

Prevention of cognitive distortions in planning - how controllers can improve the content of planning

by Christian Fischbach

Scientific and consultancy-oriented approaches in the context of corporate planning and steering focus on the optimisation of the processes: Success factors are identified, benchmarks developed, time and cost expenditure is reduced and the time spent on planning is shortened. Only a few approaches can be found for the optimisation of the development of planning contents.¹

Not only do deviations from the initial plan result from a divergent implementation of measures or the occurrence of special external events, but they often also cause planning and steering errors. This article describes a selection of such errors, and highlights how these can be avoided by the controller.

Hereafter, potential causes of errors in the operational planning and steering are presented. A planning or steering error will be considered a “bias” - a distortion - that is, a systematic error that does not occur by chance. The examination of bias is an area of research within cognitive psychology. The “behavioural controlling” approach attempts to enable the controller community to utilise results from the area of cognitive psychology.² This article features a bold presentation of substantial cognitive distortions that may occur within the context of planning and steering, their causes and potential ways of avoiding them. Awareness of these errors is a fundamental prerequisite for their detection and therefore also a requirement for their prevention.

Planning, its implementation and steering is typically carried out in these four phases: (1) strategic planning, (2) midterm-planning, (3) budgeting agreement of objectives, and (4) implementation and steering (comp. Figure 1).³

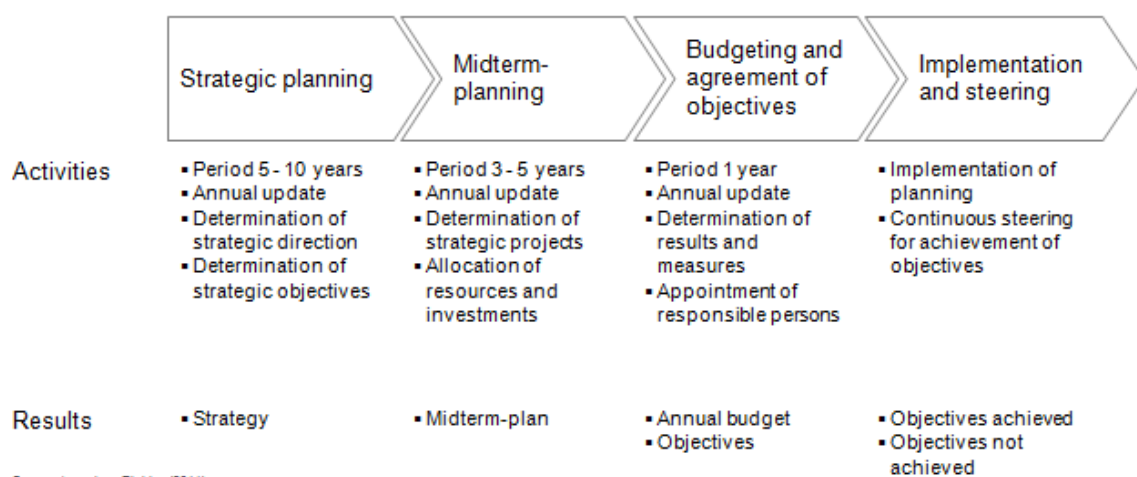


Figure 1: Planning cycle

¹ This includes Hall/Lovallo/Musters (2012).

² Comp. i.a. Weber/Riesenhuber (2002); Weber/Hirsch/Linder/Zayer (2003).

³ Comp. Richter (2011).

Cognitive bias may appear in the course of this process. We distinguish between individual and group-based bias. Figure 2 shows a possible classification of selected bias in the planning and implementation phases.

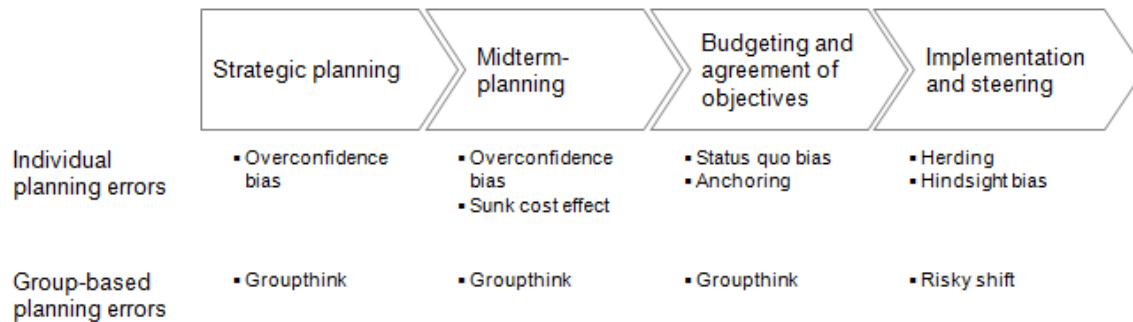


Figure 2: Bias in the planning cycle

Controllers are responsible for detecting steering errors and for establishing suitable counter measures to prevent, or at least minimise, such errors. The following brief description of six individual and two group-based bias is illustrated through relevant examples, and possible prevention strategies are offered.⁴

The individual planning and steering errors presented here can be characterised as follows:

Overconfidence Bias: People have a tendency to over-estimate their knowledge and the infallibility of their decisions. The construction of the Sydney Opera House serves as a famous example of an overconfidence bias. It resulted in costs spiralling to ten times the budgeted amount and a doubling of the project time. In addition, the overconfidence bias is confirmed in a large number of studies. The astounding results included:

- The investment portfolio of the average private investor performs 2% p.a. below the annual market performance. Men - especially single men - perform particularly poorly.⁵
- 82% of the participants in a survey of students were convinced that they were amongst the top 30% of all car drivers.⁶
- In 2006, 74% of surveyed fund managers claimed to provide above-average performance - the other 26% evaluated themselves as average.⁷ Three years later, the same investment bank ceased to exist.

In the real economy, the controller can face this cognitive distortion by critically questioning the planning by specialists and, especially when it comes to projects, by establishing planning techniques, such as PERT, analogy methods or parametric valuations. This way, planning results will become more objective, transparent and ultimately more comprehensible.

⁴ The following statements about bias are based on: Marquis (1968); Fischhoff/Beyth (1975); Janis (1982); Buffet (1984); Samuelson/Zeckhauser (1988); Keil/Truex/Mixon (1995); Arkes/Ayton (1999); Eisenführ/Weber (2003); Duan et. al. (2005); Montier (2006); Hermann/Rammal (2010); Basel/Brühl (2011); Dobelli (2011); Pompian (2012).

⁵ Comp. Pompian (2012).

⁶ Comp. Eisenführ/Weber (2003).

⁷ Comp. Montier (2006).

Sunk Cost Effect: In their decision-making processes, people tend to reinforce existing investments in terms of money, effort or time. Good money is literally being thrown after bad money. Actually, the maximum permissible effort and the maximum possible revenue should be considered. The motivation for this scenario lies in the potential avoidance of admitting guilt. A famous example can be found in the further development of the Concorde despite the fact that it was already known at the development stage that it would be impossible to operate the aircraft economically.⁸ It can equally be assumed that the sunk cost effect is a major contributing factor for the failure of many IT projects. Because investments have already been made, the project is kept alive, even though a failure can already be predicted.⁹

Controllers can avoid the sunk cost effect by analysing decision accounting for costs irrelevant to the decision. Costs irrelevant to the decision are sunk costs and costs that are not affected by the decision. Such irrelevant costs should not be taken into account in the decision accounting. Ultimately, only the evaluation of the future development should determine the decision.

Status Quo Bias: Most people prefer the status quo over change. A prime example of this bias is the relocation of villages for open cast mining operations. The villages are often moved to another location in an unchanged manner, even though improved urban development alternatives exist and have been offered. In an organisation, the status quo bias manifests itself, for instance, in the maintenance of the status quo being chosen by decision-makers as the most comfortable and low-risk alternative in the course of budgeting. Particularly in times that require innovation, this behaviour can create challenges for the organisation. Thus, only a few organisations succeed in establishing a continuous innovation culture. The status quo bias is motivated by loss aversion in the event of change: "Better the devil you know than the devil you don't". Controllers can utilise workshops to support "thinking outside the box" by paying particular attention to any ideas that deliberately depart from the status quo. The status quo bias is the primary reason for change management.

Anchoring: During planning, values are estimated based on their initial value. This initial value is not usually sufficiently adjusted. That situation often becomes apparent in the course of cost centre planning, when the last target or actual value is presented as the initial value. The problem with anchoring is that the allocation of resources is not based on the strategic challenges of the future, but on the past.¹⁰ In order to avoid this effect, the statement of such reference values should be avoided as much as possible and planning should actually be "zero based". Weber, Schäffer and Willauer (2000) have shown that organisations with a high proportion of new planning produce a substantially higher planning quality (planning effectiveness, enforceability and planning efficiency) than organisations with a lower proportion.¹¹

Herding: During implementation, some individuals derive their evaluations from the behaviour of others and they include this information in their decision-making process. In organisations, waves of insourcing and outsourcing, focus on core competences and diversification can be observed. Buffet (1984) smugly summarises this as follows: "Failing conventionally is the route to go; as a group, lemmings may have a rotten image, but no individual lemming has ever received bad press."¹²

Controllers should get to the bottom of the inherent motivation when monitoring these trends and ensure that each decision has a sound and real economic basis, which means that an

⁸ Comp. Arkes/Ayton (1999).

⁹ Comp. Keil/Truex/Mixon (1995).

¹⁰ Comp. Hall/Lovallo/Musters (2012).

¹¹ Comp. Weber/Schäffer/Willauer (2000).

¹² Comp. Buffet (1984).

attractive business case, together with an investment appraisal, must illustrate the benefit of the decision.

Hindsight Bias: In steering, decision-makers often remember their earlier estimations only vaguely after becoming aware of the outcome of relevant events. They distort their own estimations with a tendency towards the actual outcomes. In the context of implementation and steering this may be challenging, if specialists fail to accept planning as a legitimate reference value due to the controller adjusting these values. This argument is typically based on the hindsight bias: "We already knew at the planning stage that there would be deviations - but you didn't want to listen to us." Thus, the outcome of the events is presented as unavoidable. The controller can remedy this by leaving the planning results of the specialists unchanged and conclusively documenting these together with the underlying assumptions of planning. The argument of hindsight bias can then no longer be sustained.

Group-based planning errors include:

Groupthink: Individuals who are part of coherent and cohesive groups often disregard their own motivation to submit realistic estimations, because they strive for agreement. Each group member then adjusts his opinion to the expected group opinion so that the group result is weaker than the individual results. This phenomenon is reinforced if external pressure for a quick result exists. The Swiss airline Swissair provides a prime example for this bias: Hermann and Rammal (2010) hold that the board of directors was liable to groupthink and thus significantly contributed to the liquidation of the company. This is because the board of directors - spurred on by the company's historical success - held a very high opinion of itself. Moreover, the board was scaled down to the effect that industry knowledge was lost and the remaining board members all came from similar professional backgrounds irrelevant to aviation. This combination led to groupthink.

A particularly strong manifestation of groupthink can be observed in strategy meetings and budget conferences. Here, the controller can assume his role as a neutral moderator and critical counterpart to ensure that no single opinion dominates and no alternative is lost. The standardised treatment of alternative solutions by the controller or the utilisation of the Delphi method can significantly contribute to amassing individual arguments first, independently of the group.

Risky Shift means a higher propensity to take risk is inherent in group decisions compared to individual decisions. This cognitive distortion can frequently be observed at investment and project meetings. In order to gain approval of one's own investment, the investments of others are given the green light. In the context of implementation and steering, disproportionately high risks are also accepted to achieve the short-term annual objective. The responsibility for a poor decision is then shifted to the group. Similar to the groupthink bias, the controller must act as a moderator and critical counterpart. However, in this scenario his role should not be neutral, but rather conservative. In such committees, the identification and quantification of risks is a critical area of responsibility of the controller. Outside of these committees, incentives that counteract a risky shift should be developed. An expedient measure to this end is the individualisation of the decision that has been shifted to the group by inclusion in the agreement of objectives.

Outlook

Controllers can validate the planning by the specialists with the differentiated approaches presented here and thereby ensure an even higher quality of planning. The aforementioned measures for the prevention of cognitive distortions highlight the need for the controller to act in a differentiated manner. The typical role of the "critical counterpart" can definitely be inferred

(e.g. to avoid the overconfidence bias). Equally, controllers must act proactively (e.g. to avoid the status quo bias) or conservatively (e.g. to avoid the risky shift bias). The evaluation of the situation and the correspondingly tailored situational behaviour are critical for the effectiveness of the controller and the success of the organisation.



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Further reading

Arkes/Ayton (1999): The Sunk-Cost and Concorde Effect

Basel/Brühl (2011): Concepts of Rationality in Management Research

Buffet (1984): Berkshire Hathaway Inc. – Chairman’s Letter

Dobelli (2011): Die Kunst des klaren Denkens (The art of thinking clearly)

Dobelli (2012): Die Kunst des klaren Handelns (The art of acting clearly)

Duan et al. (2005): Analysis of Herding on the Internet

Eisenführ/Weber (2003): Rationales Entscheiden (Rational decision-making)

Fischhoff/Beyth (1975): "I knew it would happen": Remembered probabilities of once-future things

Hall/Lovallo/Musters (2012): How to put your money where your strategy is

Hermann/Rammal (2010): The grounding of the “flying bank”

Janis (1982): Groupthink: Psychological Studies of Policy Decisions and Fiascoes

Keil/Truex/Mixon (1995): The effects of sunk cost and project completion on information technology project escalation

Marquis (1968): Individual and group decisions involving risk, Working Paper #322-68, Alfred P. Sloan School of Management

Montier (2006): Behaving badly, Dresdner Kleinwort Wasserstein, MacroResearch

Pompian (2012): Behavioral Finance and Wealth Management

Richter (2011): Stand der Wissenschaft zur operativen Unternehmensplanung (Current state of research on operational organisational planning)

Samuelson/Zeckhauser (1988): Status Quo Bias in Decision Making

Weber/Schäffer/Willauer (2000): Operative Planung erfolgreich gestalten (Successful design of operational planning), Advanced Controlling Vol. 17

Weber/Riesenhuber (2002): Controlling & Psychologie (Controlling & Psychology), Advanced Controlling Vol. 29

Weber/Hirsch/Linder/Zayer (2003): Verhaltensorientiertes Controlling – der Mensch im Mittelpunkt (Behaviour-oriented Controlling – the person in focus), Advanced Controlling Vol. 34