A Dynamic Theory of Service Management: Implications for Managing Service Improvements Avoiding the "Service Jungle"

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Abstract

Despite the demonstrated benefits of industrial services in driving competitive advantage, most companies found it extremely difficult to manage the transition from product manufacturer to service provider successfully. In this context, we observed different phenomena. One phenomenon we term the "service jungle". The service jungle describes the phenomenon that service programs have often led to declining business because of increasing costs, which could not be recovered with corresponding returns. That leads overall to decreasing margins and weakens company's competitive positions. Despite of the high popularity of services and numerous service programs, just few companies have gone into what we call "service garden". For the last four years, we have worked with a variety of firms to understand the processes that lead to the "service jungle". This paper discusses the phenomenon on the basis of a dynamic theory of service management and describes guidelines to overcome it.

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1 Introduction

European companies more and more try to exploit the value of services. The current popularity of services stems from their ability to drive competitive advantage of companies and foster differentiation in relation to competitors. Service management has become an imperative for business seeking competitive advantage, yet it is disturbing how few organizations make lasting and successful use of services (Simon, 1993, Corsten, Schneider 1997). In our context, services refer to industrial services. Industrial services are services delivered between two companies (Homburg, 1995). For the last couple of years, companies have found it extremely difficult to manage services successfully. Service management programs have often led to a phenomenon called “service jungle” (Belz et al 1997). In fact, companies have even found it difficult to sustain initially successful service improvement programs. It has often led to declining business because of increasing costs, which could not be recovered with corresponding returns. That leads overall to decreasing margins and weakens company’s competitive positions. Despite of the high popularity of services and numerous service programs, just few companies have gone into what we call “service garden”. The most companies we observed went from the “service dessert” into the “service jungle” and struggle to leave the “service jungle”.

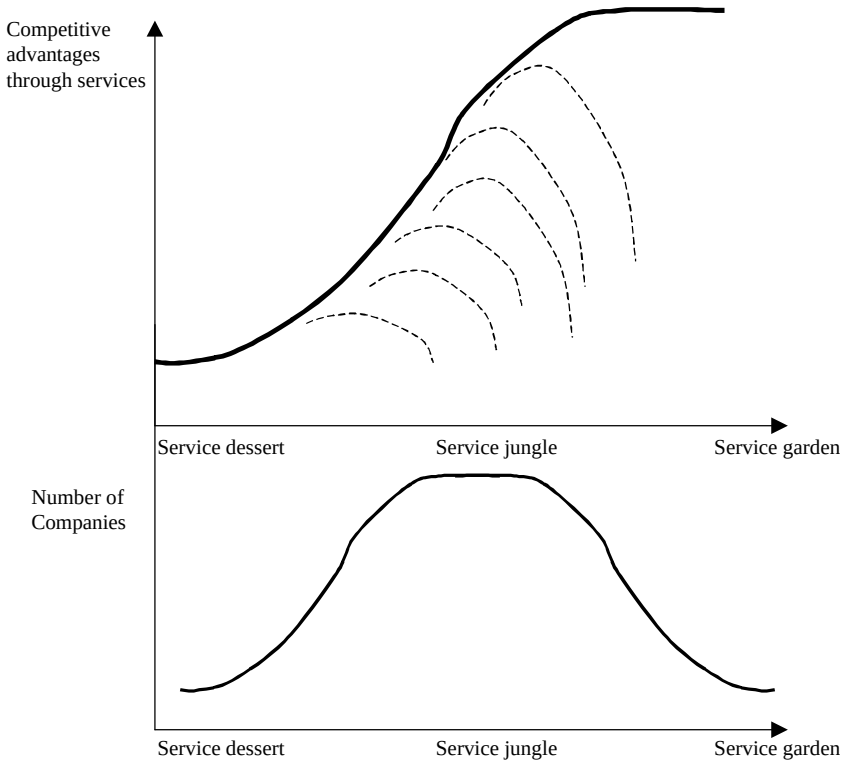

Figure 1: Service Jungle and competitive advantages through services.

If services were ineffective in their contribution to a firm's competitive position, it would be easy to explain the "service jungle". Our findings, however, do not support that explanation. Firms mainly focusing on services and service improvements earning the fruits of the "service garden". They have a better performance as firms, which services do not use to support their competitive position.

For the last years, we have worked with a variety of companies to understand different aspects of service management. The purpose of this paper is to develop the beginning of a theory about dynamic service management and to answer the question: "Why do companies struggle to sustain fundamental service improvement programs?" We identified the key factors of service management and designed sustainable improvement programs. Our framework integrates the characteristics of service management, the structures of improvement programs and the behavior of managers. We draw on the basic precepts offered by service management (Simon, 1993). In developing the structures of improvements we rely on the latest studies of improvement programs (Sterman, Repenning, Kofman, 1997, Keating, Oliva, Repenning, Rockart and Sterman, 1999). Additionally, we draw on aspiration theory and human decision making on the behavioral side (Cyert, March, 1992, Vroom, 1967). The main tools for theory development are intensive case studies. We have conducted, several projects like "Controlling of industrial services"," Benchmarking – service innovations", "Development and design of industrial services", "Benchmarking – commercializing industrial services" and "Commercializing industrial services". Each project was executed with 5 to 9 different partners. Although the partners came from different branches, the challenges were quite similar. The main focus was however on the European machines and equipment construction and our remarks are limited on this area of industrial services.

The paper summarizes our findings and explains the challenges of a dynamic service management based on improvements. Beside the intensive case studies, we use casual loop diagrams capturing the rich array of interdependencies and feedback processes in the company and its environment (Forrester, 1961).

The following paper is organized as follow. In the next section, we propose a causal loop theory to capture the main characteristics of a dynamic service management and to identify the key factors for a sustainable service management. In order to regard the main characteristics, we identified three modules – service improvement (section 2.2), customer perception (2.3) and competitors (2.4), which have an impact on service performance (2.1). In section 2.2, we explain different aspects of service improvements like resource allocation, behavioral aspects of resource allocation and sources of commitment. Section three contains concluding thoughts.

2 A dynamic theory of service management

In this section, we propose a causal loop theory to capture the major characteristics of service management. We try to explain how the structure and the behavior of the participants can cause the “service jungle”. Each of the hypothesized causal links has evidence from case studies and from the literature. The model integrates the attributes of services like intangibility and inseparability.

2.1 Service Performance

As illustrated in figure 1, the first positive feedback loops arise from the ability of firms to invest in differentiation. As firms increase their revenue and sales, they can invest more in activities that improve the attractiveness of their solutions. Most products or services can be differentiated from those of competitors through enhanced features, functionality, reliability, and suitability to the current and latent needs of the customers. We call this product or service quality. That means quality includes the degree of suitability to the current and latent needs, features, functionality and reliability. Referring to the gap model (Parasuraman, Zeithamel, Berry, 1985), we assume that it is not possible for managers to have direct access to the factors defining attractiveness. Zeithamel et al argue that the difference between customer expectations and actual service provided cannot be managed directly but only through other “gaps”, or discrepancies, between expectations and performance that occur in organizations. There is always a discrepancy between attractiveness and perceived attractiveness. But nevertheless, the attractiveness has a positive impact on the perceived attractiveness. Higher perceived attractiveness leads to higher market share boosting sales and revenue and enabling companies to invest more money in quality. Other ways to strengthen the differentiation are entirely new products and services. An increasing number of new services and products generate higher market potential leading to more sales enabling even more investments. The extent of these investments increases differentiation in the eyes of customers. The development of investments involves a substantial time delay. But nevertheless, both generate self-reinforcing feedback loops (R1a and R1b).

Additionally, companies offering clearly superior (quality and innovation) products or services can often charge a price premium (R2a and R2b). The price premium in case of existing products reduces the attractiveness. As long as charging a price premium does not choke off growth, the higher margins enabled by such a price premium enable the firm to increase its investment in differentiation still further (B1 and R2a).

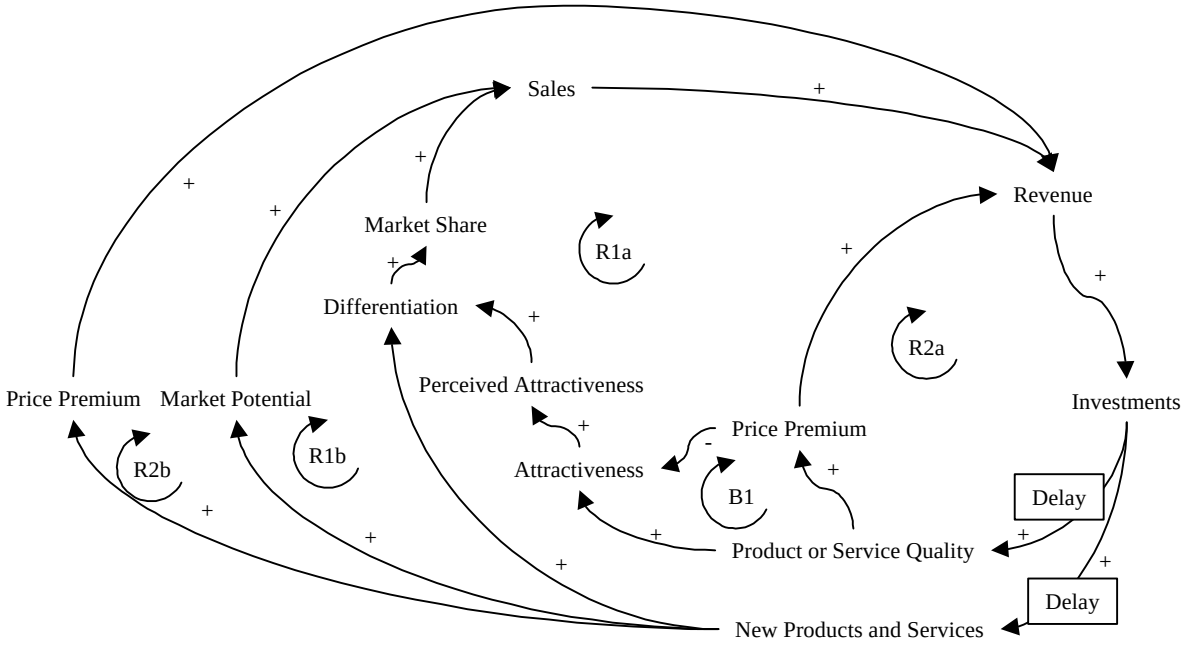

Figure 2: Differentiation through products and services.

As shown in figure 2, there are several opportunities to increase the attractiveness. Increasing the attractiveness of products or the development of new products involve substantial time delays, is very costly, and is generally not an option for managers responsible for day-to-day work. Furthermore, to create a competitive advantage through the physical product is getting more and more difficult and the margins are decreasing. Therefore, theorists in production and service management assert that differentiation through services is the only way to leave the trap of decreasing margins (Simon, 1993). Accordingly, most companies initiate programs that strengthen the contribution of services to their competitive position. We assume differentiation through services is the only way to strengthen the competitive position. Thus, we will focus on services in the next sections.

To address the issue of inseparability of service delivery and quality, service quality has been defined as a function of the allocated time per order – a proxy for the degree of attention and care that service workers are providing. According to the Mill's equation of service quality to server productivity (Mills, 1986), we assume that increased working effort leads to less time per order decreasing the service quality.

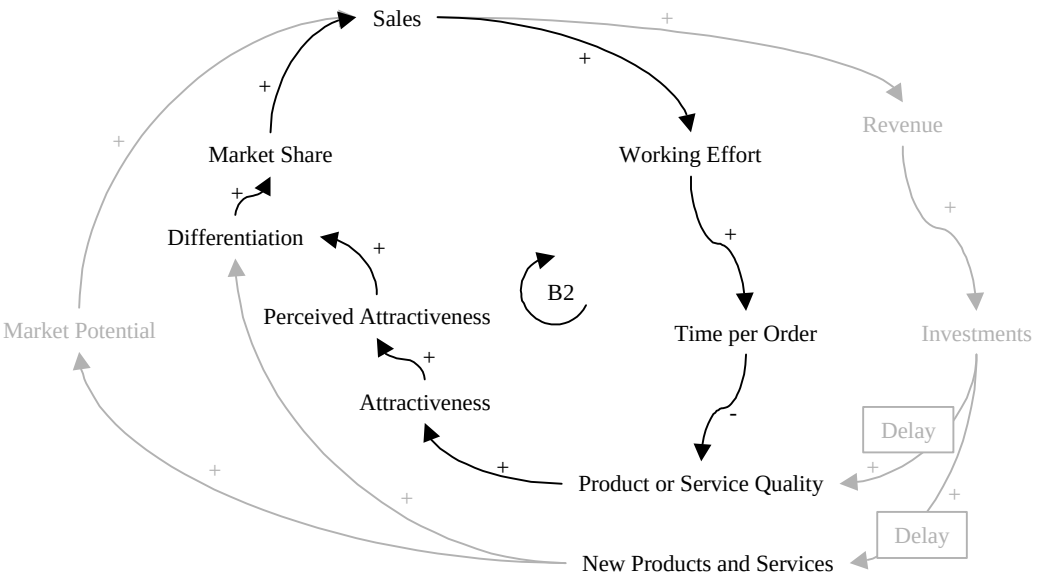

Figure 3: Increasing sales erode service quality.

That means B2 slows down the development of R1a. The feedback loops are illustrated in figure 3. R1a will succeed, if the investments overcome the negative impact of increasing working effort on service quality.

Well-performing service management cannot be installed easily. A successful service management needs a sustainable and continuos improvement program and is more like a process that must be grown organically. To do so, the service management must grapple with several central issues of improvements.

2.2 Service Improvement

2.2.1 Resource allocation

Now, we assume that the service management tries to initiate an improvement program. We distinguish between service worker and managers. One of the most basic interactions within improvement programs is created because firm's resources are finite in short term. Service workers and service managers have limited time, which must be allocated among the daily business and improvement activities. The improvement activities are linked to the service delivery, because these activities interrupt the service production. The most theorists assert that employees doing a job are the best-informed experts and should be responsible for identifying new service ideas or improvement opportunities for enhancing the service quality. This strategy leads to two advantages. On the one hand, employees already understand their processes. That reduces the time for data collection and implementation. On the other hand, employees have a strong interest in implementing improvement or new services they developed themselves (Deming, 1986). Further-

more, according to March and Simon (March, Simon, 1993) the managerial attention is limited and must be allocated to competing activities.

Increased improvement activity leads to a short and a long-term effect. Both are shown in figure 4. They can slow down the long-term re-investment cycle (R 1).

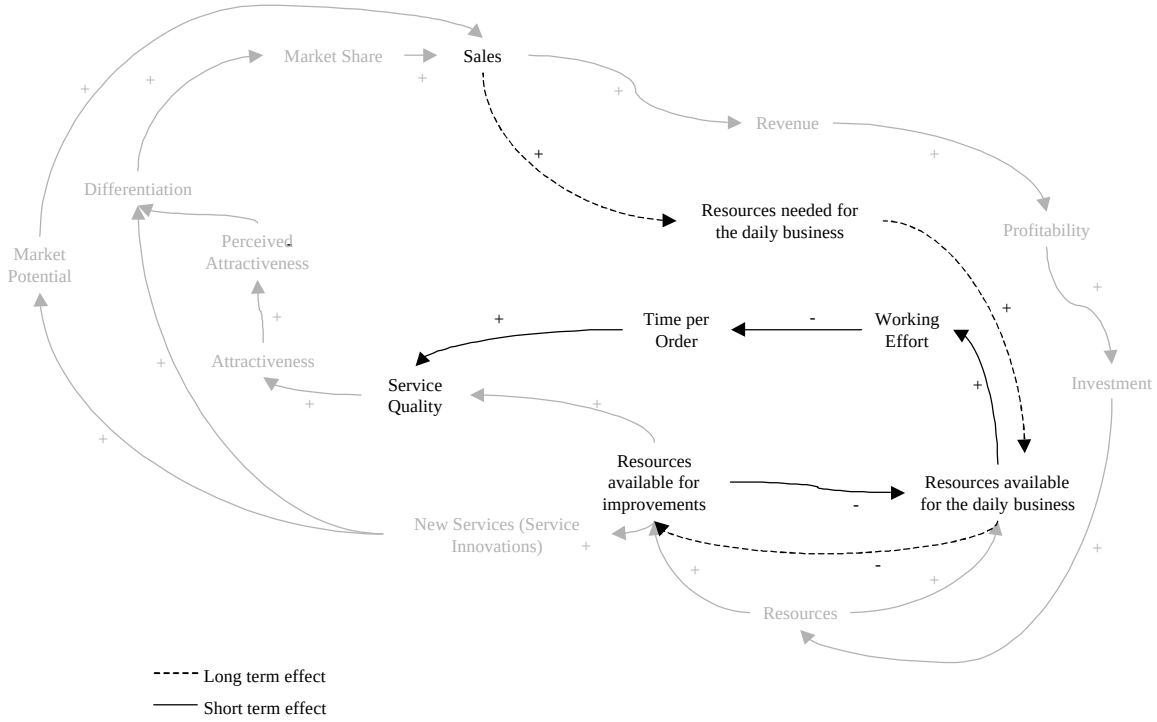

Figure 4: The short and long term effect of improvements.

For example, increasing resources for the improvement cut off resources for the daily business leading to more working effort and less time per order eroding service quality and reducing attractiveness in short-term. If the improvement overcomes the short term effect, in long-term an increasing attractiveness boosts sales and service orders leading to more resources needed to fulfil the daily business. That makes fewer resources available for improving the attractiveness in long-term. Both effects can stop improvement activities and lead to service failure.

To overcome the resource bottleneck one has to concentrate on second order improvement. Referring to the latest research in improvement programs (Repenning, Sterman, 1997, Sterman, Repenning, Kofman, 1997), improvement programs can focus on first or second order improvement. Both are illustrated in figure 5. According to the quality movement (Deming, 1986), the first order improvement is fighting the symptoms. Second order improvements are fighting structural problems leading to less problems or symptoms increasing efficiency and productivity. It is more

like working smarter. By concentrating the improvement effort on the second order improvement, one can increase efficiency and productivity leading to more resources available for improvement (R3). It creates a self-reinforcing feedback loop that can operate as a virtuous cycle leading to a sustainable improvement of services (Schlesinger, Heskett, 1991, Heskett et al, 1994).

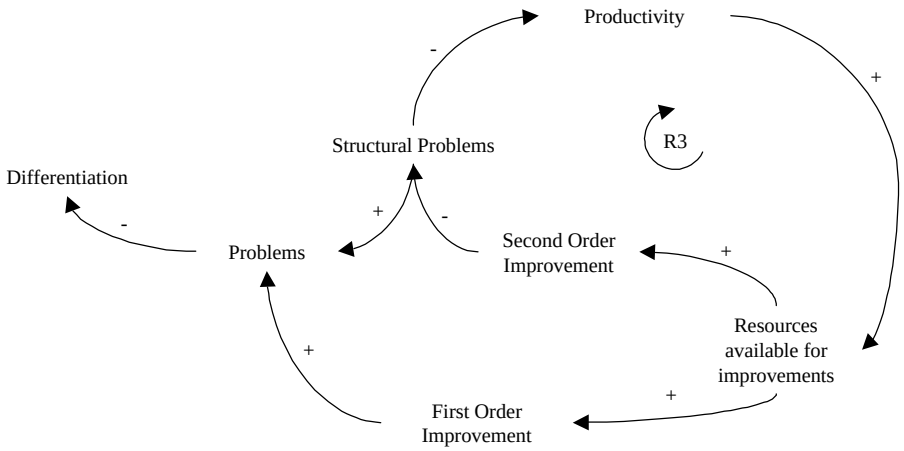

Figure 5: First and second order improvement.

2.2.2 Behavioral aspects of the resource allocation

What determines however the described feedback loop operate? The answer is determined in large measure by the mental models of the managers about the right ways to allocate resources between improvement and daily business. According to the aspiration theory (Vroom, 1964), managers assess the adequacy of the current differentiation by comparing it to the desired level. In case of a differentiation gap, managers must try to increase resources for the improvement first. There are three main possibilities to increase them. The feedback loops are illustrated in figure 6. First, to increase the improvement resources workers can work harder, increasing the utilization of existing resources or short cutting the resources for the daily business. Unfortunately, effort squeezing would initiate a reinforcing feedback loop R4a that overcomes B3. Second, managers can extend the capacity by hiring more workers or purchasing additional external capacity (B4). However, expanding capacity involves substantial time delays and is generally not an option for managers responsible for the daily business.

Third, the managers can free employees to participate in the improvement program. That would lead to the same side effect of fewer resources available for the daily business like working harder (B3). R4b would overcome the balancing effect of B5. Those looks like that any improvement does not sustain, because of the lack of resources. To overcome the lack of resources one has to focus on second order improvements creating the self-reinforcing feedback loop R3.

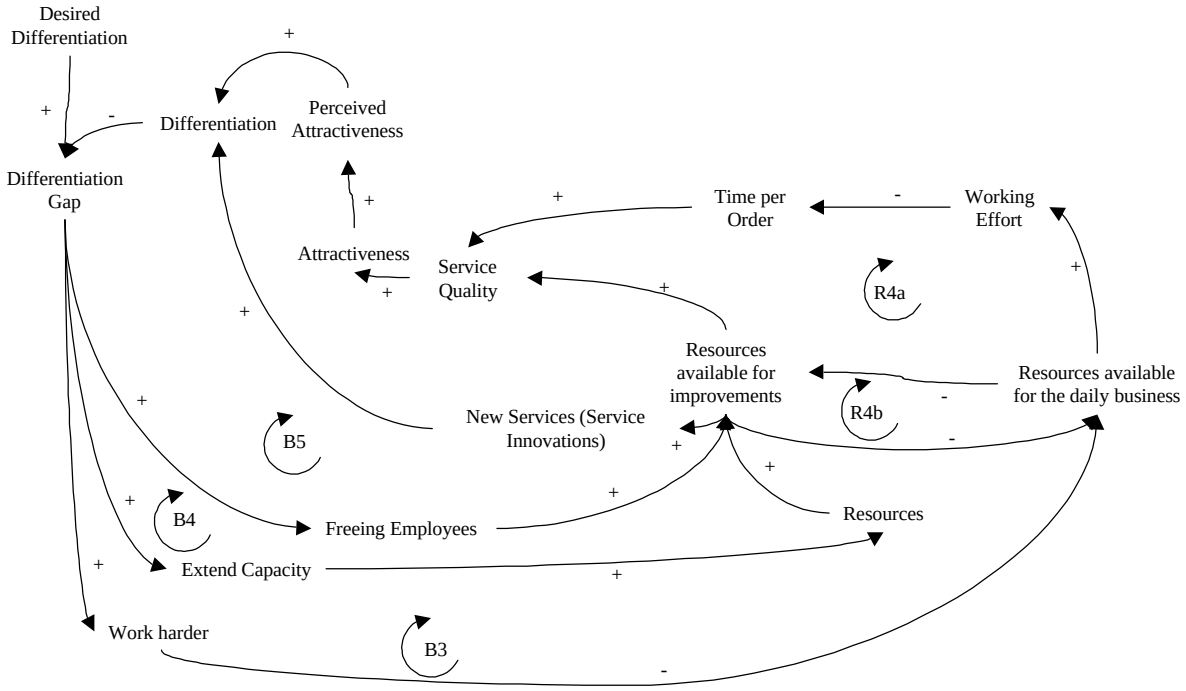

Figure 6: Options to increase the resources for improvement.

Yet, there are several reasons, rooted mainly in cognitive processes, why improving the attractiveness or differentiation does not sustain. In choosing whether to pursue improvement or daily business, services managers must make a judgement about the causes of low differentiation. If a differentiation gap is thought to result from lack of worker effort or discipline, then managers will increase the production pressure (B3).

If service managers believe the cause lies in a lack of improvements, they will focus their efforts on improving activities. This initiates a balancing feedback loop that is able to close the differentiation gap.

Unfortunately, attributing low differentiation to inadequate worker effort is consistent with the "cues of causality"(Einhorn, Hogarth, 1986). People use to make casual attributions by including temporal order, covariation, and contiguity in time and space. For example, working effort immediately improves service quality by increasing the time per order. The service delivery and workers are highly correlated with worker effort and are highly contiguous in time and space. In contrast, improving service quality precedes a lower differentiation gap much longer and is often hard to observe and can be far removed in time and space from increasing attractiveness. The "cues of causality" explain why managers tend to increase resources available for improvement by pushing working pressure. Another argument is Ross's "fundamental attribution error" (Ross 1977). He reviewed that people use to attribute undesirable outcomes to people rather than to

system structure. Both give the theoretical foundation of our findings that managers tend to attribute low differentiation to inadequate working effort and not to structural problems.
As shown in this section, beside available resources, the behavior and the right attribution of the causes of low differentiation seem to be additional key factors for sustainable improvements.

2.2.3 Sources of commitment

Employee Pull

The feedback loops described above can boost differentiation. To initiate them, one has to launch improvement activities. The latest experience in the field of Business Process Re-engineering and Total Quality Management has shown those freeing employees and focussing on second order improvement to improve process are essential but insufficient (Sterman, Repenning, 1997).
A successful improvement of service management requires the enthusiastic commitment of the service worker. Several theorists (Shiba et al, 1993) review two main sources of commitment for improvement activities: managerial push and employee pull. Employee pull arises when service workers come to understand the benefits of improvements and commit themselves to improvement effort. In that case, improvement effort is independent of management attitudes and support. Management attitudes and support refers to efforts to promote improvement effort or mandate participation. According to the “teleological” theory, the management push is influenced by the desired differentiation (van de Ven, A., Pool, M., 1995). The management push often creates temporary excitement, but must be replaced by other sources of motivation like employee pull.

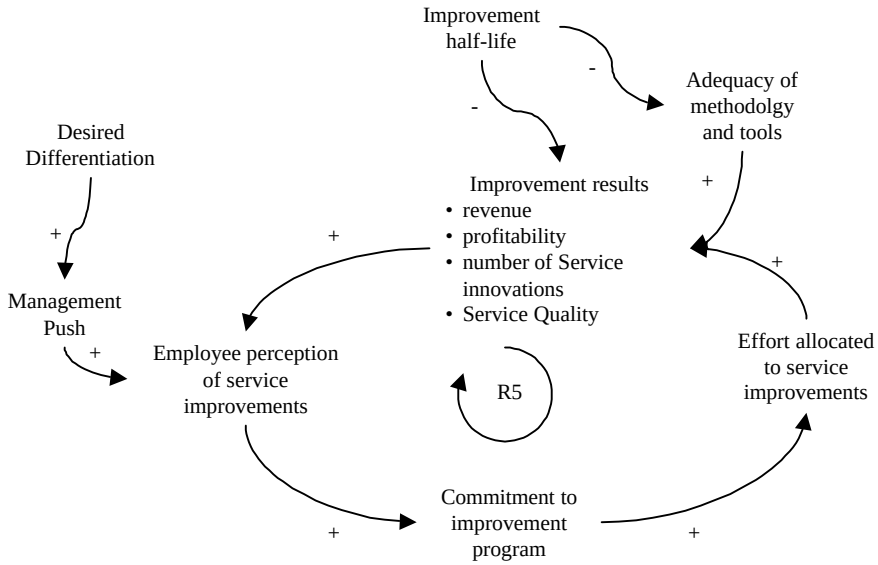

Figure 7: A self-reinforcing feedback “employee pull” drives employee commitment to improvement.

The employee pull has the same property like a re-investment cycle (R5). It can function as a virtuous or vicious cycle. As illustrated in figure 7, we observed that a variety of factors could interfere with the employee pull feedback raising the odds of a vicious cycle. In the next sections, we will explain several of these factors.

Improvement half-life

The half-life reflects the time needed to do an improvement (Schneiderman, 1988). It refers to the time required to reduce defects in half or to double a quality dimension and is correlated with the learning cycle. Schneiderman found out that complex processes need a longer time (higher improvement half-life) to improve. In case of services, the organizational complexity is the main determinant. It refers to a number and type of people, from different organizational functions, required for carrying out an effective improvement effort of services. Increasing complexity reduces the learning cycle slowing down improvement.

To understand the half-life in case of services one has to investigate the different options to improve the attractiveness in more detail. Faced with a differentiation gap, managers have 4 basic options (figure 8).

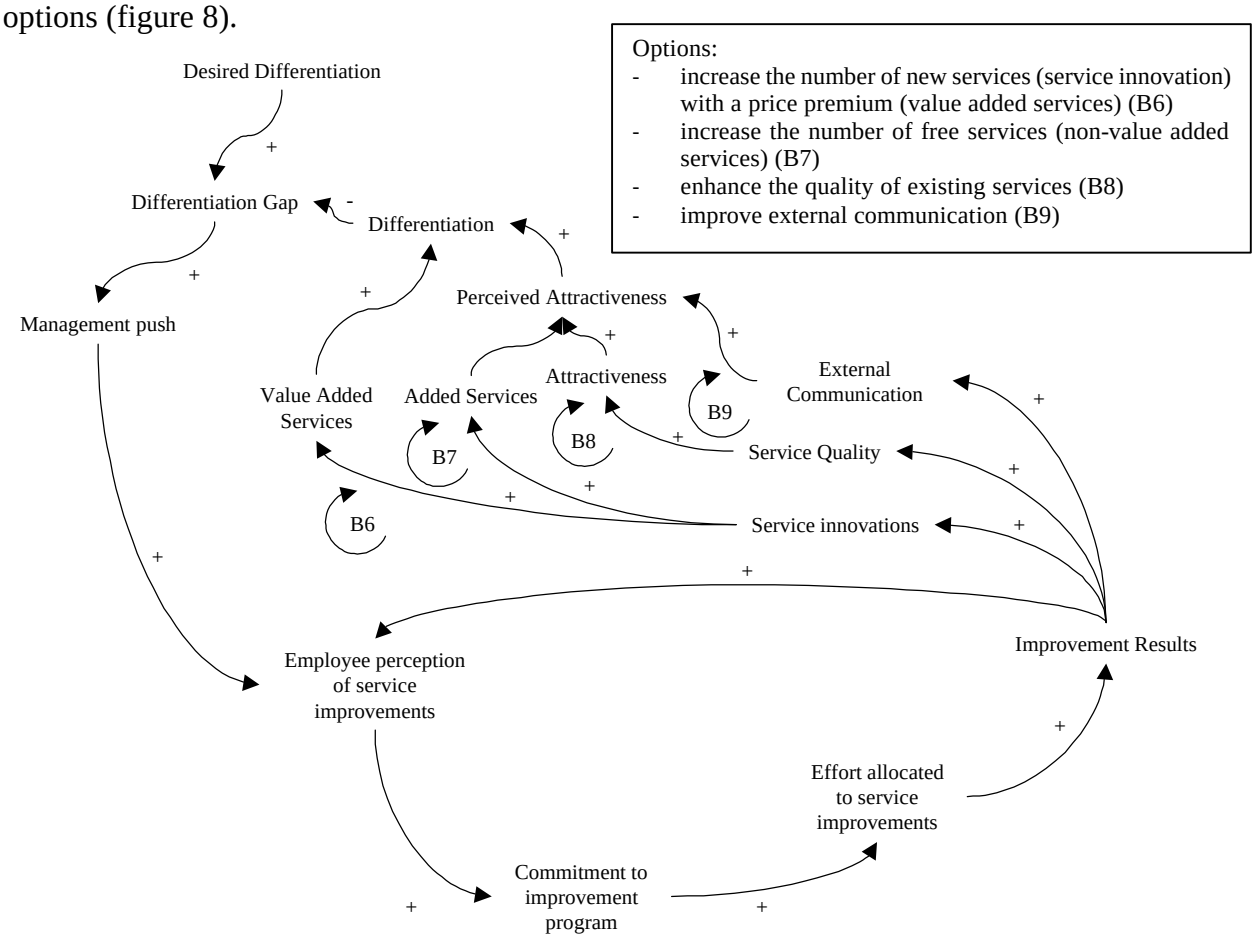

Figure 8: Options for closing the differentiation gap.

The meaning of improving service innovations and service quality is quite clear. Improving the external communication refers to the 5-gap model. According to the gap model (Zeithamel, Parasuraman and Berry, 1990), improving the external communication is closing the gaps or discrepancies between customers', managers' perception and the current performance. Added services are not chargeable, because they do not create value in the eyes of the customer. They help to keep customer relationship and influence the perceived attractiveness.

Each option forms a negative or balancing feedback loop whose goal is to eliminate the differentiation gap. To find out which option causes a fundamental improvement one has to integrate the options into the basic assumptions about service performance. Fundamental differentiation means that improvement enables the firm to charge a price premium for superior existing or new services. Therefore, the two options to achieve fundamental improvements are value added service innovations and continuos improvement of the service quality.

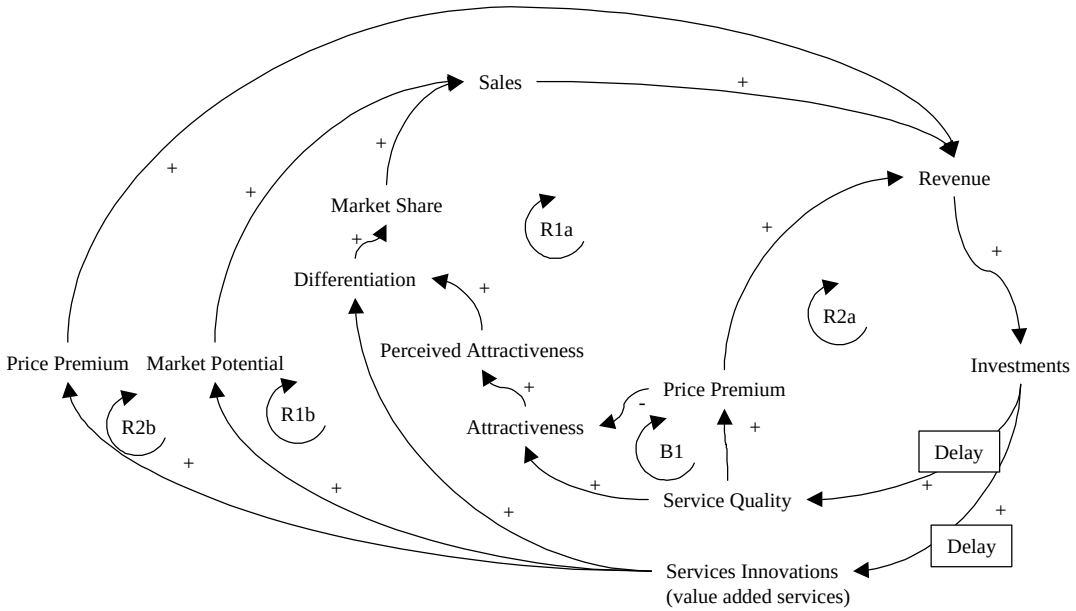

Figure 9: Fundamental improvements through service quality and service innovations.

The improvement of the external communication is essential for service quality. According to the gap model, it ensures that the customer perceives the same attractiveness like the company offers. Service innovation and service quality force a fundamental improvement, but have to be supported by external communication.

Similar to resource allocation, three basic cognitive processes limit the fundamental improvements. The basic cognitive processes refer to the "low hanging fruit" syndrome and overweighting of salient and tangible features of the environment.

People have repeatedly shown to over-weight salient and tangible features of the environment. Added services are simply more salient and tangible than external communication and service innovations (Kahneman, Slovic, Tversky, 1975).

If one combines the several options (B6, B7, B8 and B9) with the improvement half-life, one will get a matrix like figure 10. The improvement activity added services is the easiest to enhance. , although it does not lead to a fundamental improvement. The service innovation process has a relatively high complexity and a high improvement half-life. That means it takes a long time to improve service innovation processes leading to more service innovations boosting differentiation and generating additional revenue. But unfortunately as shown in figure 10, more complex processes have a much higher impact on differentiation.

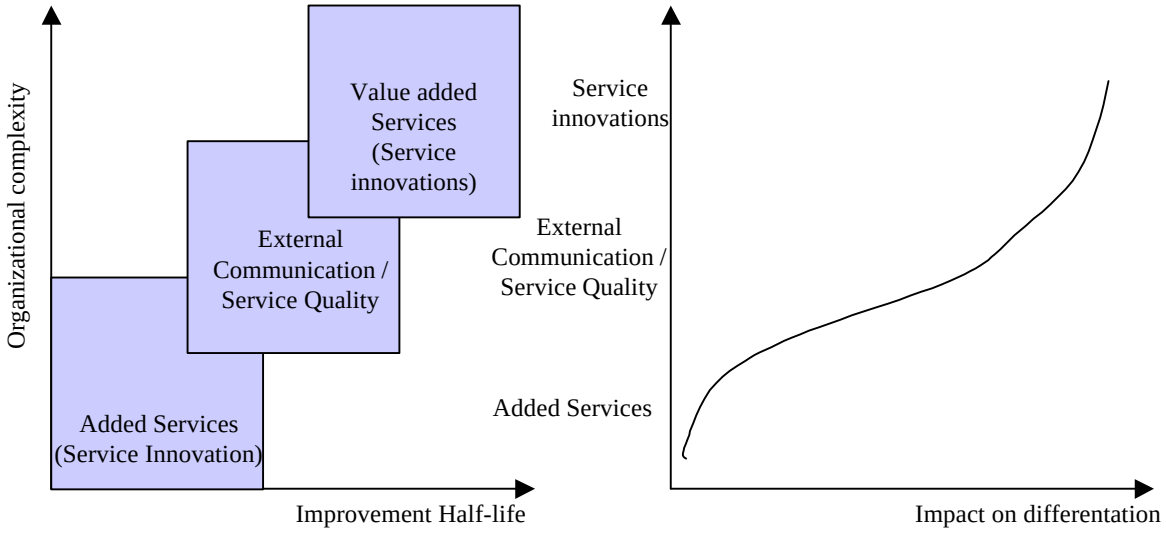

Figure 10: Relationship between organizational complexity, improvement half-lives and impact on differentiation.

Overall, one can say that early improvement efforts tend to focus on relatively simple problems, like adding additional services or improving simple service quality dimensions. This phenomenon was often discussed in the quality literature as the earning of “low hanging fruits”. The management is confronted with the challenge to focus on problems with greater complexity like service innovation process, because the low hanging fruits do not lead to a fundamental impact on differentiation. Even more, it can slow down the fundamental improvements, because essential working effort goes into added service and not into service quality, service innovation or external communication. As the half-life increases and the rate of improvement slows, the self-reinforcing employee pull can weaken and fundamental service improvements falter. The managers have to

make sure that service workers focus on fundamental improvements and continue to improve even if the half-lives increase.

To overcome the described influence of the "low hanging fruit syndrome", managers can try to define objectives that help workers to focus on the right improvement. By setting the right objectives one can overcome the negative impact of half-lives on the improvement results (Schaffer, Thompson, 1992). This can strengthen the fundamental improvements. The defined objectives can affect the employee perception of benefit in different ways.

Employee perception of benefit

In making the judgement that service improvement works, workers compare the improvement results they observe to their expectations (Rosenstiel, 1975; Cyert, March, 1992). The expectation is influenced by the objectives set by managers. The commitment raises if progress is high relatively to aspirations and falls whenever progress is disappointing. The described links create a reinforcing feedback loop (R5). The loop, illustrated in figure 11, can operate vicious or virtuous cycle. The objective managers set to the workers determine their behavior. When objectives are set high, the expectations can outstrip the observed improvement results and the commitment falls, slowing down the employee pull feedback.

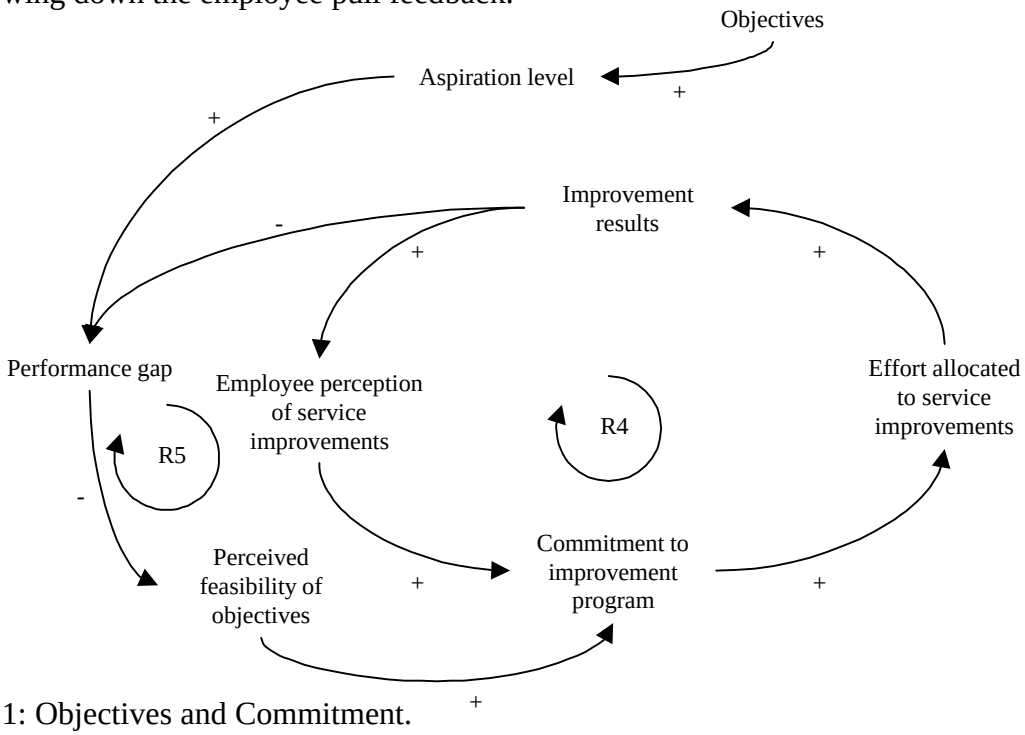

Figure 11: Objectives and Commitment.

It ends in a vicious cycle of goal erosion and cynicism. While aggressive objectives can weaken the employee pull, adequate objectives can boost it. When objectives are set in the right way, the

improvement results outperform expectations and commitment increases, boosting the employee pull (March, Simon, 1993). In service or intangible areas, managers often tend to set aggressive objectives (Kahneman, Lovallo, 1993). Maybe they help to create a bit initial push or awareness (Schuler, 1995), but in long-term they undermine the development of the employee pull effect. For setting the right objectives, we recommend to use the half-life concept explained above.

Adequacy of methodologies and tools

The effectiveness of any improvement activity depends on the adequacy of the chosen methodology or tool. Unfortunately, there are just few adequate methodologies in service management. Even worse, if a methodology or tools exist, most companies we observed are not able to use them efficiently. Additionally, we observed that the adequacy of tools decrease if the complexity or half-life will increase.

In service setting our findings suggest, that many companies can not use tools to monitor and measure service quality and to find the right corrective actions, or to install a standardized service innovation process. The lack of adequacy methodologies limits the effect of improvement on service quality and service innovations (value added services). That leads to a concentration of "low hanging fruits" like added services or less complex service dimensions. Unfortunately, this ways to improve attractiveness do not lead to a real fundamental progress. It erodes firm's competitive position and leads to the "service jungle" where companies offer a high number of services (mainly added services), but can not charge for it.

If one assumes the right methodology exists and one uses it, the correlation between the half-life process and the adequacy of methodologies creates additional challenges. These challenges refer to the management push.

Management Push

We assume that less adequacy of tools and methodology requires a higher management support. That means, if the improvement effort is focused on higher improvement half-lives, the management has to support the use of the required tools much more. It leads to a changing role of the management. At first, the management has to concentrate on motivation of the employees and initiating the employee pull. Afterwards, the management has to support the service worker by using the existing methodologies and tools. In case of a lack of support the employee pull is going to weaken leading to an improvement failure. The feedback loop and the changing role of the management are illustrated in the following figure.

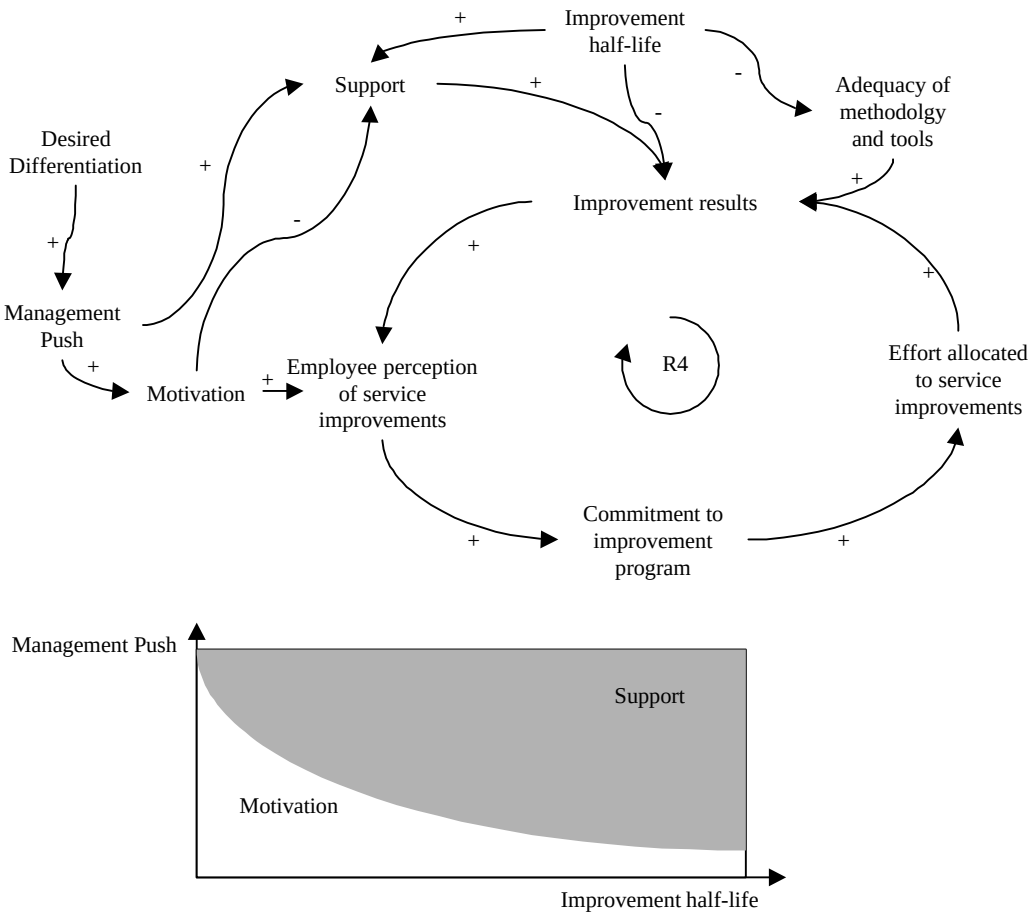

Figure 12: The impact of improvement half-lives on the management push

2.3 Customer perception

2.3.1 The nature of customer perception

The former sections were mainly focused on internal interdependencies. We use this section to describe the dynamics added by the customer perception. As mentioned earlier, according to the gap model, there is a discrepancy between service attractiveness in the eyes of the company and the perceived attractiveness.

At first, cognitive processes influence the perceived attractiveness. As illustrated in figure 13, we follow the gap model and transfer it to the attractiveness.

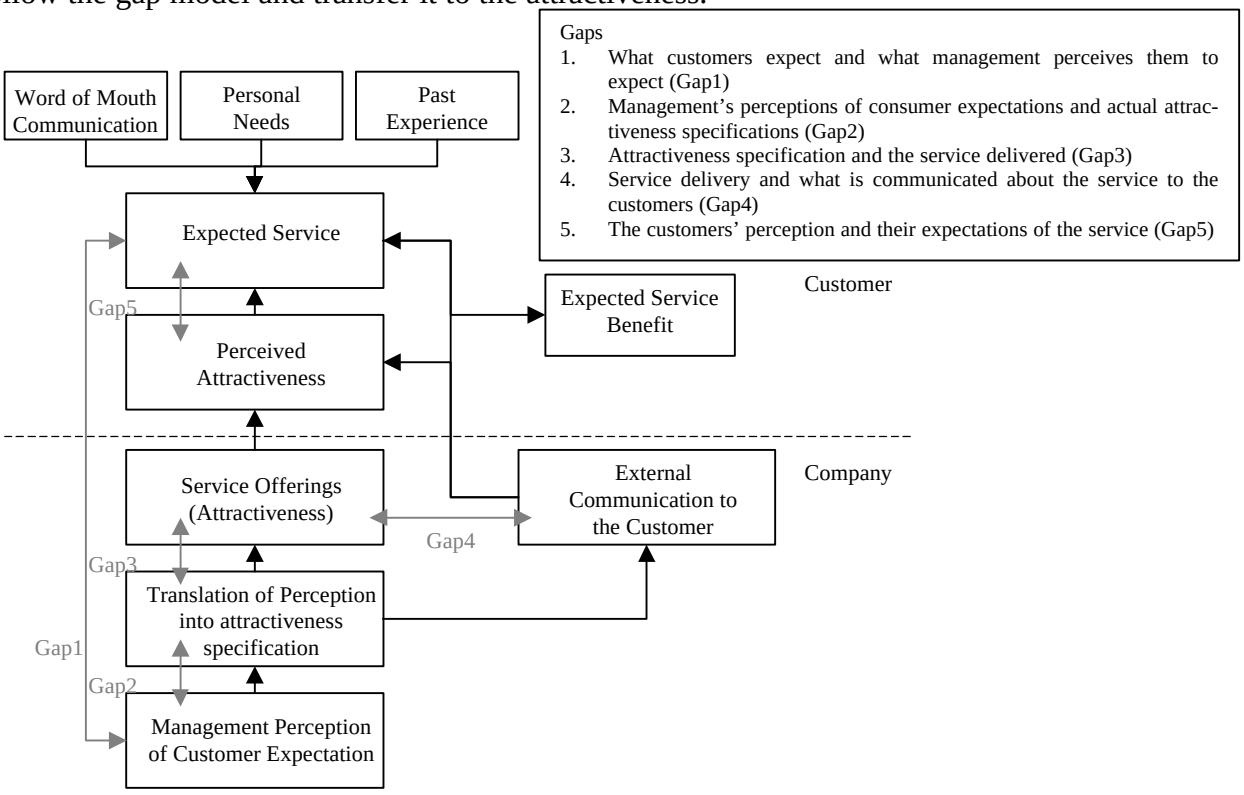

Figure 13: Conceptual Model of Attractiveness.

The perceived attractiveness is influenced by the external communication to the customer, the word of mouth communication, past experience and the personal needs (Parasuraman, Zeithamel and Berry, 1985). Based on the perceived attractiveness, the customers build expectations about the benefit of the service. The perceived attractiveness is positively related to the expected benefit. The customers compare the expected benefit to the real benefit of service (Gronroos, 1984). The real benefit is influenced by the attractiveness.

If the expected benefit is higher than the real benefit the customer will not be satisfied, leading to worse past experience, weakening the word of mouth communication and the company's image

as a part of the external communication, eroding the perception of the attractiveness. The three loops are self-reinforcing feedback loops and are illustrated in figure 14. They reinforce themselves as long as a performance gap exists. If the expected benefit is higher than the real benefit, R6a, b and c will reduce the expectations until the expected benefit is equal to the real one. If the expected benefit is lower than the real benefit, the customer satisfaction enhances the perception until the expected is equal to the real benefit.

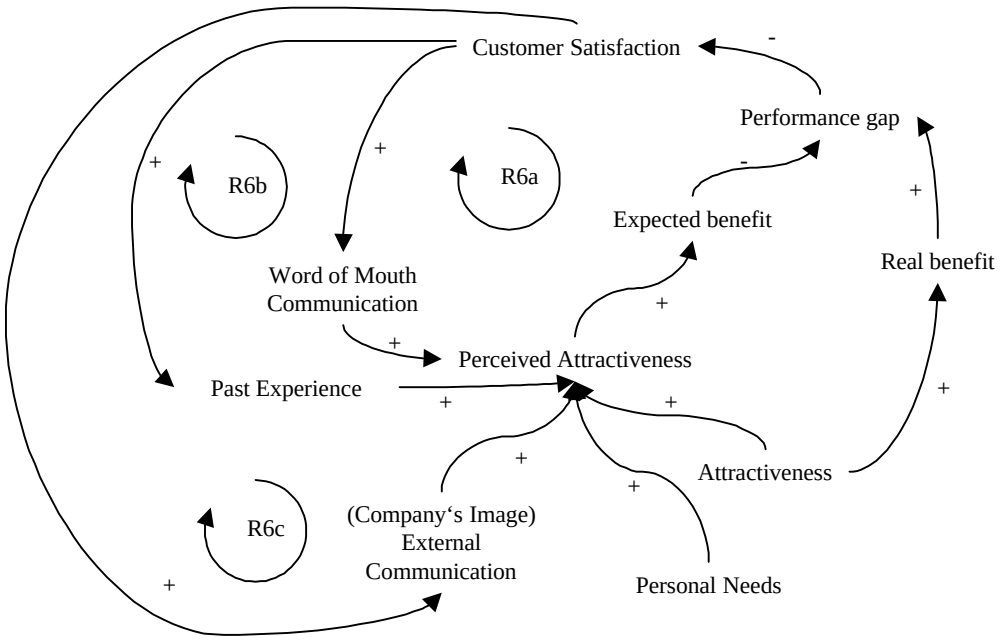

Figure 14: The nature of customer perception.

To make use of the reinforcing nature of R6a, b and c managers have to make sure that the real benefits always outperform the expected benefit. It requires improvement activities increasing attractiveness and perception of attractiveness.

2.3.2 The impact of the improvements on the customer perception

According to the former sections, we first assume, that managers try to increase perceived attractiveness through additional services. As discussed earlier, added services do not increase the real benefit. But unfortunately we observed that they influence the perception. They get a high attention and lead to a perceived attractiveness enhancing expectation. That leads to a performance gap, decreasing the customer satisfaction, eroding the word of mouth and company’s image and forming bad past experience. The word of mouth represents the link to other customers. That means, added services influence the perception of other customers negatively. Additionally, the

erosion of company's image leads to a long-term effect and has negative impact on the future business.

To avoid the described erosion of company's image, an unfavorable word of mouth and the negative experience, the external communication has to close gap 5 of the gap model. Gap 5 describes the difference between the customers' perception and their expectation of the service benefit. Considering the phenomenon of increasing half-lives and "low hanging fruit" syndrome, additional services have to be secured by an external communication closing the gap between the customers' perception and their expectations. If not, the former mentioned feedback loops (R6 and B7) work as vicious cycles leading to the "service jungle".

If the attractiveness will be improved by enhancing service quality, the customer's perception of the attractiveness has also to be supported by the firm's external communication. In this case, the feedback loops R6a, b and c would work in the right direction as long as the expected benefit is lower or the same as the real benefit. In combination with B8 and B9, the employee pull would operate as a virtuous cycle. Compared to the external communication by added services, the success of service quality improvements is influenced by all gaps.

2.3.3 Focus on personal needs (suitability to current and latent needs)

As mentioned in the last section, one can create self-reinforcing feedback loops leading to fundamental improvements by enhancing service quality and by adjusting the external communication to the five gaps. But enhancing service quality can create additional dynamics, if it won't be done in the right way. One has to look more into the detail of service quality as a multidimensional construct that encompasses several aspects. For example, one dimension of service quality can be the suitability to current and latent needs of the customer. It would increase the perceived attractiveness because the suitability to current and latent needs has a positive impact on personal needs.

Enhancing the suitability of services leads to an individualization of existing services and increases the number of variants. Referring to Schuh (Belz et al, 1997) the increasing number of variants causes an exponential growth of costs, which can not be recovered with corresponding returns.

The tendency to offer more and more individualized services is created by a pull and push effect. The pull effect refers to the observed development that customers tend to want individualized solutions. Our findings suggest that the management often overestimate this pull effect. In service settings, it is more important to avoid the push effect. The push effect is created by misperception of managers and by the improvement half-life.

The misperception of managers refers to the observed fact, that the management perceives a wrong degree of individualization, because of gap 1 - a misperception of customer expectation. The mental models of the managers mainly cause this misperception. Managers often tend to do a wrong attribution of how individualized services influence the success. The wrong attribution is based on the initial success of more individualized services. More individualized services boost sales and revenue creating business success. It leads to what we call “the golden rule”. Unfortunately, the business success is limited by the feedback loop R8. But the managers still follow the “golden rule” based on their causal attribution of individualization and business success.

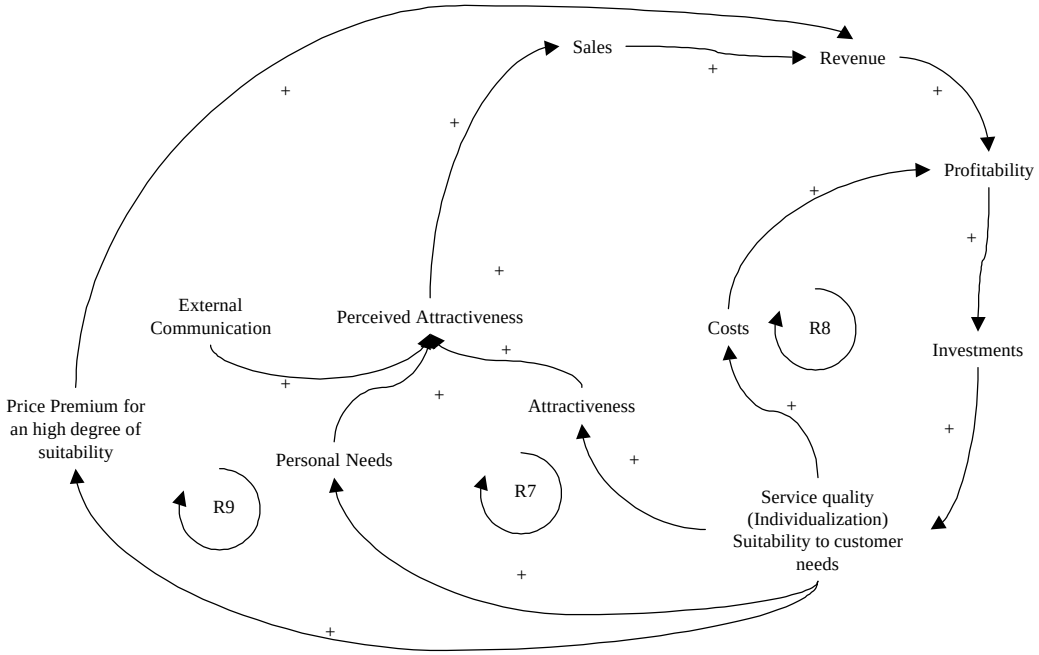

Figure 15: The effects of an increasing suitability (individualization).

Beside the explanation that misperception pulls the degree of individualized service, the half-life concept adds an additional argument. Our findings suggest that increasing the degree of individualized services have the lowest improvement half-life compared to improving functionality, features, re-engineering services or standardization of services. That means, if the employee pull is created, the fundamental improvement program will focus on individualizing services first. It will create initial success until R8 dominates R9. The challenge for the service managers is to limit the tendency to more individualized services. They have to find a trade-off between individual and standardized services. We developed a set of tools and a methodology to find the right balance between individualization and standardization.

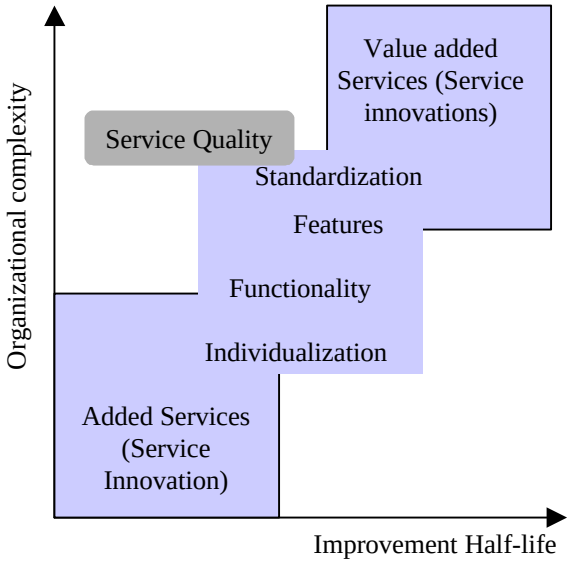

Figure 16: The improvement half-lives of different service quality improvements.

2.4 Competitors

2.4.1 The effectiveness of service innovations and service quality

Beside the customers the competitors create additional dynamics in service management. In order to understand the rich arrays between the company and its competitors, we regard to the potential-oriented management model. We assume that a relative differentiation of the competitors results from company's strategic success positions (Pümpin, 1989). The strategic success positions are supported by company's resources and capabilities (Bleicher, 1992). For sustainable differentiation, company's resources and capabilities must contribute efficiently and effectively to the strategic success positions. In service settings, effectiveness and an efficiency of service innovations, service quality and external communication, can strengthen strategic success positions. Effective and efficient service innovation or superior service quality is mandatory necessary for a contribution of the external communication to the success positions.

We assume that a relative differentiation to the competitors results from the company's strategic success positions. There are two ways to achieve a relative differentiation. On the one hand a company can try to fill other strategic success positions than the competition. On the other hand the company can try to fill strategic success positions more efficiently than the competition. We observed that in service settings companies tend to fill the same strategic success positions. If one has the same strategic success positions, the service innovation process will focus on the same service ideas supporting similar success positions. Thus, the effectiveness of service innovations is limited. Beside the low effectiveness of service innovation, the effectiveness of the service quality is limited by the company's inefficiency. The observed inefficiency is caused by two self-reinforcing feedback loops. In order to understand reasons for low efficiency, one must consider the decision behavior of the customers and the competitive reactions.

2.4.2 The inefficiency of service quality

Customers are making their decisions by comparing the attractiveness of one offer to another one. That leads to the relative perceived attractiveness. The comparability of service offerings influences the relative perceived attractiveness. In case of a non-comparability of service offerings the customer has difficulties to make the right judgement. Based one this judgement, one has to integrate the decisions of the company and its competitors. Consider the company offers a superior service based on better or improved service quality. The competitor has mainly two options to react. On one hand, the competitor can try to increase its service quality and outperform the company. As mentioned earlier, the service quality dimension with the lowest half-life is individualization of existing services. That would lead to the side effect of a lower comparability. On the

other hand, the competitor can try to avoid the comparability of services by adding non-value-added services to the existing services, leading to a lower comparability and a lower perceived attractiveness. These options lead to erosion of the perceived attractiveness in the eyes of the company. The company can react in two ways. It can try to improve the external communication by focusing on the perceived attractiveness. The external communication must secure that the offered service quality is better suitable to satisfy the customer needs. Another reaction could be the re-establishment of the comparability by adding similar activities or services. Our findings suggest, one would react in the easy ways (added services or individualization). Both reactions would lead to balancing feedback loops (B10 and B11), trying to close the differentiation gap, by adding more and more added services and leading to the "service jungle" (figure 17). These reactions would not create a sustainable differentiation. It limits the contribution of better service quality to company's strategic success position. Furthermore, it leads to a lack of service efficiency. Because of the limited effectiveness of the service innovations and inefficiency of service quality the external communication can also not be used, in order to strengthen the strategic success positions.

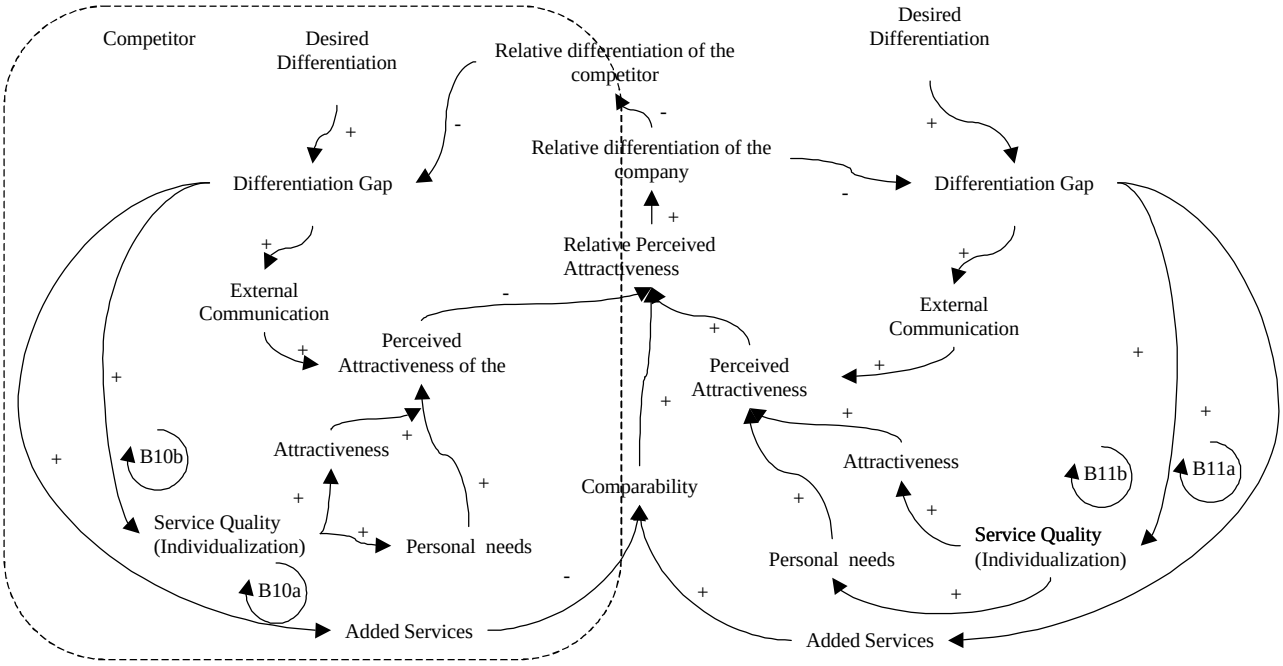

Figure 17: Competitor's reaction.

3 Summary

In this paper, we tackle the problem of explaining why, companies struggle to leave the "service jungle". Our finding suggests, the "service jungle" is a symptom of challenges involved in making services work. A good theory, according to the system dynamics paradigm, links observable macro behavior to the micro-level decision making (Morecroft, 1985). We showed those „service jungle" results mainly from the several misperceptions of feedback loops and a lack of inadequate tools and methodologies.

The model from which this insight arises has limitations, of course. Most significant, the framework we propose represents an abstraction from the detail of real service management. We aggregate all kind of services into a single category "services". The myriad activities required to create differentiation are considered simply "improvements". Nevertheless, while the model is exceedingly simple and captures only a small portion of the complexity of any real service management, our findings capture an important set of dynamics that play a critical role in determining overall system performance.

We made a contribution by combining service management and service improvements. It is now well documented what companies have to consider achieving the "service garden" (figure 18).

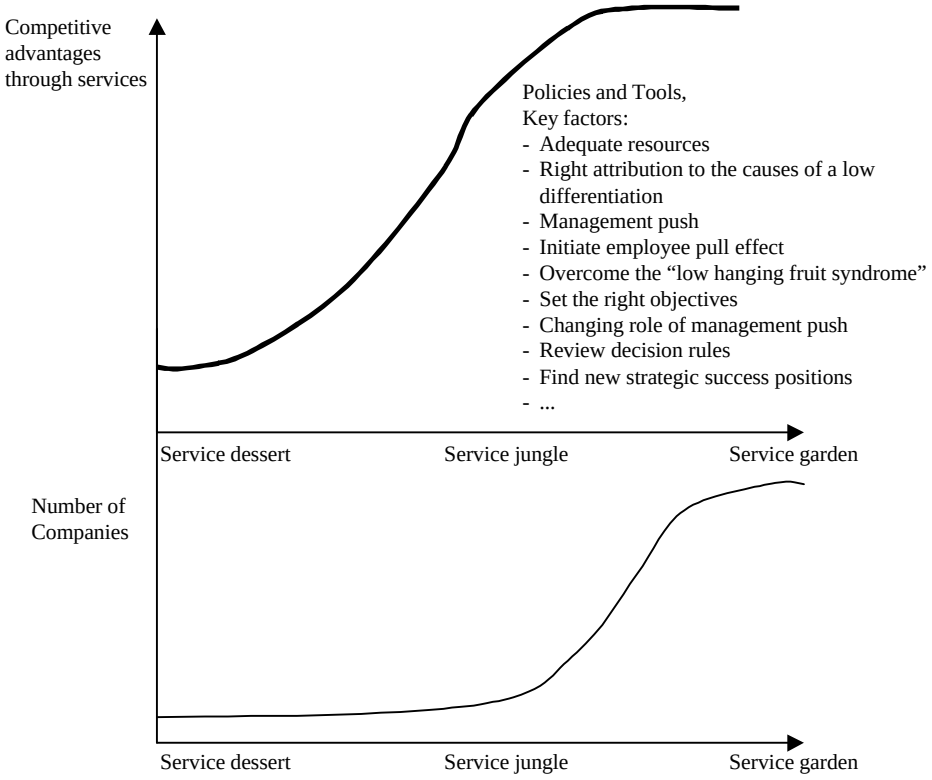

Figure 18: Examples of recommended policies to achieve the service garden.

Companies can strengthen the self-reinforcing feedback loops that can lead to sustained improvements by actively managing the feedback loops that limit program success. First, one has to overcome the challenges created by an inadequate attribution to the causes of a differentiation gap. Resources and goals must be consistent with the improvement half-life of the process to prevent effort squeeze. If employees are free to allocate time to service improvement, are adequately pushed and trained by the management and the program scope remains focused, initial results will build commitment. By activating the virtuous cycle of the employee pull reinforcing R1 early, rapid improvements will follow. The improvement program will not sustain without management push. But, the role of the management will change from motivation to support. However, managers should anticipate a slowdown in improvement results as the complexity of the problems addressed increases. They must also recognize the feedback loops arising from the customer perception and the competitors. Decision rules should be reviewed and managers must become adept in understanding the rich arrays of interdependencies and feedback loops in the organization and its environment. At our partner companies this process is currently under way.

References

Belz, C. et al (1997), Industrie als Dienstleister, Verlag Thexis St. Gallen.

Bleicher, K., Das Konzept Integriertes Management, Second Edition, New York, 1992.

Corsten, H. and H. Schneider (1997), Wettbewerbsfaktor Dienstleistung: Produktion von Dienstleistungen - Produktion als Dienstleistung, Vahlen, Munich.

Cyert, R., J. March, (1992), *A Behavioral Theory of the Firm*, MIT Press, Cambridge, MA.

Deming, W.E. (1986) Out of the crisis, MIT Press, Cambridge, MA.

Einhorn, H.J. and R.M. Hogarth (1986) Behavioral Decision Theory: Process of Judgement and Choice, *Annual Review of Phychology*, 32, 53-88.

Forrester, J.W. (1961) Industrial Dynamics, MIT Press, Cambridge, MA.

Gronroos, C. (1984) A Service Quality Model and ist Marketing Implication, *European Journal of Marketing*, 18 (4), 36-44.

Heskett, J.L., T.O. Jones, G.W. Loveman, W.E. Sasser and L.A. Schlesinger (1994), Putting the Service-Profit Chain to Work, *Havard Business Review*, 72 (2), 164-174.

Homburg, C. (1995), *Kundennähe von Industriegüterunternehmen: Konzeption - Erfolgsauswirkungen – Determinanten*, Gabler, Wiesbaden.

Keating, E., R. Oliva, N. Repenning, S. Rockart and J. Sterman, (1999) Overcoming the improvement paradox, *European Management Journal*, 17 (2), 120-134.

Kahneman, D., P. Slovic and A. Tversky (1982), *Judgement under uncertainty: Heuristics and Biases*, Cambridge University Press, Cambridge MA.

Kahneman, D., and D. Lovallo, (1993), Timid choices and bold forecasts: A coginitive perspective on risk-taking, *Management Science*, 39 (1), 17-31.

March, J.G. and H. Simon (1993), *Organizations*, Blackwell, Second Edition Oxford.

Mills, P.K. (1986) Managing Service Industries, Ballinger, Publishing Company, Cambridge, MA.

Morecroft, J.D.W. (1985) Rationality in the Analysis of Behavioral Simulation Models, *Management Science*, 31 (7), 900-916.

Parasuraman, A., V.A., Zeithaml and L.L. Berry (1985), A Conceptual Model of Service Quality and its Implication for Further Research, *Journal of Marketing*, 49 (4), 41-50.

Pümpin, C., Strategische Erfolgspositionen: Methodik der dynamischen strategischen Unternehmensführung, Bern, 1989.

Rosenstiel, L., (1975), *Die motivationalen Grundlagen des Verhaltens in Organisationen*, Berlin.

Schlesinger, L.A. and J.L. Heskett (1991), Breaking the Cycle of Failure in Services, *Sloan Management*, 32 (3), 17-29.

Schaffer, R. and H. Thompson, (1992), Successful Change Programs begin with results, *Havard Business Review*, 70 (1), 80-89.

Scheiderman, A. (1988) Setting Quality Goals, *Quality Progress*, April, 55-57.

Schuler, H. (1995), *Lehrbuch Organisationspsychologie*, Second Edition, Bern.

Shiba, S., A. Graham and Walden, D. (1993) *A new American TQM: Four practical revolutions in management*, Productivity Press and the Center for Quality Management, Cambridge MA.

Simon, H. (1993), *Industrielle Dienstleistungen*, Schäffer-Poeschel, Stuttgart.

Sterman, J., N. Repenning and A. Kofmann (1997) Unanticipated side effects of successful quality improvements: Exploring a paradox of organizational improvement, *Management Science*, 43 (4), 503-521.

Repenning, N. and Sterman, J. (1997), Getting Quality the Old-Fashioned Way: Self-confirming attribution in the dynamics of process improvement. (Working paper available from the authors).

Ross, L. (1977), The intuitive psychologist and his short comings: Distortions in the attribution process, In: L. Berkowitz (ed.), *Advances in experimental social psychology*, vol. 10, Academic Press, New York.

Van de Ven, A. and M.S. Poole (1995) Explaining Development and Change and Organizations, *Academy of Management Review*, Vol. 20, No. 3, 510-540.

Vroom, V. (1964) *Work and Motivation*, New York.

Zeithaml, V.A., A. Parasumaran and L.L. Berry (1990), *Delivering Quality Service: Balancing Customer Perceptions and Expectations*, The Free Press, New York.

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