

# Overdosed management: How excess of excellence begets failure

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**Abstract.** The managerial world has been inundated with dozens of sound management theories during the last three decades. Among them are the Balanced-Scorecard, Activity-Based-Costing, Lean, Six Sigma, TQM, TOC, MBO, MCDM, Core competencies, Vision, Coaching, Outsourcing and many others. The application of these models has often proved disappointing for many companies. A major reason for the failure of these models is the OVERDOSE SYNDROME: taking good principles to destructive extremes. This paper analyzes the origins of the managerial overdose syndrome, illustrates its undesired outcomes and suggests ways to circumvent them in the future.

Cases will illustrate the managerial overdose phenomenon and its remedies.

Keywords: Balanced scorecard, Activity-Based-Costing (ABC), lean, 25/25 principle



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## 1. Introduction

Physicians administering medication to patients follow three steps:

1. Diagnosis – identifying the illness and deciding on the appropriate treatment.
2. Prescription – determining the appropriate dosage in light of the patient's age, weight, allergies, etc.
3. Follow-up – verifying the treatment's effectiveness, adjusting the dosage and/or replacing the medication with a more appropriate alternative.

We argue that managerial practices are analogous to drugs and that managers should be aware and cautious of the following facts:

1. Just as every medicine is toxic, every managerial method is harmful when taken to extreme.
2. Just as medication must fit the disease, so managerial practices should be applied only to domains where they are needed.
3. Just as medication is reevaluated periodically, so should managerial tools be reevaluated with regard to their effectiveness and scope.

Veteran executives deploying new practices in their organizations eventually become accustomed to a recurring pattern – a new magic cure is discovered, a host of consultants swarm the department, they launch a set of buzzwords which eventually fade out; and soon after, a fresh new group of witch doctors replaces their predecessors. This was the fate of Total-Quality-Management [1], Activity-Based-Costing [2], etc. and will most likely be the fate of many current management practices.

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Every year there is a crop of new management practices – and, unfortunately, every year one sees the failure and damage caused by an overdose of good management practices.

The overdose effect characterizes the phenomenon of executives applying sound managerial tools in an overzealous manner. This is the result of success in early implementations where the company focused on quick wins. Soon after, the methods are implemented across all organizational functions whether or not they are appropriate, lose their initial flexibility, and wallow in excessive detail and red tape. Executives have the misconception that “you can’t have too much of a good thing”. In reality the effectiveness of managerial practices rises with their initial introduction, reaches an apex, and then declines as the method is overdosed. Overzealous implementation overshadows management attention from using other tools that may be more effective locally.

## 2. The lifecycle of management tools

We have observed that management tools can be applied in three zones: the ignorance zone, the effective zone, and the overdose zone (Fig. 1). As an ignorant organization discovers an effective tool, its deployment initially results in tremendous value creation. This exponential growth in value contribution is the result of “pearl” applications [3]: applying the managerial tool in areas where its application is easy and at the same time highly rewarding. This first stage results in enthusiasm, prompting the implementers to introduce it into areas that are more difficult to change and where the tool’s contribution is less significant. In the third stage, as executives get carried away with the belief that “you can’t have too much of a good thing”, the model is applied to “white elephants” – areas where damage in terms of excess bureaucracy and wasted energy exceeds its contribution – the overdose zone.

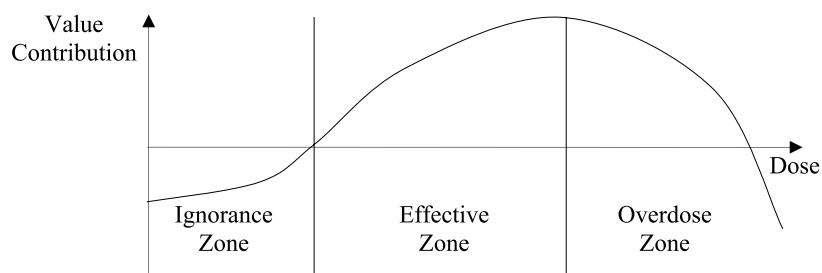


Fig. 1. Managerial tool application zones.

The overdose phenomenon has lately been observed with many of the new diets that have become fashionable. In the 1990s the Western world was obsessed with “low fat” products; the twenty-first century tolerates fat, but “carbs” have become the number 1 enemy.

In management we have observed analogous phenomena. Consider the following examples:

1. Managerial accounting – the management accounting community recognized the fact that its traditional cost allocation methodology invented in the 1920s, was irrelevant to modern cost structures and business environments. The practice of overhead allocation conceived during the 1920s was effective when overhead averaged 5%. Overhead allocation is inappropriate when overhead accounts for 40–80% of expenses. During the 1920s direct labor was considered a variable cost, a fact that is irrelevant to most companies today, where labor is a fixed cost. This is the result of the switch from daily workers to knowledge workers. To address this problem, Kaplan and Norton introduced Activity-Based Costing (ABC) where the overhead is allocated to several cost drivers. This important idea was taken to extremes as stated by Kaplan and Anderson in 2004 [4]: “many managers abandoned Activity-Based-Costing because it did not capture the complexity of their operations, took too long to implement, and was too expensive to build and maintain”. When applied moderately, ABC has proved to be an important tool. However, ABC overdose is manifested in executives defining excessive lists of cost drivers, introducing complex software and hiring large teams to maintain the methodology.

2. Performance measures: Executives have always applied measures of performance in order to allocate resources, apply Management-By-Objectives, control activities and investments, reward employees and assist decision-making processes. The problem has always been how to do it efficiently and effectively. The remedy was to introduce a simple set of performance measures. Enthusiasm with the control achieved by do-

ing so often resulted in “MEASURE OVERDOSE”: an excessive number of measures applied in excessive frequency. For example, let’s consider measures applied by the London underground [5] Performance-Update. Measures covered all trains, delays, satisfaction, stations, entries and exits, lifts, escalators, closures etc. during peak and off-peak hours. The resulting report was thirteen slides long requiring a bureaucracy to assemble, resulting in information overload, and lacking actionable focus. When Bombardier entered as a partner in Metronet [6] – the operator of the London underground, they summed up their measures in a single slide titled: “Passenger disruption reduced since transfer in 2003”. The authors have encountered a large IT application developer and integrator whose quality assurance department implemented dozens of quality measures, conducted dozens of audits per quarter and as a result had neither the time nor resources to analyze the findings let alone apply corrective action.

3. Process control is an invaluable organizational feature when applied to fundamental problems and changes in the environment. Process control is commonly used in service, logistics and manufacturing processes as well as in marketing and pricing. The abuse of process control results in OVER-CONTROL. Over-control is a form of overdose that is manifested by reacting to minute, “noise” events – natural changes that do not reflect fundamental problems, and should therefore be monitored but ignored. Deming [7] demonstrated that over-control results in disruption, adds noise, wastes executive energy and through a positive feedback loop aggravates business performance. Analyzing customer satisfaction data is extremely valuable for improving business processes but the analysis should only be applied periodically and appropriate statistics must be used. Process changes triggered by individual customers rather than by larger samples result in instability and hyperactive management.

4. Marketing – in a world without constraints, marketing executives tailor products to individual customers – mass-customization. Market segmentation contributes significantly to the company’s value by tailoring the product and the price to the needs of various customer segments. But how far can a company go in its attempts to please its customers? “Overdosed segmentation” results in complexity – high-mix low-volume, and in an excessive number of Stock-Keeping-Units (SKUs) and brands. Consequently, the costs of advertising, promoting, developing, manufacturing and logistic support skyrocket; the company be-

comes complex and cumbersome and ultimately, its value declines. Consider Kenwood [8] a manufacturer of home appliances. Between 1998 and 2001 Kenwood’s sales averaged \$2.5 billion. As Kenwood strove to maintain the sales quota of its various SKUs, its profits steadily declined culminating in a \$300 million loss in 2001. Only after this crisis situation did Kenwood rationalize its SKUs, reducing sales to an average of \$1.5 billion and increasing profits by \$350 million. Similarly, Irwin, a Rubbermaid company, reduced the number of brands under its management, from 85 in 2001 to 12 in 2005. Irwin had 178,000 SKUs in 2002 which were reduced to 85,000 in 2005, an elimination of 52%.

5. Information Technology (IT) – is at the core of organizations in the areas of financial services, insurance and telecom. In these businesses, value cannot be created without the development of appropriate IT applications, but sometimes, success with pearl projects – projects that have tremendous value potential, results in OVERDOSE – the addition of more “nice-to-have” features that are seldom (if ever) used. These features overburden the project resulting in acute project delays, complex architectures, budget overrun, reduced quality and reliability. Studies [9] into the causes of software project termination reveal that the probability of a project’s being terminated without delivering value is exponentially related to its complexity (measured in function-points). Small projects (averaging 100 function points) have a 7% probability of being stopped. Large projects (averaging 100,000 function points) have a 65% probability of being stopped. Additional features and function-points result in an exponential growth in interfaces and resource constraints that fatally burden the project. The authors’ experience shows that over 30% of the features in IT applications in financial services (banks, insurance companies, etc.) can be considered “over-specification” and “over-design” (nice-to-have features). Thus, executives can significantly increase the success probability of projects by eliminating these surplus features.

6. Operations – veteran executives face three new acronyms every three years (the alphabet soup effect). These methods include just-in-time (JIT), Lean, the Theory-Of-Constraints (TOC) [1], the balanced scorecard (BSC) [10], the Complete Kit concept [11], Management-By-Objectives (MBO) [12] and Critical-Chain-Project-Management (CCPM) [13]. The methods are highly effective when applied with moderation and in the right places. However, excessive implementation across all functions in the company results in

disillusionment and eventually abandoning the methods altogether. For example, a valuable tool such as MBO is overdosed when the performance of a bank branch manager is measured using forty performance indicators including: products sold in a given mix, service quality, average loan spread, number of new customers, churn rate, number of contacts with customers, results of promotion performance, etc. Likewise, service representatives working for a cellular company are measured using over twenty measures including: quality of service, call duration, percentage of calls solved during the first contact, average up-sale per call, etc. This excessive number of performance measures is confusing, lacks focus and does not align the company's performance incentives with its strategic priorities. The Complete-Kit concept stating that work on a task should start only after all items (physical, information, specifications, regulations, etc.) required for its successful completion are available has a proven track record. Using Complete-Kits in production saves around 40% of the labor hours and its application in R&D departments has saved around 80% of working hours. However, when the Complete-Kit concept is overdosed, and the kit's definition includes exotic items seldom used, the kit will never be completed and the system's throughput will be reduced.

7. New product development – Quality-Function-Deployment (QFD) [14] is a useful tool for new product development. QFD breaks the product into a list of features. Each feature is deployed across a number of organizational functions such as development, service, sales, etc. to indicate its impact. Each feature is given a weight indicating its importance. The company's product is compared to a number of relevant competing products. QFD is used as part of a value engineering process aimed to increase the product or the service's contribution to the firm's value.

QFD is demonstrated to be a useful tool for the understanding of customer needs. This is particularly important for engineers who are detached from the customer's use of the product. However, overdosed application of QFD obscures visibility of the major value drivers and loses common sense in the analysis. Overdose of QFD consists of definition of too many features, too many organizational functions, and analyses of too many competitors. Let's examine the QFD performed by Puritan-Bennett on its Spirometer product line [15]. Analysis defined 35 product features which were deployed across 56 functions and then compared the product to four competitive products using three importance indicators. This gargantuan analysis re-

vealed the fact that hospitals were indifferent to the product's features and only cared about its acquisition, maintenance and technician training cost, with the assumption that the product met minimal performance standards.

Another kind of overdose syndrome often arises when new products are developed. Over-specification and over-design are symptoms of overdose management in new-product development [16]. Over-specification occurs when either marketing or customers cram as many features as they can possibly conceive of with unneeded and sometimes unrealistic tolerances. Over-design occurs when the engineer designing the product adds new features that may be useful in the future and to be on the safe side exceed the customer's tolerance requirements. Over-design is aimed to assure that the product complies with future "growth potential" requirements.

Over-specification and over-design result in the pathology of too-late, too-little, too-loaded: the excessive number of features raises the product's complexity. Development is delayed and the product overruns its planned launch. Sometimes the product is not launched at all or misses its window of opportunity. In many cases as time overruns, executives are compelled to radically cut requirements in order to diminish damages caused by the delay. Requirements which are cut are often not over-specification or over-design requirements but rather core-requirements that have not yet been completed. The product's platform is designed to support its overdose requirements in terms of processing power, memory and power supply. As a result, rather than launching an innovative lean product, the company launches an overpriced, unreliable "me-too" product. Overdose design results in cumbersome user-interfaces, unreliable and slow response. For example, the manufacturer of a groundbreaking multimedia cellular device had intended to be the first player to include music, gaming and video in a single device. The product's architecture was extremely complex. As a result the product's launch was delayed. Finally, the media player feature was eliminated. In the end there was the late launch of an unappealing mediocre product which was too expensive and too power-consuming, due to the memory and processor requirements that had been needed to support the initial media design, and nobody wanted to buy it.

This form of OVERDOSE is not new. In fact in the 15th century, Johann Guttenberg, the inventor of metal movable type overloaded the product with features such as color and excessive quality requirements.

The result was that Gutenberg had to borrow money from a lawyer, Johann Fust. Gutenberg's business was foreclosed and it was Fust who proceeded to print the first books.

8. Decision making is one of the executive's most important tasks. Decision making should be of high quality, timely, and actionable. Multiple-criteria-decision-making (MCDM) [17] is the most common decision support tool used both by individuals and in tender selection processes. MCDM prescribes evaluating all possible alternatives, on all possible criteria. MCDM adds weights to the criteria. The valuable discipline of MCDM was abused by the Analytical-Hierarchy-Process (AHP) [18] aiming to enhance it by comparing pairs of alternatives and generating an "inconsistency coefficient". The result is a cumbersome, time-consuming process OVERDOSE. As noted by Zeleny [17] "The decision-making process becomes more important than its outcome". This calls for a clear and agile decision making process.

Nobel laureate H.A. Simon [19] calls for a simple and clear process for business practitioners. Simon aims to avoid excessive decision making, termed as the "optimizer approach" and resulting in "analysis paralysis" – procrastination and inaction. The desire to select the absolute best alternative in all situations requires analysis of all potential alternatives, all data and tailoring mathematical models, thus losing out to faster responding competitors. As a result the patient may die while the doctors contemplate the optimizer's treatment. Taking into consideration our bounded rationality, Simon prescribed the alternative "satisficer approach" which aims for "a good-enough solution". According to Simon, the decision maker should define a "level-of-aspiration" – a realistic set of targets, and should select the first alternative complying with these targets.

To illustrate, let's see what happened when the Italian design house Benetton entered financial difficulties. In a presentation for the investor and analyst community Benetton's CEO [20] outlined his "implementation time-line". It required a year and a half for "deep analysis" and another year and a half for "discipline and focus on implementation" stating that "full financial impact of strategy" would start from the second half of 2005. This timetable basically guaranteed three years of continued losses.

Another example concerns an oil refinery that took three years to select an optimal Enterprise-Resource-Planning (ERP) platform. The costly process included an international exhaustive tour of refineries. The re-

sult was an expensive process, three years with no ERP system, and finally an outdated data set. Given the fact that only two serious alternatives were available, this overdosed analysis is value destroying. Analysis paralysis results in the loss of windows of opportunity. A management professor once asserted that he had selected his spouse using MCDM. The optimizer's process would consist of accumulating data on potential spouses over a period of several decades, finally calculating their score, and notifying the lucky winner . . . .

9. Consensus management: with the growing complexity of organizations and the growing number of knowledge workers whose cooperation is required. Ringi [21], the Japanese decision making methodology derived from the Japanese culture, prescribes conducting the decision-making process until a consensus is reached. In the hi-tech industry cooperation and collaboration between R&D, marketing, project managers and resource managers is crucial, given the matrix structure of the organization. However, this important concept of consensus management can be overdosed and can cause organizational paralysis. In his book "*Who Says Elephants Can't Dance?*" former IBM CEO Gerstner [22] describes "IBM's infamous nonconcur system". Gerstner describes how "respect for the individual has devolved into a pervasive institutional support system for nonaction". Though consensus is an essential decision-making tool, it can be overdosed. Executives must show strong and wise leadership in cases where value is jeopardized by the consensus mechanism.

10. Quality management – the importance of product and service quality in terms of pricing, cost reduction, and agility is well established. Quality is a value driver that should increase shareholder's value in for-profit organizations, and it helps to achieve the organization's goal in non-profit organizations. However, the concept of total quality, exceeding customer expectations, etc., can be abused, severely destroying the company's value. Kaizen, the concept of continuous quality improvement, is abused in several ways: setting up unneeded quality goals, too many quality improvement teams, too much management effort on quality improvement and too much time devoted to process change. Engineers in a semiconductor FAB were devoting 60% of their time to quality improvement. Wallace Co. Inc. from Houston, Texas [23] won the 1989 Baldrige award, but shortly thereafter, the company filed for chapter 11, probably because quality was not focused on increasing shareholder value.

Overdosed ISO-9000 and six-sigma programs result in bureaucracy, delayed product launches and efforts in areas that do not contribute value. The authors encountered a hi-tech manufacturer who had teams aiming to reduce the defect rate from 50 PPM (parts-per-million) to 50 PPB (parts-per-billion) while the competition was operating at a level of 200 PPM. Trying to meet this goal distracted management's attention from other, more important issues, and significantly damaged company value.

11. Finance – the concept that business investments and projects should be justified in terms of return-on-investment (ROI) is a major management tool. However, trying to justify ALL projects and investments, including negligible ones, in terms of ROI leads to overdose – too many processes that are bureaucratic and counterproductive.

Consider, for example, an IT department, consisting of several hundred employees, in a large cellular company. Eighty percent of the budget should be allocated to projects through an ROI justification process. However, twenty percent should be allocated to the company's divisions where it is applied to small business change requests and bug-fixing and bypass the bureaucratic ROI system.

### 3. The etiology of the “overdose syndrome”

The authors have identified several causes for the managerial overdose pathology:

1. Excitement – executives introducing effective new managerial tools into organizations observe the value created by these methodologies. Thereafter they become overzealous and expand the new application without discrimination. Success and excitement blind the organization to the subliminal reduction in marginal utility and the eventual negative, value destroying consequence.
2. Inertia – the managerial methodology becomes pervasive; its motivation and rationale are forgotten.
3. Bureaucracy – organizational functions are created to administer the application of the methodology in the organization. The objective of these functions is to expand the methodology's application. They therefore create a momentum that introduces the methodology beyond its effective range.

### 4. “An ounce of prevention is worth a pound of cure”

How can organizations avoid and cope with the overdose syndrome?

Taking into consideration our bounded rationality, executives should apply Simon's “satisficer approach” as part of the organizational culture, aiming for a good-enough solution. It is our belief that the best way of avoiding the OD syndrome is simply to take the advice of Herbert Simon, i.e. “the satisficer approach”. In other words, organizations should build a culture whose aim is “solutions that are good enough”.

Moreover, organizations should conduct annual audits of projects and activities. We wish to introduce the 25/25 [3] methodology for avoiding the managerial overdose syndrome. The 25/25 principle states that 25% of current projects should be terminated and for the projects that remain 25% of the effort – considered overdose – should be eliminated. To illustrate consider the IT department of a large cellular service provider. The IT department was diagnosed as the bottleneck of several business functions. Damage culminated in attrition due to billing errors, and marketing and sales inability to respond to competitive challenges. The IT department was developing around 400 projects and 1,000 change requests. A task force consisting of the CEO, CIO, and other senior executives functioned as the 25/25 team. The team reevaluated all projects in terms of their contribution to the company – value, and the effort associated with their completion – ease. Thus, the team terminated 100 projects and 250 change-requests. The team next focused on the large remaining projects and removed unnecessary features and overdosed requirements. Thus the company turned from an operating loss of \$100 million to an operating profit of \$100 million within 18 months.

Another way of preventing the OD syndrome is by reshuffling executives. This can be done by switching executives' functions and/or their departments. This switching can give rise to two significant effects: (1) it can refresh the executive toolkit by introducing tools from one area to another and (2) it can help overcome organizational bureaucracy and inertia. Horizontal reshuffling has many positive effects, including the introduction of different viewpoints that promote an organizational gestalt – a holistic view of organizational issues.

Business and value-creation thinking – executives should be trained to judge actions and tools in terms of their contribution to organizational value rather than

just for their own sake. Thus, when the overdose region is reached, and value is destroyed, executives should halt tool introduction and look elsewhere.

Lastly, the OD syndrome might be reduced or even prevented by the establishment of a knowledge base. By creating an intranet website with stories of success and failure, executives can better anticipate success and better understand the possibility of overdose. This remedy assumes that such a knowledge base would encourage executives to contribute failure stories as well as success ones so as to cultivate an open debate.

## 5. Conclusion

Every few years some new management methodology is presented. Executives who gain value from its implementation become enthusiastic promoters and introduce it in many areas of the organization in excess. This is the overdose syndrome.

Reducing the overdose syndrome eliminates value destruction, reduces cynicism associated with the fad parade, and opens minds for new locally effective tools.

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