Why Business Process Improvement Might Not Bring Customer Satisfaction

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Continual improvement is central to all organizational frameworks such as the IT Infrastructure Library (ITIL). Typically, data are collected through the life-cycle of a business process and analyzed asynchronously to identify long-term improvements. This position paper illustrates a limitation of this approach of continual improvement. When a support process is spawned to address a customer issue, quite often, a quick fix is provided to minimize the immediate annoyance to the customer. However, the quick fix often provides a lower quality solution than the service the customer regularly enjoys. For customers who fall into the gap between the quality of service they have come to rely on, the repair process and the quick fix may be a wholly unsatisfactory experience. As a result, even if the service provided by the main business process is improved on a long-term basis through the continual improvement mechanism, customers may still be unsatisfied. We believe that the continual improvement process should address the life cycle and level of service of the combination formed by the main support process and the quick fix.

1 Introduction

Business Process Management (BPM) is largely based on the Business Process Reengineering movement (BPR) of the early 1990s [1]. BPR was created due to a perceived need to dramatically increase the efficiency of large organizations that, so the argument went, were mostly configured according to patterns inherited from the industrial revolution. BPR sought to achieve dramatic improvements by prescribing discontinuous change. This change involved moving from organizations where the creation of goods and services was highly divided in functional areas, according to the rules of the division of labor, and into much nimbler organizations that focus on the outcome, e.g. the goods to be manufactured or the service to be delivered. BPR turned the internal focus of organizations onto the external outcome.

To date BPR has not created the expected revolution in many organizations, despite a plethora of frameworks and methods devised around the notions of process orientation and "customer first" initiatives. The Information Technology Infrastructure Library (ITIL) [4] is a collection of good practices that has the same overall objective as BPR, i.e. process orientation, customer focus. ITIL has been around since

the late 1980s but has gained much attention in the business world in the last few years.

In this position paper, we argue that implementing ITIL processes, namely incident management and problem management, does not guarantee that customers will be satisfied with the provided service. We show that this may be the result of the organization's world view (or enacted environment) [6, 7] that results in a fragmentation of the business processes. We further show how the process can be redesigned with a more holistic view and a better understanding of customers' expectations. We use a real experience we had with automobile incident management to illustrate our case. Our discussion covers the design and evaluation phases defined by [3].

2 ITIL Incident Management and Problem Management Processes

ITIL [4] is a collection of good practices that are designed to improve the operation of IT departments within organizations of any type and size.

The implementation of ITIL practices is said to transform IT organizations so that they focus on delivering value to customers [4]: "An IT organization can better serve customers and outperform competition by better understanding the complexity, uncertainty, and trade-offs the customer is facing. The key is to decide on an objective or end-state that differentiates the value of what you offer, on what terms, and in what form so that it outperforms what customers consider to be alternatives. Strategy need not simply be an exercise in gathering requirements or the pursuit of operational effectiveness. It is a means to become not optional."

ITIL further defines that [4]: "Customers perceive value in economic terms or in terms of social welfare, as is the case with pure public services offered by government agencies, or both." This definition of customer perceived value is not necessarily complete. Another form of value can be defined as "fair service" regardless of the associated cost. For example, a customer who buys a new car comes to depend on the service provided by the car, i.e. to be available at any given time, and is likely to expect it to guarantee this level of service. If the car breaks down or needs to be brought to the shop for scheduled maintenance, there is a degradation of this fair service as expected by the customer. This level of service is not measured directly, or sometimes even indirectly, in monetary terms but rather in service availability terms.

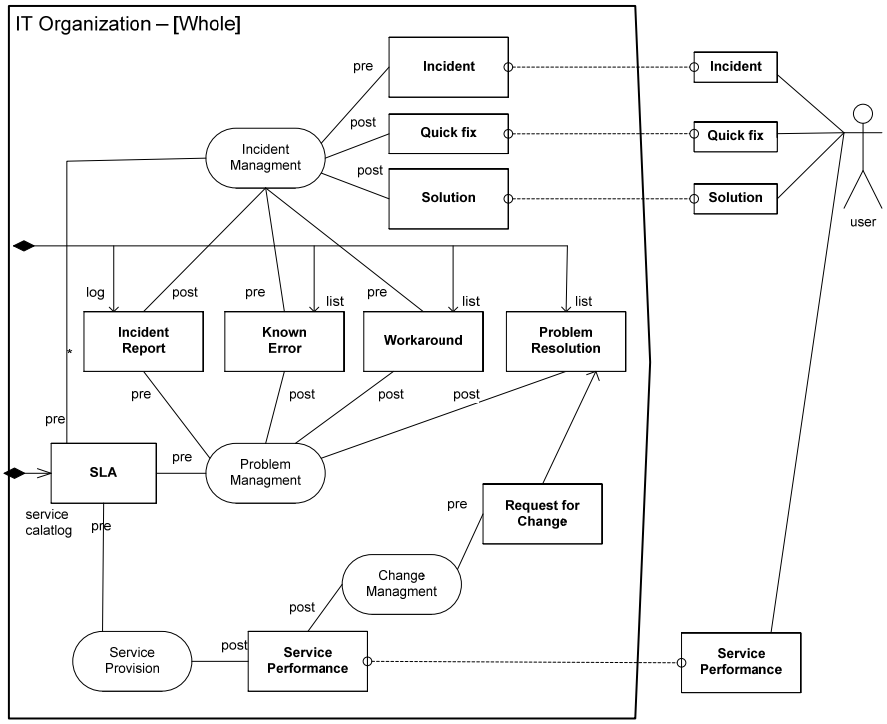

Figure 1 Partial ITIL Support Organization represented in the SEAM notation [8].

One of the cornerstones of ITIL customer value is the stable provision of service to customers. ITIL prescribes the implementation of three interdependent processes, Incident Management, Problem Management and Change Management. Figure 1, gives a partial model of the Incident and Problem Management processes.

The primary goal of Incident Management is [5]: "to restore normal service operation as quickly as possible and minimize the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained." 'Normal service operation' is defined by ITIL as service operation within the limits defined in a document called 'Service Level Agreement' (SLA).

Hence, the level of service that is restored depends solely on the limits defined in the Service Level Agreement (SLA). Incident Management takes an incident as input and provides one or more solutions (e.g. a quick fix and the "effective" solution) and an incident report stored in a log. To provide a restauration of the service level, Incident Management might use "known error" descriptions developed by Problem Management or can develop its own solutions.

The primary goals of Problem Management are [5]: "to prevent problems and resulting incidents from happening, to eliminate recurring incidents and to minimize the impact of incidents that cannot be prevented." The input for problem management is the log of the incidents Problem Management identifies the root cause of a set of incidents and defines a workaround. A set of incidents, which root cause is known

and that has a workaround, is called a known error. A permanent solution may also be formulated and result in Request For Change (RFC) that is the input to the Change Management process.

3 The Mobility Guaranty Program

The fact that people frequently come to depend on the level of service offered by the products and services they use is often ignored by businesses and IT departments alike. In this section we describe a fictitious but close to reality mobility protection program as offered by many car manufacturers. Our point is to use this case as a metaphor for the kind of services offered by "ITIL compliant[1]" IT departments.

Many car manufacturers have devised mobility programs that are designed to insure service continuity in case of a car breakdown. These programs are often presented as no hassle services providing, among other things, a replacement vehicle in the case where the customer's car unexpectedly breaks down. However, the SLA provided by many manufacturers limits the availability of the replacement car to just a few days. It often happens that when a major breakdown occurs, the car cannot be repaired in just a few days (e.g. spare parts not available, garage overloaded, etc.). Replacement cars are often provided by rental car agencies that have a partnership with the car manufacturer. The replacement car has to be returned to the rental car agency and not to the garage where the repair is being done. In this case, the replacement car offers a partial solution, at best, because the customer cannot keep it for the duration of the repair. The customer whose car may not even be repaired yet, has to bring the replacement car back to the rental agency. This agency can be far from the customer's residence. Its location is usually determined by the area where the car broke-down. Even if the customer's car is repaired before the replacement car is due back, the customer cannot simply leave it in the garage where the repair was done, take her car and go home.

In summary, the customer faces a service gap: (1) when the time to repair the car is longer than the period for which the replacement car is provided; (2) when the replacement car must be returned to another location than the garage where the car is repaired.

4 Incident Management / Problem Management and Customer Satisfaction.

When a car breakdown occurs, the customer is expected to call the manufacturer's helpdesk and request assistance. This is equivalent to reporting an incident in *ITIL incident management*. At this point, the helpdesk organizes the pick-up of the car and provides a quick fix in the form of a replacement car (through a rental company). The

[1] ITIL is not a standard and doesn't define a compliance program. However, for lack of a better term, we refer to IT departments that have implemented ITIL practices as ITIL compliant.

goal is to maintain what is defined in the SLA between the customer and the car manufacturer, in this case the availability of a car. Once the car is repaired, the true solution is provided – the working car is returned to the customer. The incident (i.e. the breakdown) is logged. Problem Management takes this incident and analyzes it. It identifies the cause of the breakdown and might propose a long-term solution in the form of an RFC to avoid that similar breakdowns occur again. Change Management takes the RFC and authorizes a change to be introduced in the manufacturer's product line and possibly a recall of cars already on the market.

Apparently, the improvement mechanism is efficient (assuming that the problem identified in the garage is fed back to the manufacturer). The long-term improvement, that prevents the breakdown, is mainly useful to the future owners of a car of the same model and to the owners who did not experience the incident yet. Despite this, the perception of the car owner who did experience the incident can be disastrous; as explained in the example (the case in which the repair time is longer than the period of availability of the replacement car). How could this happen with such a sophisticated improvement mechanism?

This can be explained by the nature of the SLA. In our example, the SLA is not truly defined in service terms. It defines that a replacement car will be available and for cost reasons, the replacement car will be provided for a maximum number of days. So, the car manufacturer thinks in terms of cars. From this point of view, providing a replacement car for a fixed duration is a substantial advancement over no replacement car at all and is presented as a solution for the customer's problem. From the customer's point of view, however, there is a need for mobility. What car owners expect is to maintain their capability to travel. With such an approach, the notion of replacement car becomes secondary to the user's mobility. Reasoning in terms of a mobility service rather than cars is necessary to identify the underlying problem of customer dissatisfaction. This has been identified long ago by as Marketing Myopia [2]. The inability of organizations to define the service they provide to customers in wide enough terms, thus obscuring future possibilities. However, contemplating the possibilities of offering a true mobility service is often beyond the mission of a car manufacturer and it is unlikely that the organization will be ready to offer a replacement car limited only to the duration of the repair.

A possible approach to expose this problem is to take the risk to experiment with breaking the norm of providing a replacement car for a fixed duration. After all, the first inconvenience for customers is that the replacement car is available for a fixed duration whereas the repair time is variable. An SLA that guarantees a replacement vehicle for the duration of the repair will cost more to the car manufacturer. This cost may be judged to be beyond the limit of acceptability. However, the high cost of the quick fix can have important benefits. It is likely place more pressure on the repair process to be terminated earlier. Hence, it could lead to an SLA between the dealer and car manufacturer so that repair time is minimized. It could affect the whole supply chain process, as the availability of parts and repair procedures are necessary ingredients for the fulfillment of the SLA by the repair shop.

Yet another approach could be taken. If an SLA is defined for the quick fix, then the process of providing the quick fix would be monitored and customer dissatisfac-

tion linked to the inconvenience of having to return the replacement car before their car is repaired or having to make an extra trip to the rental agency could be identified.

5 Conclusions

In this paper we have presented how customers can be dissatisfied with a service offered by an organization despite the organization's beliefs that the service provided is of good quality. The standard way of restoring a required service level when a severe incident occurs, is to provide a quick fix that temporarily restores the level of service to the one defined by the SLA. As a result there are two processes that need to be managed together, the actual repair of the service and the provision of the quick fix. If these two processes are designed and monitored separately, there is a high risk that gaps will appear in the service, which will result in customer dissatisfaction. We identified that unless the SLA between customer and provider is well defined, the organization my even be unaware of the problem, leading to the belief that it is providing a good quality service, whereas its customers would disagree.

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