

Business Wargaming Methodology

CHAPTER 2

The beginning is the most important part of the work.

To build upon the above quote from Greek philosopher Plato (*The Republic*, Book II, 377B), it is very important to be very clear and focused about what a wargame is set up for in the first place. The amount of preparatory work going into the development of a wargame depends on the type of simulation and the complexity of the questions to be answered. Among other factors, the amount of research, gamebook preparation, model development, duration of the simulation and need for professional coaching and moderation ultimately drive the overall cost of developing and running a wargame. In this chapter we will look at the mechanics of a typical wargame for strategy validation purposes. We are referring here to a business wargaming design which appears to be most commonly applied (e.g. Treat *et al.* 1996; Kurtz 2002, 2003). Other types of games, concerning design and purpose, will be explained in parts two and three, which will give a more complete overview of what it takes to design, prepare, execute, debrief and document a wargame.

What is Business Wargaming?

Before getting into the inner workings of a business wargame, we should spend some time to discuss what business wargaming is and what it is not. Many types of “games” exist and consequently there are a number of misconceptions about the process.

Let us start with what a business wargame is not. Business wargames are not your typical business school games. The kind of exercise in which you are asked to optimize the resources of a company by deciding how much you want to invest in advertising vs. production capacity or whether you should produce widgets type A instead of type B and at which price you will sell them. Such business school games, while admittedly useful in educational settings, are usually based on computer simulations with a set number of parameters,

interlinked with pre-set sensitivities. Everyone who has ever participated in such a game will probably admit that after playing two or three iterations, they gathered a good sense for the sensitivities and an understanding on which parameters to focus on in order to maximize the results. The bottom line is that such games only have a finite number of lessons and, in the case of computer-based simulations, the answers are often built into the system. Their value for a top management team facing a difficult or disruptive situation or wanting to gain new insights into their business is virtually non-existent.

Rubel (2006) points out that computer simulations *per se* are not wargames; wargames require human players, maybe assisted by a computer. It can be argued that the kind of knowledge produced in computer simulation and the kind produced by a business wargame are different in nature. While a computer simulation appears not to produce new knowledge or insight (maybe the designing phase does), a role-playing simulation, like a business wargame, generates new knowledge through the social interaction of its participants (Fuller and Loogma, 2007).

When we talk about business wargaming, we refer to a tailor-made simulation, which always starts with a blank sheet of paper; something that is entirely specific to a single organization that cannot be taken from firm to firm or sold over and over again. Each simulation is put together around a specific set of questions to which the business is seeking answers, such as:

- *Our industry is consolidating. Following several moves by competitors, there seem to be no good partners left. What should we do?* Prominent examples for these types of settings are the airline industry in the early 1990s, which moved quite suddenly from a competition of national carriers to a competition of alliances. Other examples would be the mega-mergers in the automotive, pharmaceutical or media industries, or the ongoing quest in almost any industry to find suitable acquisition targets that would ultimately create value and not add to the long list of failed integrations.
- *Is the business model in our industry changing? Does this mean that we will lose control over our market? Should we embrace new models, defend the status quo or both?* Examples here include the music industry and the threat from legal and illegal online models; the pharmaceutical industry and the threat from generic drugs; or incumbent telecommunications or energy providers in liberalized markets. Especially the recent discussions about environmental protection and whether and how sustainability aspects should be

built into the way of doing business are other fields of application, e.g. when looking at the future of power trains in motor vehicles.

- *Is our industry/product becoming increasingly commoditized? If and how can we still make money? Should we close down and focus on alternative business opportunities?* Prominent examples here are the market for personal computers, mobile phone services, energy, or chemicals.
- *How resilient is our business? What happens if? Where is the next threat coming from? How much should we invest in countermeasures?* Questions like these have their roots in military scenarios, and yet they are increasingly important for businesses, industries and entire economies. Examples include more politically flavored simulations, such as how shifts in global power will develop, the impact of terrorist actions on economies, and also companies.

These are some of the main questions that can be addressed with wargaming. All of these situations are too complex to answer with conventional forms of analysis. Wargaming is a suitable means to explore them, because it combines elements of human decision making (and the inherent level of uncertainty) with a set of quantitative measures that allow you to gauge “what happens if.” The methodology allows managers to test existing or newly conceived strategies in a dynamic, yet safe, environment. In doing so, they can save time, money and grief, gaining confidence in their plans via a relatively inexpensive simulation when compared to the cost of executing a potentially flawed strategy in the real world.

How Does Business Wargaming Work?—Teams

Any business wargame contains at least four elements: the company team, the competitor teams, the market team and the control team (Figure 2.1).

THE COMPANY TEAM

The company team represents the company conducting the wargame and aiming to answer the key strategic questions. The team is made up of senior managers from within the company and typically starts the game by executing its current strategic plan. In some instances, where a company deliberately wants to test alternative courses of action, the team may execute another hypothetical strategy or test an alternative business plan. In executing its strategy the team has all the liberty that it would have in the real world. It can form or dissolve

alliances, conduct mergers and acquisitions or do anything else as long as it is within the boundaries of reality and within their resources.

THE COMPETITOR TEAMS

Like the company team, the competitor teams are staffed with senior managers from within the company. One interesting aspect is that these managers are forced to adopt the role of their own competitors and view their own company from this perspective. In order to facilitate the transition into their new role, they receive a copy of the so-called “gamebook,” which gives them the most important facts about the company they are required to play as well as information on any other team. Coupled with the knowledge of their own company’s weaknesses, they become formidable adversaries to the company team. Typically only the most significant competitors are represented by individual competitor teams. Smaller competitors are either consolidated into a group of competitors or represented by the control team.

THE MARKET TEAM

The market team represents the market participants and assumes the role of judging the relative attractiveness of all of the companies’ offerings. This team is typically made up of market experts, who may come from within the client organization, may be external experts or, as is most often the case, may

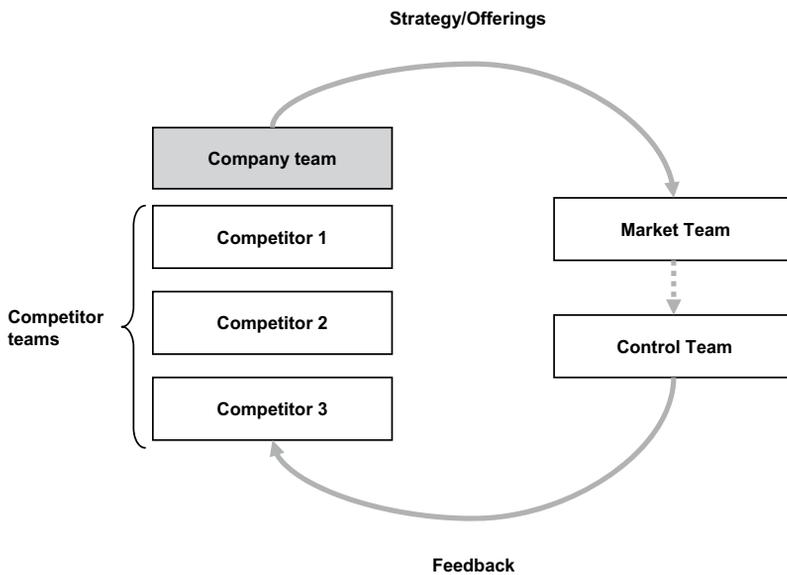


Figure 2.1 Elements of business wargaming

Source: Treat et al. 1996, 48

be a combination of the two. The market team forms a focus group that uses research, experience and intuition ultimately to award market shares. The team makes its call based on hard data, which is delivered by the competitor teams at specified times during the simulation, but also on the understanding of how well the message is communicated—the unique selling proposition (USP) of the respective teams in relation to one another and the rest of the market.

THE CONTROL TEAM

The control team “runs” the show. It is made up of wargaming experts, industry experts and typically the chief executive officer (CEO) or other senior executives from the company. Its first role is to structure and run the simulation, i.e. make sure that the schedule is adhered to, that the rules are observed and that presentations and feedback are given in the appropriate fashion and level of detail/structure. The team also calculates the quantitative variables based on the feedback from the market team and provides the company and competitor teams with the outcome, which typically includes the major positions of an income statement or cash flow. In some instances the control team will also introduce so-called “shocks”, which are interventions to force the teams to address certain topics or go down a certain direction. In a product launch setting this could be the announcement of a product defect calling for a recall, or concerns that emerge about the safety of a product requiring some special approach to communication. Another very important function of the control team is to adopt the role of all other stakeholders not explicitly played in the simulation. Such stakeholders can be smaller competitors, regulators, or interest groups. The experts of the control team, faced with a proposed deal for an acquisition will take the role of the board of directors of the target company and decide whether they would accept the deal or not.

How does Business Wargaming Work?—Interaction

The above are the basic elements of a wargame. Now let’s take a closer look at how these teams interact and how the simulation is actually played out.

A business wargame typically evolves over three moves, simulating a certain timeframe in real life (Figure 2.2). This timeframe can vary from a few months to several decades. The first move usually starts in the present and is based on all the available data at that time (i.e. now or any other determined point in time). A move is a decision cycle, which begins with the competing teams reviewing their strategy and taking their first actions towards an outcome. Such actions can be anything from launching new products or services out

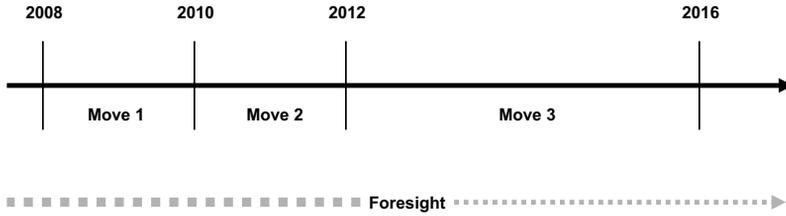


Figure 2.2 Example of an actual timeframe simulated over three game moves

into the market, to forging alliances, investing in capacity or new markets, or running communication campaigns, such as communicating with the customer or lobbying other stakeholder groups. The decisions taken are documented in templates and provided to the market and control teams as hard data on which to base their decisions. In addition to this “input,” the teams have the opportunity to present their offering in front of the market team (and everyone else in the market, e.g. competitor teams and the control team representing all other market participants as well). In this way—as in the real world—at certain points of the simulation, all parties involved have the same level of information on which they base their next steps.

The customers, played by the market team, will provide feedback and gauge the relative attractiveness of the various offerings by the company and competitor teams and award market shares. The control team then consolidates the hard data (such as price points, investments) and the soft data, in essence the perception of the market team/customers, in terms of what this would mean in numbers. The team calculates the overall size of the market, segment sizes, segment shares, profit margins etc. Due to the limited time and resources to run all the details, quantitative feedback will only include some key figures, e.g. of profit and loss statements, capital expense calculations or other key performance indicators (KPIs). The feedback from the control team represents the starting point for each team in the subsequent move. If, for example, one team “buys” market shares by dumping its products on the market for free, they most likely will make a major share gain in terms of new customers, but completely lose out on profitability. In this example, the team may find their choice of actions curtailed at the beginning of the second move as a result of lacking funds.

How does Business Wargaming Work?—Moves

A single move may take as long as a whole day. Figure 2.3 shows an overview of activity over the course of a simulation day.

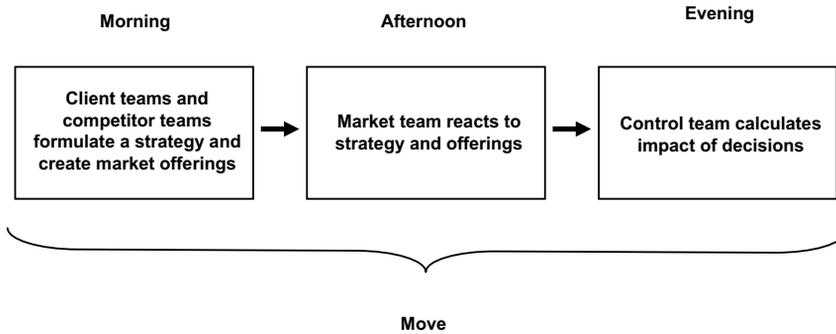


Figure 2.3 Overview of activities on a typical game day

Source: Orišek and Friedrich 2003, 69

Typically in the morning the company and competitor teams will be analyzing the data and additional information available, prepare their offerings, strike deals, fill out templates and prepare their presentations for the plenary session around lunchtime. In the afternoon and evening the market and control teams get to work and calculate the market shares and quantitative impact, while the company and competitor teams are already working on their preparation for the next move. They continue to do so after they get the results from the market and control teams, and will adjust their preparation if necessary. Overnight, detailed results in the form of profit and loss statements and key data are calculated and reports are prepared as a starting point for the next move in the morning of the following day.

It is important that the teams, with exception of the plenary sessions, are separated and do not have any direct exchange with each other, e.g. by walking the hallways or visiting each other in their breakout rooms. All communication with competitors, alliance partners, acquisition targets etc. during the preparation phases must be channeled via email and by default always gets copied to the control team. The latter, as in the real world, will disseminate certain information, such as an agreed alliance between two competitors, to the other participants in order to make sure information equality is maintained. After all, such information will be disseminated via the media once a deal has been agreed upon. What may happen, however, is that the control team choose to pose some restrictions on a deal, for example, when anti-trust regulations would be violated or regulators would limit acquisitions to only parts of the business or impose the obligation to sell off other parts.

After all moves have been played out, a first assessment is made of what the lessons learned have been. The input is typically gathered in a plenary session

during which participants reflect on what worked well in their strategies and what did not. The key insights from the game are gained from the mutual assessment of individual experiences focusing on the initial questions. In any case, after this initial assessment, a team of wargaming experts will dive deeper into the data gathered through the simulation and evaluates other sources such as the email traffic. The advantage of using email communication is that every message is logged and can be retrieved in the order in which it was sent out. Who was talking to whom about what can be traced. With this type of analysis trends or patterns can be identified, such as, for instance, when all players in the business wargame during a certain move aim to close similar types of acquisition or alliances. The detailed insights are usually consolidated in a report and presented about a week later to the sponsor of the game including recommendations for adjustments of the initial strategy.