Session Thirteen: LEADERSHIP, TECHNOLOGY AND DEVELOPMENT

13.1 Objectives

By the end of this lecture, you should be able to:

i. Describe things a leader should do
ii. Explain the challenges of leadership
iii. Explain the benefits of being a leader
iv. Explain the Role of Technology in Sustainable Development
v. Discuss automation and its impact on the contemporary world

13.2 Lecture Overview

Leadership is about getting results for your organization. If you get results, people will support you, often without caring too much about how you got them; without results, all the style or charisma in the world won't retain the support of your followers for long. This is true for the leader of a sports team, a political party, a government department and a business.

13.3 Things a leader should do

To be an effective leader of either a private- or public-sector organization requires you to do five things:

i. Understand and interpret the environment in which you operate;
ii. Develop winning strategies;
iii. Execute them brilliantly;
iv. Measure the impact of your strategies systematically, adjusting strategies as indicated
v. Develop organizational, departmental, team and personal capabilities.

13.3.1Responsivities of a leader

i. Understand and interpret the environment in which the enterprise operates.

A leader has to be able to sense what's coming up ahead, to see opportunities that should be the target of action and to see threats before they materialize. And the view has to be well into the future. As a colleague of mine once noted, "It's no good mistaking the edge of the rut for the horizon." (Professor Richard (Dick) Hodgson, a gifted teacher of Leadership at the Western Business School, often used this phrase).

Leaders who only see what they have seen before, whose scope and vision is limited by their past experience, prove to be inadequate in a rapidly changing world. Since we expect leaders to have their eyes on the horizon and their feet on the ground, this means that leadership is a tall order!

Looking over the horizon does not suggest that experience is irrelevant. On the contrary, to the extent that people have been through experiences and learned from them, they will usually have developed judgment and, perhaps, some wisdom. Effective leaders do learn from the mistakes of history so that they can avoid repeating them. (George Santayana). But the future seldom offers up exactly the same set of conditions that existed yesterday, and tomorrow's environment must be interpreted in the light of yesterday's experience — but seldom with exactly the same mental map or template.

Business opportunities are often created or destroyed by both direct influences of economic, political, societal and technological forces as well as complex interactions between these forces. Whole industries were created by the development of the transistor; socialized medicine limits the growth of medical services in many countries; periods of economic growth and slowdown, or realignment of currencies, affect businesses in many ways; and political movements to the right or the left may create opportunities for the private sector to grow or, sometimes, may result in the state taking over functions from private enterprise. Those who foresaw the fall of the Berlin Wall, the emergence of China as one of the world's great economies, the resistance of many countries to genetically modified foodstuffs, the dramatic realignment of the U.S. dollar against the euro and other currencies in the early part of this century, made – or lost — fortunes.

This outward-and-forward-looking requirement cannot be delegated to a small set of specialized scenario-creators or confined to a few days or weeks of the year. The chief financial officer must scan the financial environment, the head of human resources must be alert to changes in labour markets and legislation that affects the workforce, the chief information officer must recognize developments in information technology that could create or destroy competitive advantage.

Nor is looking at the developing environment just required of senior executives; the credit manger must look at rising consumer debt levels, the purchasing manager must think of commodity price movements and the things that influence them, the facilities manager must decide whether to go long or short on energy prices…and so on. Leadership at all levels must be focused on the future as well as the present.

ii Formulate winning strategies

If leadership is about getting results, then the role of the leader is to develop the right strategies to get those results — winning strategies. Businesses make money by creating value for a customer and then capturing some of it for themselves from what the customer pays for that created value.

Strategies are much more than intentions; they describe what an organization is going to do to achieve a defined end as well as the ways and means that will be employed to do that. The what and the how are usually accompanied by strategic plans detailing who will do what, with which resources, by when…and all the other details that allow for effective and efficient capital and people allocation and coordination. Since people generally follow leaders better when they understand why they are being asked to move in a certain direction, strategies usually provide cogent reasons for action.

Strategies are needed at all levels of organizations, from the office of the CEO to the individual salesperson's strategy for their territory. And these strategies must be integrated and coordinated if they are to be well executed.

My emphasis is on developing winning strategies. People who lead their followers in the wrong directions may be effective leaders over the short-run. And the short-run may be quite a long-run!

But if the pathway chosen leads to eventual disaster, there will be no place for such leaders in the leadership hall of fame.

iii Execute those strategies — brilliantly!

Strategies are only valuable if they can be executed well. And execution of any plan is only valuable if the strategy is right. Arguing which is more important is, therefore, pointless. Both are critical to success.

Unique strategies are rare. Some years ago, I received a copy of the marketing strategies and plans of a large bank before I had signed a confidentiality agreement. A day later, I received a phone call from a very agitated executive asking me to return them immediately. I did so, but without adding that they were indistinguishable from the strategies of four other banks that I had reviewed in the previous three years. The competitive advantage is unlikely to come from the uniqueness of the strategies; far more likely, the company that executes the strategy with brilliance will win.

There are many elements that go into the execution of strategies. Key among them are:

- The alignment of the organization's various department and sub-unit strategies so each and every unit and person is striving to achieve goals and objectives that contribute to the overall mission, vision and objectives;
- Performance management, at the individual, team, departmental and organizational unit levels to ensure that the right people are recruited, trained, developed, motivated and directed in ways that support the organization's mission, vision and objectives consistent with organizational values.
- The leadership of strategic and operational change, not just in response to "burning platforms" but in anticipation of events and states that many people in the organization cannot comprehend or visualize at the moment when change must be planned and initiated.

Many excellent strategic thinkers and planners fall short when it comes to execution. They may lack the attention span needed to concentrate on the details of large-scale organizational change; they may not be persistent enough to see those changes through to completion when faced with resistance to change; they may feel that to do these things is "micromanaging" and that their role

is to focus on the "big picture." That is not my view. Truly effective leaders derive strategy in part from a detailed understanding of their business and how it works, and they drive strategy through each and every business decision and the people who make things happen in the organization. They are as tenacious in implementation as they are brilliant in strategic formulation.

iv. Monitor the results and make strategic adjustments.

The perfect strategy, flawlessly executed, is the exception rather than the rule. Leaders recognize the probable imperfections of any plan and take care to monitor the outcomes systematically and thoroughly, always being prepared to make adjustments or completely change the strategy.

The best strategies and plans incorporate measurements, but smart leaders are always alert to the unanticipated: the competitor who responds differently than the way you thought he would; the sales force that cannot recruit enough people of sufficient quality to execute the sales plan, at least on the preconceived schedule; the key research scientist who leaves to join a competitor; an unanticipated change in legislation that makes it impractical or illegal to take a certain approach to the marketplace; a planned merger that ran into trouble in the integration phase; a market that turned sour; a product that did not live up to expectation. Really effective leaders understand the frailty of strategic plans. They also understand that if they act promptly, they can often make mid course corrections to plans that can put them back on track, or they may even find a superior solution. Furthermore, they are never blind to the idea that they may have made a mistake. In its early days, Dell experimented with retail outlets — briefly! Then Michael Dell realized that he was moving away from the direct sales channel that was the core competence of his company. He rapidly changed directions.

One of the best quotations I have ever come across is: "If you're going to eat crow, eat it while it's young and tender." It puts a premium on the early acknowledgement of leadership errors and rapid steps to correct situations; so what if it's a little embarrassing.

Highly effective leaders also increase their sensitivity to discordant information when they are deploying new strategies. Sam Stenberg, the founder of Miracle Food Mart, had a great saying: "When three people tell you that you're drunk…lie down! But that only works if you are listening to the people. Every great historical leader recognized that courtiers were not necessarily the best

advisers of kings and queens… there was the need for the presence of the "voice of the people." So, smart strategic leaders have monitoring systems that feed back what customers, first-line employees, suppliers, regulators, and other stakeholders and their representatives are thinking about strategic decisions and their implementation. They don't retreat to their management bunkers and wait for the first official measures of success to come out. They get out there, personally, meet with early adopters, meet with people who have tried the product and did not repurchase, attend testing panels, see how trade channels respond to presentations, and so on.

A story is told of Jack Welch arriving in a city one day to be met by a local senior general manager. As they were climbing into the car, Welch asked, "Where are we going?" and was told, "To see some of our best customers who would like to meet you." To which Welch responded, "Cancel it; I want to go see the people who aren't buying from us!" Leaders aren't looking for flattery — they are looking for information that will inform and improve their strategic decisions. Does this personal involvement create some concerns among subordinates that they are not being trusted to do what they are supposed to do? Yes, sometimes. But real leaders don't get too upset about this. They would much rather risk this than to have anyone believe that they did not sweat the details, and most of those who are responsible for the details are delighted with the leadership attention they are getting.

V. Build organizational capabilities

Highly effective leaders act for both the short- and the long-terms, simultaneously. So, while they are surveying their environments, developing winning strategies and executing them brilliantly, and monitoring them systematically, they are also investing time, effort and money in building their organization's core competencies, management and leadership talents.

The business manager often cuts costs to meet profit crunches. This is frequently done at the expense of anything that promises long-term returns. Many commodity – focused companies, such as those in basic steel production, respond to downturns in the price of steel or increases in input costs by laying off people in inverse order of seniority, enacting hiring freezes, stopping all recruitment of new people, postponing or cancelling training and leadership development. Little

wonder that after 50 years of doing this; they have aging workforces, reputations as places where you go to stagnate in a role forever rather than to be developed to the maximum of your potential.

The business leader also has a keen eye on costs and, certainly in commodity businesses, is sensitive to the price fluctuations in the marketplace. But unlike the manager, he or she balances the need to cut costs with the mandate to build for the longer term. Employment costs may be cut not by hiring freezes but by buying out two "C" employees and replacing them with an "A", by cutting some lower-value training programs but retaining core leadership, and by developing high-potential focused programs. I work with such a company, and the pressures on the leader to cut everything when market prices are low are intense — and he resists.

The great British wartime leader and statesman Winston Churchill was famous for many things, but one incident is relevant here. In the middle of an air raid at the height of the blitz on London, he called a meeting of his war planners to discuss the invasion of Europe — probably not to take place for another two or three years. He was worried that the lack of landing craft would not allow the allies (the U.S. was not even in the war at that time) to put enough troops on the beach. So he acted to ensure that the balance between producing Spitfires now and landing craft later was maintained.

Note that we are talking here about leading for the short-term and the long-term. Managers choose between the two, maximizing one or the other; leaders optimize over both.

But there is more than leadership strength that must be developed. Other core competencies, such as knowledge management skills, intellectual property, and excellence in business-government relations, community acceptability, and environmental reputation, all represent valuable assets that can be turned into income or other outcome measures at some time in the future. Leaders add to this store of assets rather than deplete them. Leaders that liquidate core competencies for short-term operating results may not be doing the leadership job that they appear to be doing on the surface. Liquidating an asset may have a temporary positive impact on income but it may also have a negative effect on the balance sheet!

Outstanding leaders over the long haul recognize that they must continue to invest in core competencies at the same time that they produce results in the short-run. Whether it is renewing physical plant, equipment, machinery or the talent pool, it represents the future of the organization.

13.4 The challenges of leadership

There are three primary challenges of leadership: -

- Strategic (involving both environmental surveillance and the formulation of winning strategies).
- Executional (implementing those strategies, monitoring their impact and making adjustments as indicated).
- Developmental (building core competencies and cadres of leaders at all levels).

There is another, more personal challenge. Leadership can be challenging, frustrating, exciting, exhilarating, depressing, stimulating, dangerous, and exhausting— and many other things. Throughout, the leader must keep a sense of personal balance, humility and integrity. Leaders must keep on growing, learning and developing if they are to continue to be effective leaders. The leader often has responsibilities and obligations beyond the narrow business sphere — to family, community and the broader society within which he or she operates. These must be balanced with the obligations the leader has toward the enterprise he or she leads and the people who put their trust in their leadership.

Leadership is not for everyone, and it is not something that even really good leaders necessarily want to do for all time. Above all else, leaders need to know when it is time to stop leading, to hand over the reigns to someone else. The leader that outstays his or her willingness or capacity to lead is one that will eventually do poor service to their followers, no matter how well they may have served them in the past.

13.4.1 Leadership involves:

i. establishing a clear vision,

ii. sharing that vision with others so that they will follow willingly,
iii. providing the information, knowledge and methods to realize that vision,
iv. coordinating and balancing the conflicting interests of all members and stakeholders
v. The act of inspiring subordinates to perform and engage in achieving a goal.

A leader steps up in times of crisis, and is able to think and act creatively in difficult situations. Unlike management, leadership cannot be taught, although it may be learned and enhanced through coaching or mentoring. Someone with great leadership skills today is Bill Gates who, despite early failures, with continued passion and innovation has driven Microsoft and the software industry to success.

13.5 The Role of Technology in Sustainable Development (More views)

By Sharon Beder: The Role of Technology in Sustainable Development, *Technology and Society*, Vol. 13, no. 4, Winter 1994, pp. 14-19.

There is a great reliance on technology to solve environmental problems around the world today, because of an almost universal reluctance by governments and those who advise them to make the social and political changes that would be necessary to reduce growth in production and consumption. Yet the sorts of technological changes that would be necessary to keep up with and counteract the growing environmental damage caused by increases in production and consumption would have to be fairly dramatic. The technological fixes of the past will not do. And the question remains, can such a dramatic and radical redesign of our technological systems occur without causing major social changes and will it occur without a rethinking of political priorities? Technology is not independent of society either in its shaping or its effects.

At the heart of the debate over the potential effectiveness of sustainable development is the question of whether technological change, even if it can be achieved, can reduce the impact of economic development sufficiently to ensure other types of change will not be necessary.

Sustainable development policies seek to change the nature of economic growth rather than limit it. They are premised on the belief that continual growth in a finite world is possible through the

powers of technology, which will enable us to find new sources or provide alternatives if a particular resource appears to be running out. Otherwise, technology will help us use and reuse what we have left in the most efficient manner. The tools of sustainable development, economic instruments, legislative measures and consumer pressures, are aimed at achieving technological changes such as recycling, waste minimization, substitution of materials, changed production processes, pollution control and more efficient usage of resources.

The British Pearce Report suggests that resource usage can be dealt with through recycling and minimizing wastage, and that the damage to the environment from disposing of wastes can be minimized in a similar way: "Recycling, product redesign, conservation and low-waste technology can interrupt the flow of wastes to these resources, and that is perhaps the major feature of a sustainable development path of economic progress.

13.6 Automation and its impact on the contemporary world

With the development of technology man produced things which helped them at every stage and make them more techno friendly. Computerization and automation are some of the major development in the field of technology. Automation is said to be a revolution in technology. It has widespread impact all over the world. Automation means automatic control of manufacture of products through successive stages and use of automatic equipments to save mental and manual labour. It is complementary to the industrialization and urbanization and it grows slowly with passage of time. In industries the growth of automation is most remarkable, it fosters the growth of good's production at cheaper and less capital outlay. Even the development in military can be traced due to high level of automation. The perfect application of automation always results in maximizing profit. Automation concept and uses was first propagated by engineers of the Ford motor company in United States to explain their method of working work pieces between successive machines. But with passage of time automation spread all over world taking over both physical and mental labour by operating through self-actual devices.

13.7 The development of automatic control

Automation initial development can be traced back in year 1080 with the invention of pressure cooker based on principle of pressure control mechanism. During 18th century various automatic regulators were applied from household stuffs to large industrial factories, James watt in 1788 helped in controlling the speed of steam engine. Further in 20th and 21st century automation was at peak affecting each economy and each country. It regulated the most advanced phase of industrialization, presented transition of the world economy from industrial jobs to service jobs, for example-Automated letter machine have made the cash transaction more effective and faster.

13.8 Features of automation

The various features of automation prevalent in both developing and developed countries are as follows-

I. Use of machine-Automation always associated with the high and technical uses of machines at large level so as to increase the production. It lays emphasis on moving towards mechanical system from labour oriented concept. Mechanization is the core process of every automation development in any country, it promoted systematic usage and build up of machine which further led to setup of factories and enhanced the production. Automation promotes computerized mechanisms which include various motion control, robots, conveyors, sensors and actuator usages.

ii. Technology compatible-Automation always promoted technology compatibility in the organization which focuses at increasing the production and enhancing the overall production of the economy. Its compatibility with technology fosters the production process and induces innovation in both product and service of the concerned departments or industries. It relies completely on circulation and adaptability to new emerging demands of consumer and industry and to provide the same with more and more technologies.

iii.Replace human labour-Automation always resulted in replacement of human labour. The only thing which attain maximum profit to company is the ratio of increase in output to raising unemployment in any organization. More output and less unemployment result to maximum profit. It focuses to design and produce the machines which are capable to perform certain tasks which was previously performed by human being and now would perform by machine at large level to increase production, so automation always replaces human forces in any industry.

13.9 Advantages of automation

Automation is known as the revolution in the technology having enormous positive impact all over the world. The various advantages of automation are as follows-

1. **Increase in production**-Automation foremost objective is to increase the production. It fosters the growth of production in any organization. It lay emphasis on mechanizing the whole organization and induces faster production on large scale enhancing the setup of factory.
2. **Economy improvement**-Automation promotes economy improvement. It lay emphasis on more and more increase in production consequently led to overall development of economy by contribution more amount to GDP of any Nation. With help of division of labour and technology-oriented machine and devices it generates more production as compared to products produced by human labour in same time. So more production leads to more income and consequently promotes overall economy.
3. **Reduce operation time**-Automation make work effective and even done in less time as compared to the work done by human labour. Hence it induces reduction in operation time of any production. Any work done by humans in same time is less produces than that produced by the machines, the rate of production per unit is much more than that produced by human without including the effort and intervention of humans
4. **Improved quality**-Automation benchmark is improved quality, after increase in production its second most important target is to maintain and achieve improvement in

quality of the product. By machine mechanism product produced tested and retested regarding its quality.

5. **Enhanced communication**-Automation have reduced the gap and distance associated with communication and enhanced the communication system all over. Automation development such as automatic telephone switching is significant example of automation excellence in the field of communication. It provided new dynamics to the scope of communication.

13.10 Disadvantages of automation

Automation have many advantages but it has not been isolated from being associated with many disadvantages. The various disadvantages of automation are as follows-

1. **Security threat**-Automation lacks the effective security system with it. It is not capable to solve the various security threats emerging out and so it is one of the major drawbacks.
2. **Unemployment**-Automation always replaces human labour and consequently most of the time it is associated with growing unemployment of those replaced labours. Many organizations turned into automated based industry because it helps to increase production at much faster and effective way. So, organizations have less vacancy except few major ones leading to unemployment.
3. **Cut throat competition**-Automation leads to cut throat competition, it lays emphasis on quality of the product which consequently generates the competitive environment. And in this race to win the first position there is enormous conflict in employee-employee relation, employee-boss relation and in industry to industry conflict.

13.11 Summary

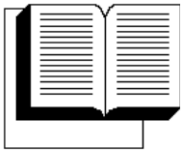
In summary, the lecture aimed at understanding Things a leader should do, the challenges of leadership

13.11 Self-Assessment Questions

i. What are the qualities of a leader

ii. Discuss the types of leadership styles

13.7 Further Reading



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