category of management thinkers. He brought in statistics as one of the primary instruments for managerial efficiency. Those who are connected with quality understand the theory and practice of statistical quality control.

Wherein, he observed and hypothesized that the quality of a product measured in terms of certain attributes falls within a particular tolerance which is made up of the constituents which go into the production process, be it the machine tool efficiency or the part efficiency or the cutting tool efficiency.

His analytical approach, the data based approach to quality and operations management ensure that operational managers were able to separate out noise from signals. He felt and he proposed that extensive analysis of data particularly real time data measured based on statistical principles would help managers understand the context in which production is taking place, understand the real signals from the workplace and separate out noise which distorts information.

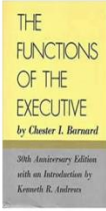


He said that the problem can be seen in terms of two fundamental causative factors. One is the assignable cause and the other is chance cause. He said that the variations can be measured by

the use of statistical principles in terms of statistical quality control. Again these were pioneering thoughts and pioneering contributions for operational excellence.


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**Management Thought Leaders: Chester Barnard**


Chester Irving Barnard (November 7, 1886 – June 7, 1961) was an American business executive, public administrator, and the author of pioneering work in management theory and organizational studies.



Establishing and maintaining a system of communication	Securing essential services from other members
The Functions of the Executive (1938)	
Formulating organizational purposes and objectives	To manage people and make sure they do their jobs



Chester Barnard defined efficiency of an organization as the degree to which it is able to satisfy the motives of the individuals. If an organization satisfies the motives of its members while attaining its explicit goals, cooperation among its members will last.



Chester Barnard was an American business executive and public administrator who came up with several thoughts on how executives function. Way back in 1938, he said that the functions of the executive are four fold. One, he or she should establish and maintain a system of communication.

He should ensure that essential services from other members are secured. His job is to formulate organizational purposes and objectives and the executive should be able to manage people and make sure that they do their jobs.

So, he proposed effectiveness and efficiency as a combination that would promote longevity of the executive performance as also the corporate performance. He sought to link these managerial processes to the efficiency of the organization as also its longevity.

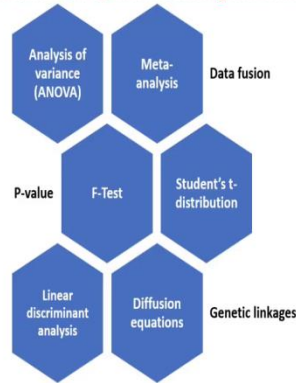
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### Management Thought Leaders: Ronald Fisher

Sir Ronald Aylmer Fisher (17 February 1890 – 29 July 1962) was a British statistician and geneticist. He is considered "a genius who almost single-handedly created the foundations for modern statistical science" and "the single most important figure in 20th century statistics".



#### Foundations of Modern Quantitative Management Research



In genetics, Fisher's work contributed to the revival of Darwinism in the early 20th-century revision of the theory of evolution known as the modern synthesis. For his contributions to biology, Fisher has been called "the greatest of Darwin's successors".



Ronald Fisher he brought in significant statistical inputs to qualitative management as well as to operations research. He brought in techniques such as analysis of variance, meta-analysis, F-test, Student's t-distribution, P-value, linear discriminant analysis, diffusion equations. These were very rigorous statistical methods which were proposed by him to make sure that the operational productivity and operational integrity are maintained within the standards thought of the management.

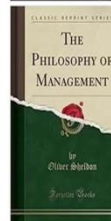
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### Management Thought Leaders: Oliver Sheldon

Oliver Sheldon (1894–1951) was a director of the Rowntree Company in York, in the UK. He wrote on principles of public and business administration in the 1920s.



#### Early Pioneer of Human Relations School of Management



In his 1923 book, *The Philosophy of Management*, Sheldon demonstrated his twin concerns for sound business and ethical practice when he stated: "The cost of building the Kingdom of Heaven will not be found in the profit and loss accounts of industry, but in the record of every man's conscientious service."



Oliver Sheldon is a path breaking contributor to corporate citizenship. Way back in the 1920s, he proposed several foundational principles for human relations in management. He emphasized three important things. He emphasized ethical and community aspects of business, he believed that industry should not work merely for profit or revenue, but must shape society and he also proposed in those days itself that leaders and managers must work ethically.

He plays the individual in a human context rather than in a factory context. He emphasized their emotional needs along with their psychological needs. He also proposed that their economic needs must be met, so that they are satisfied and productive. However, he differed from the Fredrick Taylor in terms of the autocratic approaches that were adopted by the scientific manages of those times.

He did not consider scientific management as the primary motivator. In his landmark book ‘The Philosophy of Management’, he demonstrated his twin concerns for sound business practice as also sound ethical practice. This quote from his book is very telling about his forethought. He said the cost of building the kingdom of heaven will not be found in the profit and loss accounts of industry, but in the record of every man’s conscientious service.

To repeat he stated the cost of building the kingdom of heaven will not be found in the profit and loss accounts of industry, but in the record of every man’s conscientious service. So, this is very insightful and full of forethought as to what could happen in industry and management years down the road.

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**Management Thought Leaders: Elton Mayo**

George Elton Mayo (26 December 1880 – 7 September 1949) was an Australian born psychologist, industrial researcher, and organizational theorist. He laid the foundations of Organizational Behaviour as a powerful domain of management studies.

**Mayo's Interpretations from Hawthorne Experiments**

Due credit must be given to Fritz J. Roethlisberger, Mayo's graduate assistant, and William J. Dickson, head of the Department of Employee Relations at Western Electric, who conducted the bulk of the practical research at Hawthorne.



Elton Mayo, he is considered one of the fathers of human relations movement. His name is inextricably linked with the Hawthorne experiments. Wherein several experiments which he conducted on the shop floor have given rise to ground-breaking insights on what motivates and what inspires employees.

He identified 6 drivers of productivity. He said job content of workers, social ties among workers, manager's understanding informal ties among workers, the conditions that are provided to the workers, participative discussion with employees by supervisors and choice of team members are all important drivers of productivity. His books *The Social Problems of an Industrial Civilization* and *The Human Problems of Industrial Civilization* were very important books in the field of human relations.

So, he said that intrinsically, workers logic of sentiment and emotion conflicted with manager's logic of cost and efficiency. He said that managers must find ways and means by which they are participative and collaborative with the workers. So, that they see alignment in the work practices and the work goals.

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**Management Thought Leaders: Genichi Taguchi**

Genichi Taguchi (January 1, 1924 – June 2, 2012) was a Japanese engineer and statistician. From the 1950s onwards, Taguchi developed a methodology for applying statistics to improve the quality of manufactured goods.

**Taguchi Methods in Manufacturing**


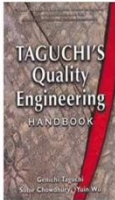


\*Creative and innovative design of the manufacturing system

\*Understanding the effects of various variables, and their interactions and the noise levels

\*Understanding the impact of parameters on performance and using resources to control variation

Use of outer and orthogonal arrays to simulate the random experiment in which the product would function

Taguchi's concepts pertaining to experimental design, the loss function, robust design, and the reduction of variation have influenced fields beyond product design and manufacturing, such as sales process engineering.



I said, we have three stalwarts in quality and I mentioned Joseph Juran. We have here another stalwart Genichi Taguchi. He was a Japanese engineer and statistician and from 1950s onwards he developed a methodology which is now known by his name Taguchi methods in manufacturing. These methods improve the quality of manufactured goods. They were four parameters of his quality engineering approaches.

One, system design, so that the manufacturing system is innovatively designed for quality and efficiency. The parameter design, understanding the effects of various variables and their interactions and the noise levels. Tolerance design, understanding the impact of parameters on the performance of various components and end products and utilization of resources to control the variation.

And finally, experimental design, use of techniques such as outer and orthogonal arrays to simulate the random experiments which would forecast, how the actual machining sequence or the actual production methodology would work in the long term.

So, he was kind of hypothesizing, he was designing, he was validating through his statistical methods. His concepts pertaining to experimental design, the loss function, robust design and the reduction of variation have influenced fields much beyond product design and manufacturing. Even sales process engineering was influenced by his thought processes.

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**Management Thought Leaders: Mary Follett**

Mary Parker Follett (September 3, 1868 – December 18, 1933) was an American social worker, management consultant, philosopher and pioneer in the fields of organizational theory and organizational behaviour.

Follett's work, along with the works of other organizational theorists, helped initiate effective, progressive changes in management philosophy, style, and practice, revolutionizing and humanizing the American workplace.

Mary Parker Follett, she brought in lot of psychology and lot of social behaviour understanding in power dynamics in organizations. She identified two types of power; power with and power over.

And she said that these are expressed in terms of understanding of lateral processes, reciprocal relationships, workplace humanization, participative managerial styles and integrative idea of society. She worked with along other organizational theorists and helped initiate effective

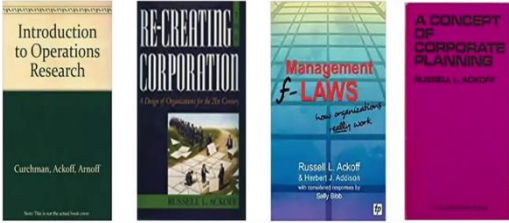


progressive changes in management philosophy style and practice and she helped revolutionize and humanize the American workplace.

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**Management Thought Leaders: Russell Ackoff**

Russell Lincoln Ackoff (February 12, 1919 – October 29, 2009) was an American organizational theorist, consultant, and Professor Emeritus of Management Science at the Wharton School, University of Pennsylvania.

**A Pioneer in Operations Research and Systems Thinking**



Russell Ackoff actively collaborated with other leaders in management thought and practice to evolve a blend of quantitative and qualitative approaches to management sciences. To be an exponent of both operations research and strategic management required unique skills which Ackoff possessed.



Russell Ackoff belongs to another generation which bridged the foundational management thoughts of the 1920s and 1930s and 1940s with more modern strategic approaches. He was a pioneer in operations research and systems thinking. He started his foundations in operations research then moved on to systems thinking and came into corporate planning.

His books Introduction to Operations Research, Re-Creating Cooperation and a Concept of Corporate Planning have been best sellers. He actively collaborated with various other leaders in management thought and practice to evolve a blend of quantitative and qualitative methodologies to define what management sciences could be. To be an exponent of operations research as well as corporate strategy was no mean feat and Russell Ackoff accomplished that.



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**Management Thought Leaders: Edward Deming**

William Edwards Deming (October 14, 1900 – December 20, 1993) was an American engineer, statistician, professor, author, lecturer, and management consultant. He pioneered the use of sampling techniques in the US.

Deming Laid the Foundations of Total Quality Management (TQM) Movement

Deming had a profound impact on quality movement in Japan and USA. Deming's message to Japan's chief executives was that improving quality would reduce expenses while increasing productivity and market share. He told Ford, USA that management actions were responsible for 85% of all problems in developing better cars. Within Japan, the Deming Prize continues to exert considerable influence on the disciplines of quality control and quality management.



Edward Deming is the third stalwart of the quality trinity. He laid the foundations of total quality management movement. He was an American engineer, statistician, professor, and management consultant. He pioneered the use of sampling techniques in the US. He had four philosophies.

The first was a four-part system of profound knowledge, fourteen principles for business effectiveness. He identified seven deadly sins of management and he also proposed eight obstacles for business effectiveness. One of his landmark books is the out of the crisis. He had a profound impact on quality movement in Japan and USA. Many companies today are very proud to receive the Deming's award for quality.

He told Japanese chief executives that improving quality would reduce expenses while increasing productivity and market share. He told Ford, USA that management actions and not workers actions were responsible for 85 percent of all problems in developing better cars. Within Japan, as I said the Deming prize continues to exert considerable influence on the disciplines of quality control and quality management.



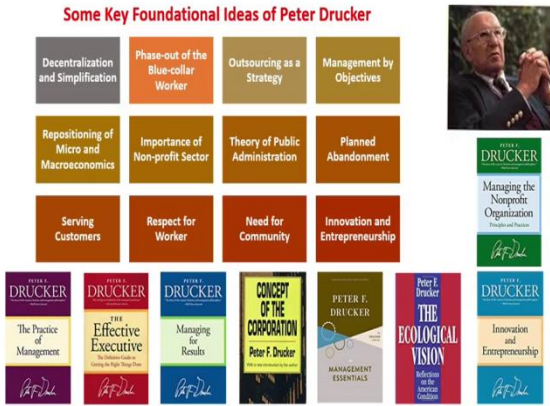
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**Management Thought Leaders: Peter Drucker**

**Peter Ferdinand Drucker** (November 19, 1909 – November 11, 2005) was an Austrian-born American management consultant, educator, and author. A foremost authority, he is considered the founder of modern management.

**Some Key Foundational Ideas of Peter Drucker**

Decentralization and Simplification	Phase-out of the Blue-collar Worker	Outsourcing as a Strategy	Management by Objectives
Repositioning of Micro and Macroeconomics	Importance of Non-profit Sector	Theory of Public Administration	Planned Abandonment
Serving Customers	Respect for Worker	Need for Community	Innovation and Entrepreneurship



Author of 39 books on diverse aspects of management, Peter Drucker has been one of the most influential thinkers and writers of the century on management. He was also quite popular across multiple cultures, including Japan.



When we talk about management gurus the foremost name that comes up is the name of Peter Drucker. He was the foundation of modern management thought and he was a prolific book writer. The management thoughts he covered were indeed numerous and every aspect of management has had an excellent treatment by him.

Some of the key foundational ideas of Peter Drucker were decentralization and simplification. Phase out of the blue collar worker; he foresaw the coming white collar work wave. He saw outsourcing as a strategy. He proposed management by objectives as a better way of managing rather than management by control. He proposed repositioning of micro and macroeconomics.

He advised the importance of non-profit sector. He propounded a theory of public administration. He talked about planned abandonment of businesses which were not functional. He proposed new pathways for serving customers. He had written books about respecting workers and inspiring them to work efficiently and effectively. He talked about community outreach. And he was also a great writer on innovation and entrepreneurship.

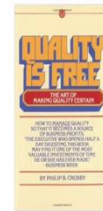
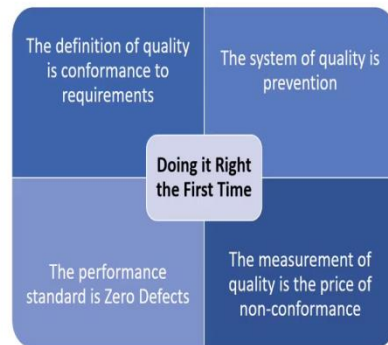
Some of the books I have illustrated here. In fact, he has written close to 40 books on diverse aspects of management. He certainly was one of the most influential thinkers and writers of the century on management. He was also quite popular across cultures including Japan.

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### Management Thought Leaders: Philip Crosby

Philip Bayard "Phil" Crosby, (June 18, 1926 – August 18, 2001) was an American businessman and author who contributed to management theory and quality management practices in a significant manner.

#### The Originator of the 'Zero Defects' Concept



Philip Crosby believed that good quality management principles will provide savings returns that more than pay for the cost of the quality system: "quality is free". It is less expensive to do it right the first time than to pay for rework and repairs, he said.



Another thought leader in quality, Philip Crosby, he was the originator of this zero defects concept. When he came up with this concept people thought that it was an impossible concept that could be achieved. However, today every company which is considering itself operationally efficient and diligent feels that zero defects is a laudable, viable and achievable concept.

He said that doing it right the first time is the only way to ensure highest level of quality with zero defects. He said that the quality's real definition is conformance to requirements and the system of quality is one of prevention. The performance standard by which quality should be judged is nothing less than zero defects or nothing more than zero defects. And the measurement of quality is the price of non-conformance.

He brought about the concept of the cost of quality. If quality is not maintained, it is not just one product which is lost the entire goodwill could be lost. In some cases, there could be serious recalls, return of goods, idle time could happen because until the quality problem is understood and resolved production cannot go on.

So, the cost of bad quality is enormous and it is not properly understood. So, he felt that Philip Crosby believed that good quality management principles will provide savings returns that more than pay for the cost of the quality system and he advocated the concept that the that quality is free. It is far less expensive to do it right the first time than to pay for rework and repairs, he said, a very insightful observation.

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**Management Thought Leaders: David Ogilvy**

David Mackenzie Ogilvy (23 June 1911 – 21 July 1999) was a British advertising tycoon, founder of Ogilvy & Mather, and known as the "Father of Advertising". David Ogilvy was trained at the Gallup research organization.

**Key Advertising Principles of David Ogilvy**

Creative Brilliance	Consumer Research
Ogilvy	
Results for Clients	Professional Discipline

Confessions of an Advertising Man  
David Ogilvy

**OGILVY ON ADVERTISING**

David Ogilvy was credited with many blockbuster advertisement campaigns. One of his greatest successes was "Only Dove is one-quarter moisturizing cream". This campaign helped Dove become the top selling soap in the U.S.



Switching gears to marketing, we have here David Ogilvy who is considered one of the pioneers in modern brand management and marketing management. He is noted for creative brilliance, how he thought about product positioning and brand positioning, consumer research, bringing out results for clients and professional discipline.

He created the bridge between the consumer and the firm, the bridge between the product and its functionality and the consumer and the need. He was responsible for many blockbuster advertisement campaigns. One of his greatest successes was only Dove is one quarter moisturizing cream. This campaign helped Dove become the top selling soap in the US.

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**Management Thought Leaders: Theodore Levitt**

Theodore Levitt (March 1, 1925 – June 28, 2006) was an American economist and a professor at the Harvard Business School. He was best known for positioning 'marketing' as a key driver of corporate success. He popularized Globalization as a term.

**Theodore Levitt's Enduring Concept: Marketing Myopia**

Short-sighted mindset of CEOs

Refuse to adapt to the needs and wants of customers

Believe that population growth is enough to expand demand

Illusion that the firm is in a 'growth industry'

CEOs also get attached to the original product

Believe that there will be no competitive substitute for the product

Leads to complacency

Failure to see what customers want

Too much faith in low-cost mass production or carefully controlled experimentation

To continue growing, companies must ascertain and act on their customers' needs and desires, not bank on the presumptive longevity of their products. In every case the reason growth is threatened, slowed or stopped is not because the market is saturated - it is because there has been a failure of management, held Levitt.

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THE MARKETING IMAGINATION THEODORE LEVITT

Another management thought leader is Theodore Levitt. His landmark work is Marketing Myopia. Even today many experts in marketing as well as outside marketing quote his pioneering thought process about how marketing people are constrained in looking at the future vision because of the myopic approach to marketing.

So, he said that CEOs tend to be short-sighted in their mind-set. They think that the firm they are running is in a growth industry which leads to complacency. As a result, because the products are being sold good enough they fail to see what customers want for the future.

The CEOs also get blinkered and get attached to the original product. As a result, they refuse to adapt to the needs and wants of customers and they believe that population growth is enough to enlarge the pie and therefore, present expanded demand which they can share with other competitors even if other competitors come.

They also believe that there will be no competitive substitute for the product, which they have pioneered and which have been successfully sold in the marketplace. As a result, they also tend to have too much faith in low-cost mass production or carefully controlled experimentation.

So, he said that all of these things are indicators or components of marketing myopia which makes a firm get cocooned into its own mythology about its invincibility and eventually gets overtaken by more nimble, more agile and more proactive competitors.

He said that to continue growing companies must ascertain and act on the customer's needs and desires and not bank on the presumptive longevity of their products. He also said that in every case the reason growth is threatened, slowed or stopped is not because the market is saturated it is because there has been a failure of management held Levitt. Again in today's competitive situation the principle initiated are extremely insightful. B

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**Management Thought Leaders: Henry Markovitz**




Harry Max Markowitz (born August 24, 1927) is an American economist, and a recipient of the 1990 Nobel Prize in Economic Sciences. He is a professor of finance at the Rady School of Management at the University of California, San Diego (UCSD).

Best known for His Pioneering Work in Modern Portfolio Theory

Portfolio Theory, Risk, Return, Correlation and Diversification	Sparse Matrix Methods
SIMSCRIPT	Software Analytics

Portfolio Selection  
Efficient Diversification of Investments  
2ND EDITION  
Henry M. Markowitz

Markowitz's work was one of the strongest deployments of mathematical, quantitative and optimization approaches to the field of Finance, more particularly stock markets.



Henry Markovitz, he is a pioneer in modern portfolio theory. Now, we are talking about the pioneer in finance area. We have seen general management, we have seen human relations, we have seen scientific management, we have seen workplace productivity, we have seen operational excellence, we have seen quality management and now we talk about finance.

Henry Markovitz was a pioneer of modern portfolio theory. He analysed risk, return, correlation, and diversification. He came up with sparse matrix methods, SIMSCRIPT as a software tool and what he has developed to understand product portfolio is probably the foundations of today's quantitative approaches to portfolio management and stock market operations.

He was one of the strongest deployers of mathematical, quantitative and optimization approaches to the field of finance more particularly stock markets.

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**Management Thought Leaders: Chris Argyris**

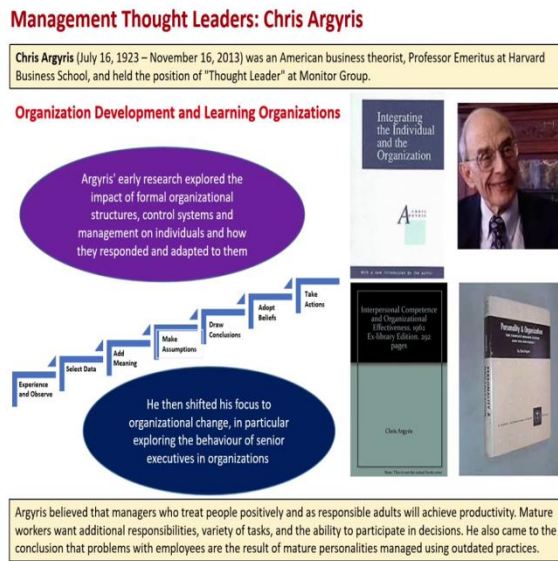
Chris Argyris (July 16, 1923 – November 16, 2013) was an American business theorist, Professor Emeritus at Harvard Business School, and held the position of "Thought Leader" at Monitor Group.

**Organization Development and Learning Organizations**

Argyris' early research explored the impact of formal organizational structures, control systems and management on individuals and how they responded and adapted to them

He then shifted his focus to organizational change, in particular exploring the behaviour of senior executives in organizations

Argyris believed that managers who treat people positively and as responsible adults will achieve productivity. Mature workers want additional responsibilities, variety of tasks, and the ability to participate in decisions. He also came to the conclusion that problems with employees are the result of mature personalities managed using outdated practices.



Another management thought leader is Chris Argyris, he was an expert in organization development and learning organizations. His early research explored the impact of formal organizational structures, control systems and management on individuals and how they would respond, adapt to them. Then he shifted his focus to organizational change in particular exploring the behaviour of senior executives in organization. He had a very matured view for organizing people and motivating them.

He believed that managers who treat people positively and as responsible adults will achieve productivity. He also held that mature workers want additional responsibilities, a variety of tasks and the ability to participate in decisions. He also came to the conclusion that problems with employees are the result of mature personalities managed using outdated practices.

He said that when the organization comprises mature employees, but the processes deployed in the organization are outdated, vintage processes, there is bound to be sub optimization and even conflict. So, he talked about several steps of ensuring that organizations get transformed from experiencing and observing taking data points, drawing conclusions and modifying the organizational approaches to employee management.

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**Management Thought Leaders: Alfred Chandler**

Alfred DuPont Chandler Jr. (September 15, 1918 – May 9, 2007) was a professor of business history at Harvard Business School and Johns Hopkins University. His seminal work on the scale and the management structures of modern corporations redefined business and economic history of industrialization.

**An Early Proponent of Strategic Management**

Key resources: employees, materials, plants, marketing and distribution channels

Functional structures to increase efficiency

Chandler's Thesis

Growth and diversification strategy; new markets and new products

Divisional organization structure to manage large conglomerates



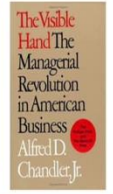


Studied 4 large firms in the 1920s – Du Pont, GM, Standard Oil and Sears Roebuck to establish the thesis that structure follows strategy.

Structure → Strategy

The Visible Hand: The Managerial Revolution in American Business  
Alfred D. Chandler, Jr.

STRATEGY AND STRUCTURE  
Alfred D. Chandler, Jr.  
Chapters in the History of the Industrial Enterprise

Chandler described strategy as the determination of long-term goals and objectives, the adoption of courses of action and associated allocation of resources required to achieve goals; he defined structure as the design of the organization through which strategy is administered. Changes in an organization's strategy led to new administrative problems which, in turn, required a new or refashioned structure for the successful implementation of the new strategy.



Alfred Chandler is another expert, thinker, and practitioner of strategic management. I would say that he was one of the early thinkers in the field of strategic management. His thesis was that there were a few key resources which a firm must manage strategically; employees, materials, plants, marketing and distribution channels. He said that functional structures would increase efficiency.

And to grow and diversify a company has to consistently and continuously find new products and new markets. And when it comes to a transition from unitary product style to conglomerate product style divisional organization is required to manage large conglomerates.

He studied four large forms in the 1920s Du Pont GM, Standard Oil and Sears, Roebuck to establish the thesis which is even today foundational that structure follow strategy. The strategy which a company wants to identify, whether it would like to be internationalized, whether it would like to be a diversified, conglomerate or whether it would like to be a specialized product manufacturer all of these have a significant bearing on the organizational structure and the business structure.

His pioneering book is the visible hand the managerial revolution in American business. He described strategy as the determination of long term goals and objectives. The adoption of courses of action and associate allocation of resources required to achieve goals.

And he defined structure as the design of the organization through which strategy can be administered. He said that changes in an organization's strategy would lead to new administrative problems which in turn would require newer and refashioned structures, so that the new strategy can be successfully employed. So, his study of strategy and structure even today holds good I would say.

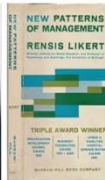


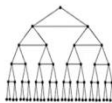
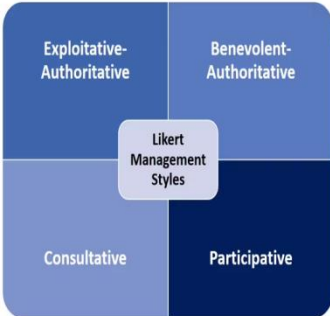
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**Management Thought Leaders: Rensis Likert**



Rensis Likert (August 5, 1903 – September 3, 1981) was an American social psychologist who is primarily known for developing the Likert scale method, an approach to creating a psychometrically sound scale based on responses to multiple questions/items

**Likert Management System**

Linking Pin Organization



In the '60s, Rensis Likert developed four management styles, intended to describe the relationship, roles and involvement of managers and subordinates in industrial environments. The Likert Management System also simplifies the measuring of soft skills in managers, such as trust and communication. It links corporate success to positive management environment.



In respect of organizational design, Rensis Likert has been a pioneering thinker. He came up with four management systems which are called Likert management systems. The first one is exploitative-authoritative. The second one is benevolent-authoritative. The third is consultative and the fourth one is the participative.

He recommends the participative methodology as the best methodology for ensuring that organization is full of motivated and inspired people. He started with the Likert scale method which was an approach to creating a psychometrically sound scale based on responses to multiple questions and items and this has led him to develop these four management styles.

He has also created the linking pin organization structure wherein it is not just vertical hierarchy. The vertical hierarchy is simultaneously expanded into a horizontal organizational networking so that information diffusion happens and collaboration happens more naturally and more in alignment with the structure that has been designed.



So, he has made fundamental contributions to human organization contributing to the business organization and how corporate success can be a resultant of positive management environment.

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**Management Thought Leaders: Douglas McGregor**

Douglas Murray McGregor (1906 – 1964) was a management professor at the MIT Sloan School of Management. His 1960 book *The Human Side of Enterprise* had a profound influence on management with his Theory X and Theory Y.

Best Known for His Theory X and Theory Y on Employee Attitudes and Motivation

Theory X	Theory Y
Avoids work	Work is natural
Needs control	Self-control
Will avoid responsibility	Will accept responsibility
Concerned with basic security needs	Concerned with higher order need fulfillment

Heralded as one of the most important pieces of management literature ever written, *The Human Side of Enterprise* continues to receive the highest accolades even decades after its initial publication. McGregor's revolutionary Theory Y proposes that individuals are self-motivated and self-directed, in contrast with Theory X in which employees must be commanded and controlled. This framework has been very widely taught.



Douglas McGregor, he is best known for his Theory X and Theory Y. These findings are extremely important and they mark a radical transformation in how managers can look at their employees.

His 1960 book *The Human Side of Enterprise* had a profound influence on management. In this book he talked about employee attitudes and motivation and saw them as Theory X and Theory Y in terms of managers viewing their employees. Under Theory X, managers think that a typical employee avoids work, he needs to be controlled, he will avoid responsibility and the employee is just concerned with basic security needs.

But, under Theory Y, which is an evolved theory which is more humanistic, the manager believes that work is natural, employees can self-control themselves, employees will accept responsibility and employees are typically concerned more with higher order need fulfillment which is self-actualization which I referred to earlier.

He is heralded as one of the most important contributors to management thought and his book is one of the most important pieces of management literature which ever written. Even today this book continues to receive the highest accolades several decades after its first publication.

His focus on self-motivation of employees and self-direction of employees is probably the core expression for the concept such as enablement, empowerment, participation that we talk about very frequently and very openly these days.

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**Management Thought Leaders: Henry Mintzberg**

Henry Mintzberg (born September 2, 1939) is a Canadian academic and author on business and management. A prolific writer, Mintzberg in his book *The Rise and Fall of Strategic Planning* criticizes some of the practices of strategic planning.

**Mintzberg's Organizational Configurations Framework**

Mintzberg tried to link strategic planning to organizational design, comprising structures, processes, competencies and innovation levels. He explicitly linked strategic success with organizational competencies.

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Henry Mintzberg is another organizational scientist, he has thought about several organizational configurations as part of his work. He tried to combine strategic planning with organizational design. He said that an organization is made up of several layers starting with the basic working staff that is support staff, having a techno structure, an operating core, a middle line and a strategic apex.

He said that organizations are of six types. One a very simple structure, second a machine bureaucracy, third a professional bureaucracy, fourth a diversified organization, fifth an innovative organization and sixth adhocracy.

Each of these organizations he said have their own specific coordination mechanisms which are expressed in terms of mutual adjustment, direct supervision, standardization of work processes, standardization of output, standardization of skills, standardization of norms. In an innovative organization some of these standardization aspects are down regulated and some of the innovative aspects are up regulated.

Whereas in a machine bureaucracy, the standardized practices and processes as well as norms are up regulated and some of the innovative aspects are down regulated. So, it is the thesis that

you should devise an organization structure which is more aligned to strategic planning and strategic goals of the companies.

He suggested linking of individual competencies with organizational competencies and with corporate business goals.

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**Management Thought Leaders: Franco Modigliani**

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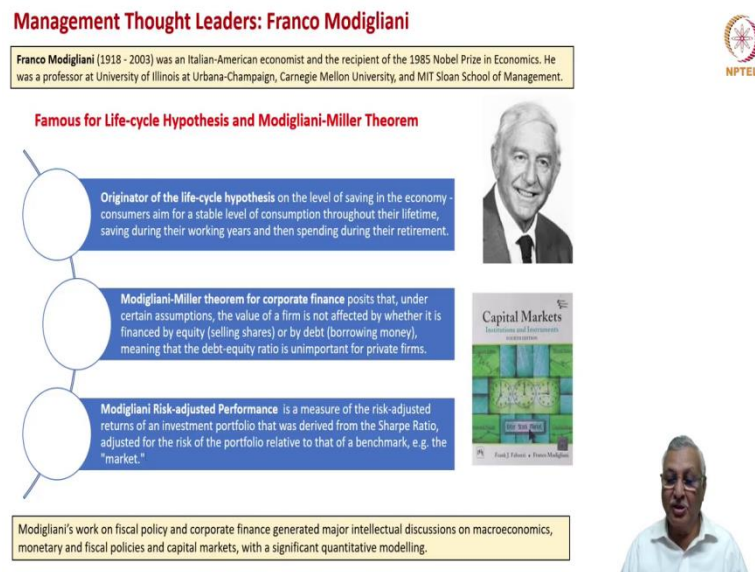
**Famous for Life-cycle Hypothesis and Modigliani-Miller Theorem**

Originator of the life-cycle hypothesis on the level of saving in the economy - consumers aim for a stable level of consumption throughout their lifetime, saving during their working years and then spending during their retirement.

Modigliani-Miller theorem for corporate finance posits that, under certain assumptions, the value of a firm is not affected by whether it is financed by equity (selling shares) or by debt (borrowing money), meaning that the debt-equity ratio is unimportant for private firms.

Modigliani Risk-adjusted Performance is a measure of the risk-adjusted returns of an investment portfolio that was derived from the Sharpe Ratio, adjusted for the risk of the portfolio relative to that of a benchmark, e.g. the "market."

Modigliani's work on fiscal policy and corporate finance generated major intellectual discussions on macroeconomics, monetary and fiscal policies and capital markets, with a significant quantitative modelling.



Switching back to finance, Franco Modigliani has been one of the pioneers in terms of lifecycle hypothesis and his Modigliani-Miller theorem on dividend pay-outs is one of the foundational theories for corporate financial management and for capital markets.

He said that the level of savings in the economy is dependent on saving during the working years and then spending during the retirement, that is the life cycle hypothesis. He also proposed a theorem for corporate finance which posited that under certain assumptions, the value of the firm is not affected by whether it is financed by equity or by debt. So, the concept of debt equity ratio is unimportant as long as the enterprise value is sustained by the business viability.

He also proposed the Modigliani risk adjusted performance which is a measure of risk adjusted returns of an investment portfolio that was derived from Sharpe ratio, another pioneer which is adjusted for the risk of the portfolio relative to the benchmark, for example the market.

Modigliani's work on fiscal policy and corporate finance generated major intellectual discussions on macroeconomics, monetary and fiscal policies and capital markets with a significant quantitative modelling.

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**Management Thought Leaders: Merton Miller**





Merton Howard Miller (May 16, 1923 – June 3, 2000) was an American economist, and the co-author of the Modigliani-Miller theorem. He shared the Nobel Prize in Economic Sciences in 1990, along with Harry Markowitz and William F. Sharpe. Miller spent most of his academic career at the University of Chicago's Booth School of Business.

**The Contrarian 'No-Arbitrage' View of Corporate Finance**

The traditional view of corporate finance has been that a corporation can reduce its cost of capital by finding the right debt-to-equity ratio.

According to the Modigliani-Miller theorem, on the other hand, there is no right ratio, so corporate managers should seek to minimize tax liability and maximize corporate net wealth, letting the debt ratio chips fall where they will.

Modigliani-Miller arrived at this conclusion based on the premise that any state of affairs that will allow traders of any market instrument to create a riskless money machine will almost immediately disappear, stoking a major debate.



He also collaborated with Merton Miller who came up with no-arbitrage view of corporate finance. His contributions to Nobel Prize winning thesis along with Harry Markowitz and William F Sharp, who were very notable. He said that the traditional view of corporate finance has been that a corporation can reduce its cost of capital by finding the right debt equity ratio.

But, as per the theorem, which he co-authored with Modigliani, he said that there is no right ratio. So, corporate managers should seek to minimize the tax liability and maximize corporate net worth letting the debt ratio chips fall where they will. He arrived at the conclusion based on the premise that any state of affairs that will allow traders of any market instrument to create a riskless money machine will almost immediately disappear.

That is risk is inherent in business and there is no way in which you can avoid risk either by pure equity methodology or by any other methodology. So, his view of corporate finance which rules out arbitrage has been another foundational theory in corporate finance.

So, with this we come to the end of the first tranche of management thinkers. During this lecture we covered several management thinkers coming from different backgrounds; general management, organizational management, organizational behaviour, social psychology,

scientific management, modern strategic management, organization design, financial management and importantly quality management.

We have seen, how each of these thought stalwarts provided certain foundational thoughts for us to build our management thoughts, conduct more research into the directions pioneered by them. Again within these great thinkers, each of them is vested with the pioneering role by history in terms of their seminal contributions to the mainstream of management thought and some have been absolutely fantastic such as the contribution to the quality movement around the world.

Douglas McGregor's contribution to the human side of enterprise and Peter Drucker's broad spectrum of management thoughts on how to strengthen managerial processes and managerial thinking on a number of fields. So, the list is nearly endless and we would cover more management thinkers in the fourth coming two lectures; lecture number 4 and lecture number 5. With this I take leave for this lecture. See you again in lecture 4.

Thank you.