

The context

The business process concept finds itself at the point where several current trends converge: BPR, ISO 9000 certification, large projects (CRM, SCM, e-business...), technologies (workflow, EAI...), and the contributions of human sciences (organization theory, new models, “horizontal organization”, “extended enterprise”...).

Many enterprises have begun the task of representing their processes and overhauling them. Indeed, a lot is expected from these efforts in order to make organizations more efficient and successful. However, through lack of fundamental consideration, many of these efforts do not yield the expected results. There is often a great deal of effort leading to nothing much and the improvements remain marginal.

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The six fallacies

Practices surrounding business process design are marred by six errors:

1. The boundaries between the business process chunks are not the most meaningful.
2. New business processes continue with most of the existing enterprise practices.
3. Activity analysis remains local, restricted to one point of view or interests of one job or type of actor.
4. Business process design remains based on an approach by function. This functionalist approach is not sufficient to bring out avenues for innovation.
5. The harm done by this functionalist approach is compounded by the formal constraints that the designers place on themselves.
6. As a result of the previous shortcomings, the design takes insufficient account of the disruptions, of “real life”, and produces relatively linear and rigid business processes.

The following paragraphs describe these shortcomings.

Business process breakdown

The first decision to make in large projects or programs concerns the breakdown and distribution of work. The project organization models itself on the breakdown of the domain studied. What seems to be the simplest is identifying the processes and then allocating them to work groups. This first act may seem innocent; however, it leads to serious consequences for the rest of the project and, beyond that, for the life of the enterprise.

Indeed, if we are not careful, we only identify the “intra-functional” processes, those that spring to mind spontaneously. Thus the work groups bring together homogeneous populations: accountants speak to accountants, sales representatives to their peers, etc. Work on these processes is certainly not without its use. However, it is not where the critical business processes are. By proceeding in this way, we simplify the project management but we lack, from the outset, the most radical contribution from the business processes: the coordination of diverse competences.

An enterprise is a place where different types of expertise coexist. The organization restricts them to structures that facilitate their management. However, set against the aims of the enterprise, the problem is rather to organize how these competences cooperate. A business process is precisely the tool which must enable us to pass through the enterprise compartmentalization, shaking up the fortresses in order to propose a new order, more dynamic, more collaborative, more focused on the essentials.

We therefore have to give priority to the “inter-functional” processes. These are few in number. Let’s say five or six, at most, to cover the daily life of the enterprise. Each one identifies itself with one of the aims of the enterprise.

Continuing existing practices

Often, the design fails to innovate because it does not distance itself sufficiently from the existing. Of course, we will suggest ways of simplifying things; we will remedy several redundancies... but improvements will remain marginal. The reasons for this are as follows:

- The first mistake (on the breakdown of business processes) reduced the scope of the analysis.
- We limit ourselves to thinking within the existing framework of the organization, without considering other meaningful changes.
- The consultation with the populations concerned wins out over the design effort. It would be misguided of us to hope for something other than the description of existing practices and the expression of local needs from the core actors. All too often, the project schedule omits time for creativity and wider reflection.

Inward focus

Compounded by the first mistake, another unfortunate tendency consists, in fact, in only seeing things from the narrow point of view of one job or type of actor or, at best, of the enterprise focused inwardly. From there, we lack the major effect of the business process approach: openness. Here, the strategic thinking – in its broadest sense – must precede any redesign of the business processes; it must express the aims and give fresh impetus to get the movement under way.

The functionalist approach

In the absence of any questioning of the method, our designers apply, against their will, the approach which is imbued with their culture and training. This culture can be characterized as “functionalist”. It leads them to reduce the business processes and systems in terms of functions. This approach consists in starting from the activity (a business process is a macro-activity) and breaking it down in a hierarchical manner. Its application over decades has shown its limits, both for the organization and the IT architecture: high rate of redundancy, rigidity of the structure, and linearity of execution.

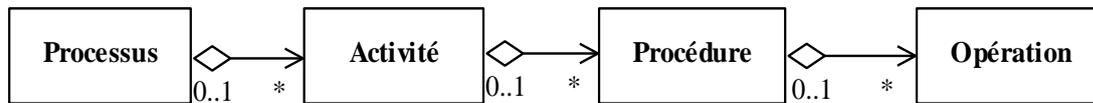
The artificial constraints

In the classic approach, the methods of representing business processes impose a number of decomposition levels. This limitation has been decided upon, so it would seem, without there being any benefit, other than to reassure modelers. In real life, there is no such limitation.

The diagram below gives an example of a metamodel that reveals this tendency. Of course, we can impose semantics on these terms, which will allow us to dissociate them. The fact remains that, at first glance, it is an arbitrary constraint that obliges us to twist our representation of reality and which, in addition, spoils the communication with the users.

This constraint hampers our practices: once an action has been identified, the modeler has to decide in which category it should be placed. If, at a later date, the modeler realizes that the action can be decomposed or, on the contrary, compressed, it has to be moved to another category. This leads to extra manipulations and diverts our attention to questions of form.

Figure 1. Example of a metamodel in a classic approach to business processes



Procedural idealism Finally, if he or she does not take care, the modeler has a natural tendency to neglect the disruptions that are certainly not lacking in reality. Business process models do not sufficiently take these variations and disruptions into account. This intrinsic idealism is compounded by the functionalist approach, as the hierarchical and top-down decomposition is better suited to linear processes. Thus we obtain rigid business processes that the reality has to bend itself to with all its might. It is the procedural mistake that we unfortunately see at work in many domains.

An alternative approach to business processes

Is there an alternative? Can we imagine another way of designing business processes, avoiding these six fallacies?

The principle A new approach consists in abandoning the primacy given to the action. It draws its inspiration from the object-oriented approach, which it applies to organizations.

If the first act is not to break down the activity, what do we work on? Simply: the object. This is where the change lies.

The following paragraphs will attempt to give a more precise idea of this method.

The approach The approach to designing business processes has four stages (it is strictly a design approach; we do not concern ourselves here with the analysis of existing business processes):

1. Locate the main object at the heart of the business process.
2. Establish the life cycle of this object: fix the states of the object and link them using lawful transitions.
3. Deduce the activities: they emerge as the means of carrying out the previously identified transitions.
4. Distribute the activities on the actors.

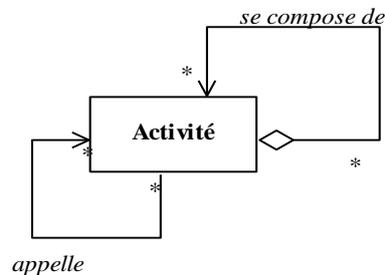
The advantages This method is based on a reversal of the business process approach: beginning with the object, at the stable heart of the business, it pushes the consideration of the actor to the end of the process. In so doing, it leaves more freedom for the organization choices. It encourages us to free ourselves of what currently exists or, at least, to concentrate on the essentials.

Moreover, among its advantages we can mention:

- The readability of the business process: it is understood and formally expressed as that which produces or transforms an object (that is to say leads it until a specific state).
- Disruptions are taken into account: they are anticipated thanks to the representation of the object life cycle.
- With the activities only appearing at the third stage, there are no more boundary problems: they are limited and defined by the state before and the state after them.

- The study of the actors takes place only at the end. This leaves maximum freedom to redefine the roles and, potentially, to redesign the organization.

Figure 2. An embryonic metamodel of the object-oriented approach to business processes



Further information

The UML notation provides us with a good tool to cover the representation needs of this method.

Stage	UML diagram	Use
1. Locating the object	Class diagram, object diagram	Specify the semantics by structuring the model (fix the vocabulary, use genericity, reconcile points of view)
2. Establishing the object's life cycle	State diagram	Express the states that mark out the existence of the object; accommodate transformations, disruptions, requests, hazards...
3. Deducing the activities	Ditto + activity diagram	Indicate how the transitions are carried out
4. Distributing the activities	Activity diagram (with swimlanes)	Allocate the activities to types of actors

BPMN (Business Process Model and Notation) is a standard notation, specialized in business process representation. It encourages the design of robust business processes, that is to say business processes that take disruptions into account. Nevertheless, it suffers from limitations the moment it involves objects, manipulated by the business processes. As a result, the most effective solution at the moment is to combine both the UML and BPMN notations.

Conclusion

The limits to the classic approach to business processes come to light each day, on projects of business process redesign, and they have an economic impact on the running of these projects. Worse, they temper the notion of business processes as a tool for reforming organizations. Consequently, the results remain restricted to marginal improvements and under-exploit the organizational, human and technological possibilities.

In view of the investments on business processes and the stakes for the enterprises, it is a matter of priority to finalize a rigorous method, which will guarantee innovation or, at least, help us to think differently and not only in comparison with existing practices.

Recommendations

- In an initial stage of the project, create work groups by bringing together actors who share the same job. This helps with the groundwork of the subject.
- Whatever you do, do not limit yourself to the initial approach, as it obliges you to continue with the practices in intra-functional business processes.
- In a second stage, bring together actors from different functions to design business processes that pass through the compartmentalization of the organization.
- Decide on a representation standard from the beginning of the project and train the modelers.
- Make a distinction, in the organization of the groups as in the documentation, between the description of existing practices and the proposals for improvement. If need be, draw up several models.
- Argue the design choices and link them to strategic intentions.



Praxademia contributed this text to the initiative for an open method. It is incorporated in the guide “Pragmatic aspect approach” and the related procedures.

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