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# EVALUATING STRATEGY TOOLS THROUGH ACTIVITY LENS

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## **Abstract**

Strategic level management tools - strategy tools - have generated much interest in organizations as potential ways of supporting modern strategizing. Strategy tools such as Porter's five forces, SWOT Analysis, Scenario Analysis, and the Balanced Scorecard are designed to support organizations in dealing with the complex demands of competitive markets and the quest for maintaining and creating strategic advantage. While hundreds of different strategy tools are available, increasingly in computerized form, reports concerning their usefulness remain ambiguous. This paper takes a new approach to evaluating strategy tools by focusing on strategizing activities. In other words, instead of concentrating on outcome expectations and the tools' prescribed tasks, we look at how the tools are actually used. We argue that the usefulness of strategy tools should be conceptualized as a form of activity, and that such a framework allows us to evaluate, explain and expect different experiences and consequences of strategy tool use in organizations. In addition to contributing to evaluation literature, our paper also adds to neo-institutional management tool discussions by connecting institutional forces to micro-level activities. Our practical contribution is to facilitate and draw attention to the process of choosing strategy tools.

## **Keywords**

Management tools, strategy-as-practice, evaluation, executive use, multi-level issues.

## **Introduction**

“When adopting a [strategy] tool, the main challenge is to recognize situations in which its application is appropriate – where it adds value and where it doesn’t.”

Strategy director of a large Finnish company

To support modern strategizing, organizations are adopting strategic-level management tools, i.e. strategy tools. Hundreds of such tools are available (Bain&Company, 2005) increasingly in computerized form and tools such as Executive Information Systems, SWOT (strengths, weaknesses, opportunities and threats) Analysis, Scenario Analysis, and the Balanced Scorecard can be found in organizations all over the world (Rigby and Bilodeau, 2005).

Traditionally, strategy tools have been promoted by management consultants, popular management literature, business school courses and management scholars geared towards practical solutions (e.g. Sahlin-Andersson and Engwall, 2002). For researchers, strategy tools offer the possibility of implementing academic theories in practice. Many prevailing management theories, e.g. Porter’s Five Forces, Value Chain and Real Options, have been developed into strategy tools. Recent improvements in information technology techniques have accelerated the development of strategy tools, and the scope of disciplines offering strategy tools has also broadened.

In general, strategy tools are a heterogeneous group of products designed to support organizations in dealing with the complex demands of competitive markets and the quest to create and maintain strategic advantage. The idea behind a strategy tool is to transform ‘best practices’ or theoretical know-how into steps that are integral to the tool. Ideally, using the tool then releases knowledge in a practical and contextual form that supports more effective strategies and facilitates strategizing.

In practice, the usefulness of strategy tools is not completely clear, i.e. how they actually benefit the user organization. Mainstream management and organization literature does not focus on the use of tools or assessments of tool value. In the main body of literature dealing with strategy tools in general terms, the literature concerning management fads and fashions, a neo-institutional view is taken. This view depicts tool adoption as a macro-level phenomenon. Evaluation of usefulness is implicitly not seen as intrinsic to the adoption of a tool (e.g. Abrahamson, 1996; Kieser, 1997) since choices of tools cannot be explained by rational behavior. However, some literature in this category does depict organizations as active agents (e.g. Benders and van Veen, 2001; Clark, 2004) and some literature, usually geared more for readers who are practitioners, offers warnings about short-lived tool fashions and suggests that closer attention should be paid to the selection of tools (e.g. Shapiro, 1995). User-oriented literature highlights the question of usefulness, but often lacks the depth required for strategy tool evaluation.

In the following, we have collected five other central issues from literature on the evaluation, usefulness and value of strategy tools. Taken together, they form a confusing, scattered, and difficult-to-interpret picture, and are of little help in evaluating tools in practice.

Firstly, in spite of the broad diffusion of strategy tools, many studies show that senior managers rely on their intuition and do not use tools (e.g. Kasanen, Wallenius, Wallenius, and Zionts, 2000; Miller and Ireland, 2005; Nutt, 2002). Often these studies only look for prescriptive use of tools and do not take into account the reports that business practitioners use tools in creative ways that may not have been intended or imagined by the tools' developers (Frost, 2003; Jarzabkowski, 2004; Morecroft, 1992; Workman, 2005). In addition to traditional hands-on use, tools are for example used both cognitively and linguistically, but these different ways of employing tools are seldom taken into account in evaluation literature.

Secondly, tool evaluation is traditionally treated as a part of tool-development validation routines and often defined as assessment of the outcomes of use of a tool (Hamilton, 1991). However, tool developers repeatedly blame a lack of quantitative data, confidentiality issues, and the complexity of circumstances for not carrying out thorough evaluations (e.g. Eden, 1995; Strauss, 1960). Instead, user testimonials relating to success are often used to demonstrate performance gains and other positive outcomes following from use of a tool. Since research by Davis (1989) and Davis and Kottemann (1994) show that subjective perceptions of tools are not necessarily indicators of actual performance, user evaluations alone do not provide irrefutable evidence concerning the actual value of tools.

Thirdly, evaluation criteria and procedures for strategy tools have been widely debated (Borenstein, 1998; Finlay and Wilson, 1997; Landry, Banville, and Oral, 1996) and many researchers have concluded that as strategic-level situations are unique, traditional evaluation is simply not possible (Eden, 1995; Rosenhead and Mingers, 2001). Olphert and Wilson (2004) also claim that the context in which tools are used becomes of great importance and cannot be separated from the tool in the process of evaluation. Déry, Landry, and Banville (1993) suggest that social relationships need to be taken into account and Mingers (2001) points out that political, social, and personal views should be included. Miser (1993) notes that, in addition to sociological facts, history is an important component of evaluation. Overall, uniform canons of evaluation have not been established and the evaluation of strategy tools is viewed as a highly contextual task that cannot be carried out by tool developers alone.

Fourthly, in spite of the unclear evaluation processes, groups promoting strategy tools have taken an active role in attempting to prove that strategy tools have value. For example, consulting companies have come up with novel ways to show the relevance of tools. Matheson and Matheson (2001) have discovered that using best practices creates profits, and Dorgan, Dowdy and Rippin (2006) have been able to link the

use of management techniques to productivity. Also, specific types of strategy tools have been shown to be useful. For example, in the field of decision analysis (DA) Clemen and Kwit (2001) have illustrated that using DA techniques in strategic decisions brings clear economic advantages, and in the field of operations research (OR) Bell, Anderson and Kaiser (2003) have proven that using strategic OR tools can bring sustainable strategic advantage. However, while these studies prove that strategy tools can be useful in some situations, they neglect to describe in any exact way how they are used to create value and when they are less beneficial.

Fifthly, the discipline of Decision Support Systems (DSS) has been focusing on the effectiveness of computer-based decision models since the 1970s (Shim, Warkenting, Courtney, Power, Sharda, and Carlsson, 2002). DSS aims to provide a structure for ill-structured decisions, and DSS literature therefore provides a generous number of articles concerning strategic-level tool use. Even so, the evidence concerning tool value is not conclusive. Use of DSS tools is shown to affect performance either positively (e.g. Benbasat and Dexter, 1982), negatively (e.g. Kottemann and Remus, 1987) or to have no effect (e.g. Fripp, 1985). Notably, this body of literature points out that the practical effectiveness of tools is tightly linked to different patterns of use that involve, for example, users' psychological styles, the incompatibility of the human-tool interface, and the profundity of tool use and adoption.

This paper suggests that examining evaluation from activity viewpoint will make sense of these apparently-inconsistent findings. In other words, instead of focusing on outcome expectations and the tools' prescribed tasks, we look at how the tools are actually used in practice. We argue that the usefulness of strategy tools should be conceptualized as a form of activity, and that employing such a framework allows us to evaluate, explain and expect different experiences and consequences that follow from the use of strategy tools in organizations.

Furthermore, we maintain that the evaluation of strategy tools is an important but neglected part of organizational and management studies, and hope to provoke dialogue in this area. As the opening quotation in our paper highlights, evaluation has an elevated importance when seen from the user organization's viewpoint (see also Roy, 1993). However, evaluation is not only a practically-oriented instrumental view of model validation, it is also an attempt at further understanding and improving predictive ability - the goals of the academic community (Dubin, 1969). How do we improve our work if not by learning about how the theories we generate are used in practice? How do we plan to bridge the gap between theory and practice if not by evaluating the realization of current theories? How do we set out to help organizations and managers if not by studying what they find useful? In our field, all of these are valid questions which require answers.

We construct our evaluation framework through an empirical study of more than 300 strategy tool users and non-users. We begin with describing the link between strategy-as-practice research and evaluation. We then unfold our empirical study and its findings. Finally, we form our evaluation tenets and discuss them.

### **Usefulness as an activity**

This study examines strategy tool evaluation from the strategy-as-practice viewpoint (Jarzabkowski, 2005; Whittington, 2003). In an article that describes activity-based strategy-as-practice research agenda, Johnson, Melin, and Whittington (2003) point out that the value of a resource depends not on its existence but on how it is utilized and that the study of these acts of utilization is intrinsic to the strategy-as-practice view. We therefore study the acts that make strategy tools valuable.

The strategy-as-practice viewpoint is a micro-level approach that concentrates on practices carried out by a wide range of strategy practitioners, for example, in connection with strategy tools. We look at the practitioners – primarily executives, but also board members, middle managers, assistants, consultants, customers, shareholders, regulators etc. - as social individuals interacting with the social circumstances that surround strategy tools. The focus is on how practitioners use the tools, what work they do with them, with whom they interact through use of the tools, and what practical reasoning they apply in the different methods of using strategy tools (Chia, 2000; Ezzammel and Willmott, 2004; Jarzabkowski, 2005).

To summarize, we look at the different activities around strategy tools that shape and are shaped by the society within which tool use occurs. To gain a better understanding of the activities, we let the practitioners define the tools used in strategy work, and view strategy-tool use as consisting of a range of somewhat mundane strategizing activities (see also Jarzabkowski, 2005). The tool itself is not the center of attention, the way in which it is used is. Furthermore, neither the actors nor the associated activities can be considered separately from the tool-use situation since that situation provides an interpretive context for the action (Brown and Duguid, 1991; Lave and Wenger, 1991).

This activity-based view allows strategy-tool use to be viewed as a flow of organizational activity that incorporates rationality and irrationality, content and process, intent and emergence, thinking and acting as reciprocal, intertwined and often inseparable parts. Furthermore, the strategy-as-practice viewpoint adopted in our study also contributes to an understanding of how micro-level activities are dominated by macro-level societal forces (see Abrahamson, 1996).

Most importantly, however, the strategy-as-practice viewpoint offers us an opportunity to study strategy tools as "...mediators of action, examining their consequences for the strategy, the actors who use them,



and the interactions that are conducted.” (Jarzabkowski, 2005:10). In other words, the accent is on analyzing strategizing activities that are mediated through strategy-tool use, and also on studying the consequences of tool use in these activities in a diversity of social settings. These consequences, some positive and some negative, permit us to analyze the usefulness of strategy tools.

On the other hand, this approach does not provide information concerning the amount of usefulness, and although it may not be able to link the usefulness of a tool to organizational performance in a direct manner, the strategy-as-practice view can reveal how routines, tools and processes are configured to provide sustainable and competitive advantages (Johnson et al., 2003). Also, the scope of the study and the units used in analysis are natural limitations on this approach. Strategy tools are however common in all modern organizations and to some extent, their use across organizations is comparable.

### **Data and analysis**

In this study, we decided to use the methodology of grounded theory (Glaser and Strauss, 1967; Strauss and Corbin, 1998) in collecting and analyzing data on strategy tool use. More specifically, we chose to follow Charmaz’ (2000) approach to grounded theory that does not assume an objective external reality but rather paints a picture of an interactive process and its temporal, cultural and structural contexts. In adopting Charmaz’ (2000) approach, we have focused on describing everyday strategizing activities in modern organizations. In overall terms, the main goal of choosing grounded theory was to enable a dynamic description of strategy tool use that captures complexity and allows the linking of theory with practice.

Locke (2001) points out that grounded theory is particularly valuable at capturing complexity in contexts as action unfolds. Constant comparisons of data, the iteration of research questions, and the interactive emergence of categories have allowed the complexities of strategic-level work to widen our perspectives on strategy-tool use. During the process, we have recognized the mutual creation of knowledge by us and our informants, and aimed at an interpretive understanding of subjects’ meanings (Lincoln and Guba, 2000; Schwandt, 1994).

We used theoretical sampling (Glaser and Strauss, 1967:45) and collected data using a variety of methods. The iterative data collection, coding and analysis took place at the same time as concepts emerged and guided us in deciding what data would next offer opportunities to reveal variations and refine our concepts of strategy-tool use.

Our study is based on five different types of data:

#### **I. Survey**

To create a wide view on strategy tool use, we studied 182 questionnaire answers from the 500 largest companies in Finland (Talouselämä, 2002). A short, open-ended questionnaire (paper and web form) was sent to top-level managers involved in strategic management. The questionnaire was returned by 172 companies. In some companies, more than one respondent answered the questionnaire independently, increasing the number of returned questionnaires to 182. Approximately 70 percent of the respondents were identified as company executives. Each respondent was asked to record all the strategy tools used in supporting the making of major decisions in their companies. They were also asked to define the different purposes for which strategy tools were used. Finally, respondents described in their own words the advantages and the disadvantages of using such tools. All statements were coded.

#### **II. Unstructured e-mail and phone interviews**

Some respondents did not wish to fill in a form and some wanted to provide additional information concerning their strategy process. Thus, 92 of the executives, managers or assistants working with strategy tools either sent open-form e-mail replies or phoned in their responses. This data varied from short statements about why strategy tools were not used to lengthy descriptions of strategy routines. All data was transcribed.

#### **III. Themed face-to-face interviews**

Interviews were conducted with 16 executives and five managers working in large and medium-size companies in Finland. Four follow-up interviews were also arranged to check on some key concepts. Interview themes range from general strategy work to specific points concerning strategy-tool use. Four interviews could not be recorded, but notes were made either during or immediately after these interviews. All other interviews were recorded and either fully or partly transcribed.

Some interviewees also showed us documents related to their strategizing and strategy-tool use. These included slides and plans concerning the strategy process, documents from strategy meetings, and printouts of strategy-tool results. Notes were taken.

#### **IV. Presentations on strategy tools**

Seven organizations were invited to give a presentation in a university course on the use of strategy tools. Two of these organizations were consulting companies that reflected on their client's tool use. One presenter was from a military organization and the four remaining presenters represented large Finnish companies. The presentations were videotaped and transcribed in part.

**V. Participant observations**

Researcher A acted as a complete participant (Gold, 1958) for 21 months at executive level in one of Finland's 500 largest companies. The company employed two strategy tools and was in the process of adopting a new tool. Researcher A took part in both strategizing and strategy tool use. Notes were taken of formal and informal meetings at different levels in the company. Other material includes minutes taken at executive and board meetings, and printouts of strategy tool results.

Researcher B participated as a consultant in strategy process projects in three organizations. In these collective-learning projects, which began by defining the problems together with the organization, the aim was to contribute to both practical actions and academic theory (Argyris, Putnam, and Smith, 1985). Notes were kept.

The research questions have evolved as the research progressed. Our interest in finding out how strategy tools are useful in strategy work has guided our quest.

Both the authors of this paper were involved in the iterative process of coding, grouping and categorizing the collected data throughout the entire period of the study. We have coded the data selectively (Strauss and Corbin, 1990:116), formed categories, and generated concepts by making continual comparisons. In our interpretation of the data, we have examined views, values, acts, facts, beliefs, ideologies, intentions, motives, purposes, situations, structures, rules and tacit meanings. In spite of the rich data set we have acquired, this situated, context-dependent perspective of our study makes causality somewhat suggestive, incomplete, and indeterminate.

However, the aim of our study is to elaborate on strategy-tool use and its usefulness. We look at strategizing, the use of strategy tools in organizations, and most importantly, the role that strategy tools play in strategizing. We do this by focusing primarily on the executives, the work they do and the ways that they use strategy tools in their organizations.

**Multi-level strategizing with strategy tools**

This section introduces the findings of our study. We first indicate why the focus of our study is on strategizing activities. We then elaborate these activities and finally connect strategy-tool usefulness to changes in carrying out strategizing activities.

**Background information on strategy tool use**

First, we highlight some results from our survey (for complete study, see Stenfors and Tanner, 2006; Stenfors, Tanner, Syrjänen, Seppälä, and Haapalinna, 2007) and initial interviews that led us to use a strategizing-based multi-level view as our platform for assessing usefulness.

On average, the surveyed companies used just less than five strategy tools (the median and mode were also five) and the standard deviation within the 172 companies was only 2.2. It is however important to note that 13 % of the responding companies told us that they did not use any kind of tools in connection with strategic issues. Many such “non-user” organizations explained that their company culture either did not support or even prohibited the use of tools. We interpreted this finding to mean that decisions concerning strategy tool use are dependent not only on institutional fashions (e.g. Abrahamson, 1996) and individual preferences (Benbasat and Dexter, 1982), but also on organizational issues, and proceeded to study strategy-tool use using a multi-level view.

In our survey, tool use was defined by the respondents by listing the tools that in their opinion were employed in the company when making major decisions. In a similar open-ended manner, we asked respondents to list the tasks for which each tool was used. We classified the lists of tools provided by the 182 respondents into the tool categories presented in Table 1.

Even though our questionnaire did not have the word strategy in it, respondents used notions belonging to typical strategy discourse in their descriptions of strategy-tool tasks. For example, strategy, strategic planning, strategy analysis and strategy work featured 80 times in the 137 answers concerning SWOT Analysis. The tasks for which the tools were used were therefore a convenient fit to a strategy process chart (see Stenfors and Tanner, 2006). On the other hand, establishing where tools were used in the strategy process did not lead to a better understanding of how useful the tools were and what practical activities were accomplished by using them. Following Brown and Duguids’ (2000) observation that practice is what is inside the process, we focused our studies on practical micro-level strategizing activities.

We also asked respondents questions concerning the advantages and disadvantages of the tools they used, but rather surprisingly, we received very similar types of answers and were unable to detect any obvious differences between a diverse range of tools. The different technical and theoretical aspects of strategy tools did not seem to play an important part in opinions about a tool’s usefulness. An interview with a tool specialist in one of the surveyed companies is illuminating:

*Interviewer: “Why did you choose the Expert Choice”*

*Specialist: “No specific reason”*

*Interviewer: “So, it just was?”*

*Specialist: “[The tool] is not important. [pause]. And Expert Choice has a sensitivity analysis, but we don’t really know how to use it.” [laughter]*

*(Tool specialist IJMALENOD2)*

We proceeded to treat strategy tools as mediators of action, not as separate units of study. More specifically, our focus is on strategizing activities that strategy tools mediate.

Support tool group	Frequency
SWOT Analysis	136
Spreadsheet Applications	120
Balanced Scorecard	104
Risk Analysis	66
Analysis of the Financial Statements or Investments	63
Quality Methods	51
Scenario Planning	46
Environment Analysis	40
Brainstorming	37
Statistical Analysis	33
Life Cycle Analysis	25
Optimization	23
Project Management Tools	20
Simulation	20
Value Chain Analysis	10
Human Resource Management Tools	7
Management Information Systems & Business Intelligence	7
Enterprise Resource Planning	7
<b>Number of tools classified (94 %)</b>	<b>815</b>

**Table 1. Groups of support tools listed by executives (Stenfors et al., 2007)**

### **Strategy tools mediating strategizing activities**

For the executives who took part in our study, strategy tools are instruments used to facilitate strategizing. Furthermore, according to the executives’ discourse, the tools allow the bridging of abstract concepts to specific practicalities and add meaning to the strategizing activities that they mediate. When asked specific questions about strategy-tool use, executives talked about strategy processes, performance metrics, their company’s competitive advantage, teamwork, intangible assets, stakeholders, and the scale and scope of their company’s operations. For them, strategy-tool use is embedded in strategizing activities, and the tools are not meaningful in isolation. The strategizing activities accomplished with and through the use of tools are what interest organizations, not the tools per se.

The practical uses of strategy tools are diverse. It is often difficult to point out when the use of a strategy tool begins and when it ends, since use can take cognitive, linguistic and collective forms. In their daily routines, executives often use printouts, figures or specific information produced by using strategy tools, they also attend strategy days at which strategy tools are used, and they take part in different meetings where strategy tools provide information and structure. One of the interviewed managers described the practice of using a strategy tool in the following way: “...then we have to relate the results [of using the strategy tool] to the operational environment. It is not really ever what the numbers show, they always need to be adapted... and sometimes also recreated and orchestrated to fit the current situation and moment in time.” (Executive HEMÄ17.10.1)

We discovered that executives rarely use strategy tools in ways that the tool developers intended them to be used, but rather exploit in a flexible way those components of the tools that can be used to answer their needs or to advance a particular cause. These needs and causes make up the strategizing activities for which strategy tools are used (see also Garud, Jain, and Kumaraswamy, 2002).

From our data, we identified twelve different classes of this type of strategizing activity (see Table 2). Furthermore, we were able to identify four different levels of social context in which the strategizing activities take place (Table 2).

Level of social context	Strategizing activities mediated by strategy tools
Individual	<ul style="list-style-type: none"> <li>- Planning efficiently</li> <li>- Dealing with time</li> <li>- Making sense and exploring new ideas</li> </ul>
Interpersonal	<ul style="list-style-type: none"> <li>- Facilitating communication</li> <li>- Motivating others and playing political games</li> </ul>
Organizational	<ul style="list-style-type: none"> <li>- Enabling learning and innovation</li> <li>- Leading, guiding and coordinating work</li> <li>- Enacting organizational culture</li> </ul>
Societal	<ul style="list-style-type: none"> <li>- Keeping up with competition, technological improvements and professional techniques</li> <li>- Meeting industry standards, codes and laws</li> <li>- Responding to political issues and power structures</li> <li>- Creating stakeholder value</li> </ul>

**Table 2. Strategizing activities in different levels of social context**

The different levels of social context can take place simultaneously, and the strategizing activities that take place within them may affect each other. An excerpt from our field notes illustrates the levels of social context:

*Executive Jansson is checking Balanced Scorecard outputs using a computer screen that summarizes monthly information. After checking the outputs he copies some of the numbers to a spreadsheet*

program. He then e-mails a request for more information to one of the people in charge of the functions that contribute to the Balanced Scorecard outputs. He then calls a colleague: "...Did you see the BSC values?... As I've said before, we should close down that operation." (Executive IDBMSKHE03)

Executive Jansson is functioning at an individual level of social context when interpreting the Balance Scorecard outputs. When he communicates with his colleagues, he is working at interpersonal level. His actions appear to be guided by the strategy tools he is using, thus he also functions at organizational level. Furthermore, if his motives are to create stakeholder value by working towards closing an operation, he acts at societal level.

### Multi-level activities and usefulness

The different levels of social context bridge our micro-level study to institutional-level theories (e.g. Drnevich and Shanley, 2005; Mackey and Barney, 2005). Furthermore, the levels allow us to match consequences of strategy-tool use for each strategizing activity. The consequences in our study were reported by the users and then categorized by us (see Tables 3, 4, 5 and 6). They describe changes to ways that strategizing activities were carried out before using the tools and give us an opportunity to learn about the usefulness of the tools as a mediator of strategizing activity. Following, we have compiled separate tables for each level of social context and describe in greater detail the strategizing activities mediated by strategy-tool use. We also make general comments on the usefulness of tools based on our data.

#### Individual level

In the following table, we indicate an executive's individual-level strategizing activities that are mediated by strategy-tool use. These are strategizing activities that executives perform alone. The core categories of such strategizing activities are: Planning efficiently, Dealing with time, and Making sense and exploring new ideas (Table 3).

Executive discourse depicted **efficient planning** as the main strategizing activity mediated by strategy tools. Tool use is often legitimized by referring to the efficiency of systemized and rational routines. Typical tools that support efficient planning are Spreadsheet Applications, Risk Analysis, and the Analysis of Financial Statements. These tools are often part of an executive's reoccurring work routines. On the other hand, executive actions show that planning efficiently is often not the only motive for tool use - other motives are perhaps less rational and even though they may include a greater degree of feelings and intuition, are essential in explaining strategy-tool use.

**Dealing with time** was a much-talked-about strategizing activity. Saving time could perhaps be categorized under the activity described above, but for executives, time is both a resource that needs to be planned and managed efficiently and also an outside force that has to be dealt with. Executives talked about using the tools to "keep up" and to be "time-efficient" and "proactive" and attempted to use any

strategy tool to help them deal with time. In many cases, however, strategy tools are quite specific in their approach to time and executives struggled to come up with ways of using them to deal with time.

Strategizing activities mediated by strategy tools	Positive consequences of tool use to strategizing activities	Negative consequences of tool use to strategizing activities
Planning efficiently	<ul style="list-style-type: none"> <li>• Better focusing of functions and tasks</li> <li>• Help in setting targets and objectives</li> <li>• Support for rational decision-making and systematic planning</li> <li>• Frameworks for structuring and clarifying processes</li> <li>• Aid in allocating resources</li> <li>• Financial advantage through gains in functionality and efficiency</li> <li>• Help in control and overseeing</li> </ul>	<ul style="list-style-type: none"> <li>• Thinking is narrow and limited</li> <li>• Difficulties in deciding and setting parameters</li> <li>• Functionality limited to simplified situations and assumed circumstances</li> <li>• Form triumphs over substance</li> <li>• Tools need to be customized and streamlined for good functionality</li> <li>• Theory and practice do not meet</li> </ul>
Dealing with time	<ul style="list-style-type: none"> <li>• Faster analysis, planning, controlling and running of operations</li> </ul>	<ul style="list-style-type: none"> <li>• Priority problem - tool use takes up time that should be used for dealing with actual business issues</li> <li>• No time to use tools efficiently</li> </ul>
Making sense and exploring new ideas	<ul style="list-style-type: none"> <li>• Clearer holistic view</li> <li>• Information that helps in analyzing relationships and specific points of interest</li> <li>• Awareness of the future and an understanding of risk</li> </ul>	<ul style="list-style-type: none"> <li>• Uncertainty and risk are not eliminated</li> <li>• Tools have limitations and can cause misunderstandings or misinterpretations</li> </ul>

**Table 3. Individual-level strategizing activities**

When *making sense and exploring new ideas*, executives sought information from different sources, often in ways that appeared haphazard or coincidental. They used strategy tools, especially tools that compile information such as financial tools, Business Intelligence tools, ERP and CRM, to find proof of some idea they already had, to understand specific issues better, or to explore new possibilities. From the computer screens of the tool programs or by using printouts provided by the tool software, they look for quick answers, but at some points become interested in other items of information or contexts, and the sense-making or idea-generation process they are pursuing is interrupted by another stimulus. This highlights the non-linearity of both the sense-making and idea-generation processes, and in general, executives have many such processes under way at the same time. Strategy tools, however, do not appear to be flexible enough to handle the emergent qualities of executives' sense-making and idea-exploration processes. In spite of this, executives do take advantage of strategy tools at suitable moments to help in sense-making. Often this means that they use only some components of the strategy tools or use them in a modified manner.

Interpersonal level

By interpersonal-level strategizing activities we mean activities that an executive engages in with another person (e.g. other executives or subordinates) or a small group (project teams and meetings) supported by some form of strategy-tool use (e.g. hands-on, cognitive or linguistic use). Our data provides plenty of



examples of executives using strategy tools in broader connections and in networking between people, and we have named the two distinguishable core categories of interpersonal use Facilitating communication and Motivating other people and playing political games (Table 4).

Strategizing activities mediated by strategy tools	Positive consequences of tool use to strategizing activities	Negative consequences of tool use to strategizing activities
Facilitating communication	<ul style="list-style-type: none"> <li>• Establishing common language and concepts</li> <li>• Accepted, therefore functional presentation devices</li> </ul>	<ul style="list-style-type: none"> <li>• New vocabulary difficult to understand</li> <li>• Communication problems</li> <li>• Tools are complicated and difficult to master</li> </ul>
Motivating others and playing political games	<ul style="list-style-type: none"> <li>• Getting the members of an organization to commit to issues presented with tools</li> </ul>	<ul style="list-style-type: none"> <li>• Outputs of tools do not lead to continuous or rapid action</li> <li>• Tools are used incorrectly and without proper care</li> </ul>

**Table 4. Interpersonal-level strategizing activities**

According to the executive informants, communication, negotiation and discussion are the key pillars of strategizing. Strategy tools are also harnessed to serve these needs and they are often used simply to **facilitate communication**. For example, one use for strategy tools can be hands-on participation by two people who send information to each other about an output provided by the tool, or who talk to each other about it. Tools support social interaction and mediate interpersonal issues and ideas. Often, tools provide a common vocabulary. They may also aid in structuring frameworks collaboratively and in forming shared concepts.

*Interviewer: ... have you had specific meetings at which you talked about [the strategy tool]?*

*Executive: Of course we have, there really are no weeks in which we do not, in one way or another, bring up [the strategy tool] and that starts from how we set up [the issues]...*

*(Executive STLEFO1.83)*

Strategy tools are also used as a common point of reference, a means of translation and presentation, and as social platforms. This corresponds to Star's (1989) notion of a boundary object which describes a commonly-shared object that connects different participants' viewpoints and realities. One executive in our data stated: "Yes... people talk as if they shared the same understanding but still they experience it in their own ways. Everybody has their own interpretation..."

*(Executive HEMÄ17.10.10-19)*

When used as boundary objects, strategy tools may also support social creativity. However, to perform this function, strategy tools must be simple enough for everyone to understand and flexible enough to suit the purposes of different users.

In **motivating others and playing political games**, executives use any type of strategy tools, their components, results, aspects and concepts to enhance compliance, obedience, and cooperation. The tools are usually used to improve communication, a sense of mutual purpose and motivation. Also,

executives may take advantage of the technical, cultural and linguistic legitimacy associated with the strategy tools (also Campbell, 1997). For example, strategy tools can be used as ‘a gentle push’ to create desired levels of motivation. Also, supplying ‘facts’ provided by a tool may justify specific needs and causes. Furthermore, the procedures dictated by strategy tools and the results they produce are occasionally used as an authoritative form of support for steering and shepherding other people. Playing political games can also be a motive for the use of specific strategy tools, perhaps in particular ways, or possibly provide reasons for not using tools at all. Typically, executives use the tools, interpret the tools and apply their outputs in ways that best serve their interests.

Organizational level

At organizational level in this study, we continued with our primary focus on the use of strategy tools by executives, but also studied the impacts of tool use in an organizational context. In this connection, “organizational context” means that strategy tools are implemented throughout the organization and that executives’ strategizing activities are therefore also affected by these tools, or that executives use other tools which influence organizational activities. We identified three core categories of organizational-level strategizing activities: Enabling learning and innovation; Leading, guiding and coordinating work; and Enacting organizational culture (Table 5).

Strategizing activities mediated by strategy tools	Positive consequences of tool use to strategizing activities	Negative consequences of tool use to strategizing activities
Enabling learning and innovation	<ul style="list-style-type: none"> <li>• New viewpoints</li> <li>• More abstract levels of thinking</li> </ul>	<ul style="list-style-type: none"> <li>• Fear of inflexibility, technical thinking, and loss of creativity</li> <li>• Abstractions can be meaningless or shallow</li> </ul>
Leading, guiding and coordinating work	<ul style="list-style-type: none"> <li>• More systematic and predictable ways of acting</li> <li>• Controlled roles and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Blind belief in the effectiveness of tools</li> <li>• Useless bureaucracy</li> <li>• Erroneous guiding effects</li> <li>• Much effort and time is used in updating tools that may not be helpful</li> <li>• Unlearning old procedures is difficult</li> </ul>
Enacting organizational culture	<ul style="list-style-type: none"> <li>• General understanding and approval of ways of acting</li> <li>• Enhanced team spirit</li> <li>• Motivation and improved appreciation of the company</li> </ul>	<ul style="list-style-type: none"> <li>• Not all tools are suitable for differing company cultures</li> <li>• Change resistance in the organization</li> <li>• Weakness of commitment to a tool throughout the organization</li> </ul>

Table 5. Organizational-level strategizing activities

Linked to the previous interpersonal-level activity of facilitating communication and the notion of a boundary object (Star, 1989) at an organizational level, strategy tools perform a catalytic role by **enabling organizational learning and innovation**. Tools encourage forward thinking, provide guidance for deeper understanding and more abstract levels of thinking, and support emerging viewpoints. As one of the executives articulated:

*“Most of the tools work so that you don’t get any kind of efficiency number, for example which you could use in an equation, but they give some indication, more for creating ideas. Usually, final deductions cannot be made. Well, [tools are] quite useful as such, since they force us to think.”*

*(Executive STYAF70)*

Strategy tools help organizations in idea creation and innovation, and they further social creativity. They also support executives in social re-evaluation, reflection and reconstruction, and in changing their minds. This activity corresponds to the notion of transitional objects (De Geus, 1988; Eden, 1992; Morecroft, 1990), and also to the notion of triology (Paavola, Lipponen, and Hakkarainen, 2004), both of which highlight organizational learning that is mediated by an object.

For **leading, guiding and coordinating work** strategy tools offer organizations common and systematic ways of acting. *“Uniform tools help in comparing different units and reading [of the reports] is faster when the tools are familiar” (Executive S126SWH1)*

The informants who provided our data emphasized the importance of establishing and maintaining approved procedures, and of having controlled roles and responsibilities for members of an organization. Strategy tools support these aspirations by providing a mechanism for monitoring organizational performance. Furthermore, they can be used as technologies for control through which contemporary institutional governance and organizational discipline are realized (see also Räsänen and Linde, 2004). Strategy-tool use can therefore be a work routine that offers easy procedures and utilizable outputs, or simplistic advances in the execution of mundane tasks. Furthermore, in addition to the technical organizational functions of the tools such as allocating and organizing resources, they also have social purposes such as legitimizing activity and signifying power relationships within the organization (also Bechky, 2003). In overall terms, the use of strategy tools can help organizations to focus and coordinate work that is being done, and a tool can even become part of the organizational spirit that motivates and leads such work. On the other hand, tools also impose behaviors, control and a sense of urgency on an organization.

All members of each organization pay attention to and are influenced by the cultural settings that exist inside that organization. Also, the strategizing activity of **enacting organizational culture** may lead to a specific manner of use or non-use of strategy tools. In such cases, strategy tools are most often used to generate communication, a sense of community and motivation, to build team spirit, to create new belief systems, and to facilitate a cultural change or changes. Introducing a new strategy tool into an organization and adapting it can be one way of doing this. On the other hand, organizations may have cultural reasons for not using tools at all. One executive explained why a particular tool component is not used in his company:

*“That [part of the tool] was not met with enthusiasm. In my opinion, there is a cultural problem, not an operational problem. People do not want [the organization] to be a clear transparent pipe where*

everything can be controlled. That causes apprehension and limits freedom. That is the real reason for not wanting to [introduce the component]. It is not necessarily that [executives] want to give [increased freedom], but this is so deep in our culture that [we] did not want to... take [any of] it away from the organization.” (Executive HSKT28.13)

Societal level

Societal level is the highest level of social context and includes the entire social environment in which an organization is operating. Our study classifies four societal-level strategizing activities in the work done by executives which is connected to strategy-tool use: Keeping up with the competition, technological improvements and professional techniques; Meeting industry standards, codes and laws; Responding to political issues and power structures; and Creating stakeholder value (Table 6).

Strategizing activities mediated by strategy tools	Positive consequences of tool use to strategizing activities	Negative consequences of tool use to strategizing activities
Keeping up with the competition, technological improvements and professional techniques	<ul style="list-style-type: none"> <li>• Necessary and natural part of modern work</li> <li>• Tools create credibility</li> <li>• Tools provide feedback</li> </ul>	<ul style="list-style-type: none"> <li>• The tool market is not buyer friendly -comparison of different tools is difficult, integration aspects are unclear, oversupply, needs for customization are not met</li> <li>• Tool fashions</li> <li>• Tools create demands on individual skills and users suffer from problems with usability</li> <li>• Knowledge of tools is inadequate or inaccurate</li> </ul>
Meeting industry standards, codes and laws	<ul style="list-style-type: none"> <li>• Specific industry needs are met</li> </ul>	<ul style="list-style-type: none"> <li>• Tools may create particular views</li> <li>• Problems with integrating different tools</li> <li>• Burden of building, updating and maintenance</li> </ul>
Responding to political issues and power structures	<ul style="list-style-type: none"> <li>• Owners or other political powers are satisfied</li> </ul>	<ul style="list-style-type: none"> <li>• Adopted tools may not be the most useful ones</li> <li>• Outputs difficult to interpret</li> </ul>
Creating stakeholder value	<ul style="list-style-type: none"> <li>• Improved efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Underestimation of the amount of work, resources, and data required</li> <li>• Total price of tools is high</li> <li>• Use of tools to obtain efficiency may reduce the use of brainpower</li> </ul>

Table 6. Societal-level strategizing activities

For all contemporary organizations, a vital strategizing activity is **keeping up with the competition, technological improvements and professional techniques**. Many executives in our study expressed a desire to learn more about strategy tools, especially about those being used in competing organizations. Furthermore, they choose to use tools that are up-to-date or trendy, ones which are more likely to at least keep them at the same methodological level as their competitors (Abrahamson 1991). This behavior does not necessarily guarantee that the best strategy tools are in use, but adopting the same tools that market-leading organizations may be a viable strategy. In general, the executives in our study were eager to talk to us, to see the results of our survey and to attend our seminars. Even executives who were not using any strategy tools expressed their curiosity about the possible advantages of using them. On the other hand, executives also complained about the complicated market for strategy tools and the difficulties of

comparing and understanding the tools that are available. Even so, their hunger to gain competitive advantage, or perhaps the fear of losing it, made executives eager to seek advances in strategy work practices.

**Meeting industry standards, codes and laws** can also affect each organization's choice of tools or the ways in which tools are used. One executive in our data said: *"With the exception of the scenario technique, all the tools have been used in our company for a very long time. In this industry it is almost impossible to carry on business without these tools."* (Executive SSAM150H1)

This strategizing activity is strongly industry dependent, and it may dictate organizations' strategy tool use fundamentally or have no effect at all.

**Responding to political issues and power structures** is a societal-level strategizing activity associated with power and politics. It differs from the interpersonal-level local political activities by being a force that both executives and other members of the organization respond to. Possible or actual changes in power structures external to the organization may prompt organizations to either adopt or retire specific strategy tools.

*"External pressure is important. If there is a common threat, the issue emerges [in the organization] and makes [it] ready for using tools. One way is to build up pressure. The tools can [also] be used to do this ..."* (Executive HRAH87.30)

This last sentence in an executive interview also insinuates that an interpersonal-level power play can be disguised as a societal-level power structure that requires attention. Furthermore, ownership structures were also mentioned as forces that affect strategy-tool use. For example, family-owned companies often explained that they did not use strategy tools because of ownership structures or power issues: One executive of a family business affirmed this by commenting on our survey request: *"The right person [to answer your questionnaire] would be me, but I can confess that in our company there are no such tools in use intentionally. Planning happens mainly in the head of the CEO (i.e. the owner). In that sense, the right person [to answer] would be the CEO. In any case I strongly doubt that your questionnaire will be answered."* (Executive SLIS6.5)

The choice of a strategy tool can be thus affected by historical, cultural, social and political forces.

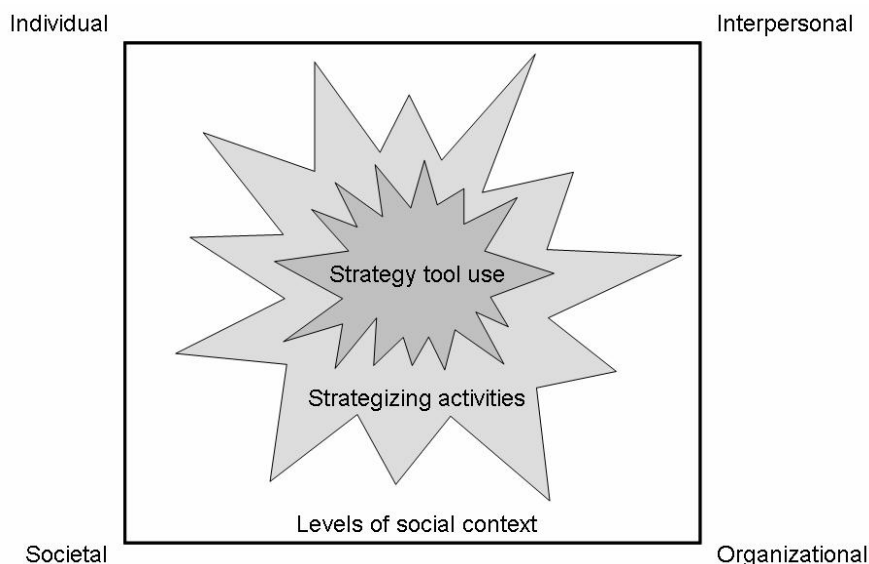
**Creating stakeholder value** is a powerful strategizing activity. The executives and organizations in our study went to great lengths to create stakeholder value. For example, one of the companies in our study had chosen the same strategy tools as their main customer. Furthermore, they attempted to attract customers who were using the similar tools to create stakeholder value and efficiency. Unfortunately, changes in the customer market forced the company in our study into bankruptcy. Creating stakeholder value can be a reason for choosing a particular strategy tool and also a reason for using it in a specific manner.

### Evaluation framework for strategy tools

Our study shows that executives use strategy tools to carry out strategizing activities. These strategizing activities take always place in a social context. This also places strategy-tool use in a social context. For this reason, complex social, political, technical and cultural aspects in an organization (e.g. Blackler, Crump, and McDonald, 2000) affect strategizing activities and the usefulness of strategy tools. Furthermore, strategizing activities affect the choice of strategy tools i.e. which tools are chosen and whether they are used.

Strategy tools may make strategizing activities easier or more effective but they can also impact strategizing activities in a neutral or negative way. This study examines the usefulness of strategy tools as an activity. More specifically, it focuses on strategizing activities that are performed in an altered manner as a consequence of strategy-tool use. These altered procedures can be useful, neutral or impractical, but can only be judged in relation to the strategizing activity that is carried out with the strategy tool.

The main goal of our study was to construct a general framework for evaluating the usefulness of strategy tools in user organizations. Our study details the evaluation of strategy tools by investigating user reports on the consequences of strategy-tool use to strategizing activities, and then reflects on these by examining strategizing activities in a multi-level social context. We maintain that the usefulness of strategy tools has three intrinsic elements: strategy-tool use, strategizing activities, and different levels of social context (Figure 1), and that these can be translated into three different evaluation criteria: usability (strategy-tool use), significance (strategizing activities), and connections (the social context).



**Figure 1. Evaluation elements for strategy-tool use**

### Usability

In order to understand usability, i.e. convenience in use, the notion of strategy-tool use must be redefined. In this study, tools were used in a wide variety of ways. Tool use was often conceptual, and in some cases, users had not even seen the actual tool. The extent of tool use and adoption, and other traditional ways of evaluating technical usability are therefore important, but perhaps not adequate ways of measuring usability. The practical adoption of a strategy tool, i.e. how that tool actually affects activities in an organization indicates the tool's true usability. Just by existing, a strategy tool may change how activities are carried out in an organization and result in use of the tool in its wide interpretation (e.g. Latour, 1988). We suggest that changes in activity patterns be the focus of examination. Furthermore, we suggest that the effectiveness, efficiency, and satisfaction with which all users can be involved in strategizing activities be investigated.

### Significance

Although the purpose of strategy-tool use is to support strategizing activities, the prescriptive use of strategy tools only supports some strategizing activities. For example, support for an emergent strategy and support for political maneuvering are rarely referred to in the literature on strategy tools. Also, we only studied strategizing activities that were mediated via strategy tools. There may well be strategizing activities in which strategy tools are not used, and situations in which they perhaps could and should be used. Furthermore, the strategy tools used within an organization may not support the activities that are important for that organization. For example: Do the chosen tools support a balance between creativity and efficiency? Does the use of most-common tools provide the strategic advantages an organization is seeking? Moreover, one strategy tool may not support all of an organization's strategizing activities and a set of strategy tools is therefore needed. The significance of strategy tools should be viewed in a holistic manner, since different tools may complement each other. Our data indicated also that sometimes the tools do not work well together. The strategy tools should be evaluated as a set.

### Connections

The respondents in our study used tools to serve individual, interpersonal, organizational and societal needs in a wide variety of ways. Tools are always used in a social setting. The multi-leveled social connections of strategizing activities pose not only communication challenges but also place cultural, political, and technical demands on strategy tools. Understanding the different connections that are forged by strategy tools can help in understanding which tools might be of use to an organization. For example, in organizational level there are very different needs for a tool than in personal level. Often a set of tools is needed to answer different needs.

Any one of the above three criteria – usability, significance and connections - can provide justification for an organization not using a strategy tool. The reason not to use a strategy tool is just as important as the

reason to use one. Furthermore, thorough evaluation of a particular strategy tool or an organization's strategy tool set will require the cooperation of both strategy-tool developers and strategy-tool users. Only users know the true context in which a tool is used, and only developers know the tool's theoretical background and modifications to it (see also Jarzabkowski, 2004).

## **Discussion and conclusion**

Our study contributes to three distinct discussions around the subject of strategy tool evaluation. Firstly, it raises the questions concerning tool choice and the importance of evaluation in the area of management tool dissemination. Secondly, it makes sense of existing evaluation literature. Thirdly, it provides a new evaluation framework for the assessment of strategy tools. In the following, we discuss our input.

The literature on management fads and fashions explains the adoption of strategy tools through neo-institutional theory and isomorphic diffusion. Our data does not oppose this view. The strategizing activities in our study are limited by institutional forces (e.g. DiMaggio and Powell, 1991) and demonstrate normative and regulative structures that provide these activities with stability and meaning (Scott, 1995). In general terms, our study comprises interaction between macro and micro contexts in which activity is constructed (see also Whittington, 2002). The strategizing activities at higher-social-context level appear to dictate some lower-level strategizing activities. For example, societal-level ambitions concerning stakeholder value are clearly connected to individual-level needs to achieve efficiency.

However, neo-institutional theory does not portray the complete picture of strategy-tool adoption and use. New institutional theory has been criticized for its lack of ways of addressing emergent change (Dacin, Goodstein, and Scott, 2002) and agency (DiMaggio, 1988). The executives in our study were actively seeking new tools and new ways of using tools. They also initiated activities with the tools that could not be explained by institutional forces but by their personal motives and values. For example, political maneuvering involving tools was sometimes carried out to promote an individual's own pet projects. According to our data, agency is intrinsic to tool adoption and use (see also Clark, 2004) and leads us to the conclusion that organizations also actively choose tools they employ.

The activity view aspires to an understanding of activities, not the social phenomena that create the forces behind activities. It takes a neutral view of both neo-institutional theory and agency theory (e.g. Jensen and Meckling, 1976), and focuses on depicting strategizing activities regardless of their origins. The strategizing activities that we observed led us to believe that tools are both adopted in organizations because of institutional forces and also chosen for use in organizations as a result of active agency.



While the methodology employed in our study allows us to also describe strategizing activities that are irrational or foolish, the strategizing activities in our data are quite meaningful and surprisingly in line with the literature that describes high-level managerial activities (e.g. Kotter, 1982; e.g. Mintzberg, 1973). Our study adds two observations to the existing literature. Firstly, that strategy tools are capable of changing the ways that strategizing activities are carried out. The users in our data described changes that were positive and negative. Secondly, strategizing activities often explain why a certain tool is being used. Taken together, these observations mean that organizations take an active role in the adoption of strategy tools and that the usefulness of strategy tools plays an important role. This does not mean that tools are adopted through rational decision-making processes or that they are used in a rational manner, it simply means that we contest the implicit assumption in management-tool diffusion literature that the usefulness of tools is unimportant. From a strategy-as-practice viewpoint, the evaluation of strategy tools is central to the promotion of better strategizing.

Our evaluation frame starts with reconstruction of the notion of **strategy-tool use**. Our study showed that this is a wide concept. For example, strategy tools are sometimes used just conceptually or to form vocabulary that enables discussion of issues that could not otherwise be conveniently talked about. This type of use is seldom taken into account when assessing strategy tool use in traditional evaluations. Furthermore, widening the notion of strategy-tool use enables the use of intuition in parallel with strategy-tool use and leaves room for each user's different psychological styles. It also widens the notions of man-tool interface and the profundity of tool adoption.

Traditionally, evaluation has been based on attempts to calculate savings, profit or other outcomes of tool use. Difficulties with gathering the required data have often reduced **evaluation in practice** to reporting user comments about the success of tool use. We suggest that the focus should move inside strategy processes by observing the strategizing activities that are mediated by the tool. More specifically, we suggest examination of usability, significance and connections related to the strategy tool in question. Data for this type of observation is easier to gather and can, for example, be triangulated to add reliability.

In regards to the **debates in evaluation literature**, the evaluation framework we have built covers the features recommended for an evaluation model. Our framework takes into account the fact that strategy tool use may change the ways strategizing activities are carried out in positive, negative or neutral ways. Furthermore, our framework does not remove the evaluation process from the strategy tool context, and also takes into account social, political, personal, historical and social aspects. We maintain that while uniform evaluation canons can be set, tool developers and users should work together when evaluating strategy tools. The type of evaluation framework we propose would also benefit **groups interested in promoting strategy tools** since it describes how tools are used to create value and emphasizes that choice is possible when deciding which tool or tools to use.

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