



Combining scenario planning and business wargaming to better anticipate future competitive dynamics



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ABSTRACT

The deliberate exploration of how the future competitive landscape may evolve is critical to uncovering threats and opportunities for firms that seek to improve their core businesses and advance to a superior position in the markets of the future. While techniques such as business wargaming can effectively support this process, such techniques can benefit from placing competitive considerations within a broader future landscape shaped by geopolitical, social, technological and economic forces. Scenario planning allows for the exploration of interactions across multiple external forces to create a rich set of narratives on how the future may unfold. This paper will discuss the potential of combining scenario planning and business wargaming to enable strategists to anticipate moves and countermoves and foresee their consequences. We use a real-life case study to illustrate how a scenario-planning exercise can guide the crucial stage of selecting relevant future competitors of a firm prior to engaging in a business-war-gaming exercise. We then introduce what we term the prospective competitive strategy process to guide the analysis of potential competitive dynamics, emphasizing the synergies between scenario planning and business wargaming.

1. Introduction

Corporate foresight has been discussed as a means of creating competitive advantages and enhancing mid-term firm performance (Ashton, Johnson, & Stacey, 1994; Rohrbeck & Kum, 2018). As a first step, corporate foresight scholars generally advocate conducting an environmental analysis by, for example, directing a search towards environmental areas along the PEST (Political, Environmental, Social and Technological environment) model or its variations (Godet & Durance, 2011; Lesca, 2004). Identified drivers of change are then used to develop scenarios or create alternative pictures of the future (Fink, Marr, Siebe, & Kuhle, 2005; Gordon, 2010; Lehr, Lorenz, Willert, & Rohrbeck, 2017). Another goal is to explore and support the development of new business fields (Heger & Rohrbeck, 2012). To renew or create a competitive advantage, many firms also aim to use insights into drivers of change to assess and acquire strategic resources independently or through collaboration (Makadok & Barney, 2001). Thus, such a corporate foresight process is expected to allow firms to perceive changes in their environments, to understand how the future could evolve and to trigger organizational responses that create or sustain a competitive advantage (Rohrbeck & Schwarz, 2013).

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In this paper, we wish to contribute to the understanding of how a firm can systematically explore the impact of competitive strategy moves on attaining and defending a superior position in a market of the future. Supporters of a resource-based strategy argue that organizations should look within the company to find the sources of competitive advantage (Barney, 1991). However, to comprehensively assess whether resources are valuable, rare and costly to imitate (Barney, 1991; Rothaermel, 2012), competitive dynamics should be considered. This is particularly relevant in a situation where competitors might be faster at adapting to a changing environment or may anticipate the response of the focal firm and, as a result, take counteractive measures (Helfat et al., 2007).

Using a case study, we test a systematic approach that combines the scenario technique with business wargaming. Business wargaming uncovers the future dynamics of an industry by focusing on actions and counteractions between the focal firm and its competitors. It supplies possible answers on the actions and innovations current and future competitors might use to gain an advantage. On the other hand, scenario planning, a corporate foresight technique used to explore possible and plausible futures (Bradfield, Wright, Burt, Cairns, & Van Der Heijden, 2005; Amer, Daim, & Jetter, 2013), is more adept at answering which new competitors might enter an industry and how the boundaries of the industry may change. By combining these two techniques, a strategist is better able to (i) play out how firm and competitor expectations or preferences may change in different contexts, (ii) identify weak signals that constitute bets against dominant business models and (iii) explore action-reaction sequences to support decision-making in a proactive manner.

This article consists of three parts. In the first part, we examine how competitive dynamics are an increasingly integral part of corporate foresight. In the second part, we use a case study to illustrate one approach to explore how scenario planning and business wargaming can be combined. In the third part, we describe a conceptual framework that integrates competitive dynamics into a generic corporate foresight process and outline further approaches for combining business wargaming with scenario planning by introducing the prospective competitive strategy process.

2. Current understanding

2.1. Competitive dynamics as an integral part of corporate foresight

“Corporate foresight permits an organization to lay the foundation for future competitive advantage. Corporate foresight is identifying, observing and interpreting factors that induce change, determining possible organization-specific implications, and triggering appropriate organizational responses. Corporate Foresight involves multiple stakeholders and creates value through providing access to critical resources ahead of competition, preparing the organization for change, and permitting the organization to steer proactively towards a desired future” (Rohrbeck, Battistella, & Huizingh, 2015, p. 2).

The erosion of a competitive advantage today occurs routinely as a result of dynamic and interactive rivalry (Sirmon, Hitt, Arregle, & Campbell, 2010). One of the five forces affecting competitive advantage is “new entrants” (Porter, 1980). Porter notes that “the threat of entry into an industry depends on the barriers to entry that are present, coupled with the reaction from existing competitors that the entrant can expect. If barriers are high and/or the newcomer can expect sharp retaliation from entrenched competitors, the threat of entry is low” (Porter, 1980).

Porter underlines the relevance of analysing both existing as well as potential competitors. Hamel and Prahalad (1994) emphasize examining the competitive dimension as part of foresight activities. Beal (2000) identifies a positive effect of environmental scanning on a firm’s capability to align its competitive strategies with the environment. This is likely to be particularly meaningful in hypercompetitive industries with escalating levels of competition and reduced periods of competitive advantage, where acting boldly and aggressively may create a competitive advantage (Bogner & Barr, 2000). Geroski (1999) argues that a central skill in identifying new rivals is the ability to assess the effects of innovations in their own industry and calls for establishing early warning systems for continuously scanning for new rivals. “New entrants act like other firms: they observe events in the market, develop new ideas, and decide to enter markets using rationale similar to that of incumbents. This is why companies can spot new competitors. They are not aliens from Mars acting in bizarre and unpredictable ways” (Geroski, 1999).

Despite the importance of competitive dynamics as part of corporate foresight, scope for development is also important to consider. Battistella and De Toni (2011) suggest applying a network analysis to map a future value chain to identify new entrants. One suggested method analyses, models and foresees business ecosystems as network structures interacting with one another. The strength of this approach lies in its ability to map tangible and intangible relationships and apply strategic guidance using specific indicators. Rohrbeck (2012) report on the usage of the MACTOR analysis method, which maps the converging and diverging interests of industry participants, on anticipating likely coalitions and competitive battles. However, these techniques either hold environmental factors constant and explore changes in stakeholder preferences or hold stakeholder preferences constant and explore changes in environmental factors. The reality is that both environment and stakeholder preferences influence competitive dynamics in complex and unpredictable ways.

2.2. Scenario planning and competitive dynamics

McKiernan (2017) argues that scenario planning, moving beyond the typical management fashion or fad, is now more broadly adapted and has been used for over 50 years. Scenarios are defined as challenging descriptions of alternative future states (also referred to as “futures”) that are relevant to a strategic decision and are representative of plausible developments in the external world (van der Heijden, 1996). Competitor scenarios have been used to identify and test plausible competitor strategy alternatives.

They map out industry opportunities and link them to anticipated competitor actions. They serve as mental models that form the basis for strategizing (Ringland, 2010), and they allow an organization to assess its responses to competitors' moves and select a strategy that is viable under a variety of competitive conditions (Fahey, 1997). In doing so, scenario planning serves as an organizational radar, allowing decision-makers to develop an early warning system for potentially devastating market conditions, competitor developments and other industry shifts (Bodwell & Chermack, 2010).

Ellis (1993) notes that using scenarios to support corporate foresight is effective in dynamic and complex situations where pinpointing opportunities can result in a high return. The qualitative nature of scenarios enables one to challenge or inform current thinking (Coyle, 2004; Harries, 2003) by emphasizing that the interaction effects of a range of elements in the internal and external environments construct and reshape reality over time.

This can be done in two ways: “One type of scenario stems from open-ended or unconstrained what-if questions that suggest possible end states, such as a completely new competitor strategy. [...] On the other hand, scenario developers can also ask what the competitor would do under distinctly different competitive or industry end states” (Fahey, 1999). However, a prerequisite for this approach is that the competitors are known, making it less suitable for understanding competitive dynamics when new entrants are commonplace. Second, this approach is too static in the sense that it does not capture a changing competitive landscape that is influenced by the action-reaction sequences of various industry players.

Cairns, Goodwin, and Wright (2016) developed what they term the “augmented critical scenario method” based on the observation that anticipating the behaviour of stakeholders within particular scenarios is often less structured. They point to role playing in a team-based context as a way to derive insight on corrective actions that should be taken to help the organization maintain its competitive position. However, their approach lacks practical suggestions on how to facilitate such role play.

Some authors suggest connecting gaming and scenarios (e.g., Dannenberg & Fischer, 2017). Heinonen, Minkinen, Karjalainen, and Inayatullah (2017) report on an experiment that combined scenarios, causal layered analysis and gamification at an international conference. However, instead of reporting competitive dynamics, this experiment is framed as game-based futuring, which is immersive and experimental. The authors further state that gaming has a long history in the field of futures studies. Dator (2017) argues in the context of futures studies “. . . that the best way to learn is to do actively, while the worst way to learn is to read or listen passively—like you are doing now. Games are the closest we can come to actually doing politics repeatedly and to pre-experiencing alternative futures to have a wider understanding of what might be viable preferred futures.”

2.3. Enhancing competitive dynamics in corporate foresight

In order to effectively identify early warning signals of new rivals, it is imperative to understand how an industry might be disrupted and how actors or stakeholders might behave in different contexts. The scenario planning technique provides rich insight into a range of futures but leaves management with an ambiguous future space that is already difficult to navigate even without the added complexity of potential future moves of competitors (Ramírez & Selsky, 2016).

One promising way to address this is to complement scenario analysis with business wargaming. Reibstein and Chussil (1999) argue that scenario planning does not always capture the impact of competitive dynamics, but strategy simulations, such as business wargaming, can incorporate insights, for example, from scenario planning. Besides being engaging, a business wargame's appeal comes from its use as a platform for experimenting with different strategic moves and their ability to trigger desired outcomes. Combining both should allow one to prepare for competition in uncertain environments and thus boost an organization's ability to identify and secure superior positions in future markets (Kurtz, 2003; Oriesek & Schwarz, 2008; Perrotet, 1998; Schwarz, 2011).

Business wargaming is adapted from military wargaming, which has a long history (Oriesek & Schwarz, 2008; Perla, 1990; Vego, 2012). A business wargame is a role-playing simulation of a dynamic business situation. Each team in the wargame is cast in the role of a certain stakeholder (e.g., a competitor) to act in a given business situation. The typical business wargame lasts several rounds, each one representing a defined time period into the future. A business war game is usually preceded by extensive research on the industry in which the wargame occurs. Wargames can have several purposes such as strategy testing, crisis planning and management, change management, planning, training and education (Oriesek & Schwarz, 2008). No matter their field of application, business wargames, in speculating about the future and incorporating the reactions of competitors, develop both foresight on an industry as well as insights into possible actions and reactions of competitors.

In many industries, the role of innovations in gaining a competitive advantage is particularly relevant (Hamel & Prahalad, 1994; Rohrbeck & Gemünden, 2011). From previous research, we know that firms compile overviews of competitor products and services before they are even on the market (Daheim & Uerz, 2008; Rohrbeck, Arnold, & Heuer, 2007; Ruff, 2015). This allows them to anticipate any disruptive and competitive-advantage-building potentials that such innovations may yield (Jissink, Schweitzer, & Rohrbeck, 2018; Kaulio, Thorén, & Rohrbeck, 2017). However, these approaches often assume a static view of the future, holding many environmental factors constant. This can incur biases in decisions about when, how and whether to deploy limited resources.

3. Case study

3.1. Background and project aim

We will use this case study as a starting point for our discussion on how competitive dynamics can be introduced to corporate foresight by leveraging the synergies between these two approaches. We then introduce our prospective competitive strategy process.

The case study draws on the involvement of one of the authors as a consultant in a scenario-planning project at a financial services

firm. For confidentiality, the firm is labelled here as FinanceSecure. The project was first designed as a scenario-planning exercise only and was scheduled to run over a period of six months. During this period, the consultant was able to gather insight from several sources, including participant observations in scenario-planning workshops, interviews prior to the workshops and desk research (Yin, 2003).

The point of departure for the project was the observation that the financial services industry was being challenged by the rapid development of digitization. These challenges included, for instance, changes in distribution (online vs. offline), opportunities for digitizing internal processes as well as new developments such as mobile pay or peer-to-peer lending. While FinanceSecure had decided to invest heavily in various projects to become more digital, senior management wanted to better understand the future of digitization and, in particular, whether technological changes would fundamentally change the rules of the game in the industry and permit new rivals from outside the industry to emerge as dominant players. The aim was twofold: 1) to better understand the future challenges of digitization and 2) to stress-test measures in light of these scenarios.

Using the inductive scenario-planning method, alternatively labelled the Shell Scenario Planning School (van der Heijden, 1996; van der Heijden, Bradfield, Burt, Cairns, & Wright, 2002), a set of scenarios were developed. Rich descriptions using both qualitative and quantitative elements were developed and thus provided inspiring mental models for subsequent decision-making.

However, in discussions with senior management, it became clear that making the insights actionable would require an additional project element. One remaining central question was whether companies from the information and communication technology (ICT) industry, also called digital players, could pose a threat to FinanceSecure's competitive position. Some parts in the value chain appeared particularly vulnerable, which added to the need to use systematic means to assess the threat level.

The project was thus extended, and the author had the opportunity to work on the project an additional three months, which allowed the author—again using participant observation in workshops, interviews and desk research (Yin, 2003)—to capture the insights of this case study. In addition to material that could be archived, interview notes and structured notes coming from participant observations and/or involvement in meetings and workshops were used.

3.2. Assessing the threat of new competitors

The central insight emerging from the discussion of the scenarios was that the future of digitization would provide multiple opportunities for new business models, but potentially new players as well, to enter the financial services industry and capture parts of the value chain. To assess the likelihood of new players entering the industry, an exploratory research design was developed due to the absence of approaches dealing with this question.

The point of departure of the first step of the follow-up project was to assume from the scenarios that digitization will further increase and that uncertainty might exist around issues such as the use of private data. Based on these robust implications, an industry-level SWOT analysis was performed. The aim of the project team working on the task was to assess which other industries would, through digitization, have an increased propensity towards the financial service industry and could therefore potentially enter the industry. The rationale behind this step was the assessment that while ideas existed as to the identity of some of the digital players (e.g., Google, Amazon, and PayPal) entering the financial services industry, these players appeared not to come from one industry but rather from many different industries. The primary aim of this exercise was to reduce potential blind spots in the identification of industries and digital players that may later become new rivals.

To begin this process, a SWOT analysis of the focal industry was carried out. An internal workshop was conducted with the aim of identifying and mapping the mental models of adjacent and potentially rival industries. These insights then helped us to analyse how other industries could affect the rules of the game in the financial services industry.

After acknowledging that it might be difficult to identify which individual industries had a higher propensity to enter FinanceSecure's industry, a comprehensive industry list was used as a starting point. Each industry was analysed to determine if it had the potential to address the strengths, weaknesses, opportunities or threats of FinanceSecure's industry. Through this process, several industries were pre-validated to have the potential to successfully enter the focal financial industry. In each industry, the top three firms by market capitalization were selected and analysed in detail. We recognize that selecting only the top three players is, of course, a limitation; this strategy neglects, for instance, the smaller players that also might pose a substantial threat. However, this approach was chosen to limit the number of companies analysed and was based on the assumption that choosing the top three would already provide some indication of the type of players with the potential to enter the industry.

The detailed analysis of the selected firms not only considered the SWOT analysis of the industry of that company but also analysed the value chains, existing activities that could be related to FinanceSecure's industry as well as, for instance, the former experience of the respective management in the industry. These factors were analysed to determine the likelihood of entry into FinanceSecure's industry.

3.3. Case study discussion

Through this process, a number of potential new entrants were identified. Particularly valuable was the fact that the detailed analysis of potential new entrants allowed for a much more detailed and informed discussion with management on how these players could enter and, in particular, which parts of the value chain they could capture. In return, these discussions also led to a number of others with some of the identified players on possible collaboration opportunities. In general, the analysis provided a basis for discussion around the question of how to address these potential entrants.

Follow-up discussions on using the results of this project and the detailed profiles of potential new competitors involved further

deliberation on using a business-war-gaming approach to better understand the industry dynamics with such new players entering the industry. Playing a wargame includes impersonating rivals, that is, playing to win using different starting points, capabilities and leverage points than the focal company. Participants in top management felt that putting themselves into the shoes of a digital player allowed them to see how feasible and even probable another digital player could take over the value chain positions the focal firm thought it firmly controlled. The wargame was seen as a tangible way to experience future scenarios and their implications on the business. The sequence of the approach proved in this case to be an effective means of establishing a link between scenario planning and business wargaming to explore competitive dynamics as an integral part of corporate foresight.

4. Combining scenario planning and business wargaming

Our case encourages combining methods to raise the effectiveness of foresight projects in general and strategy work in industries under transition in particular. In this chapter, we propose and discuss an integrated process we call the prospective competitive strategy process. Scenario analysis that leverages deep foresight based on key external factors is often too weak in proposing clear organizational actions in regard to competitive dynamics. Typically, business wargames are directly linked to strategic decisions concerning the competitive positioning of an organization. However, given the cognitive capacity and the typical resource limitations in preparing for a singular business-war-gaming workshop, considering how the business environment may evolve in fundamentally different ways in order to inform strategic decisions is often missing. This shortcoming can be addressed by leveraging the inherent synergies of these techniques and combining them into one approach.

From the literature analysis, we expect firms to have five main questions when engaging in prospective competitive analysis:

- 1 Which new competitors might be entering my industry in the future?
- 2 How will the boundaries of my industry change?
- 3 What actions might my current and future competitors utilize to gain a competitive advantage?
- 4 What kind of innovations are my competitors working on to gain a competitive advantage?
- 5 How to we capture and sustain a superior position in future markets?

While the case study revealed how a particular company worked towards answering the first and second questions, we learned less from the case study on how to address the latter three. The first two questions were supported by the following foresight methods:

- *Trend audit*, through which the firm identifies drivers of change in the PEST categories and analyses the forces sustaining and inhibiting the change driver in the future (Gordon, 2010), and
- *Scenario analysis*, which in our case was used to concretize possible and plausible future states.

For the next two questions about anticipating potential competitor actions, business wargaming seems to be a particularly promising method. First, it allows one to play out different tactics and action portfolios from both the firm's and the competitor's perspectives, ultimately helping the firm avoid being blindsided. Specifically, it would help incumbent firms consider how their current model for success may be negatively impacted and what would be the best response to this threat. Second, it would help identify weak signals from smart money flows and early-stage entrepreneurial activity that constitute bets against dominant business models. Third, wargaming would encourage contingent thinking by helping the firm to play out subsequent moves, highlighting the consequences of an organization's competitive position. This in turn can support the design of preemptive actions.

In integrating such information, business wargaming has multiple strengths to support decision-making (Bergeron & Hiller, 2005; Kurtz & West, 2002; Kurtz, 2003; Mendonca & Sapio, 2009; Treat, Thibault, & Amy Asin, 1996). To do so, business wargaming

- allows for the *integration of any foresight insights*, including drivers of change, into a technological, political, sociocultural and competitor environment;
- prepares the firm for future decisions by encouraging participants to play them out;
- provides decision-makers with a dynamic perspective on their and their competitor's strategic moves; and
- enables decision-makers to live through future scenarios and experience decision-making in these future settings in a tangible way.

Therefore, we can tentatively conclude that integrating competitive dynamics in foresight activities can be achieved by (1) focusing "classical" foresight methods on current and future competitors, with a particular focus on their potential future innovations, and (2) using business wargaming to simulate possible futures and thus prepare management for decision-making in situations of uncertainty (Courtney, Kirkland, & Viguerie, 1997).

In addition, we find that Fuller's (2017) views of scenario planning from the perspective of Rosen's 1985 theory of anticipatory systems help us to understand the potential of our approach. Fuller (2017) asks, under the premises that scenario planning is developed as a technique to reveal modelling relationships in the multiple anticipatory systems at work in an organization, in what ways do actors anticipate the dynamics between their vision of an organization and their vision of stakeholders? And while Fuller (2017) argues that this question entails more than conceptualizing network ecologies, business wargaming can address this question by simulating the dynamics of various stakeholders and doing so from various perspectives.

By allowing participants in a business wargame to view their organization or industry from a variety of perspectives, we also

expect that Fuller's (2017) concern about modelling relations, existing in forms such as assumptions, beliefs, frames of reference, hopes and fears, can be addressed in scenario planning. In addition to Fuller's (2017) question relating to the anticipatory work that is needed in organizations, aside from many implicit anticipatory efforts, we argue that combining business wargaming and scenario planning can not only address the competitive dimension in developing foresight but also add to the capabilities of a strategic anticipatory process (Fuller, 2017).

5. The prospective competitive strategy process: a framework for competitive dynamics as an integral part of corporate foresight

Based on the above discussion, we propose the prospective competitive strategy process, which is organized around the three Ps of the foresight process (Højland & Rohrbeck, 2017; Rohrbeck & Kum, 2018). This process highlights three areas where synergies can be achieved between scenarios and wargaming:

- *Perceiving*: Activities designed to create awareness about the environment and factors that have and will influence the focal market.
- *Prospecting*: Activities designed to uncover systemic effects and project developments in order to define and describe plausible future states, their effects on the focal firm and alternative courses of action that are available, as well as anticipate their consequences.
- *Probing*: Activities designed to provide tangible experiences about future developments—in particular, the competitive strategic moves from the focal firm and other plausible participants in future value chains.

In our process model, we have inserted the steps outlined above in the outer ring. Although they are following a sequence, they are also linked to each other on the basis that they all use the same data and predeveloped insights as a way to validate and challenge preceding or following steps. We also organized the figure in a circular fashion to emphasize that the process is iterative; the probing and prospecting steps will trigger activities in the perceiving step.

In the following section, we will outline how the suggested process may be implemented.

5.1. Perceiving

Perceiving involves activities designed to create awareness about the environment and factors that currently and may later influence the focal market. In order to achieve this, it is essential to also ask: Who *are* and *will be* the firm's relevant competitors?

On its own, business wargaming is primarily based on the selected competitors or stakeholders included in the simulation. Perceiving emphasizes that prior to designing a business wargame, assumptions about the future course of the industry must be made to include meaningful competitors (Oriesek & Schwarz, 2008; Schwarz, 2009, 2011, 2013).

To select meaningful competitors, the perceiving phase should leverage data collection from different viewpoints (e.g., experience from outside the focal industry, other geographical regions, and lead markets) and different time horizons. Here, firms in fast-moving environments should also consult experts from long-term oriented industries such as the building industry or energy industry, where architects and energy planners must form opinions about future states in a 20- to 40-year time frame. As the case study showed, another way to generate awareness about an environment that can influence the focal market is to use scenarios as ways to envision parameters that would be most meaningful to consider. In the case study, its scenarios implied that digitization might further increase and that uncertainty may revolve around issues such as the use of private data. These implications prompted a SWOT analysis of the focal industry and a mapping of the mental models of adjacent and potentially rival industries set against this theme.

The detailed scenario descriptions suggest different states of the future per time period. The playbook can thus include several descriptions of a "full digitalization" scenario in, for example, 3-year, 5-year and 10-year time frames. These descriptions, which can be developed through backcasting (Rollier & Turner, 1994), further enhance the ability of the participants to be immersed into future competitive and environmental dynamics.

5.2. Prospecting

Prospecting involves activities designed to uncover systemic effects and project developments in order to define and describe plausible future states and how they affect the focal firm.

Prospecting requires setting the simulation in an appropriate context. The game book or playbook is typically used to set the context and contains information on the represented competitors, stakeholders and industry. Traditional game books, however, have little consideration for environmental trends that might shape the future of the industry. This is partly because the information has simply not been prioritized when designing the game book. In addition, there is a limit to how much complexity participants can cognitively handle, thus creating an incentive for game-book designers to keep it simple. Omitting such information can result in outdated strategies and misguided investments.

The prospective competitive strategy process can counteract this in various ways. Through the perceiving phase, deep insights are collected by analysing lead markets, new product concepts, product vision and so on. The prospecting phase builds on these insights, creating sets of "what if" and "so what" questions. In the context of the case study, scenarios can prompt questions such as the following: What if all privacy concerns disappeared? How might this happen? What services would then be plausible? What would a

winning firm look like? What if the firm's source of competitive advantage disappeared? How might that happen? What if we persisted with current major investments? What would be the likelihood of achieving the planned return on an investment? Consequently, the strategy playbook serves as a lever to force participants out of their cognitive comfort zone and allows them to explore future scenarios.

By framing questions to drive strategic insight, the scenarios enable participants to think at a high-level complexity and maintain the cognitive effort required at a feasible level. In turn, this approach inserts more future-related information, thus raising the likelihood of altering basic assumptions and mental models that are often imperative in rapidly changing environments. This sense of plausibility can inspire management to be more confident in balancing short-term investments with comparably low certain pay-offs with uncertain but promising long-term investments.

5.3. Probing

Probing involves activities designed to provide tangible experiences about future developments—in particular, competitive strategic moves from the focal firm and other plausible participants in future value chains.

Whereas business wargames typically evolve over several rounds—often representing months or years (Oriesek & Schwarz, 2008)—future scenarios involve playing rounds located in different future states. This allows participants to understand what customers value most in a given scenario, how competitor dynamics change and which scenario favours a particular rival.

We can assess the effects of such an approach by referring to a study by Phadnis, Caplice, Sheffi, and Singh (2015), who evaluated how scenarios influence expert judgement in long-range investment decisions in the US transportation infrastructure. “Our results show that the use of multiple scenarios does not categorically increase or decrease experts’ confidence in judgement. Instead, experts update their judgement after using scenarios, either in favour of or against a specific investment, based on how that investment fares in the scenario used. [...] Finally, we find that experts show a greater preference for more flexible investment strategies after practicing scenario planning” (Phadnis et al., 2015: 1405).

The probing phase, therefore, builds on the insights from the other phases, creating sets of “if then” questions. If we were to apply this rationale in the context of the case study, it would prompt questions such as the following: If we were to continue with major planned investments, how might our rivals react in a given scenario? In a given scenario, what will happen to our major rivals’ source of competitive advantage? If there was a coalition of rivals in a given scenario, how would the focal firm respond?

Furthermore, as shown in Fig. 1, participants’ interpretations of scenarios in a business wargame guide and motivate potential investments in the perceiving and prospecting phases in our prospective competitive strategy process. For an effective iterative process, the selection of participants matters. Trend receivers, individuals who can perceive changes and potentials of the new in a specific domain in a highly sensitive and differentiating way, could be a highly valuable group from which to recruit additional participants (Hofmann, 2015). These participants could be used either to prepare the game book or even selectively assume a role in playing the wargame.

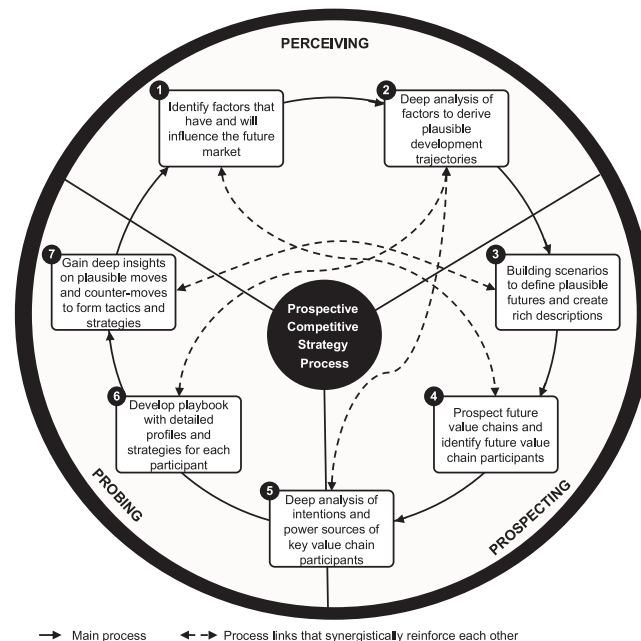


Fig. 1. Prospective competitive strategy process.

6. Conclusion

The purpose of this paper is to propose an approach that would permit firms to systematically assess future competitive dynamics to derive suitable business strategies based on the combined use of scenario planning and business wargaming. Our prospective competitive strategy process not only combines scenario planning and business wargaming but also suggests how the shortcomings of the two approaches can be reduced.

This paper discusses the relevance of competitive dynamics to corporate foresight. We identify key questions that firms aim to answer when engaging in the development of a long-term prospective strategy, and we show how synergies can be used to manage blind spots in analyses and the decision-making process based on the sole use of one of these techniques.

Ramirez, Mukherjee, Vezzoli, and Kramer (2015) argues that scenario planning—a tool that can generate “interesting research”—engages strategist scholars in making sense of and addressing complex and uncertain contexts and producing interesting findings as a result. We strongly believe that this notion also applies to business wargaming. Using a case study as evidence, we identify the mechanisms through which a combined scenario-planning and business-war-gaming methodology can provide insight for a prospective competitive analysis.

Future research should assess the efficiency and effectiveness of a methodology that integrates both scenario planning and war gaming, as well as explore applications for our proposed competitive strategy. These should be equally promising for managerial practice; companies that can only hope to create temporal competitive advantages will need to make regular mid-term to long-term strategic investments to advance to superior positions in future markets (McGrath, 2013; Rohrbeck & Kum, 2018). Ultimately, further research should strive to enable strategists exercising strategic foresight to identify superior courses of action that are markedly different from the status quo (Gavetti & Menon, 2016).

One research strategy could build on observations as well as pre- and post-intervention surveys and interviews to elicit information about the context that shapes competitor analysis—the process used to select competitors—as well as the extent to which competitor actions and reactions are explored. Combining methods will help researchers to rigorously compare findings within and across selected case studies (Patton, 1990). It will also help identify areas where scenarios and wargaming can best complement more established approaches for competitor analysis.

The second fruitful area for research is participant selection, which is key to ensuring that deep prospective insights are being generated. These participants should be knowledgeable and forward-thinking, be drawn from a cross-section of the organization and be expected to provide meaningful input. However, which team scope and composition work best remains an open question. Here, a particularly interesting question would ask how participant selection can be maximized to shape the likelihood that basic assumptions and traditional mental models will be successfully challenged and subsequently altered (Hofmann, 2015).

Another area of research would be whether the additional time invested in such combined approaches, which fundamentally explore hypothetical circumstances, actions and reactions, leads to decisions that deliver a competitive advantage. This is in stark contrast to strategy development approaches based on experimentation, such as the one described in Lean Startup (Blank, 2013; Ries, 2011), which encouraged the development of a minimum viable product or service as the “version of a new product which allows a team to collect the maximum amount of validated learning about customers with the least effort”.

We hope that our approach can serve as the first stepping stone towards decision-making and strategizing processes that will allow firms to continuously work towards identifying superior courses of action that alter the status quo, regularly renew their competitive advantage and strive towards more sustainable business models (Bidmon & Knab, 2017; Gavetti & Menon, 2016).

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