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**ITIL®4 Four Dimension Model of IT Service Management**

The organization’s focus is on accomplishing its objectives continuously. The environment where it exists brings in a lot of dynamics which are to be considered for the organization to become more effective. It has to achieve its desired outcomes and has to work as effectively as possible. The various aspects of service management and achievement of service objective will not happen in isolation. Its success is based on how each of these are working in unison.

**For example:** In incident management practices, the objective is to ensure the quick resolution of the incident and improve the availability of service. Here it involves identification of incident, logging an incident, resolving an incident. Assume the scenario of HR portal services. If the portal services performance degrades or the portal is not accessible by users, it can be termed as an incident. In this scenario, identification of incident happens through users using the services. User calls service desk to log incident and service desk executives logs the incident, coordinates and gets the resolution. While doing so, the service desk executive uses telephone (or physical or digital) & email for communication, a service desk tool for logging incident, an established process for incident management, tools for communication & reporting etc.

In the above example, the existence of multiple dynamics and dimensions is revealed to us. That is people, technology (tools), processes, Information etc.which are essential for success of an incident management. In a way, for doing anything, the involvement of multiple dimensions is to be considered.

ITIL®4 depicts the four-dimension model which comprises of;

* Organization & People
* Information & Technology
* Partners & Suppliers
* Value Streams & Processes

Figure 29:Four Dimension Model (copyright of AXELOS®, reproduced under the license from AXELOS® Limited)

The four dimensions relating to the example of HR Portal services would be:

|  |  |
| --- | --- |
| Organizations and people | HR Function, entire organization & employees |
| Information and technology | HR Portal, Services, Network (LAN / WAN) etc. |
| Partners and suppliers | IT Function (Internal), An external organization |
| Value streams and processes | supplying server / router etc. All the HR value stream activities mentioned above |

in section “service value chain”, processes like claim reimbursement, leave management etc.

The four dimensions are influenced by many factors which are beyond the control of Service value systems (SVS). That is, Political, Economic, Social, Technological, Legal and Environmental (PESTLE).

**The PESTLE factors for HR Portal example can be;**

|  |  |
| --- | --- |
| Political | He political scenario of the region where the organization is doing the business, influences the consideration to be made by organization. For ex: minimum wages act etc.- |
| Economical | The organization’s economic condition in terms of investment,revenue, costs,currency etc., which are essential for the organization to sustain and grow |
| Social | The social environment includes the belief system with certai value, norms & practices of that region and culture established in the organization. |
| Technological | Technical  environments are  those  in  which  organizations produce a product or service that is exchanged in a market such that they are rewarded for effective and efficient performance |
| Legal | The legal environment of business refers to taxation, regulation of commerce, regulation of competition, contract binding, legislation and labour regulation etc. |
| Environmental | The environment refers to the environment internal and external to the organization.  Internal refers to policy control,culture within the organization. Similarly, external environment refers to legal, social, climatic conditions of the location or region where the organization is operating |

**7.1 Organization and People**

The people and the structure of the organization mainly support the vision and direction of the organization. With the evolving environment, technology, capability of the individuals there is a lot of transformation in the structure, size and complexity of the organization.

Organization structure evolves to suit the evolving scenarios of the organization. The roles & responsibilities, the authority & accountabilities, collaboration and communication, technology enablement, processes, practices, policies all of these contribute to the evolution of the organization structure.

Modern organizations are more and more technologically enabled and require people with technological capabilities. However, aspects of their individual traits like ability to communicate, collaborate, manage etc.are also important factors to look into.

A structure which is established formally for an organization may not be able to provide the required effectiveness and efficiency. It needs continual transformation, with evolving culture with continued alignment to business objectives, continual grooming of skills and capabilities, people motivation etc.

Ultimately, the organization should evolve with established culture, enabling shared values, trust and transparency. We have to take into account the existence of people in the organization and people in its environment such as employees, employees of supplier or partner organization, sponsors who exist across the various levels established in the organization.

Every individual in the organization plays an important role in which each of them should have a clear understanding of their contribution to the organization, to consumers & customers and all the stakeholders.

In our example of HR portal, the service consumers are the employees of the organization, and HR is the organization owning the services and fulfilling the organization needs through establishment of effective HR Services. Also, consider investment for the HR portal services being done by the organization management. The value has to be realized by all of these stakeholders.

**7.2 Information and Technology**

Information refers to processed data with specific context. **For example**, the dump of incident for certain period (ex: a month) will be processed to form the information which will be interpreted to make sense of it, i.e. How many incidents logged, closed, pending etc. Information further leads to knowledge which is necessary for managing the services, and identifying the technology used to create and deliver the services. In relation to information consideration, organization should look at;

* the information which is processed & managed
* the information and knowledge required to deliver and support the services
* the details about the way, the information and knowledge are protected, managed, archived, and disposed of.

For a given IT service the information is created and managed. Further it is used during building, delivering and supporting (i.e. provisioning, consuming and measuring). The involvement of technology to process the data & information is crucial in modern organizational environment, to meet the drastic changing needs of consumers and customers. The involvement of technology results in increased efficiency and effectiveness of the organization.

The technology presence is seen in automation, trend analysis, process & workflow management, knowledge management, establishing the communication management systems, collaboration of people geographically dispersed.

In the modern technology environment more & more emphasis is laid on micro services, cloud computing, artificial intelligence, IOT, mobile apps, cognitive technologies, machine learning, deep learning, what not...! Trends change very quickly and organizations have to realize and adapt to these scenarios.

Information management is the primary consideration for enabling value to the customers, and hence consideration of right information is very crucial. **For example**, the information consideration like employees’ details, their employment status, salary, position etc., would be the primary information consideration while providing HR services. Further this information has to be protected from unauthorized access, while also making it available for authorized access as and when needed.

In the modern business environment, the existence of IT is a default and finding a business organization with no such enablement is non-existent, which means there is high dependency on IT. Technology considerations are made throughout the value stream right from the conceptualization, planning, designing, transitioning, and operation of service or product.

However, it is essential to consider the right technology components which are compatible with current technology environments, comply with regulatory/compliance needs, establishing information security needs, scalability, automation, enabling communication and collaboration etc.

Culture of the organization towards embracing the technology plays a very important role. People’s ability & skills to handle technology and its dynamics by acquiring the right skills through self-grooming on continual basis is very essential.

**7.3 Partners & Suppliers**

The importance of engaging with partners and suppliers to ensure the success of service management and its dynamics are deliberated in the partner & suppliers dimension of ITIL®4. It is evident through the service relationship model depicted earlier.

The partners and suppliers would be involved across the entire value stream i.e., for designing developing, delivering, supporting and improving the product or services continually. The relationship established by an organization with the partner & supplier would be to get the specific service or product which would complement the service objective and value creation to the customer of the organization.

This requires establishment of a contract depicting the responsibilities of the supplier or partner, delineation of duties involved, organization and their deliverables.

Some examples of relationships between organizations are shown in Table 3.1. It also incorporates contracts and other agreements between the organization and its partners or suppliers. (Ref: ITIL® book for AXELOS)

| **Form of co-operation** | **Outputs** | **Responsibility for the outputs** | **Responsibility for achievement of the outcomes** | **Levels of formality** | **Examples** |
| --- | --- | --- | --- | --- | --- |
| Goods supply | Goods Delivered | Supplier | Customer | Formal supply contract/invoices | Procurement of computers and phones |
| Service Delivery | Services delivered | Provider | Customer ++ | Formal agreements and flexible cases | Cloud computing (infrastructure of platform as a service) |
| Service Partnership | Value Co-created | Shared between provider And customer | Shared between provider And customer | Shared goals,generic agreements,flexible case based arrangements | Employee onboarding (shared between HR facilities and IT) |

Service Integration and management is one of the methods the organizations can use to address the partners and supplier dimension, which involves the establishment of an integrator who would establish the service relationships for effective communication and collaboration.

The effectiveness of an organization depends on the competencies demonstrated. To ensure better efficiency and effectiveness, organizations would focus on their core competencies and on board a partner or supplier to provide the product/services/resources to complement the ultimate objective, which would be beneficial instead of doing it on their own. The various factors influencing this decision would be strategic, culture, resource availability, capability, constraints (both internal and external), cost, demand for service etc.

The consideration of involving the right partner & suppliers are to be made with due care. The culture, the ability of the partner/supplier to understand the service dynamics and aligning to it is very critical to have a successful partnership with mutual benefit.

**7.4 Value Streams and Processes**

Value streams and processes focus mainly on those areas which ensure integration and coordination of various actions and parts which contribute towards better value creation for the organization. This dimension is more concerned about the way the organization has organized the activities or processes and how it enables and ensures the value creation across all stakeholders.

The value stream is defined as, “A value stream is a series of steps that an organization uses to create and deliver products and services to a service consumer. A value stream is a combination of the organization’s value chain activities”.

An organization should structure its product or services, keeping the value stream in mind. One should have a clear picture of what is delivered, how it is delivered, and how to improve those on a continual basis. This requires identification and understanding of the value stream & having the overall picture. Further organization should continually assess and understand the as-is state of the organization scenarios, constraints, the contributors to waste etc. It may involve people, processes, products, partners/suppliers, information etc.

In addition to this, it is important to understand how modern technology can be involved in order to improve the efficiency and effectiveness of the organization and enhance the user experience.

Figure 30: Value stream – flow from process to process

By definition, “A set of interrelated or interacting activities that transform inputs into outputs”. A process takes one or more defined inputs and turns them into defined outputs. Processes define the sequence of actions and their dependencies”.

***Figure 31: Process model***

Processes articulate what has to be done to accomplish an objective. A well-defined process will ensure the improvement of the productivity within and across the organization. A process comprises of well-defined, procedures, activities, work-instructions, templates, roles & responsibilities.

A well-defined process, needs a specific input and delivers specific output. Every process needs a trigger to start. Process enablers are the resources with capabilities which are required to do the activity of processes. The output of the processes is measured with specific metrics. This needs establishment of critical success factors and key performance indicators.

The feedback taken from the output of the process helps in further analysing the process performance. Process control plays a vital role in ensuring the process performance, compliance and improvement. The process control is accomplished through process owner, audit, documentation etc.

**Summary:**

To summarize, in this module we looked at four dimensions of service management, their relationship with each other. These four dimensions provides the bigger picture (holistic view) of the services and organization has to ensure balancing between these dimensions along with the six influencing factors (i.e. PESTLE). The four dimensions are;

* Organization & People
* Information & Technology
* Partners & Suppliers
* Value Streams & Processes