Allo SBT | **The About Series**

About Business Process Strategy (Series I of III): [Business Process Analysis (BPA)]

A business process is any broad collection of activities within a company that is involved in the ultimate goal of developing a product or service for the customer. Business processes are typically evaluated from the customer's viewpoint. Ensuring a smoothly running business process is critical in maximising the added value being provided to the company customers. Managing the key processes efficiently is critical to the success of the company. However, managing the processes is harder than it may seem at first - mostly because these processes don't stand alone, but interact with one another.
There are many types of business processes such as key processes, support processes and sub-processes. Typical business processes include:
Procurement: Securing the materials and equipment necessary to produce your goods or services.
Product development: Planning new goods or services for your customers or refining existing products.
Production: Creating these goods or services.
Order delivery: Receiving orders from customers and ensuring that those orders are fulfilled.
Distribution: Ensuring smooth distribution of goods to customers.
Customer support: Providing assistance to customers after they've bought your product or service.
To ensure continuous, successful process development and improvement, there is a need to consider the following important key issues.
Targets should be clear and measurable.
The need to ensure strong commitment from both management and personnel is essential. Personnel are a valuable source of information; therefore, their involvement in the business process will greatly assist in creating the commitment and ensuring the acceptance of the proposed changes.
Communication is what helps to create involvement, commitment and target setting.
Business Process Strategy is made up of three components: Business Process Analysis (BPA), Business Process Reengineering (BPR) and Business Process Management (BPM).
A Business Process Analysis (BPA) is the first step of a project life cycle that includes reviewing and developing baselines for the current environment and identifying the high-level business processes and requirements to be addressed. It also includes assessing organisation and network readiness, identifying current business processes, assessing the module, and confirming the scope of the project.

It is a set of models and techniques used to analyse business processes in terms of: flow activities, task content, resources employed and performance indicators (efficiency, time, cost, quality).

Efficient operational processes and effective underlying information technology is crucial to provide increased levels of customer service, to reduce operational costs and be able to respond to changes in the marketplace. Business Process Analysis provides insight into process effectiveness and efficiency as well as the adequacy of controls. BPA supports future process improvement planning and is a solid basis for on-going business process management.

Generally, an operation is composed of processes designed to add value by transforming inputs into useful outputs. By inputs, I mean material, labour, capital, energy, and other relevant human and natural resources. Outputs can be a physical product (possibly used as an input to another process), or a service. Processes can have a significant impact on the performance of a business, and process improvement can improve a firm's competitiveness.

The first step to improving a process is to analyse it in order to understand the activities, their relationships, and the values of relevant metrics. BPA generally can be carried out in the following stages:

(1) Define the process boundaries. This involves taking note of the entry points of the process inputs and the exit points of the process outputs.

(2) Construct a process flow diagram. This will help to illustrate the various process activities in the business process, and their interrelationships.

(3) Determine the capacity of each step in the process. This makes it possible to analyse what each stage of the process can accommodate and enable you structure the process flow accordingly. It also makes it possible to calculate any other measure of interest to the management process.

(4) Identify the bottleneck in the process flow. That is the step which has the smallest capacity in the flow. This will enable you look for ways to either expand that step to accommodate more, or adjust the previous steps so that they absorb most of the activities before getting to the bottleneck. By so doing, the bottleneck will be able to accommodate the flow when it gets to its stage of the process.

(5) Evaluate other limitations. This makes it possible for you to further evaluate other limitations in the process analysis so that you are able to quantify the impact the bottleneck and other limitations will have on the rest of the business process.

(6) Make use of the analysis to make operating decisions and improvements on the rest of the business process.

It is important for management not only to focus on BPA, but also the process performance and measures that have been put in place. More importantly is the need to look at aspects such as cost, quality, flexibility and speed. Process performance measures that deal with these aspects are therefore summarised below.

Process Capacity: The capacity of a process is the maximum output rate, measured in units produced per unit of time.

Capacity Utilisation: This is the percentage of the process that is actually being used.

Flow Rate: This is the average rate at which units flow past a specific point in the process. The maximum flow rate is the process capacity.

Flow Time: This is the average time a unit requires to flow through the process from the entry point to the exit point. Flow time includes the processing time and the time the unit takes between each step.

Process Time: This is the average time a unit is worked on. It is the flow time less idle time.

Idle Time: This is the time when no activity is being performed in the process. Example is when an activity is waiting for work to arrive from the previous activity. This is could be machine idle time, or worker idle time.

Work in progress: This is the amount of inventory in the process.

Set up Time: This is the time it takes to prepare the equipment to perform an activity on a batch of units. Set up time doesn't depend on the batch size, and can therefore be reduced on a per unit basis, by increasing the batch size.

Direct labour Usage: This is the amount of direct labour (per unit time) used in the production process. This excludes idle time when workers are not working directly on the project or product; and time spent maintaining machines, transporting materials etc.

Direct Labour Utilisation: This is the amount or part of labour that actually is utilised as direct labour.

Cycle Time: This is the time between successive units, as they are output from the process. It is the time required for a task to repeat itself. The cycle time for the process is equal to the longest task cycle time. The process can be said to be in balance if the cycle time for each activity in the process is equal.

The need for BPA is heightened by continuous changes in the business environment and the need for businesses to be able to respond to these changes in the shortest possible period of time, in order to remain competitive. This can be looked at in three folds:

(1) The need for old systems and business processes to be updated. This is necessary because as business processes evolve, the systems used to achieve these processes also need to evolve. This is to eliminate costly and inefficient business processes, avoid duplication of processes, minimise the rate of errors occurring and eliminate complication and in so doing, ease the process flow of information.

(2) The need for adequate planning of business processes. It is important for management to fully understand how existing business processes operate before either upgrading systems or replacing IT systems for example. Prior to taking any such action, a full assessment of the existing process needs to be carried out to avoid repetition of many of the already existing or historical problems within the particular business process. This also serves to ensure that the entire business process implementation, and subsequently the management process, is a success.

(3) The need to integrate all business processes. It is of paramount importance that a business integrates all its business processes. However, an analysis of each individual process is necessary prior to integrating the entire business process. This will prevent process duplication and help to minimise data inconsistencies. Furthermore, it will ensure that potential consequences such as a business environment which is poorly controlled, expensive to manage, difficult to understand and prone to producing unreliable information is brought to a minimum level if not completely eliminated.

The aim of BPA is to understand how the processes of a business function and interact. It further helps to understand the organisation and its purpose or mission and relate this to the organisation's business processes. It also helps to identify and analyse the collection of processes and activities currently operational within the organisation, and ascertain how far they achieve the business's objectives.

The results of the analysis phase are then fed into the design phase. It is therefore important to determine early in the project, what type of analysis needs to be adopted in the whole process. That is, whether it is strategic (that is top down strategy), or tactical (that is bottom up).

A strategic analysis is one that deals with perspective on a higher level, (that is managers), and seeks to understand the processes that make up the business and delivers its value. A tactical perspective on the other hand, is one that deals with lower levels in the business (that is practitioners), and seeks to understand the activities that support processes. It is driven by the task requirements for operational efficiency.

In some instances, the work teams of specific projects will take time to analyse existing processes, whilst in others, they will spend most time designing improved ones, according to the nature and perspective of the project.

Most businesses are currently faced with the challenge of a very dynamic economy, where keeping ahead of the competition requires more than a sound business plan, but also a responsive enterprise.

To achieve fluidity of business operations, the first step to take is to analyse business processes and map them. The business map looks at the process, systems and people that are involved in accomplishing one or more tasks and the relationship of those processes to the entire business operation and the process flow.

BPA and mapping provides more to a business than just reengineering. It can form the basis of enterprise transformation, integration within and across enterprises as the basis of e-commerce and organisational performance. A key result of process analysis and redesign is achieving a lean and more flexible enterprise, one that is less expensive and easier to restructure than the existing one.