

Public Organization and Management
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Lecture – 12
Environment of Public Organizations – II

Hello, dear learners. I'll continue discuss about the technological impact. In the previous session, I've talked about very basic components of the technological environmental changes and how it is going to impact the functioning of public organization. In this session, I'm going to go into little more details of how technological environmental changes shapes the environment of public organizations and how it is going to impact the functioning of the organization. The very first aspect is technology helps in enhancing the efficiency of the service delivery. Any kind of programs which are being implemented, the technology enhances efficiency and the experience of service delivery.

The first aspect among these are the process automation. Now, technology facilitates the automation of the tasks which are done by the organization on continuous basis. Now, this automation, it enables the public organization to smooth or streamline their operations because technology helps in streamlining the operations of public organization. It saves people's time.

And also, because of technology application into the way-to-way office working, it also helps reduce the delays, bureaucratic delays. Because technology, the things have gone online, there is no file system which is happening from one office to another, things have gone online, the processes are automated. So, what happens is, once the operations are streamlined, otherwise, it reduces unnecessary bureaucratic delays. Now, this not only improves the performance of people in the organization, but it allows people with more time to devote to more complex tasks which require more human input. So, instead of devoting much more time into manual working, if you make your process more automated, it allows a lot of flexibility and provides a lot of freedom to the people to focus on much more complex tasks where their involvement is highly required.

Now, let's look at an example of e-office by national informatics centers and I have given this reference and link here also for your reading. You should go to this particular link and find out how e-office by national informatics center is changing the way organizations are going to function or are functioning. Let me give you a very brief about what this E-Office is all about. E-Office by National Informatics Center is an important part of Digital India program. It is an important platform to achieve responsive, simplified, effective, accountable and transparent working in the government organizations.

So, the application of or the implementation of e-office allows for more simplified, responsive, transparent and accountable working in the government organization. One, it provides a lot of speed. and the efficiency of eOffice, it's not only assist the departments in informed and quicker decisions, but also help them go paperless. I just talked about that there's no need for continue to do manual work. You can make the process automated.

So, once it is making your process more simplified and you're also helping in one or the other way to saving the environment because you are using less paper. Now, this basically is a digital workplace solution and it has been built on an open architecture. If you go to this particular link, you will have much more details on this. And this can be actually replicated in the various offices across the government. Depending upon their needs, depending on what kind of process they want to automate, this particular e-office application can help the organization in terms of replication across the government.

Now, this particular product has several applications. I'm talking about eOffice. It has several applications which helps the government organization to change or I would say positive change in terms of transforming how they carry on their day-to-day work activities in the organization. Let me give you some example of some four to five applications that they have listed on the link here. First is eFile, is File Management System under eOffice. It's basically a workflow system that extend the normal features of the manual handling of the files in addition to more efficient electronic system. So, what happens is whatever manual work you are doing, you can take it online in terms of sorting, in terms of storing and placing the document in the system there so that they are easily accessible and available for you for longer period of time. Second one is KMS which is Knowledge Management System. Now this particular component of eOffice as stated in the document and the link there is about creating the central repository of documents in the organization.

So, why it is called as knowledge management because the documents when you store it becomes a part of your knowledge. It can be used as references for subsequent decision making, can support the various things that the government organizations are going to do or can provide the inputs for the decision to be taken. So, this particular file management system and the documents in terms of repository, allows organizations to make use of this particular knowledge. You know, the older documents and how decisions were taken, what data is there, what files were there, what decisions were taken before. So, it helps the organization to look into this particular aspect and it is a knowledge being created.

And if it is more manual, you will not be able to, you know, find out where the particular files are. But if they are located at the central repository, it will act as knowledge being created and can be used for the subsequent activities of the organization. Then another is WAM portal, Work From Anywhere portal. This particular is the platform which is a

kind of a virtual office from anywhere. Basically, it is a one-stop portal as they mentioned for office functions and they connect the officials to securely access their office from anywhere.

This also allows government officials to work from anywhere. They can access their documents and their office from anywhere. So it becomes much more efficient because it provides a lot of flexibility, and the system is much more adaptable. The final aspect is SPARO, which stands for Smart Performance Appraisal Reporting and Recording Online Window. This particular application is a web-based application, as I mentioned, and it is for processing the annual performance appraisal reviews of the employees in the organization.

So, these are the four aspects I'm talking about. The eOffice, which provides a lot of help to organizations, impacts their functioning. So, you see how process automation can help the organization enhance efficiency and service delivery. So, I'm talking about the impact of technology on the organization's functioning. So, the first one I've talked about is process automation, and the example I have taken is eOffice.

You are all, you know, encouraged to go to this particular link and find out more about the NIC and the products. The second aspect of enhancing efficiency and service delivery is data integration. A very important concept. Now, what is the meaning of an integrated data system? Now, we talked about when the data is integrated and stored in cloud storage; it enhances the accessibility of this data. And when you are storing, you can better manage this data, which is a large amount of public data, and in a country like India, with such a vast population, the amount of data that we have for this is significant; if we store this data and integrate it into this kind of system, it will support automated decision-making.

How? Because when we have data, for example, many policies are being implemented, and many programs are available for the citizens. Now, how well these programs are doing? There is data being collected. For example, if we talk about education policy, health policy, or something related to business. So, there is a lot of data collected regarding how many people are taking advantage of these programs. What are the effectiveness and efficiency of this program, and how is all this data collected? So, it provides immediate feedback to the government in terms of what is happening at the ground level, and then it provides input for the government to further improve the implementation and bring about changes in policy design to increase the effectiveness of the organization.

I am taking the example of open government data, to which I will also provide you with the link. The objective of this particular open government data platform is to facilitate access to government-owned, shareable data. If you go to the link, you will find a lot

more information about this topic, and it is available in a more readable form, with easy-to-understand data that is updated periodically regarding how many people are benefiting from the services and what the data discusses. Now, what happens is that this not only promotes the wider accessibility and application of government-owned data, but it also unlocks the potential of the data for national development. Because of the kind of data that we are gathering—what people are saying and how many people are benefiting from it—we have this data.

So, ultimately, it provides a lot of input and feedback to the government and public organizations to further improve the efficiency and effectiveness of these processes. Let me take you to this particular website to see the amount of data that is available on this platform. Look at this. You can discover databases by economy, education, environment and forestry, health and family welfare, information and communication, labor and employment, science and technology, and many more. Not only are the data sets available, but there is also engagement through this data. There are communities being created. People are talking. There are blogs where people share their feedback. There are Aadhaar Permanent Enrollment Centers. State-wise, for example, they are talking about Tamil Nadu. We can talk about Andhra Pradesh and Punjab. Many others, right?

Let me give you an example and take you to the data on, let's say, education. Now, you click on this thing and look at the district-wide number of scheduled class students in the institutions of Punjab, enrollment by age and class, the unified district information system for education, the district performance grading index, and many other data that are available. Look at the vast amounts of data it has. Let's take another look at one of the other things regarding what kind of data lets me take you to labor and employment, for that matter.

So, look at the way the data are being gathered. Labor welfare schemes, health under the Directorate, General Labor Welfare, key indicators related to national accounts, e-Shram registrations, employee state insurance schemes, medical services, and a look at the way the number of indicators are highlighted here. What is happening in the services, blogs, infographics, and so on? Now this particular excess of data to the public and the government is sharing this data because it's shareable data as per the rules and laws. So you see this also on the dashboard in analytics here; this only increases, you know, the perception of people regarding what they think about the government in terms of its functioning. So, this shareable data, when people are able to look at it, allows them to read this data and find out what the applicability of the programs is.

Implementation of the programs allows for the assessment of public policies and the functioning of organizations to be more transparent, thereby increasing the level of trust. So, I suggest all the learners here take a look at this particular website and see how open government data can help organizations come up with better solutions. Policies design

policy design and implementation, or if there are policies implemented, how they can be improved in terms of enhancing implementation and increasing the level of trust of citizens in the functioning of public organizations and the government. Another important aspect of how technology shapes the environment is improving transparency and accountability. In this, I am talking about the use of electronic monitoring tools, such as cameras or drones, that help enforce regulations and, of course, gather data for better decision making.

Now, what this does is actually help increase this particular transparency, which aids in fostering accountability within public organizations. Let us take an example of monitoring technology in terms of the use of drones for crop health monitoring or city services. I say that agricultural drones, which are basically used to look at how things are being done with special equipment such as multi-spectral and infrared cameras, are used to assess plant health, and depending on what is happening in the crops, professionals can implement remedial actions to improve further; thus, this data is being gathered. Look at the way the transportation data is being collected; you know, with the traffic cameras there, which collect a lot of data on the traffic. And with the help of these cameras and drones, a lot of information is being collected on the management of the city.

So, it allows for much more, you know, information gathering by the government so that it can improve its functioning and also help the government become more transparent and accountable for its actions. Another important way that technology shapes the environment is through public access to information. Now, if you look at how technology enables the general public to access government activities, it can further help rebuild trust in public organizations and also make operations much more transparent. I want to give you an example of RTI. The Right to Information Act of 2005 allows and gives the authority, or I should say the freedom, to citizens to request access to information from public authorities because it promotes accountability and transparency.

The law demands and expects the government organization to be transparent. In sharing the information about how various activities are done, For example, how money is being spent because it is public money collected through taxes, how this is being used, what the proper utilization of the funds is, and how certain decisions are made in the organization. So, it empowers citizens to seek to disclose information about government programs, functions, and processes. So, this is another important application of how technology can shape the environments of organizations. The third important factor is that it facilitates citizens' engagement.

For example, chatbots and virtual assistants are useful tools. An example is the MyGov Corona Helpdesk chatbot. So these technologies, when you talk about, they provide all long access, 24/7 access of information to the services to improve overall experience of the citizen in terms of experience of their service delivery. But at the same time, they can

also raise concerns about when people do not have access to technology. For example, if we talk about internet penetration or education level, not all people may have access to that kind of technology and may not know how to use it.

So, it also has some limitations in terms of creating a digital divide. But at the same time, applications like the MyGov Corona Helpdesk, WhatsApp, and Chatbot have very simple interfaces and a user-friendly approach. So it provides users with a wide range of information during the COVID-19 pandemic. For example, COVID vaccination, professional advice on improving immunity through Ayush and yoga, and information on where to get help are important.

So, immediate information is available. So, this technology has helped to facilitate citizen engagement. Again, the role of technology in shaping the environment of the organization helps to increase the efficiency of its service delivery. Real-time digital capabilities allow for immediate citizen feedback through online platforms. This particular engagement can enhance responsiveness and adaptability in public services, aligning them more closely with community needs. So, when you have interactions with people in terms of collecting data or understanding their views through various platforms, you have put in place the systems with which people can start sharing their viewpoints.

Ultimately, it provides a lot of impetus to the organization in terms of becoming more responsive and adaptable to the demands of the community and hence can lead to better transparency, increasing the level of trust among the citizens and a positive perception of the government organization. Though technology has shaped the environment of public organizations and allows a lot of freedom in terms of how the organization wants to function and be perceived by citizens, it also makes use of technology to a greater extent to improve functioning; however, it also presents some challenges. For example, there are resource constraints. Resource constraints, largely from the perspective of the funds, are what I'm talking about. They often face limitations because resources are scarce.

We don't say that we have a large amount of resources available and that we can use them to their maximum extent to provide the best things. But the thing is, because resources are scarce, they often face financial limitations, which sometimes can hinder the adoption of advanced technology. So, this particular thing can sometimes lead to inadequate staffing and resources for effective technology integration because they don't have the budget for that. So, you know, the resource constraints in terms of budget cuts that I'm talking about are a challenge to the adoption and implementation of advanced technology for the functions of public organizations. It is also true for other organizations, not only for public organizations; because resources are limited, there are constraints.

So, what is going to be suitable for the organization with respect to the budget? Sometimes they have to make choices for alternatives that are not the best, but the second or third alternatives that are more suitable and come under the budget considerations of the organization. So they have to make the decision in that way. So, these are some of the challenges. Another challenge is the concern for equity. I just talked about how people who don't have access to technology, or perhaps who do not know how to use technology to gain access and assess the functioning of the organization, can create a digital divide.

It's another challenge, and it is related to equity concerns. Though people who have access to technology are educated, they know how to use it. They have that technology with them. They are smart in understanding more about the functioning of public organizations online. They may have better access, but others do not. So it can create that kind of divide, which is another challenge in the implementation of technology. But the thing is, we have to take all the people along with us. It's not that technology is there; let's do things the technological way. What about those people who do not have anything? So we also have to think about those people. So, in that way, we can say that sometimes technology can act as a barrier to people who are unable to access it.

So, because people are unable to access it, it can also further lead to a lack of access to various other government programs for these people. Now, what is the impact of technology on organizational performance? The first ones are agility and adaptability. Now, these advanced digital capabilities actually contribute to organizational agility. They make organizations more agile, allowing public agencies to respond more effectively to the environmental changes happening outside and to the needs of the citizens.

So, adaptability is basically essential. If the organizations are not going to be adaptable to the changing needs, ultimately it can negatively impact organizational performance because people will then have a very negative evaluation of the programs or policies of the government or, in general, the actions of the government. So, agility in terms of response and adaptability in meeting the expectations and demands of the stakeholders are much more required. Let us take an example of how technology has provided organizations with the ability to become more adaptable and has helped them increase their performance. If you know that during COVID, existing technologies like UIDAI and DigiLocker helped build and create the COVID app. Now, this particular app has leveraged many existing technologies, like the ones I've just talked about: UIDAI and Digi Locker.

So, the Government of India's experience in rolling out solutions at a scale such as UPI and Aadhaar helped in the development of the CoWin app. So, this is basically an interoperable platform designed to handle scalability. You see a large number of people, and a large amount of information is to be collected and put in place in terms of storage.

So, that can be used for further purposes. Now, this particular one has also created a verifiable credential with the WHO for digital documentation of COVID-19.

So, for example, if these certificates are available online and are also linked with other databases like Aadhaar and DigiLocker, they enable seamless travel internationally. So, this particular thing has not only smoothened the processes but has also helped the organization improve its functioning and performance. Another important aspect is with respect to performance measurements. Now, the integration of technology into performance management can actually enhance the evaluation process. Now, in terms of data collection, I just talked about the website data.gov.in, which I have shared with you. You know, I've shown you the website. The amount of data that we are collecting and the integration of this particular technology with that kind of data, which is then embedded in the performance management system, can actually help with the evaluation process. For example, if you look at the data on business, it provides an edge for rankings in ease of doing business, etc. Now, it is basically an index in a ranking system established by the World Bank Group, wherein higher rankings indicate better, usually simpler regulations for business and stronger protection of property rights. So, when we say that technology is linked to performance measurement, agility, and adaptability, we are talking about how technology is integrated into the functioning of government organizations in order to provide a better experience, helping the other organizations.

For example, business organizations can gain an edge. For example, the ease of doing business that I just talked about plays a crucial role. In fact, increasing the overall perception of people regarding the functioning of the government and public organizations. So, in conclusion, I will say that technology plays a very crucial role in shaping the environment of public organizations. How? It enhances efficiency. It improves transparency and also facilitates and promotes citizen engagement, impacting overall performance; but at the same time, I also say that the resource constraints and the equity issues that I just mentioned must be addressed to fully realize the potential benefits of the application of technology in government and public organizations.

So, with this, we have completed the very first aspect of the technological environment and its impact on the functioning of public organizations. So, the links that I have shared are very, very important for you to go through, especially the e-office by the National Informatics Center, and have a look at this particular website www.data.gov.in to get more information about what kind of data is available. Some of you might want to use this kind of data for research to enhance your understanding of the policies. The doctoral students who are much more interested in the areas of public policy and implementation may make use of this website. So it becomes handy and provides you with a lot of input for improving your own research and can possibly help you in getting good research work and, hence, publications. Let us look at the research insights of this particular environmental component, the technological environment component, in the study by

Akshay eKendras in Kerala. The objective of the study was to investigate the success factors influencing e-government services provided through Common Service Centers (CSCs) in India, focusing on Akshay E-Kendras in Kerala. So now we are going to look at the application of the technological environment and how it shapes and relates to the outcomes. We are going to examine it alongside the study by Uthaman and Vasanth Gopal in an article titled "Key Success Factors for the E-Governance Initiative through Common Service Centres in India." An empirical study with special reference to Akshay E. Kendra in Kerala was published in the Indian Journal of Public Administration.

Those of you who are interested in knowing more about it, please go through this very interesting paper. So what they have done is find out the top success factors that influence e-governance services, with a focus on Akshaya E-Kendra in Kerala. The study highlighted that the top success factors, the most significant determinants of a common service center's success, are service quality, meaning that trained staff and efficient service delivery lead to better citizen satisfaction. So I talked about, in the beginning of this particular module, when service providers and receivers are in close proximity. So, when people are trained and are good at providing these services, it actually enhances the overall experience of the citizens, which can lead to a higher level of citizen satisfaction and hence more trust in the government and public organizations.

Transparency is another factor in displaying clear information about rules, services, and costs. It actually boosts public trust. So, the information is available to everybody. So if you are very, very clear about your information, there are no hidden things. Everybody knows about the processes in detail, about rules and what kind of services. And of course, the cost attached to those services only increases transparency. So, they found that these are the top success factors influencing e-governance services, right? Then it is convenient. The third important factor is reducing time, cost, and effort for citizens accessing government services. It enhances the satisfaction of the people there. Then the study also discussed the moderately contributing factors.

One aspect is accessibility. Convenient operating hours and personalized service positively affect success. They also contribute, but they are contributing moderately. The top success factors are service quality, transparency, and convenience. But in this study, they also found that there are other factors contributing to the application; however, they are not the top factors. They are moderately contributing factors. One aspect is accessibility. Then is the system quality. In terms of smooth data management and minimal system errors, improve the user experience and other important factors. Interoperability, which we also talked about, and seamless data exchange among agencies facilitate better governance. For example, we talked about the data integration of Aadhaar, DigiLocker, and the mapping and linkage of the Aadhaar card with the banking agencies, as well as DigiLocker access to documents. So, in terms of the benefits for receivers, when it is linked, it is basically mapped correctly.

So, the linkage that has been established, along with the help of technology, is what the government is going to do so that the ultimate beneficiaries receive the benefits and there is no overlap, confusion, or fraud in the system. Then e-participation is another factor. For example, the involvement of citizens in the feedback and grievance process is beneficial but underutilized. So it has to be, you know, it has to pick up in terms of getting citizens more involved in the process, asking for feedback, and the grievance process because it is going to be very, very beneficial in order to improve the services. So the whole idea that I'm conveying is that we need to look at it from a positive angle; it is not about punishing the people who are doing it wrong.

It's about understanding what went wrong. And, of course, if somebody has deliberately done it wrong, there are rules and regulations that have to be followed. But if it is beyond control and there are some kinds of lacunae in the design or implementation, of course, citizen engagement in terms of feedback and the grievance process can help improve the process. The least contributing factor, as I mentioned, is trust. Very, very importantly, though, it plays a secondary role compared to service and transparency.

One of the reasons is that, basically, you know, transparency leads to trust. If the systems are more transparent and the services that people are receiving are effective and efficient, it leads to trust. So, that's why what we talked about in the first slide is that the most contributing factors are transparency and convenience. So, this particular can lead to service quality. All of these can actually lead to a higher level of trust. So, that comes secondary.

So, the primary factors are the services received and the level of transparency that is maintained by the public service provider. Infrastructure and basic facilities are essential but do not influence success as strongly as other factors. The important thing is how the services are being delivered, being more convenient and transparent. Infrastructure is important, but in their study, they did not find it to be a very significant influencing factor as far as this study is concerned. Now, the authors of the recommendations have provided that we strengthen e-participation, improve grievance redressal and citizen feedback mechanisms to foster accountability, and also follow uniform standards, ensure consistent service delivery across all the centers by adhering to the citizens' charter, enhancing infrastructure, and addressing infrastructure gaps to provide uninterrupted services, especially in remote areas.

Now, in this case, we have taken an example of this particular paper, but like this one, there are several other papers you can find to understand the application of technology and how it shapes the environments of public organizations. It is important, depending on the area of interest, because technology is a very broad field with different types of applications that are suitable for government functioning and public organization functioning. So, depending on your area of interest within technology, you can find more

research papers and try to discover how technology is impacting the environments of government and public organizations. So, with this, we are concluding the first important factor of technology in government organizations. I will continue with the other factors in the next session.