

4. The 10-Point Plan to Optimize Office and Service Processes

When you have evaluated and interpreted your analysis results, you and all those involved know the basic problems of the process. In the next step the aim is to develop concrete optimization methods and measures. The initial focus is to optimize the individual business processes before using them as a basis for concentrating on the organizational and structural design of the Lean Administration system (see Sections 6-9).

While deriving improvement methods and measures is a creative process, it should not be regarded as an uncoordinated gathering of ideas with no precise direction. Experience has shown that this soon leads to a situation where after the initial enthusiasm employees quickly lose their motivation because they have the impression that no specific result will ever be achieved.

The following 10-point plan gives you a guideline to systematically develop solution approaches to optimize your business processes. The 10-point plan takes you through the important fields where potentials are generally hidden step by step and proposes improvement measures. Which of the proposed approaches or which combination you actually use later in your business processes depends on the results of the respective analyses and on the alignment of your entire system and the associated direction.

Practical tip

Keep an eye on the overall system

Detach yourself from the individual process and ask yourself what the complete value stream of a product group looks like. In this way you can align the function of the individual value stream to the requirements of the entire system. It is also beneficial if management is involved in the project and in the methodology and is able to get a picture of the overall connections of this company-specific value stream and its characteristics.

4.1 Create values without waste

Many optimization approaches ask right from the outset and exclusively *how* individual steps or (sub-) processes can be simplified or speeded up (for example through better database applications or by introducing a workflow system) – without questioning the tasks or the (sub-) processes as such. Often, this leads to a situation where attempts are made to structure ineffective processes more efficiently. To avoid such a development, Lean Administration first questions the effectiveness: “Do the right things before we do things properly” is the motto.

In the first place, the internal customer or service recipient decides what is “right” or “wrong”. What they believe contributes value to the service they require is value adding and is thus effective. Everything else should at least be examined critically. The customer pays only for features that add value. For example, customers are not particularly interested in an excellent controlling system. They will gladly pay for the services they want, but they are not prepared to pay for internal, non-value-adding processes and workflows that have no value for them.

Hence, Lean Administration distinguishes between value adding and non-value adding (but necessary, at present unavoidable) activities and non-value-adding activities that are waste and should be avoided (see figure on p. 57).

Consequently, at the start of all optimization considerations the activities in a process must be categorized accordingly. Make this categorization with every-

one who is concerned in a workshop and answer the respective questions together: What does the customer expect from us? Which of our activities that we mapped in swim lane process mapping makes a contribution towards fulfilling this customer requirement? And which activities – quite honestly – are waste?

4.2 Reduce and define interfaces

Surely you know the “Chinese Whispers” phenomenon? As a rule, information changes when it is passed on; seldom is it closer to the truth, more detailed or clearer. The fact that information changes when it is passed is not necessarily due to negligence or bad will on the part of the employees – perhaps they purely and simply misheard or – consciously or unconsciously – picked out the bits they wanted to hear from the large amount of information.

Error sources such as this are especially prevalent at interfaces between two functions or between two co-workers who handle a process after each other (see figure on p. 59). In addition, there are often transition times here because the process cannot be dealt with immediately, but has to be put on hold until the co-worker finds time.

To avoid these effects, interfaces in a process should be avoided where possible. To do this, tasks are aggregated and shifted.

From a process aspect decide how reorganizing tasks could be implemented practically and review your considerations with the help of the ASA results in order to avoid creating a bottleneck at a different point.

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Nevertheless, certain interfaces are sure to remain which cannot be eliminated or reduced on a case-by-case basis. For these: they must be clearly defined with an interface description. Interface descriptions define who delivers what to whom, in which quality, at what time, in which quantity, with which details and on which medium.

4.3 Minimize queries and rework

Queries and rework loops (see p. 61) are an expression of quality defects and instabilities in the process; missing, incomplete or incorrect information can be compared with wrong or scrap parts in production processes.

However, what is now carefully observed in production plants and measured in parts per million (ppm) seems to be regarded as matter of course in some offices. Time and time again in our projects we come across “firemen” in pin-stripe suits – in other words, employees who spend most of their working day managing crises and chasing from one meeting to the next.

Hence, an important starting point on the road to stable, waste-free processes is to eliminate these quality defects. The first step is to find the causes of the identified queries and rework loops, as this is the only way to develop effective

and sustainable solutions. The time that you now spend on queries and reworking can be converted almost completely into working time if you eliminate the causes of these quality defects in the long term.

Experience has shown us that queries and quality problems can generally be attributed to five main causes:

1. A lack of information

While on the one hand, we receive a lot of information every day that we do not need, on the other hand, we are (apparently) constantly searching for information that we lack. The missing “match” between the provision of information and information requirements or the lack of what we know in production as “just-in-time delivery” of information is a major problem in many service delivery processes in indirect functions.

To resolve this problem it is important to know who needs what information in which quality and containing which details. On this basis it is possible to develop measures to prevent these information gaps in future. In many cases these measures are relatively easy to imple-

ment, such as adapting the report functions of the IT system, changing authorizations, organizational adjustments, targeted organization of the information channels, clear agreements on deadlines for processing and forwarding information and the locations at which information is stored.

2. Unclear, unspecific information

Information may not only be completely missing, the quality of the information that is available may be inadequate. Often employees work with unclear, inadequately specified information – whether this is due to ignorance, a lack of transparency or because there are no alternatives – for example, missing customer data. The consequence of this is obvious:

Queries or rework loops are necessary, because the result does not meet the customer's requirements or because, as the information becomes more specific, the previous work results have to be adapted. In many cases the "reason" for this type of action is said to be the fact that information is specified so late in the process that it is not possible to postpone starting work until all the information is available if the service is to be completed on time.

The solution is: set milestones and define the level of specification/clarification. Consider when certain information is really needed in the process and with which level of detail. It is not always necessary to have all the information and all the details at the start of a process for you to start working. But everyone concerned must be aware when the complete information has to be available so that work can continue – and this must be anchored in the process. This is the only way in which the previous, rather unplanned processes, which arose from necessity, can be converted into a planned processing strategy.

3. Unclear distribution of competencies and tasks

Who actually does what? Who delivers what to whom? And when? ... seemingly fundamental questions in an organization, which are, in many cases, not adequately clarified. This either leads to work being carried out twice (surplus production) or – according to the motto “Someone will have done that” – not being performed at all. The usual consequence of this unclear distribution of competencies and tasks is queries and/or rework loops in the process.

To prevent this – on the basis of the analysis results – clear tasks and competencies should be allocated and backed up with clearly understandable regulations. Important is that everyone concerned knows who has to do what in order to resolve the problem of unclear responsibilities.

4. Constant change in the process

Admittedly, these days flexibility is a decisive competitive advantage and your processes should be structured so that you can respond to changes relatively quickly. But: Changes in the process – especially if they are extensive and the promised date of delivery is fast approaching – incur costs, tie up capacities and, in many cases, are also the trigger for hasty “rush jobs”. Often subsequent changes – whether initiated internally or triggered by the customer – cause a situation where a major part of the work that has been carried out to date is useless. Pure waste! Consequently, within the scope of process optimization the aim is to self-critically examine whether all the changes are really necessary. This applies especially to changes that are initiated internally, because, for example, one of the people who are involved suddenly changes his mind or because you want to do something special to really satisfy the customer. Within the scope of optimization such flexibility has to be weighed up against the costs and benefits. Remember: Your customers do not perceive or pay for every change. Often the situation is more difficult with external changes that are

initiated by the customer. But here, too. Ask critically whether and under which conditions you have to accept these changes. Rework loops are particularly problematic, time-consuming and expensive if you “jump too far backwards”, in other words, if you throw out a large part of your previous work.

Often it helps to agree to so-called “freezes” in which you coordinate the result to that stage with the customer and fix this status. Possible changes on the part of the customer are considered only to the last jointly agreed “freeze” – for all changes in excess of this, arrangements regarding deadlines, additional costs, etc., have to be made.

If you cannot get your customer to agree to such “freezes”, it is still advisable to define milestones internally. This gives your sales department or customer support officers the opportunity to negotiate in a targeted manner and from a sound basis and also sensitizes the adjoining areas for the effects of possible changes in the process.

But if you cannot completely exclude rework loops (because your customers generally make a lot of changes), at least ensure that these do not become the rule and that the process is stabilized so far that changes cannot “randomly” jump back to any point in the process.

For example, it can be helpful to revise the terms and conditions of your contract with the customer in regard to the arrangements for changes contained in the contract or to request process-critical data from your customer at an early stage to put the process on a more stable basis right from the outset.

5. Lack of coordination

It is especially the case with interlinking processes that when the results from different areas are all put together there is often a big bang: the results just do not seem to fit together.

Hence, coordination of the interlinking areas – especially in very complex and time-consuming workflows – is vital to avoid rework loops. At defined milestones the results from the different areas must be coordinated with each other in terms of the quality of the performance to date and the faithfulness to deadlines. Here, too: The longer you wait with this coordination, the more limited your leeway will be because of the defined time schedule.

This coordination work is extremely important in processes that have a “project character” and which are not one of the typical “routine workflows” in your company.

4.4 Eliminate bottlenecks

You find them in virtually every company: the staff who want to (can) finish on time and the so-called “night workers” who (have to) remain in the office until late in the evening. Why is this so? Is the one employee simply too slow, while the other is committed and motivated enough to carry on working late in the evening? It’s possible! But much more likely is that the work is not distributed evenly among the staff and that bottlenecks occur in the workflow. Bottlenecks hinder a “flowing” process and are thus the “eye of the needle” in the process.

1. Identifying bottlenecks

Within the framework of your analyses you can use many different sources of information to identify bottlenecks in individual workflows. The value stream analysis and the activity structure analysis are the two most important tools.

The **value stream analysis** provides you with information about the ratio of process and transition times and identifies fields of action (“process bursts”). For example, you can see at which points in the process the transition times are much longer than the actual process time, at which points in the workflow the required quantity cannot be delivered and where the critical path is. If necessary, the findings from the VSA can be verified with overtime evaluations, status tracking in the system, work backlogs, etc., or via the ASA.

The **activity structure analysis** gives you valuable information about which activities of individual functions are waste and “time consumers” and could be done away with in future (e.g. redundant work, reading e-mails that are not needed, answering inquiries that are not within the employee’s area of responsibility, etc.).

In addition, with the ASA you get an overview of the work and capacity distribution between the participating functions. Which tasks could be shifted to a different area? At what points could employees provide functional assistance?

With the help of the ASA you relieve bottlenecks in two ways:

- a. On the one hand, you reconsider the activities of one functional area as such and create relief by identifying one or more activities as non-value adding and finding ways to do without them. In other words, you create free capacities on a functional level – free capacities that can relieve the bottleneck directly or indirectly.

- b. At the same time, you get an idea which of the participating functions performs certain tasks and thus gain knowledge of how tasks could be shifted practically – and what the existing capacities are expected to do.

The ASA is thus the main tool to identify bottlenecks; it is only with the ASA that you can identify whether the particular function is at all able to maintain the specified takt for the process. If functional areas are overburdened (from a timely aspect), this creates bottlenecks – in all the business processes in which they are involved.

2. Causes of bottlenecks

To eliminate the identified bottlenecks in the long term, in the next step you have to identify the actual reason for the bottlenecks. Bottlenecks in indirect areas of the company can be of a **timely, organizational or functional** nature.

Timely bottlenecks occur when an employee's specified work volume is too large for him to manage it in the working time that is available. This happens often during vacation time, when employees are absent for long periods due to illness, when vacant positions have to be filled or when jobs are to be axed. Individual employees are (temporarily) overburdened.

Organizational bottlenecks arise when individual process steps are associated with long waiting and idle times and where this cannot be attributed to the fact that any single employee is overburdened. The approval from a superior can quickly become a bottleneck if he is out of the office frequently and it is difficult to get a hold of him. In this case the bottleneck is not due to the timely overburdening of the superior, but to his absence (or the absence of a deputy regulation with signing authority).

Functional bottlenecks arise when employees have to perform work for which they are not functionally qualified, which causes delays in the workflow. For example, under certain circumstances a commercial employee may need longer to clarify questions with the customer than his colleague from technology, who deals with the product every day.

3. Relieving bottlenecks

Knowing why bottlenecks arise is extremely important if the correct measures to eliminate the bottleneck in the long term are to be initiated. It is important

that you look at the big picture to ensure that the bottlenecks do not migrate to other areas or processes without you noticing.

Depending on what triggers the bottleneck in the process you can consider different ways to relieve it, such as:

- (Temporary) support from additional staff, which is especially possible to process a large backlog of work in the short term (for example, in case of large seasonal fluctuations or if deadlines have to be met).
- Organizational rules, such as establishing a consistent deputy rule or extending the competencies of individual employees. It is important to generate solutions which can be implemented and which are understood, accepted and experienced by those concerned. This is the only way in which solutions can be anchored sustainably.
- Training employees to close functional gaps and, in this way, not only speed up processing, but also motivate the employees.
- Shifting tasks to balance out functional or timely bottlenecks. If tasks are shifted, this creates noticeable and sustainable effects. Consequently, this is a long-term effective measure.
- Relieving employees from organizational duties such as meetings, discussion rounds, etc. The ASA will provide you with sufficient starting points for this approach.

4.5 Shorten approval loops

In addition to the timely bottlenecks, approval and release loops are increasingly becoming the number one bottleneck in administrative service delivery processes. If, for example, a superior's business trips are not supported with suitable deputizing regulations while he is away, even "routine tasks" can lie around for weeks on end.

Naturally, there are reasons for these approval loops, such as the principle of dual control or anti-corruption measures. But in many cases the processes for approval and release are historical or are wanted in terms of the corporate policy. But it is particularly these justified approval loops that should be examined critically within the scope of process optimization, since they have a direct effect on the throughput time of a business process:

- On the one hand, they act like “upward delegation” and often create bottlenecks on a management or executive level.
- On the other hand, unjustified, long approval loops can have a demotivating effect on staff. Their personal interest and commitment for a satisfactory overall result decreases – especially if an approval loop frequently results in changes. Usually this is expressed in rework loops and queries, which can have a major effect on the throughput time of a process.

4.6 Define information requirements

In many companies or business units information is not provided in a needs-related manner. Sorting out important from unimportant information and searching for required information is a major impacting factor and a big time consumer in indirect and administrative service delivery processes. Every day surplus production of information and information gaps cost companies time and capacities that are often urgently needed in other places.

With the help of the value stream analysis (see below) and the information structure analysis you can gain important knowledge about where information requirements and information gaps exist and what information is created each day that no one really needs.

To cover the defined information requirements and to ensure that the quality of information supply increases, you can use various tools, such as:

- Checklists for systematic data recording and forwarding;
 - Standardized form designs to increase the transparency of forwarding information and to make it easier to check whether all the required information is actually available;
 - Electronic plausibility checks that make a preliminary selection and carry out quality control: If the required fields which you define are not completed, the electronic order cannot be placed;
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- Specifying interfaces: Who delivers what to whom, by when, in what quality, on which medium, in what scope and with what degree of detail;
 - Definition of milestones in the process with underlying clarification/detail/specification levels.

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A very important part of the process is often overlooked:

The quality of the input information that triggers a process and on which the process develops determines to a great extent the stability of the downstream workflow and the quality of the result. Especially in administrative or indirect service delivery areas it can be seen time and time again that processes are based on faulty or incomplete data: Whether it is a missing written purchase order from the customer – which, although it is required you do not want to annoy the customer by asking for it – or more product specifications from Engineering – which are actually very important for choosing the right tools, but unfortunately you cannot wait any longer.

In most cases, neglecting to insist on adequate initial information is based on a pronounced willingness to provide a service – but this should not stop you considering the consequences: Under certain circumstances incomplete or incorrect initial information puts the process on a very unstable basis right from the outset. Quite often it is particularly this problem that snakes its way through the entire process, with the result that many queries are required and that the rework loop becomes seemingly endless.

But what can be done? Once more the previously mentioned milestones and levels of clarification and/or detail are useful: Define when you need certain information and the level of detail that it must have and, especially in cost-intensive processes or where subsequent steps are difficult to reverse, wait until you actually have the information you need before proceeding. For instance, the product has to be adequately specified before you can choose the required tools and place an order with an external tool supplier. If you want to speed up the process and go ahead with ordering the service provider, you risk losing investments.

The customer's requirements must also be suitably clear before you can reasonably be expected to prepare a quote. If your colleague in Sales has forgotten

to obtain the necessary information, he has to get a hold of this information before you prepare or finalize the quote.

It is not necessarily important that you have all the data that you need for the entire process right from the start before you begin processing. Rather, the idea is that you know exactly when you need certain information and what levels of quality and detail this information must have for you to continue with the process.

4.7 Identify neuralgic points in the workflow

Many business processes have one or more “neuralgic points” which are very decisive for how the process proceeds from that point onward. For example, in a quote creation process after the first quote has been submitted to the customer it is decisive whether the customer accepts the quote, whether both parties can agree on a compromise or whether the negotiations are aborted. In the change process the customer’s agreement can also be decisive: If the customer agrees to the planned change, the process continues as planned; however, if he rejects the change, the process is aborted – and all the time and resources that have been invested to that point are lost. There are also neuralgic points in internal decisions, such as in relation to releasing resources or investments.

From a process analysis aspect, it is important to identify these neuralgic points in the workflows. Where are they in the process? When do they occur? What do these neuralgic points contain? This is important information if you want to stabilize the process. As a rule, neuralgic points cannot be completely avoided in optimized processes; after all, they are usually decision-making situations which are an important element of a process.

Optimized processes are characterized by the fact that their neuralgic points are consciously integrated into the process modeling. The respective process should be designed up to this point so that you generate only the information required to make the decision. Full information, such as detailed drawings or detailed investigations to the third decimal point is not needed at this stage. This keeps the risks associated with the decision-making situations in the process as low as possible. If the customer already rejects the quote and is also unwilling to reach a compromise, at least this decision should nullify only a limited amount of effort (measured in time, capacities, cash).

In simple terms this approach means: Get a NO from your internal or external customers as early as possible. In other words, if your process includes a decision-making situation which is important for the next phases of the process, then you should obtain this decision as soon as possible so that you do not waste valuable capacities.

4.8 Enable parallel work

Serial processing of business transactions, orders or requests for quote is still common practice in administrative and indirect areas: Work steps are processed one by one, although, based on the content, they would not necessarily have to be carried out one after the other in a certain sequence. If several functional disciplines are involved in an expert opinion or if cost estimates from different functional areas are needed for a quote, these are usually requested one by one. But often these activities are independent of each other and have to be aggregated at a later stage.

This serial processing is usually a relict from the old days, when people in offices still worked purely or mainly with paper. Because a paper file could not be processed by several employees at once or because the cost and effort of making copies was too high, work steps were performed one by one.

But these days, modern electronic media offer many possibilities for several people to access and process a document simultaneously. The savings resulting from this can be measured by the reduced throughput time.

4.9 Establish needs-driven processes

When you analyze your business processes and evaluate throughput time you may notice that the so-called transition time (TT), which includes all waiting, idle and transport times, makes up the major part of the total throughput time. In fact, most administrative processes have a transition time well in excess of 50 percent.

Some of the transition time occurs because employees are involved in different processes at the same time and can only perform their tasks one after the other. However, the much bigger part of transition time is the result of disruptions in the workflow, which are reflected in the form of waiting times or work queues. To avoid these disruptions and reduce transition times, needs-driven processes are established within the scope of Lean Administration.

Needs-driven systems are characterized by the fact that an upstream point in the process provides only services that are actually needed by the following point in the process. In other words, in a needs-driven system you would receive only e-mails containing information that is actually relevant to you – and at the time you need them in the quantity and quality you want.

In production there are several control tools by which needs-driven systems can control themselves almost automatically, such as KANBAN control loops, FiFo queues or so-called supermarket systems where (part)-products are stored temporarily. These methods can be used in indirect areas of the company and in administrative processes, in non-manufacturing companies, in the service provider industry or in public authorities:

- Office material KANBAN is a system in which office materials are procured as they are needed. A card system shows which items have to be delivered or reordered when a minimum stock level is reached.
- With FiFo processing (FiFo = First in – First out) in the inbound mail system letters, faxes and emails are processed starting with the bottom document in a stack; in other words, with the document that has been lying longest in the inbox.
- Needs-driven provision of information can be carried out via local IT systems, the intranet or other information platforms, via which you download the information you need when you need it.

These principles are already used in small, self-contained sub-areas, but they can also be used for complete processes.

In addition to this simplified example the principle of needs driven systems can also be applied to much more complex processes which definitely require a cross-unit management function.

4.10 Smooth service delivery processes

Service delivery processes in indirect areas of the company and in service provider companies or public authorities could be planned much better if the demand for these services was not subject to ups and downs. These fluctuations present a problem for the design of service delivery processes and are a particular challenge. This is because fluctuations make it difficult to calculate capacities and they disrupt stable processes.

For example, within the framework of order processing the order receipt department usually does not notice fluctuations, since whether they receive one request for quote more or less per day makes no noticeable difference to

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them. But for the downstream offices the situation can be quite different. For instance, for the customer support office it makes a big difference if two or three quotes have to be prepared in one day. The effects of fluctuation in demand perceived as minimum by the order receipt department are much more noticeable in downstream process steps – and these effects continue down the line with increasing consequences.

The bullwhip effect describes precisely this problem: What seem to be relatively small fluctuations at the start of the process take on greater dimensions the more they wander through the process. This is because, as a rule, the processing intensity of individual work orders increases in the course of the process.

This can be compared to swinging a whip – where minimum hand movements cause a considerable whiplash at the end of the whip.

The production area also struggles with fluctuating requirements. To balance out demand fluctuations in production stores are established, which are measured according to lean aspects so that they are just adequate to cushion fluctuations and guarantee the stability of the complete system.

Also in administration naturally occurring fluctuations must not be allowed to carry on through to the service delivery process unfiltered; rather, there must be a point in the process that cushions fluctuations and prevents them getting out of hand in the course of the process. But since information and services, the products of indirect areas in the company and service delivery processes, can-

not be stored, the aim is to find other methods to smooth systems and cushion fluctuations in demand, such as:

- Realistic capacity measurements that allow additional work to be handled in case of emergency; in other words, planning for exceptions
- Flexible working time models, which – depending on the situation in the company – help cushion order peaks;
- Appropriate estimation of processing times and deadlines, that are not based alone on the minimum amount or the “best case”;
- Consistent deputizing rules to prevent fluctuations being made worse because of vacant positions;
- Realistic delivery promises to customers so as not to increase fluctuations with unrealistic promises;
- Control via needs-driven traffic light functions that prevent work backlogs occurring at various points in the process without being noticed.

These or similar measures take over the function of a “store”, cushion fluctuations in demand and stabilize a needs-driven service delivery process. An ABC/XYZ analysis should be performed to determine demand over a year or within a month, so that this can be considered accordingly in capacity and order planning.