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The Management Perspective

Duus, Henrik Johannsen

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Strategic Forecasting: The Management Perspective

Henrik Johannsen Duus

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STRATEGIC FORECASTING:

THE MANAGEMENT PERSPECTIVE

Introduction

Companies worldwide are facing levels of turbulence and complexity that have severe implications for their performance. The struggle with declining profits and decreasing markets is of course nothing new; the recent financial crisis, for example, was preceded by the dot.com boom bust cycle and a myriad of similar crises in the history of world business (Tvede, 1997, 2002, 2006, 2010).

However, it may be argued that current increases in turbulence and complexity are unprecedented because of several factors that have gained importance, such as the globalization of business, the increased development of turbulent business-to-business markets, the increased development of turbulent financial markets, the increased importance of politics, the increased importance of environmental concerns, new technological and scientific developments, and more extreme fluctuations in business cycles (Oxelheim and Wihlborg, 2008; Tvede, 2010).

These developments necessitate that we pay more attention to theories, models, methods, and techniques that enable companies to understand current and future business conditions and take proactive measures to deal with this increase in turbulence and complexity (Wilson and Eilertsen, 2010; Kunc and Bhandari, 2011).

Here, the area of Strategic Forecasting may help managers to handle this rise in turbulence and complexity. Following this, the distinctive contribution of this article is threefold. First, this article attempts to present a brief overview of this somewhat overlooked area, especially highlighting its differences from other parts of the corporate strategy toolbox. Integrated with this overview, it argues for the existence of Strategic Forecasting as a way of thinking that may

potentially utilize a large array of techniques, models, theories, and methodologies but is not represented in whole or in part by any one of these. Second, it presents three research directions within the area that can inform future research efforts. Third, it also provides five examples of new practical ideas emanating from this perspective that may enable managers to analyze and understand the future of their firm and the environment better, thus improving investments in a wide range of areas.

While this article is purely conceptual, it nevertheless combines theory and empirical work in two specific ways.

First, it utilizes the theory and history of areas within economics and strategy. Here, books and journal articles have generally been preferred over web based literature. The focus is especially on theories related to innovation, futures research, business forecasting, and economic cycles in financial and real markets. Many of the sources referenced focus heavily on the doctrinal history of economics and this has helped the author to ground his work solidly. Some books are classics in economics and strategy. Last but not least, much of the research is rich in empirical so-called secondary data.

Second, the research presented has been developed over the years through the author's contact and collaboration with several business firms. Most of these firms have been analysis firms working within the areas of financial analysis, business cycle forecasting, commodity forecasting, futures research and strategic market analysis. The client firms served by the analysis firms have mainly been medium to large size firms in the global business-to-business sector. A minority of client firms have been in the consumer sector. This implies that the research in this article is grounded in real world business practice. In this regard, abductive reasoning, where theory and

experiential observations are mixed with logical inferences and creativity to produce the most likely ideas and conclusions, has been used (Yu, 1994; Itoh, 1996; Rangstrup, 2000).

This broad practical angle also suggests that this article may have relevance for a wide variety of managers from firms spanning all parts of the business world; however, those sectors most sensitive to turbulence, such as the global business-to-business sector and the financial sector, may be first in line to benefit.

The contribution of Strategic Forecasting

A brief look at the above-mentioned turbulence factors reveals that all exist at the macro (i.e. national or global) and meso (i.e. industry) levels of the economic system. In other words, they are far removed from the arena of the manager, who in many cases may be inclined to take a perspective that is more micro-oriented, that is, more oriented towards the workings of his particular business and its proximate surroundings, consisting of the firm's customers and immediate competitors, the firm's specific products, the firm's organization and personnel matters and the firm's distinct performance.

Hence, overall matters that are of strategic importance may tend to be crowded out in dealing with the day-to-day operations of the firm. What is indicated is that the "right" product, the "right" people, an "innovative" idea and a promising business model may not be enough to ensure success as they may only last as long as the macro-economic, industry-wide, and financial market conditions allow.

While mainstream corporate strategy stresses that the distinct performance of the individual firm is rooted in firm-specific resources, competencies, and capabilities, it is not unreasonable to suggest that the external conditions may be what allows those to be used. Far from heretic, this position is actually supported by many prominent strategy researchers (Selling and Stickney, 1989; Porter, 1991; Hamel and Pralahad, 1996; Grant, 2013). Here, the position is simply

extended to stress that favorable external conditions create opportunities for most firms whereas a negative economic outlook can turn once promising opportunities into nightmares. In effect, it is indicated that it is the macro- and meso-economic conditions more than the micro-economic conditions that may constitute the main determinants of success and failure for most businesses.

Thus it could be argued that what is needed is not just theories, models, methods, and techniques that deal with future business conditions but also ones that focus on the general outlook for business and society rather than the specifics of the firm and its immediate surroundings. A multitude of theories and models doing exactly that definitely exist but many are often not known, made accessible to managers, and/or used in such a way that results are translated into strategic and innovative change in the firm (Brandt and Krogslund, 2010; Duus, 2013).

Here, the area of Strategic Forecasting holds the promise to actually provide us with a perspective on how to do this. Being more than a collection of theories and methods for looking ahead, it shifts the focus of corporate strategy towards a more macroscopic, long-run, and strategic perspective in order to create strategic change. This area has been somewhat overlooked and perhaps often misunderstood as being associated with a specific model, a specific technique, a specific methodology or a specific theory rather than being a way of thinking. As noted, while many theories and methodologies exist that may be utilized by a person engaging in forward-looking activities, an integrated perspective such as that provided by Strategic Forecasting is often lacking. Evidently, many may not see the forest for the trees. This is somewhat underlined by the fact that the very phrase "Strategic Forecasting" (not to be confused with its proper subset "strategic foresight"), while having a sort of buzzword existence, is seldom found in academic publications (Duus, 2013).

Strategic Forecasting defined

Enter Strategic Forecasting. As an area dealing with future general business conditions, Strategic Forecasting has gradually been emerging as a new addition to corporate strategy (Makridakis, 1981; Naylor, 1983; Capon and Hulbert, 1985; Cohen, 1988; Makridakis, 1996; Duus, 1997, 1999, 2013; Rangstrup, 2000; Shim, 2009).

Strategic Forecasting can be seen as a way of embracing those types of long-term forecasts that are strategic to the firm (Capon & Palij, 1994). It shifts the focus of corporate strategy to areas that deal more with macro, long-run and strategic perspectives in order to create innovation and change (Duus, 2013). More specifically, it can be defined as that part "of business economics that deals with the study and practical application of methods, theories, models and techniques for long-term analysis of the non-proximate environment of the firm with the purpose of conducting strategic change" (Duus, 2013 pp. 364-365).

Thus Strategic Forecasting may be seen as a portmanteau rubric for a number of different approaches to thinking about the future, approaches that have roots in various sub-areas within economics, sociology, statistics, and other fields. But more specifically it may also be seen as a way of thinking about the future that deviates from more traditional approaches.

A crucial point is that Strategic Forecasting is not about prediction of the future but about understanding the future better than competitors. Prediction in any absolute sense is a very ambitious and perhaps impossible goal whereas understanding the future sufficiently well to get ahead of competitors is doable. Since competition is a "discovery process" conducted by economic agents with imperfect information, the competitor with a superior understanding based on sound analysis has a better chance of emerging as a winner (Hayek, 1984; Buchanan and Vanberg, 1991; Drucker, 2006).

While many theories, methods, and techniques connected with Strategic Forecasting have long been known, the term itself as a concept was coined in the mid-80s by Capon and Hulbert

(1985). According to those researchers, Strategic Forecasting is the connection between corporate strategy and forecasting but differs markedly from both areas.

Strategic Forecasting differs from strategic planning by focusing on the creation of options, ideas, and alternatives for action. In contrast, strategic planning is more about choosing among the alternatives, options, and ideas created (Duus, 2013). Strategic Forecasting can thus be seen as a necessary prerequisite for strategic planning and resembles in this manner the "starting point of strategic planning" approach developed by Abell (1980, 2010).

Strategic Forecasting also differs from traditional forecasting (and the tools and techniques of market analysis) by being strategic in nature and thus something that is used and applied on the strategic decision level of the firm. Conversely, the theories, methods, and techniques related to traditional forecasting and market analysis are most often associated with and used on the tactical and operative levels of the firm (Armstrong, 1985, 2001).

As indicated earlier, a further characteristic of Strategic Forecasting is that it deals with general business conditions and not with conditions that are internal or in close proximity to the firm. Strategic Forecasting is carried out exclusively by analyzing those parts of the firm's environment on which it has only marginal influence. This is the macro and meso environment, where business conditions are of a general nature and extend to more than one firm. The proximate micro-economic environment and conditions that are part of the firm's internal environment are not dealt with.

Hence, Strategic Forecasting emerges as more long term and macro-oriented in nature than tactical and operative forecasting, internal corporate analysis, and ordinary market analysis (see figure 1).

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INSERT FIGURE 1 HERE

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Viewed as something done on the strategic level of the firm, Strategic Forecasting is not a simple quantitative extrapolation of existing trends in markets, products, issues, and activities but is instead in its essence a creative exercise in corporate entrepreneurship that creates opportunities for growth by actively scanning the corporate environment (Duus, 1997, 1999, 2013).

By doing so, it goes to the core of the foundations for business growth. In the words of strategy theorist Edith Penrose: "The productive activities of such a firm are governed by what we shall call its "productive opportunity", which comprises all of the productive possibilities that its "entrepreneurs" see and can take advantage of" (Penrose, 2013 p. 31). When innovation is defined in the broadest possible sense as the production of novelties that add economic value, the firm using Strategic Forecasting changes from a passive reactor to environmental trends to an active "innovation machine", which transforms itself and its environment as it evolves (Duus, 2013). Some of the decision areas that can be improved by Strategic Forecasting are shown in Figure 2.

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INSERT FIGURE 2 HERE

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Briefly expressed, following Capon & Hulbert (1985), Strategic Forecasting may ideally:

- Focus on the analysis of structural change rather than extrapolation.
- Focus on long time horizons rather than short time horizons.
- Make "what if" forecasts rather than unconditional forecasts.
- Use economic theory and databases to construct indicators in key areas.

- Combine quantitative and qualitative methods.
- Try to "understand" rather than "predict" the future.
- Make knowledge of the "future" accessible to everyone in the organization in order to secure support for action.

Two further crucial characteristics emerge from this list.

First, Strategic Forecasting is very much about creating a new "cultural" understanding in the management system of the firm (Olesen, 1995). Necessary preconditions for Strategic Forecasting entail creating a new way of thinking about the firm's environment. While this may seem straightforward, studies of how firms handle their environmental analysis show that only a minority strive to go beyond what is contained in the mainstream textbooks on strategic management (Brandt and Krogslund, 2010). Many firms perceive environmental analysis to be of limited use and of those firms that appreciate its potential, many are lost in a maze of traditional thinking and are unable to go beyond mainstream models of the PESTELE and Porterian variety (Brandt and Krogslund, 2010; Aaker, 2013).

Second, Strategic Forecasting is also about developing the tools, techniques, and models that enable firms to understand the future environment. Some of those may be general in nature and relevant for a larger number of industries, others may be specific and distinct for the business and industry in which the individual firm exists. This necessitates that some analytical expertise is developed in regard to knowledge of tools, techniques, theories, and models that may be useful and that this expertise is put to use in gathering data and developing the key indicators that will suit the firm best (Duus, 1999).

The latter characteristic further suggests that the scope for profitable improvement in companies that use Strategic Forecasting is not only dependent on internal factors like company culture and

analytical expertise. The environment in which the firm is situated also plays a huge role. In general, the more turbulence and complexity in the environment, the higher the potential gains from Strategic Forecasting. And as pointed out by Skousen (2007), this turbulence and complexity is in turn dependent on industry conditions such as capital intensity and the remoteness from end users. Hence, a knowledge-based firm in global business-to-business markets like the industrial pump manufacturer Grundfos can be expected to face a more challenging environment than, say, the consumer food giant McDonalds. Not only is production in the first case more knowledge and capital intensive but market fluctuations in business-to-business markets also tend to be higher than fluctuations in consumer markets. In concrete terms fluctuations in business-to-business markets can be measured in double digit percentages, whereas they are usually only measured in single digit percentages in consumer markets (Duus, 1999, 2013; Skousen, 2007).

This further implies that the potential gains from Strategic Forecasting differ widely among firms and industries. Some may be able to improve revenue and profits with a percentage measured in tens. In other cases the gains would be rather small. Nonetheless, it is highly unlikely that there would be cases where no benefits would accrue from investigations of the future. If more firms were to engage in building Strategic Forecasting capability this would probably also have a huge impact on the competitiveness of whole industries and ultimately, society.

Figure 3 provides a general overview of Strategic Forecasting compared to other forms of external analysis.

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Back to basics: theoretical position in economics and corporate strategy

As can be seen, Strategic Forecasting draws on several contributions from within economics and corporate strategy.

One thing that unites those contributions is a conception of the business environment as fundamentally open-ended. Hence, the future is not seen as a given thing but as something that needs to be discovered (Hayek, 1984) and sometimes created (Buchanan and Vanberg, 1991) in order to facilitate innovation, strategic change, and growth in the firm (Jacobson, 1992; Duus, 1997, 2013; Aligica, 2007; Penrose, 2013).

Another thing that unites those areas is that they are fundamentally macro- and/or meso-oriented and do not focus much on the peculiarities of the individual business. The outlook is on the general conditions in society, industries, and business as a whole but with an eye to how these may affect the single firm.

In many ways, this may be seen as a return to the tendency in thinking about strategy and management that flourished in the 60s and 70s, albeit with an updated theoretical and methodological content focusing more on innovation and change (Duus, 1997). In the 60s and 70s emphasis was put on the environment, thinking ahead, getting the facts, and planning on the basis of those facts. In fact, much of corporate strategy started out with themes such as those found in the works of, for example, Igor Ansoff (Ansoff and McDonell, 1990; Martinet, 2010). Thus the Strategic Forecasting perspective is closer to notions of the styles of management associated with "early" strategy schools, like the positioning school, the planning school, the design school, and the entrepreneurial school, and less close to those schools of management that emerged "later" and focused on firm-centered characteristics like culture, configuration, power, cognition, learning, and similar themes (Mintzberg, Ahlstrand, and Lampel, 2009).

What is underlined is that since the golden age of long-range planning in the 60s and 70s, the mainstream developments of the theories of corporate strategy have to some extent moved away

from taking a long-run, forward-looking perspective (Cummings and Daellenbach, 2009; Duus, 2013).

This is perhaps most evident in the fact that the rhetoric of business economics has changed over the last 30-40 years from an initial focus on environmentally oriented themes like long-range planning, industry analysis, and demand analysis to the current focus on themes centered more on the firm and its immediate proximity, like resources, culture, capabilities, competencies, networks, relations, and the like (Duus, 1999, 2013; Cummings & Daellenbach, 2009; Grant, 2013).

One probable reason for the shift from external to internal and proximate may be that the stagflation of the 70s gradually led to less reliance on external market growth and to a search for profits through firm-internal or proximate improvements. In an environment where rising costs and stagnant growth are the norm, it makes sense to focus on cutting costs, getting back to basics, developing distinct competencies, developing relations to existing customers, and analyzing the immediate surroundings of the firm. However, the current increasing uncertainty and turbulence indicate a need for the pendulum to swing back to a renewed focus on the environment and long-range analysis. This may not be a break with the competence and capability approach. On the contrary, building strategic forecasting competencies and capabilities in the firm would naturally entail using insights from the competence and capability approach.

Nonetheless, the fact that corporate strategy as a field has changed underlines the problem. While many managers undoubtedly still feel the pressure to focus on the future environment rather than the internal and proximate affairs of the firm, currently fashionable strategy paradigms may not help much in this endeavor. While a partial crowding out of theories and methods dealing with the future environment may have happened in the early 21st century, the need for new tools in corporate strategy to tackle uncertainty by understanding the environment and being proactive has never been greater.

Three current research directions and some implications for further research

The brief list of methods provided in the lower right of figure 3 indicates the broad scope of the area. In essence, Strategic Forecasting can be subdivided into three different research directions, each of which has its own array of methods.

The first of these is futures research. Here we find the common methods known from various analyses of the future such as scenario construction, expert panels, content analysis, demographic analysis, the Delphi technique, technological forecasting etc. (Porter, 1985; Michman, 1987; Martino, 1992; Georgantzas and Acar, 1995; Graf, 2002a, 2002b; Heijden, 2005). Some researchers label these methods under the rubric of "strategic foresight" (Coates, Durance, and Godet, 2010) and it may be seen as a proper subset of the wider area of "Strategic Forecasting" (Duus, 2013).

The second of these is strategic warning. Here, focus is on the management system and the traditional environmental scanning found in strategic market management (Ansoff and McDonnell, 1990; Martinet, 2010; Aaker, 2013). Various forms of organizational development that seek to increase the capability of management systems to handle environmental uncertainty may be part of this (Modis, 1992, 1998, 1999, 2012; Olesen, 1995).

The third main research direction is strategic business cycle forecasting, which focuses on the firm's ability to analyze, understand, and adapt to the business cycle. One important qualification must be made. This avenue of analysis must not be confused with what is commonly known as business cycle analysis. Business cycle analysis is the province of macro-economics, and the normative part of this work is to advise politicians and central bank executives on correct economic policy. Strategic business cycle forecasting, on the other hand, is the area where advice is given to business managers and industry associations on how to adapt to business cycle fluctuations by timing investment practice in a wide range of areas including the plant, machines,

supplies, raw materials, currencies, stocks, bonds, personnel, new markets, industries, etc. (Pring, 1986; Puggaard, 1987; Duus, 1997, 1999; Tvede, 1997, 2002, 2006, 2010; Brandt and Krogslund, 2010; Lundstrøm, 2010).

Work within each direction is often cross-disciplinary and there are no clear boundaries between the three directions. For example, business cycle data may constitute an important and indispensable input to scenario construction (Tvede, 2010). Scenario construction may in turn be a vital part of the organizational development process (Heijden, 2005). Also, some parts of the business cycle are best described using technological forecasting models (Marchetti, 1980, 1986, 1994, Martino, 1992). And all directions merge into one in attempts to incorporate Strategic Forecasting capability in firms (Olesen, 1995; Duus, 1999, 2013). The three different research directions thus simply serve as focal points in the search for new ideas. Here, some may be more likely than others to bring forth new avenues for action. For example, strategic business cycle forecasting is to a large extent a terra incognita amongst executives, but ideas and methods from this area can contribute greatly to the first two.

Some implications for further research can be suggested. Since Strategic Forecasting may be seen as more than the sum of its parts (i.e. methods, models, theories, techniques) it follows that focus should be on cultivating a specific mindset or way of thinking that directs more attention to the long-run, the macro, and the meso as well as the strategic and the creative aspects of strategy making (see again figures 1 and 3). But in continuation of these efforts, there should also be a focus on the cross-disciplinary development of competence in the parts, i.e. in the application of methods, models, theories, and techniques. This would require the hiring and promotion of staff with competencies in the study and application of said methods, models, techniques, and theories. And by implication, cross-disciplinarity in competencies would suggest that people with very different backgrounds should be accepted (Duus, 2013)

Some ideas for management practice

Following this, we might suggest some new practical ideas emanating from this perspective that may have a more direct application for managers. These ideas have been applied in practice by various companies.

In general, systematic use of Strategic Forecasting is most often, though not exclusively, found in two types of companies. The first type consists of larger companies like Shell, Siemens, and Maersk, which are able to support independent departments for analysis and research. This group also includes banking and investment companies, where analysis of macro issues and financial markets is a must.

The other group consists of consulting companies, trade associations, and think tanks, i.e. small and medium-sized organizations and companies where analysis and research play a prominent role. Examples include companies like Demetra, KairosCommodities, and Growth-Dynamics (Modis, 2012; Bundgaard et al., 2014).

Here we limit ourselves to five examples of new practical ideas. The first have been applied in larger companies as mentioned. The second idea has been applied by the consulting firm Growth-Dynamics. The last three ideas are regularly used in firms like Demetra and KairosCommodities.

First, we may look at how companies organize their work with Strategic Forecasting. To develop Strategic Forecasting competencies and Strategic Forecasting capability, a cultural and organizational change process must be effected in the firm. Having recognized the importance of developing Strategic Forecasting capability, companies must hire, as well as develop in-house, expertise in the various methods of information gathering and information processing. Knowledge of economics, sociology, and information and communication technology as well as quantitative and qualitative methodology is needed. As few people cover all necessary forms of expertise, companies should establish cross-disciplinary teams to develop Strategic Forecasting

capability. While it is certainly possible to consider the option of decentralizing Strategic Forecasting capability to all departments of the firm, a better solution may be to establish Strategic Forecasting as a specific organizational function in line with marketing, R&D, etc., possibly in its own specialized department. According to this line of thought, research staff close to top management should be responsible for it (Beattie and Fraser, 1967; Olesen, 1995). This approach is actually practiced by a number of large companies like Shell, Siemens, Maersk, etc. For example, Shell is often credited for its pioneering work in scenario construction practiced by a specific department in that company (Heijden, 2005) and Siemens is well known for its innovative use of new concepts in futures research in specific research departments in order to guide its technology strategy (Weyrich, 2004; Reid-Anderson, 2008; Doericht, 2013). A related idea initially suggested by Beattie and Fraser (1967) is that Strategic Forecasting can improve the market communication of firms if the results of the strategic forecasts are made public. The heart of the matter is that predictions of new future technologies and products may increase customer expectations and thus help create future markets. Other stakeholder expectations of the firm's performance may also be positively affected.

In short, managers should recognize the importance of taking a strategic long-run macro perspective and support should be provided from the very top of the organization. People should be hired who have the necessary expertise in various areas to support the building of Strategic Forecasting capability. Also, strategic forecasts should be created as a team effort and close to top management. Assorted strategic forecasts may be published to help create future markets and stakeholder expectations.

Second, another idea emerges from a little known fact. Very often economists are criticized for not being able to forecast correctly. It has become something of a truism (attributed to Niels Bohr) that "prediction is very difficult, especially if it is about the future". It is often overlooked that most failed predictions in economics are due to either extreme scientifically unwarranted

faith in "closed" or "surprise-free" neoclassical econometric models or by the attempt to make long-range predictions on the micro-economic level, at which fads and fancies are known to change in a chaotic fashion. The ability to say something of value about the future increases considerably when analysts venture upwards to higher levels of aggregation and outside the narrow framework of mainstream economics. That it is indeed possible to say something constructive about the future on the basis of a top-down analysis that evens out micro-economic fluctuations has been shown empirically by researchers like Marchetti (1980, 1986, 1994), Modis, (1992, 1998, 1999, 2012), Martino (1992), and Tvede (2010). The common thread in their work is time series data that are not expressed in strictly monetary terms, such as demographic data, scientific progress, technological functional capability, and the like. One example is the so-called Moore's law and other similar laws that predict steady and predictable increases in computer capacity over long stretches of time. An example of a company that has made use of such ideas is the consultancy firm Growth-Dynamics, which was founded on the explicit idea of applying mathematical systems analysis to business problems (Modis, 2012).

In short: Managers should analyze macro data that are not counted in monetary terms as part of the Strategic Forecasting efforts. These may include megatrends within demographics, technology, and science.

Third, an idea emerges from the fact that strategic business cycle forecasting as part of the more general area of Strategic Forecasting is underdeveloped. The analysis of business cycles from a strategic perspective as opposed to a macro-economic policy analysis perspective holds great potential. Within business economics it is normal for financial analysts to take a macro-economic perspective and apply their findings to investment decisions in stocks, bonds, currencies, commodities, and other financial assets (Pring, 1985, 1986, 2014; Peters, 1994, 1996, 2001; Tvede, 1997, 2002, 2006, 2010; Murphy, 2004; Skousen, 2007). Usually, a combination of economic theory and technical as well as fundamental analysis is applied. Only a small number of

theoreticians and companies apply this kind of analysis in corporate strategy and thereby provide input to environmental scanning (Puggard, 1987; Duus, 1997, 1999; Pring, 2014; Tvede, 1997, 2002, 2006, 2010). Other possible applications, in addition to contributing to financial investment decisions, include providing input to decisions on the timing of orders of raw materials, machinery and vehicles, on the stock of goods that should be maintained for use in the production process, on hiring and firing of personnel, and on potential expansion into existing or new markets. While several methods can be used, such as econometrics or system dynamics (Sterman, 2000), studies show that the use of economic indicator reasoning (i.e. using leading indicators) may hold the most potential. Despite the fact that economic indicators have been used for nearly a century and have been found easy, reliable, and simple for general managers, the approach goes unrecognized by most businesses (Moore and Shishkin, 1967; Puggaard, 1987; Duus, 1999, 2013; Niemera and Klein, 1994; Navarro, 2009; Brandt and Krogslund, 2010; Lundstrøm, 2010, Baumohl, 2013). An example of a leading indicator that can readily be used is the fact that stock markets usually have a lead time of six to nine months in relation to industrial production. Of course, many other leading indicators that may be of interest for specific industries and firms exist (see figure 4 for the general idea).

In short: A simple direct approach, where real economic longitudinal data in the form of indicators are used, may prove to be easier and more reliable than extensive building of abstract models. This direct approach may, however, necessitate some knowledge of how economic sectors interact.

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INSERT FIGURE 4 HERE

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A **fourth** idea emerges from the business cycle being exactly what the name implies: a cycle (Schumpeter, 2005; Mitchell, 2012). Business cycles are by nature aperiodic and show only limited regularity. However, that does not mean that regularity is entirely absent. In fact, there is sufficient regularity in business cycles to allow input to business decision processes. Of special interest are the four recurrent cycles: the Kitchin cycle, lasting 3-5 years, the Juglar cycle, lasting 7-12 years, the Kuznets cycle, lasting 15-25 years, and the Kondratieff cycle, lasting 45-60 years (Freeman, 1996). While the existence of such cycles has been the subject of much discussion, the simple fact is that the cycles are readily found in much economic data by simple statistical procedures like dividing the data series with a simple moving average of half the length of the cycle searched for (Pring 1985, 1986, 2014, Tvede, 1997, 2002, 2006; Bundgaard et al., 2014).

In short: Managers should not just look for trends but also for cycles. Some exist and on long-run macro levels, they may be easier to spot than most managers think.

Fifth, intermarket analysis may be applied as a means to gain additional information on what is going on in the economy. Intermarket analysis essentially involves following several markets in order to gain information about one specific market. For example, bond markets usually develop in the opposite direction of commodity markets. This has several causes of which an important one is that rising inflationary pressure affects commodity markets positively and at the same time leads to rising interest rates and falling bond markets. The reverse applies of course as falling inflationary pressure coincides with falling commodity markets, low interest rates, and strong bond markets. If bond markets develop in the same direction as commodity markets this may signal an untenable situation that can be expected to change soon. An elaboration of this and other connections can be found in Pring (1985, 1986, 2014), Murphy (2004) and Bundgaard et al., 2014).

In short: What happens in the global financial markets affects most companies. The direction of some markets may be used to predict some specific direction in other markets. It may prove fruitful to learn about the connections.

Conclusion

Strategic Forecasting is on the rise in companies and universities. In some areas, the hunt for new methods and new theories in uncharted waters is intense and we have only scratched the surface of this topic. Thus, this brief article provides only a limited glimpse of the immense and fast growing area of Strategic Forecasting. However, several ideas that can be used in the practical building of Strategic Forecasting capability have been presented.

In sum, the key findings and recommendations are:

- Turbulence and complexity are on the rise in the international economy but Strategic Forecasting may help companies deal better with this situation.
- Strategic Forecasting is a way of thinking that advocates the strategic analysis of long run macro and meso conditions and the use of such analysis for innovation and change.
- Strategic Forecasting is connected to theories in economics and strategy that favor an open-ended approach rather than a closed, static approach to how the economic system works.
- Strategic Forecasting implies the cross-disciplinary use of various theories, methods, models, and techniques (quantitative as well as qualitative) in an organizational cultural setting that is supportive of attempts to understand the future environment of the firm. Thus, the building of Strategic Forecasting capability should focus on creating cultural development and analytical expertise.

- Strategic Forecasting may be divided into three partially overlapping current research directions that roughly correspond to strategic foresight (focus on futures research and technological forecasting), strategic warning (focus on the management system), and strategic business cycle forecasting (focus on the business cycle and financial analysis).
- Strategic Forecasting is often the province of larger companies that can support research and analysis in specific departments. However, more modest efforts in small and medium-sized companies may make a difference. Strategic Forecasting is also very prevalent in small and medium sized organizations and companies with research and analysis as a core activity.
- Strategic Forecasting needs support from top management and is in practice most often done by experts and specialists working in teams.
- Strategic Forecasting may be seen as a rebirth of certain "older" insights in strategy thinking, albeit with new theories and methodologies.
- The analysis of non-monetary macro data (i.e. megatrends within demographics, technology, science, politics etc.) is an important part of Strategic Forecasting.
- The analysis of longitudinal economic data (i.e. economic indicators) is another important part of Strategic Forecasting.
- The analysis of financial markets and their interaction with each other and the "real" economy is a third important part.
- Trends and cycles in data may be found with relatively little effort.
- The potential gains from Strategic Forecasting vary across industries and firms, depending on the turbulence and complexity in the environment.
- If more firms were to build Strategic Forecasting capability this might have a positive effect on the competitiveness of whole industries and ultimately, society.

Applying the ideas could take some effort as the effective building of Strategic Forecasting capability necessitates a cultural and organizational change in the firm. A recent study showed that firms had very different attitudes towards Strategic Forecasting (Brandt and Krogslund, 2010). Some firms do not use any form of Strategic Forecasting and consider all forms of environmental analysis useless; others consider Strategic Forecasting to be of some importance but do little more than follow the news and read about it in business periodicals; still others consider the topic highly important and use experts and sophisticated economic analysis to get a competitive edge. For a firm to belong to this last category requires commitment on the part of management. The fact that not all firms make serious efforts in this direction may be a good reason to expect a reasonable return on the resources invested in Strategic Forecasting. This may be by far the most important insight in this article.

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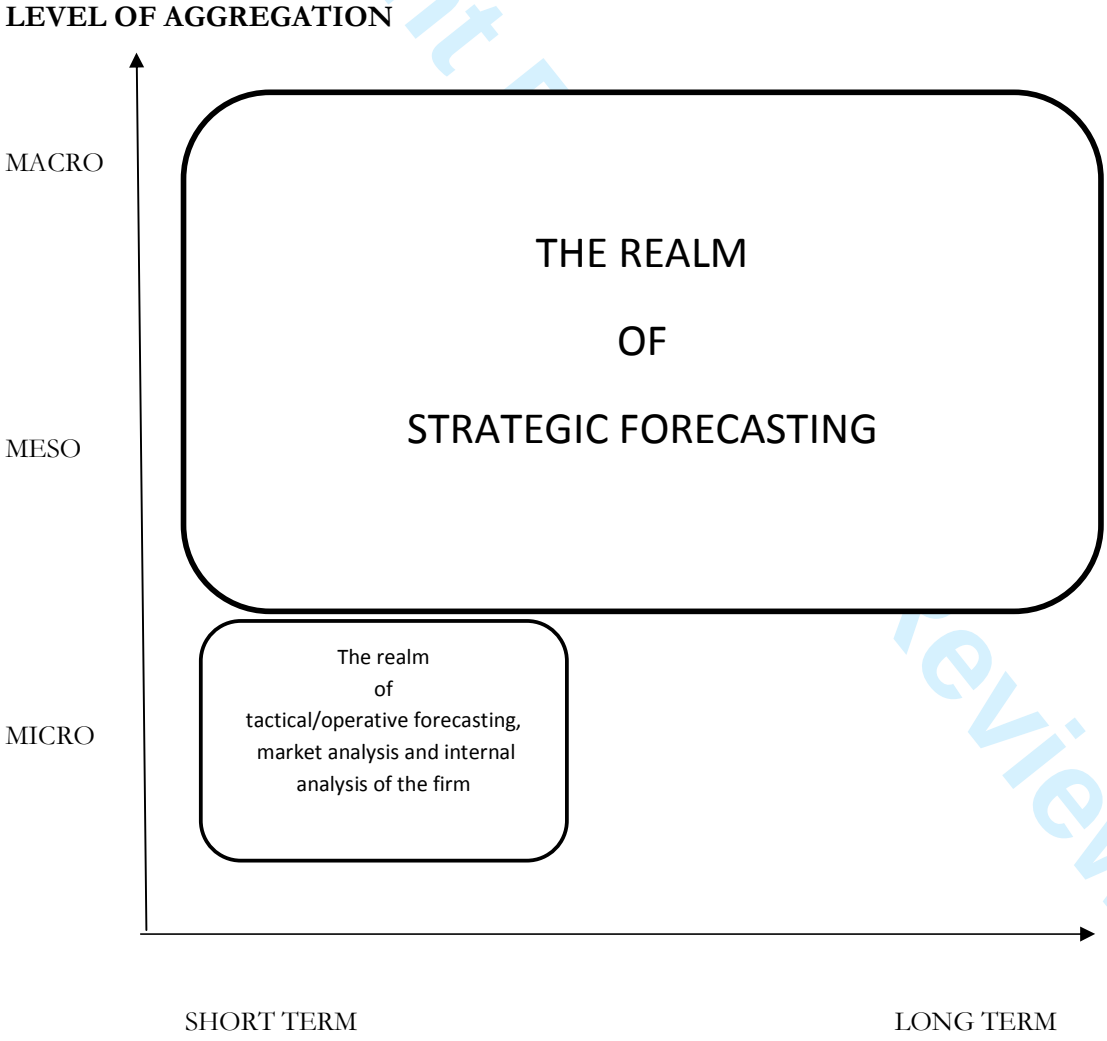
FIGURE 1:

STRATEGIC FORECASTING AS A LONG-TERM MACRO AND MESO ENVIRONMENTAL ANALYSIS



PLANNING HORIZON

FIGURE 2:

SOME EXAMPLES OF DECISION AREAS TO BE IMPROVED BY STRATEGIC FORECASTING

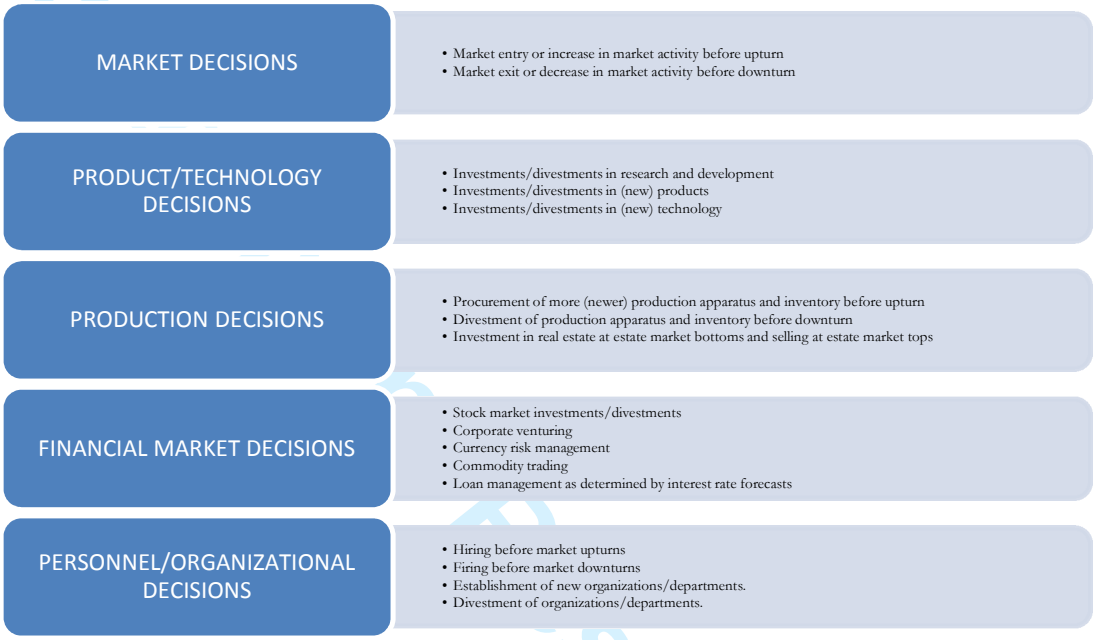


FIGURE 3:

STRATEGIC FORECASTING COMPARED TO OTHER FORMS OF EXTERNAL ANALYSIS (DUUS, 2013)

Type of analysis / Properties	Traditional Market Analysis (including traditional forecasting)	Strategic Forecasting
Time horizon	Short term	Long term
Organizational level	Operative/tactical	Strategic
Object of analysis	The proximate environment of the firm	General business conditions
Application	Traditional products and activities	Innovation understood as economic value-increasing novelties.
Practical examples	Questionnaires for consumers, focus groups, media analyses, qualitative interviews, neo-classical econometrics, etc.	Strategic business cycle forecasting, strategic warning, megatrend analysis, scenario analysis, futures research, technological forecasting, financial market analysis (i.e.. technical analysis), demographic forecasting, etc.

FIGURE 4:

INVESTING ON THE BASIS OF STRATEGIC BUSINESS CYCLE FORECASTING