

Organization Development and Change in 21st Century
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Lecture – 22
Organisation Development in Digital Transformation

In this session we are going to discuss Organization Development in Digital Transformation. How important is digital transformation in current times?

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How Important is Digital Transformation in Current Times

- **Operational challenges surrounding digital transformation** is the **Top Most challenge** according to the research conducted by North Carolina State University's Enterprise Risk Management Initiative and management consulting firm Protiviti Inc.

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According to the survey conducted by North Carolina State University's Enterprise Risk Management Initiative and management consulting firm Protiviti incorporation, the operational challenges surrounding digital transformation is the top most challenge in 2019.

So, this challenge has been featuring in the top 5 or 10 challenges for the last few years. But in the recent survey, this has emerged as the top most challenge for CEOs. The survey was conducted with more than 1500 organizations and with their top management.

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Digital Transformation

- Can you guess the amount spent in Digital Transformation worldwide?
- \$1.3 trillion
- And can you guess out of this amount how is most probably wasted?
- \$900 billion out of this amount went to waste

Tabrizi, B., Lam, E., Girard, K., & Irvin, V. (2019).
Digital transformation is not about technology. *Harvard Business Review*.





Can you guess the amount spent in digital transformation worldwide? The amount is of the order of 1.3 trillion dollars, but that is only one part of the story. Another question is probably even more interesting. Can you guess out of this amount how much is most probably wasted? According to the assessments and presented in this paper which is referred here, more than 900 billion dollars out of this 1.3 billion trillion-dollar amount go waste and does not give the desired result.

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Success Rate in DT Projects

- What is successful DT?
- According to McKinsey a successful transformation as one that, according to respondents, was very or completely successful at both improving performance and equipping the organization to sustain improvements over time.
- And what is success rate?
- In McKinsey surveys in 2016, the rate of success was 20 percent; in 2014, 26 percent; and in 2012, 20 percent.



So, if we are talking about the success and failure of digital transformation, we must understand what is successful digital transformation or DT, which we are going to address from here.

According to McKinsey a successful transformation is one that according to respondents was completely successful at both, improving performance and equipping the organizations to sustain improvements over time. And what is the success rate, in the McKinsey survey 2016 the rate of success was 20 percent; in 2014, 26 percent and in 2012, 12 percent.

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Industry Wise Success Rate

- Even digitally savvy industries, such as high tech, media, and telecom, are struggling. Among these industries, the success rate does not exceed 26 percent.
- But in more traditional industries, such as oil and gas, automotive, infrastructure, and pharmaceuticals, digital transformations are even more challenging: success rates fall between 4 and 11 percent.
- The success rate is very high (2.7 times) in very small organizations in comparison to the very large organizations.

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Bughin, J., LaBerge, L., & Mellbye, A. (2017). The case for digital reinvention. *McKinsey Quarterly*, 2, 1-15.

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If we look at the success rate industry wise, there also we see a picture which is not very positive. We think that high tech companies, media companies and telecom companies are experts and they probably would be more successful in digital transformation.

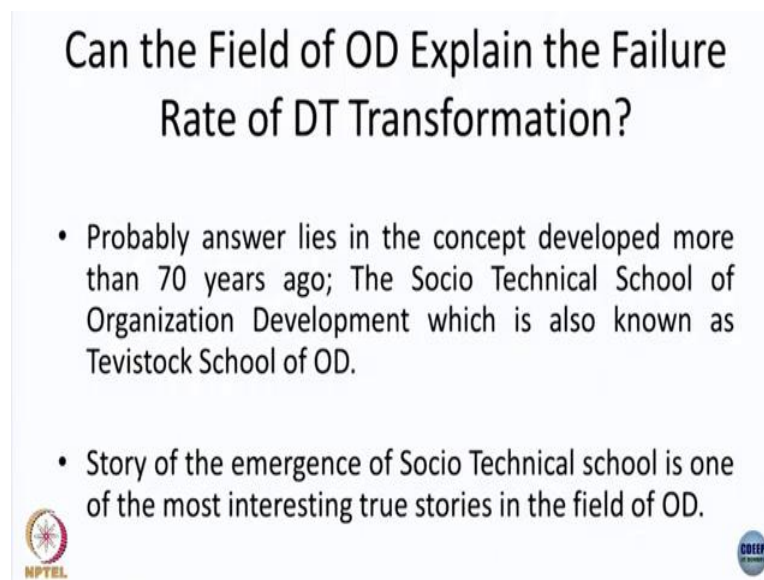
But in the survey, it came out that the companies in this sector are also struggling and among even these industries the success rate does not exceed 26 percent. And if we look at more traditional industries like oil and gas, automotive, infrastructure, pharmaceutical, there digital transformations are even more challenging and there the success rates fall between 4 and 11 percent.

So, a lot of analysis was conducted to look at what determines the success of digital transformation? What are the factors which make DT successful in various organizations?

And there were no conclusive results. Except one which says that DT is likely to be much more successful, probably 2.7 times, in very small organizations in comparison to very large organizations.



And when we say very small organizations, in this survey the very small organizations were considered to be the organizations having 100 or less employees and very large organizations which had more than 50000 employees. So, other than this association of the success rate of DT in very large and very small size, there are not many significant associations amongst the different factors.

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Can the Field of OD Explain the Failure Rate of DT Transformation?

- Probably answer lies in the concept developed more than 70 years ago; The Socio Technical School of Organization Development which is also known as Tavistock School of OD.
- Story of the emergence of Socio Technical school is one of the most interesting true stories in the field of OD.



So, can the field of OD explain the failure rate of DT transformation? This is the question with which we start our discussion on role of OD in DT. So, probably the answer lies in the concept developed more than 70 years ago. So, this concept is called Socio-Technical School of Organization Development which is also known as Tavistock School of Organization Development. Story of emergence of socio-technical school is one of the most interesting stories in the field of OD.

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Emergence of Socio-Technical School in OD

The Situation

- In 1950's the managers of the coal mines near Tavistock area faced a puzzling situation. Earlier to that miners used to work in small teams wherein each member possessed a complimentary skill to perform the job. They also used to stay with their families in the same locality.
- Managers of the mine redesigned the organization design from team based structure to function based structure. That means the teams were dissolved and workers were assigned to the different departments like
- The management had all the reasons to believe that new arrangements would increase the productivity and efficiency of the system.
- But what actually happened after this intervention was puzzling! Overall productivity of the workforce went down, absenteeism increased drastically and the morale of the worker reached all time low.



The situation was of 1950, the managers of coal mines near Tavistock area faced a puzzling situation. Earlier to that the miners used to work in small teams, wherein each member possessed a complimentary skill to perform the job. They also used to stay with their families in the same locality. Now in the late 50s there was a shift, the managers of the mine redesigned the organization from the team-based structure to function-based structure.

They also introduced the financial rewards and incentives for productivity; that means, the teams were dissolved and workers were assigned to the different departments. There were all the reasons to believe that productivity had to increase and people will work to gain more and more financial incentives and become more productive in the new design and new arrangements.



Management had all the reasons to believe that new arrangements would increase the productivity and efficiency of the system. But what actually happened after this intervention was puzzling. Overall the productivity of the workforce went down, absenteeism increased drastically and morale of the worker also reached an all-time low.

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Emergence of Socio-Technical School in OD

The Management Response

- Management approached the close by Tavistock Institute of Social Sciences in London with this problem. Eric Trist with his fellow scholar Fred Emery and Ken Bamforth Studied the situation for about a year.
- What emerged out of their study was something which happens very rarely in the field of social sciences; the new paradigm of organizational functioning. They named it socio-technical school of thought which was also known as Tavistock school of thought.
- The key insight arising out of this study was that organizations should not be understood to be social system and it should also not understood to be a technical system. In fact the social and technical systems constantly interact and influence each other.

 Sociotechnical theory therefore is about *joint optimization*, with a shared emphasis on achievement of both excellence in technical performance and quality in people's work lives. 

So, what was the response of the management? Management approached the close by Tavistock Institute of Social Sciences in London with this problem. Here, Eric Trist with his fellow scholar Fred Emery, at that time he was the UNICEF scholar working in that university, and Ken Bamforth studied the situation for about a year.

What emerged out of their study was something which happens very rarely in the field of social sciences. The new paradigm of organizational functioning emerged, they named it socio-technical school of thought which later on also known as Tavistock school of thought.



Tavistock school of thought later on contributed very significantly to the field of OD. The key insight arising out of this study was that organizations should not be understood to be social system, it should also not be understood to be only technical system. In fact, the social and technical systems constantly interact and influence each other in any organization.

A Socio-Technical theory therefore is about joint optimization with the shared emphasis on achievement of both excellence in the technical performance as well as in the quality of the people's lives.

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Principle Contributions of Socio-Technical School of OD

- Teams were recognized as the basic unit of analysis in OD.
- Responsible autonomy to the teams increases joint optimization.
- Whole task or broadening job scope and team pay incentives improve productivity, safety and morale.



Through the emergence of the socio-technical school, teams were recognized as the basic unit of analysis in the field of OD. Responsible autonomy to the team increases the joint optimization, this point emerged as the principle contribution of the socio-technical school to the field of OD. Whole task or broadening the job scope and team pay incentives improve the productivity safety and morale, this was again a very important message and a principle contribution of socio-technical school to OD.

If we look at the current reasons for the failure of digital transformation and some of the insights of socio-technical school of OD we see that there is a coherence.

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Why the Gap between Potentiality and Reality of Digital Transformation?

- Strategic Misalignment and inappropriate matrices
- Over reliance on external consultants for designing processes
- Missing on Customers Perspective
- Not dealing with employees' insecurities
- Not enough experimentation and prototyping

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The gap between potentiality and reality of digital transformation are as follows. A strategic misalignment and inappropriate matrices are found to be the reason for this gap. The system integrator might be more interested in increasing this in the work of this scope.

An organization which is implementing DT process may be interested in quickly realizing the value of this transformation. After giving assignments of the digital transformation to the third party, to the external consultant, who are experts in the IT processes and systems, many times organizations rely too much on the external consultants. They do not take the insight of their own employees to identify the key processes, to design the key processes, to identify the key deliverables to the different stakeholders.

They assume that external consultants can fully understand the process and they can digitize that, which is rarely true. The most knowledgeable person about the process cannot be the external consultant.

These are always the internal employees of the organization. But if we do not rely on these internal employees of the organization to understand the process and to identify the most important deliverables to the different stakeholders and rely too much on the external consultants, generally it makes DT interventions less successful.

When there is more emphasis on the deliverables and the internal processes and there is less focus on the customers perspective while redesigning or while digitizing the

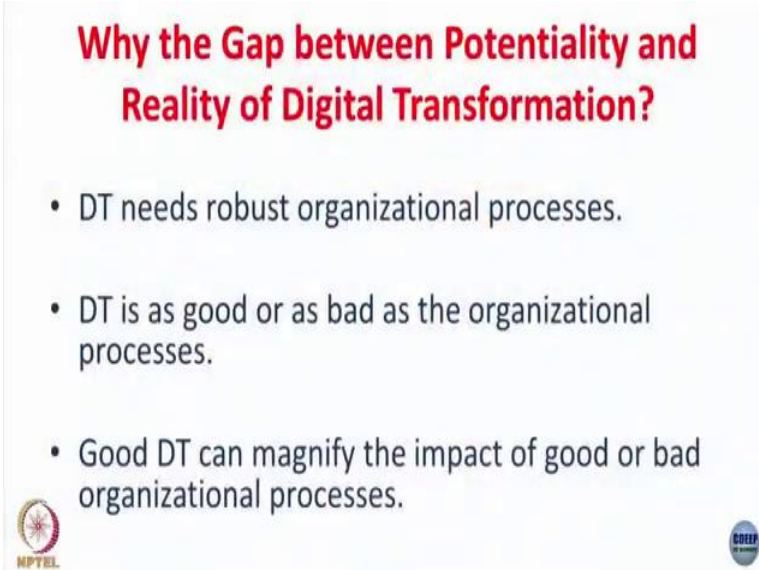
processes, these DT efforts are likely to fail. Whenever a DT project is taken up in the organization, mostly it generates a sense of insecurity amongst the employees.

They become insecure about the prospect of their job, about the possibility of their processes or their functions or their activities getting digitized or automated and, in that process, they develop the insecurity of losing their job. If their insecurities are not handled, they do not cooperate or very minimally cooperate with DT consultants who are the IT experts coming from outside of the organization.

When there is not enough experimentation and prototyping before the actual launch the probability of the failure of DT is higher. We will look at the importance of the experimentation and prototyping in the session on design-thinking.



But we must realize that a comprehensive DT intervention without smaller prototypes and the quick experiments to take the feedback of the different stakeholders, if these two things are not done the full-fledged implementation of DT generally do not give the desired and optimal results.

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Why the Gap between Potentiality and Reality of Digital Transformation?

- DT needs robust organizational processes.
- DT is as good or as bad as the organizational processes.
- Good DT can magnify the impact of good or bad organizational processes.

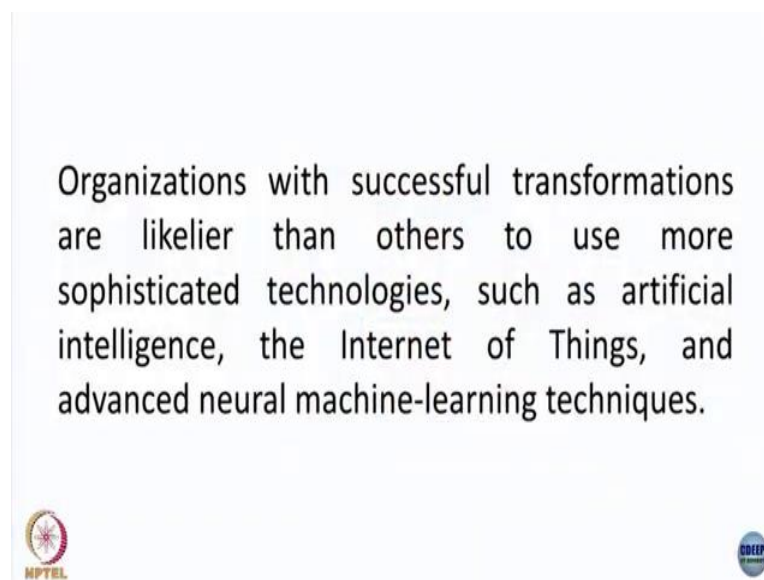
 

So, what is needed, DT needs robust organizational processes. If organizations do not have the robust processes, if they digitize their improper or immature processes that eventually magnifies the worse part of the organization. So, DT is as good or as bad as organizational processes are.

So, we must understand that before digitizing, organizations need to look at their technical processes, they need to look at their formal processes, they also need to look at their social system, they need to study the impact of their technical and formal processes on the social processes and that is the insight coming from the Socio-Technical school. If that insight is used while designing and implementing of DT process, the likelihood of the DT success is much higher.

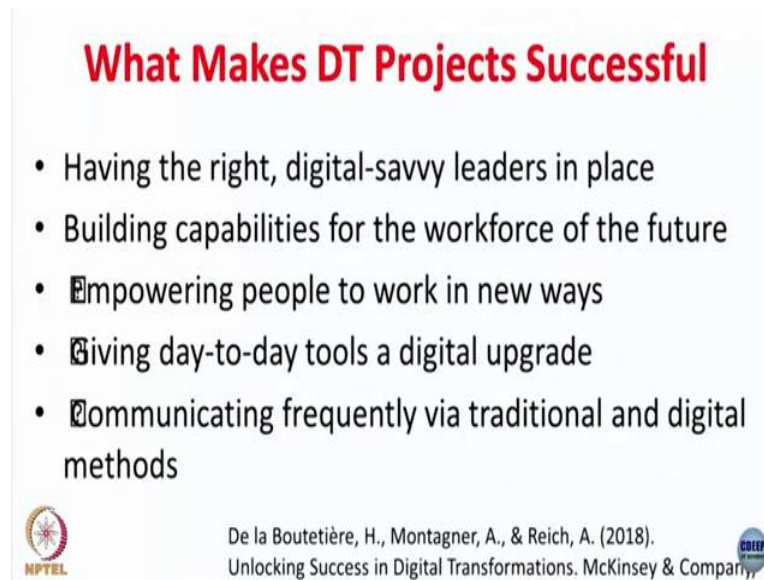
Now if we talk about the technology, another insight says that organizations with the successful transformations are likelier than others to use more sophisticated technologies but in larger numbers.

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So, the organizations showing more successful DT transformations, generally have larger number of sophisticated technologies being used. They generally use larger number of the sophisticated technology. But in the right orchestration and right combination of the technologies like artificial intelligence, internet of things and the advanced neural machine learning techniques etcetera.

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What Makes DT Projects Successful

- Having the right, digital-savvy leaders in place
- Building capabilities for the workforce of the future
- Empowering people to work in new ways
- Giving day-to-day tools a digital upgrade
- Communicating frequently via traditional and digital methods

 De la Boutetière, H., Montagner, A., & Reich, A. (2018).
Unlocking Success in Digital Transformations. McKinsey & Company. 

So, what makes a DT project successful? You can see a lot of the success factors of DT projects are actually something which the field of OD is talking about for many decades. First and foremost success factor as being identified by the team of the authors and the consultants for the McKinsey & company, says that having the right digital savvy leaders in place.

Second factor is building capabilities for the workforce of the future and this building capability has to be more proactive in nature. Empowering people to work in new ways, giving day-to-day tools a digital upgrade. Communicating frequently via traditional and digital method is another very important factor of successful DT projects. Now we will look at these factors in more detail one after another.

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Leadership Role for DT

- Leaders who articulate transformation story,
- Create urgency,
- Facilitate collaboration among the units and encourage experimentation

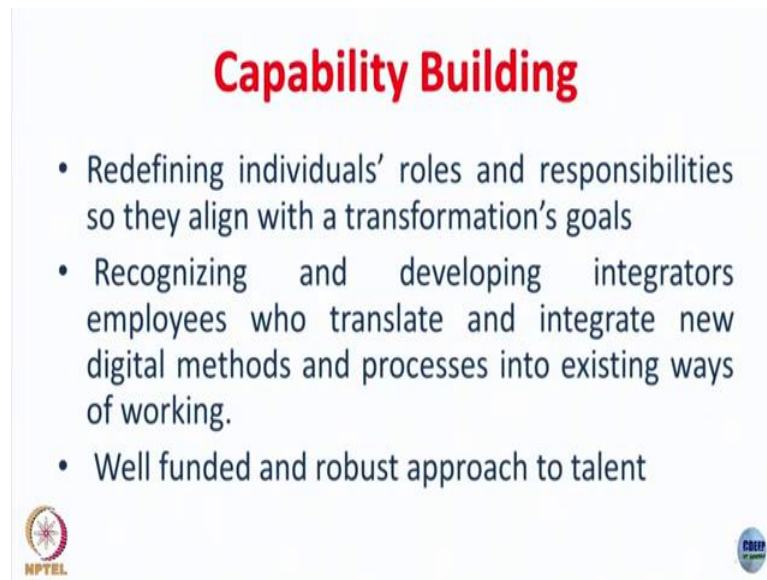
What is the meaning of Leadership Role for Digital Transformation? Number 1 we need leaders who can articulate the transformation story, leaders have to have the vision of DT transformation. What is the outcome of the process what is desirable in the process, that vision must be there with leaders.

Leaders need to operate from the space where they can create the sense of urgency among the stakeholders for going about DT work. Very important job of leaders is to facilitate the collaboration amongst the units and encourage experimentation. Eventually DT is successful only if different units in the organizations take the customers perspective and design and digitize their processes in collaboration with each other.

By very nature of working in the small units or the functions, people develop a perspective which is limited to their unit and their function. It is a leader's job and a very important job to make them see a larger perspective and facilitate the collaboration amongst the unit and encouraging experiments.



Successful DT intervention may not happen in a very first run, so it is important to design the small experiments and creating a psychological safety in the organization for people to design and conduct the experiments. Experiments have a very important role in terms of getting feedback from different stakeholders, if that is not conducted and if the power of the experiment was not harnessed sufficiently, the final rollout of DT may not be very effective.

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Capability Building

- Redefining individuals' roles and responsibilities so they align with a transformation's goals
- Recognizing and developing integrator employees who translate and integrate new digital methods and processes into existing ways of working.
- Well funded and robust approach to talent

Second point is about Capability Building. Capability Building of the employees who have to implement the DT process. And capability building starts from identifying and redefining the roles and responsibilities so they align with the transformation's goal. After the DT and during the DT there is likely to be a shift and change in the individuals' roles and responsibilities.

The first step in this head of the capability building is to redefine the individuals' roles and communicating this to them. Second point is recognizing and developing the integrator employees, those who can translate and integrate the new digital methods and processes into existing ways of working.

These are like change agents of DT work, these are the employees who have to be first recognized and then have to be developed who have the appreciation for DT work. Those who have positive attitude towards DT work and also have a very good understanding of the current processes and systems.


Last but not the least there has to be a well-funded and robust approach for talent. Talent means people having not only technical capability, but also having the skills and the right mindset to support DT work.

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Empowering People

- The first is reinforcing new behaviors and ways of working through formal mechanisms, giving employees a say on where digitization could and should be adopted.
- Ensuring that people in key roles play parts in reinforcing change, risk taking, people in key roles ensuring that their own units are collaborating with others when working on transformations.

We can have the capability building, but if we do not empower people for the process of DT work, that DT may not be successful. So, first is reinforcing new behaviour and ways of working through formal mechanisms, giving employees a say on where the digitization could and should be adopted.

That is one way of reinforcing the new behaviour. The second point about empowering people is ensuring that people in the key roles play parts in reinforcing the change, risk taking, people in the key role ensuring that their own units are collaborating with others when working on transformation.

So, until we take the help and empower people who are holding the key roles, we cannot hope DT to be successful and effective. Digital upgrade to the day to day tools is also equally important factor in making DT work effective.

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**Digital Upgrade to the day to day
Tools**

- The first key is adopting digital tools to make information more accessible across the organization.
- Implementing digital selfserve technologies for employees, business partners, or both groups to use
- Organizations modifying their standard operating procedures to include new technologies.

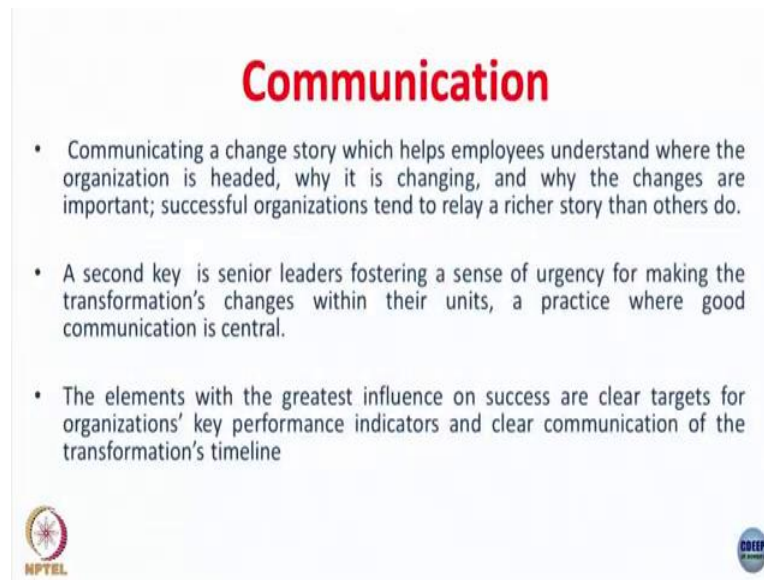
 

The first key is adopting digital tools to make information more accessible across the organization. When people have a smooth access to the information, when information is presented to them in a understandable way, their ability to make decisions increases. So, this is a very important factor in digital transformation.

Second point is implementing digital self-serve technologies for employees, for business partners or both the groups to use. We need to have some self-serving technology which employees and the business partners can use separately as well as together and that helps in quick communication amongst the employees and other business partners. This collaboration helps making the process robust and making DT work more effective.



Another important point is organizations modifying their standard operating procedures to include the new technologies. Along with the implementation of the new technologies the standard operating procedure should also be modified and that helps in making people convinced about DT work and that also helps people to enact their specific role in digital transformation. Communication is important in digital transformation as it is important in any change process or any organization development process.

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Communication

- Communicating a change story which helps employees understand where the organization is headed, why it is changing, and why the changes are important; successful organizations tend to relay a richer story than others do.
- A second key is senior leaders fostering a sense of urgency for making the transformation's changes within their units, a practice where good communication is central.
- The elements with the greatest influence on success are clear targets for organizations' key performance indicators and clear communication of the transformation's timeline

Communicating a change story which helps employees to understand where the organization is headed, why it is changing and why the changes are important these are most important components of the communication process in digital transformation. Successful organizations tend to relay a richer story than others do for DT work.

The second key is senior leaders have to foster the sense of urgency for making the transformation's change within their units, this is a practice where good communication is central. Other important point of about communication is the elements with the greatest influence on the success are clear targets for the organizations' key performance indicators and clear communication of the transformation's timeline.

The key targets must be identified about the transformation process. Right measurements have to be implemented and communicated around those key targets and those must be tracked regularly and that is also a component of the communication which enables DT transformation, DT work easier.



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Enterprise Resource Planning and OD

Three fourth of ERP transformation projects fail to stay on schedule or within budget and two third have negative return on investment.

Why ERP transformations remain still important?

- In the times of topics like big data, machine learning, robotics and cloud the objectives of ERP i.e. seamless, end to end integration of all the functions of the organization across geographies and business line are still valued goals.
- Moreover, the advancement of ERP solutions such as Oracle Cloud, SAP S/4HANA, offer even more promising capabilities.



Now we will look at role of OD in the ERP or what is called Enterprise Resource Planning. Three fourth of ERP transformation projects fail to stay on schedule or within budget and two third have negative return on investment. I would like to start this discussion of OD and ERP with this data.

But still why ERP transformation is a still important, when the organizations are looking at big data, machine learning etcetera, ERP is still which is a seamless end to end integration of all functions of the organization, across the geographies and the business lines, this is still a valued goal for the organizations.


And secondly, advancement of the ERP solutions, such as Oracle Cloud SAP S or 4 HANA offer even more promising capabilities. So, because of it promises, because of it is value proposition, ERP is still a very prominent intervention and the field of organization development can be helpful to make ERP also more successful in the organizations. We will look at what are the challenges of the ERP transformation.

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The Challenges of ERP Transformation

- Misaligned incentives
- Poor project management
- Lack of business-IT integration particularly on operating models, data management, and validation right
- Missing focus on business value and more focus on activities and deliverables
- Waterfall methodology; the linear sequential approach

by Didier Casanova, Swati Lohiya, Jerome Loufrani, Matteo Pacca, and Peter Peters in
Agile in enterprise resource planning: A myth no more, McKinsey Digital, 2019



Then we will look at how OD can help in addressing these challenges. First challenge is about the misaligned incentives, system integrators have incentives in the in terms of their scope of the work and organizations want to realize the value of ERP implementation as soon as possible. So, both parties might be looking for different incentives.

Poor project management, any ERP system requires a more collaborative work between the IT professionals and the middle level managers as well as the front-line managers. Many times, in between the ERP processes there has to be a conversation about the business processes, about the other processes.

ERP is a sophisticated technology, but the project management skills like breaking the project into smaller parts, ensuring the stakeholders, communicating and getting information from the people who are involved and who are the most knowledgeable about the process are important part of the successful project, if that is missing ERP transformation do not give the desired result.

Another important thing is lack of business and IT integration, particularly on the operating models, on the data management or the validation rights and generally these issues come in between the ERP project implementation. And for these issues the interventions, perspective and information of the senior management is very important.

If that is missing and the frontline managers and the people who are responsible for the implementation their insights are not provided about these points, the success of ERP transformation may be questionable.

Missing focus on the business value, when there is more focus on the activities and deliverables of the sub-functions and focus on the business value is less then ERP do not give the expected results. Many times, a waterfall technology which is a linear and sequential approach also proved to be obstacle also proved to be dysfunctional in the successful ERP transformation.

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Agile Methods for Successful ERP Implementation

- Small end to end, cross functional agile teams
- Working in shorter cycles to produce working software
- Transparency facilitated by KPI

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In order to address these limitations, the Agile Methods for the Successful ERP Implementation are suggested. Agile method in the successful ERP implementation includes a small end to end cross functional and agile teams. These teams look at the developmental opportunities, convert those developmental opportunities and transitions into the small projects and they quickly implement those projects.

Working in the shorter cycle to produce working software is another way of implementing the agile method for successful ERP implementation. Transparency facilitated by KPI is a very important component in implementation of the agile method. Wherever an organization is implementing digital transformation or implementing ERP they need to have the most important objectives in front of them. And they need to see whether the business objectives are being met by the ERP implementation or DT transformation.

During the implementation of ERP process they need to identify the specific, key performance indicators, which have a sequential impact on the implementation of the strategic objectives. Those KPIs must be identified and communicated to the different stakeholders and should be tracked regularly, that brings transparency in the system and people involved in the ERP implementation clearly know the priorities and areas of their work.

For digital transformation I would like to end this session with a success story. This story is of the company called Otis Elevator, I think most of us would have seen the Otis Elevator and might have used in some or other building.

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Digitization and Success Story: Otis Elevators

- Otis the 150 years old company, operating in manufacturing and distribution of elevators and provider of ongoing maintenance service for installed elevator
- First activity is intensely competitive in 1980s and other maintenance and elevator service is a highly fragmented and more profitable
- The organization decided to emphasize more on the service business

Why this case study is chosen to convey about the basic important things about successful DT transformation as OD intervention is, because this intervention was implemented successfully in the 80s in 1980s. When IT, ERP, digital transformation, these terms were not so popular. You will look at there are certain principles this organization followed in its transformation while using IT and those principles are still valid when in whole world people are talking about DT and ERP.

So, Otis is a 150 years old company, it is still operating in the manufacturing and the distribution of the elevators and it is acting as a provider of ongoing maintenance service for the installed elevator.

First activity, which is operating and manufacturing the distribution of the elevators is intensely competitive and second activity, which is about maintenance and the elevator service has a very fragmented market and that is more profitable work. So, early 80s organization decided to emphasize more on the service business, because this would be more profitable for the organization.

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Service Business in Otis: What it was What it became through IT

- Service function was bottom up hierarchical organization, locally managed and senior management was far removed from the field, no measurement of product quality, individual staff performance and office performance
- The intervention: **Otisline**; an online system
- Otisline, the centralized reporting system of each service incident into the central unit, with the help of computer console and an operator the repair call is assigned to specific mechanic from appropriate branch
- The impact of Otisline: Middle two layers of the organization chart eliminated and the initiative helped in measuring and improving the service, improvement in product and service design, more revenue and profits

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They used the power of information technology or IT to bring about this change. Service function at that time was bottom-up hierarchical organization, it was locally managed, whenever there is a problem, customers used to call, this call used to go to the local service office, the front desk people were responsible for collecting that complaint and the management in the local offices used to assign the work to different mechanics.

In this process frontline people were providing the services, they were doing all reporting and senior managers were far removed from the field. There were no measurements of the product quality, there were no measurements of the individual staff performance and the office performance of the different offices located at different places.

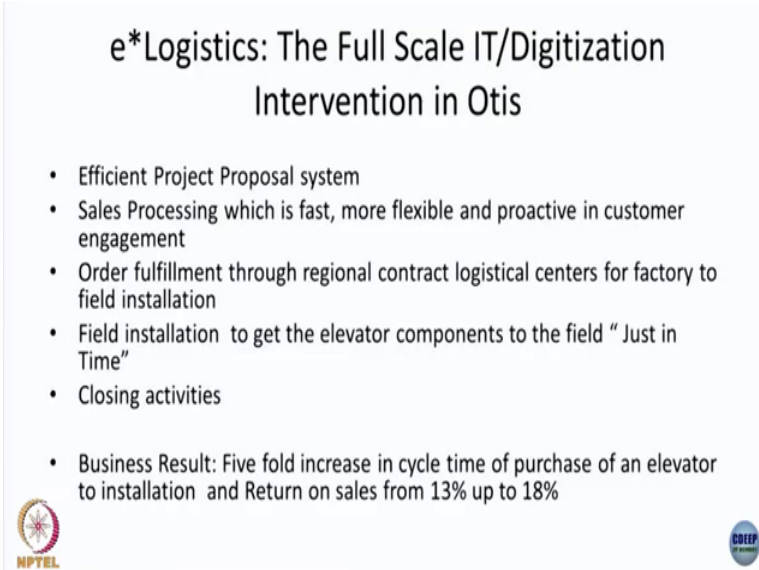
They introduced an intervention called Otisline, this was an online system. Otisline was a centralized reporting system of each service incident into the central unit, with the help of computer console and the operator the repair call is assigned to the specific mechanic from the appropriate branch. If there is a service complaint to anyone there used to be helpline number, when the customer calls this number, the call used to go to the central office now

under this Otisline intervention. From the centre office a proper allocation of the mechanic in appropriate office used to be done for this service assignment. The impact of the Otisline was such that the middle two layers of the organization chart just got eliminated, because there were less number of supervisors and managers required to oversee the work of mechanics and the frontline service providers. And a lot of and all the order allocation was done centrally with the help of IT, computer console and the operators.

This initiative helped in measuring and improving the service because now there is a central database to look at when the service call was made, who was the mechanic in a particular locality assigned that task, how quickly that service job was completed, customer satisfaction was also traced with the help of IT. When the big data base was generated about the customer complaints the R&D unit got a lot of insights about the most prevalent problems in the operation and functioning of their elevators.

So, that insight was very useful to upgrade the product and provide better service, also these insights were useful to design better products. Naturally that has increased the revenue of the organization and profitability of the organization. Inspired by this initiative which was completed in 1986 they implemented E-logistics, this was a full-scale IT and digitization intervention in Otis.



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e*Logistics: The Full Scale IT/Digitization Intervention in Otis

- Efficient Project Proposal system
- Sales Processing which is fast, more flexible and proactive in customer engagement
- Order fulfillment through regional contract logistical centers for factory to field installation
- Field installation to get the elevator components to the field "Just in Time"
- Closing activities

• Business Result: Five fold increase in cycle time of purchase of an elevator to installation and Return on sales from 13% up to 18%

They implemented a very efficient project proposal system, where-in the real time basis people involved in developing any proposal from the finance function, from the sales

function and from the production function could collaborate and finalize the project in a much shorter period of time.

The sales processing was also centralized and the sales processing was also IT enabled which became very fast, more flexible and proactive in customer engagement. Whenever order was placed, customers were directed to the next step and at the same time this information would be projected to the appropriate office and could be communicated to the appropriate staff member.

At certain stages, at certain point customers also had the flexibility to change the process, to change their order and also acquire or purchase some value-added products. So, in this way more productive customer engagement was possible.

Order fulfilment also started happening through a regional contract logistical centres for factory to the field instalment. In this order fulfilment process, there was a closer track of the factory to field instalment. The field instalment was done locally and because of the IT system they were not required to dump a large amount of inventory on the field.

In fact, they started just in time practice to supply the inventories for the field instalment. Closing activities, invoicing was also made online, this improved the process in terms of the fast closer and fast communication. As a combined result of all this there was a fivefold increase in the cycle time of purchase of an elevator to installation and the return on investment on sales went up from 13 up to 18 percent.

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What Makes DT Projects Successful

- Having the right, digital-savvy leaders in place: **George David the CEO leading from the front**
- Building capabilities for the workforce of the future: **1986 presentation for the induction program on cultural transformation and role of technology**
- Empowering people to work in new ways: **Rigorous training and role redesign**
- Giving day-to-day tools a digital upgrade: **IT process mapped to each step of customer-employee engagement**
- Communicating frequently via traditional and digital methods: **Business focused transformation constantly communicated to the each member of the organization**

 De la Boutetière, H., Montagner, A., & Reich, A. (2018).
Unlocking Success in Digital Transformations. McKinsey & Company, 

If we look at this intervention from the perspective of the factors which we discussed for the successful DT transformation, we can see certain points very well implemented in the company Otis Elevator. The first point we discussed was having a right digital savvy leader in place, George David was the CEO who was leading this initiative and he was a champion of IT intervention in Otis.

He was in fact leading from the front. Second point we discussed was about building capabilities for the workforce of the future. Otis considered IT to be the backbone of their organizational transformation, they conveyed this message even at the time of induction of the employees.

So, in 1986 there was a compulsory video to be watched by all the new recruits during their induction program was about the cultural transformation and role of technology in Otis Elevator Company. Third point we discussed was about empowering people to work in the new way.

There was a rigorous training and role design was done at the local offices and the central offices. When the organization design was changed and the new roles were emerged a rigorous training and communication was conducted for people to become competent and well verse about their role.

Giving day to day tools a digital upgrade is the next point we discussed. In Otis elevator we see that IT processes were mapped to each step of customer engagement and customer and employee engagement; whether it is sales process, proposal process or the closing process. So, even the smaller activities of the employees were digitized and that is very important for any digital transformation process.

Last point we discussed was about communicating frequently via traditional and digital methods. In Otis Elevator we see the business focused transformation was constantly communicated to each member of the organization. Through various ways it was communicated. at the induction program, it was communicated through the performance appraisal discussions and performance management system, training and development salary and wage administration as well.

So, we can see success factors of digital transformation which were identified in 2018, were present in the IT based transformation of Otis Elevator, which took place in the 80s and the first 3-4 years of that of this century maybe like in 2004 and 2005.

So, in this session we looked at how the leadership, organization design, training and development factors which are essentially the organizational development factors, which are based on the behavioural sciences are equally important in digital transformation of the organization whether they are using the enterprise resource planning or any other sophisticated techniques to digitize their processes and systems. In the next session we will study OD interventions and the role of OD interventions in mergers and acquisitions of the organizations.

Thank you.