‘Use or Value? Practical Adoption of Strategy Tools in Different Stages of the Strategy Process

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Abstract

Strategy tools such as scenario planning and Porter’s Five Forces are institutionalized strategy practices that have been developed in order to support the strategy work of practitioners and organizations. However, little research has been concerned with the practicalities of using strategy tools. This paper addresses this gap through a large scale survey of variation in the value that managers accord to different strategy tools in different stages of the strategy process. The findings show that: a) strategy tools use and value are not strongly correlated; and b) the correlation of use with value decreases progressively from the strategy analysis, to strategic choice, to strategy implementation phases of the strategy process. Essentially, despite high use of some strategy tools in all phases of the strategy process, these tools are not always accorded high practical value. This finding indicates the institutionalized nature of strategy practices, and identifies important avenues for future research into the use of strategy tools in practice.
Introduction

Strategy practices are an important part of the strategy work of practitioners (Jarzabkowski, 2004; Whittington, 2006). One important set of practices are strategy tools such as scenario planning and Porter’s Five Forces which have been shown to support both strategic decision making (Clark & Scott, 1999) and strategic planning activities (Grant, 2003). Indeed, managers invest considerable resources in terms of time, money and intellectual capital, in acquiring and using these kinds of tools (Rigby, 2001; Rigby & Gillies, 2000). Although these tools tend to be considered formal practices of strategy, some recent research has shown that they trigger informal strategizing activities (Jarratt & Stiles, 2010; Stenfors & Tanner, 2006). Despite this fact, little research has been concerned with the practicalities of using strategy tools. In fact, extant research on strategy tools has typically been grounded in instrumental principles about the way tools should be used (e.g. March, 2006), rather than examining their actual use in practice (Jarzabkowski & Spee, 2009). We therefore need further research to explain how strategy tools are incorporated in the practical, everyday strategy work of organizations (Jarzabkowski & Wilson, 2006; Whittington, 2003; Whittington, 2006).

This paper addresses this gap through a large scale survey of where in the strategy process managers use different strategy tools and what value they accord to that use in different phases. In so doing, this paper makes three main contributions. Firstly, it advances our knowledge about the use of strategy tools, providing descriptive information about the levels of use of 10 of the most popular strategy tools; and differentiating levels of use and value attributed to each tool in each stage of the strategy process. Secondly, it compares a representational and practice epistemology of knowledge utilization, suggesting that managers have an underlying practice perspective that emphasizes an informal and pragmatic use of strategy tools. Thirdly, it compares a rational view with a sociological view of strategy tools use, highlighting that other factors beyond rationality seem to be at play when managers actively use tools for their strategizing activities.

In summary, the paper draws upon an empirical database of 1407 usable responses, to show that 1) managers use tools across strategy phases, regardless of their perceived application to a particular phase of the strategy process; 2) there is a discrepancy between tool use and tool value – even where tools are highly used in a particular phase, they may not be highly valued; 3) there is a sliding scale of both use and value from strategy analysis, to strategy choice to strategy implementation; 4) the different levels of use and the value attributed to 10 of the
most popular tools are identified and compared, showing those tools that are statistically more valued for each stage.

**Theoretical Background**

*Rational view versus social view of strategy tool use*

The question of why practices (such as strategy tools) are adopted and used by managers has been widely debated in the literature. In most cases, this debate has been divided into rational and social motivations for adoption (Ansari, Fiss, & Zajac, 2010; Kennedy & Fiss, 2009; Sturdy, 2004; Tolbert & Zucker, 1983). The rational argument is rooted in the economic literature and assumes that a tool will be intentionally adopted because it offers some kind of economic benefit (Lovett, 2006). In other words, the decision to adopt a tool is based on technical issues and expectations about efficiency gains (Katz & Shapiro, 1987; Teece, 1980). This rational view of tool adoption embodies the dominant perspective in the strategy field (Mintzberg, Ahlstrand, & Lampel, 1998), which has mainly focused on rational choice and championed strategy as a formal, conscious and controlled process. From this perspective, rational managers will use the tools that they consider more valuable for their strategy work.

**Proposition 1a:** If managers use strategy tools rationally, tool use and value will be highly correlated for the different stages of the strategy process.

The social argument encompasses a more diverse set of studies and views, which emphasize alternative motivations beyond rationality for adopting a practice. This perspective highlights that factors such as intuition (Miller & Ireland, 2005), politics (Sturdy, 2004), rhetoric (Green, Yuan, & Nohria, 2009), emotions (Sturdy, 2004) culture (Zeitz, Mittal, & McAulay, 1999), rituals (Johnson, Prashantham, Floyd, & Bourque, 2010), routine (Pentland & Feldman, 2005) or institutionalization (DiMaggio & Powell, 1983) might explain tool usage. This argument underpins the strategy as practice perspective on tool use as a social practice (Jarzabkowski, Balogun, & Seidl, 2007; Whittington, 1996, 2006). Thus, tool use and value may not be aligned. For example, managers may use strategy tools not because they consider them to be of value but to achieve a political interest (Comtois, Denis, & Langley, 2004) or as part of an institutionalized strategy-making ritual (Johnson et al., 2010).
Proposition 1b: If non-rational motivations influence managers’ use of strategy tool, tool use and value will not be correlated in the different stages of the strategy process.

Representational epistemology versus practice epistemology of knowledge use

From a representational epistemology, strategy tools are designed to be used in a prescriptive fashion where thought precedes action and where managers use tools in the way they are taught (Clegg, Carter, & Kornberger, 2004; Jarzabkowski & Wilson, 2006; Tsoukas & Knudsen, 2002). In this view, the strategist is a rational actor capable of understanding the context and deciding whether to use certain tools or discard them (Jarzabkowski & Wilson, 2006). Managers would thus be expected to use strategy tools in specific phases of the strategy process, in line with their business education and training. The argument is supported by an institutionalized, normative perspective on knowledge use (DiMaggio & Powell, 1983; Mizruchi & Fein, 1999). According to a normative view, two forces would shape the way managers use knowledge and the tools derived from it. First, people in a given profession tend to receive the same kind of education and training which would reinforce a certain way of doing things. Secondly, members of a certain profession tend to actively interact with each other through professional associations, conferences or business meetings. These networking activities would then reinforce certain rules for using strategy tools (DiMaggio & Powell, 1983; Mizruchi & Fein, 1999)

Proposition 2a: A representational epistemology would predict that managers use strategy tools in specific stages of the strategy process prescribed by strategy theory.

A practice perspective embodies the notion that ‘we must see knowledge as a tool at the service of knowing, not as something that, once possessed, is all that is needed to enable action or practice” (Cook & Brown, 1999: 388). It conceives knowledge as something that human actors can change and adapt to a variety of circumstances, some of which may be novel and go beyond the original theory boundaries. Thus, a practice perspective contrasts with the prescribed, linear and unidirectional use of knowledge that form the foundations of the representational view (Jarzabkowski & Wilson, 2006). Accordingly, this perspective champions a social constructionist view where human actors interact with knowledge and actively change and shape its boundaries to their needs and interests, having little concern with what the original theory prescribes (Jarzabkowski & Wilson, 2006).
**Proposition 2b:** A practice epistemology would predict that managers use strategy tools with little concern for their prescribed use in different stages of the strategy process.

**Strategy process stages**

Strategy researchers and theorists have long sought to develop frameworks that illustrate the nature of the strategy process (e.g. Ackoff, 1970; Andrews, 1971; Ansoff, 1965; Dyson & O'Brien, 1998), albeit with some disagreement. While some consider that it is possible to distinguish conceptually between stages in the strategy process (e.g. Ansoff, 1965; Ansoff, 1991), others consider that any identification of stages in strategy is artificial and therefore irrelevant (e.g. Mintzberg, 1990).

This paper takes the view that it is theoretically possible and analytically useful to identify different stages of the strategy process although, in practice, they may be intertwined. Understanding those stages of the strategy process in which different strategy tools are used will help us in our goal of providing greater detail about the actual use of strategy tools in organizations and enable us to examine the propositions we have identified. Therefore, this paper considers that the strategy process has three stages: strategy analysis, choice and implementation (Hopkins & Hopkins, 1997). This position was taken for three reasons. First, in our pilot interviews managers recognized these stages. Second, these stages cover the diverse activities involved in strategic management. Third, various strategy process frameworks proposed in the literature and in strategic management texts implicitly or explicitly identify these stages (e.g. Ansoff, 1965; Boyd & Reuning-Elliott, 1998; Dyson & O'Brien, 1998; Johnson, Scholes, & Whittington, 2008).

We reviewed the five top strategy texts in sales volume as identified by Nielsen BookData, in order to identify in what stage of the strategy process different strategy tools are typically taught and, hence, expected to be used. This is in line with a normative view (DiMaggio & Powell, 1983; Mizruchi & Fein, 1999) of knowledge learning and use. Hence, it makes sense to review those books that are widely used in education activities as they are the basis for management learning. Table 1 provides a summary of the different strategy texts reviewed and the stages in which those ten tools, that we identified as most frequently used in our survey, were expected to be used according to each text.
Table 1: Expected Use of Strategy Tools Based on Strategy Texts

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LEGEND

A: Strategy Analysis stage
C: Strategy Choice stage
I: Strategy Implementation stage

Font size indicates the relative usage of each tool in each stage. The biggest fonts indicate highly used; followed by medium and then in o indicates not mentioned in text and not used in that stage.

Research Method

Sample and Data Collection

Data for this study was gathered through a survey of a population of domestic and international alumni, both undergraduate and postgraduate, from 12 of the top 30 UK business schools. In order to ensure informant quality and response validity, we took a number of informant competency steps that have been used in previous research (e.g. Katsikeas, Samiee, & Theodosiou, 2006; Tanriverdi & Venkatraman, 2005). First, we focused on higher-ranked schools because these schools have higher graduate employment, ensuring that respondents are employed in positions where they might reasonably have an opportunity or need to use strategy tools. Second, top business schools in the UK attract a diversified alumni population which gives us a cross-cultural base for our research. Third, we surveyed respondents’ who have had varying and considerable years of job experience, ensuring that they had wide opportunities to use tools in their work activities.

In order to establish a list of tools most typically taught in foundation strategic management courses, a survey of 66 strategy academics in the top 30 business schools was conducted. We arrived at a final list of 20 top strategy tools, which were taught by at least 40% of the respondents. This list reflects tools that have been used in previous surveys (e.g. Glaister &
Falshaw, 1999; Hodgkinson, Whittington, Johnson, & Schwarz, 2006), suggesting that our study has captured those strategy tools typically taught and, therefore, more likely to be used. The survey was then administered online to a population of 20,108 domestic and international alumni in a sample of 12 out of the top 30 UK business schools. The specific response rate from our target population (business school alumni who have done a foundation strategy course) is difficult to ascertain, as we do not have figures for non-responsive email accounts. However, the response rate from total numbers emailed, without excluding non-responsive emails or non-target population, is 14.2%. The survey was in 4 sections. For the section of the survey that we analyse in this paper, we gained 1407 usable responses.

**Measures**

We assessed respondents’ use of strategy tools by asking them to indicate which tools they are currently using from our list of top 20 tools. We then asked them to rank the tool that they use most frequently from that list. From analysing the frequency count, we conclude that only 10 of the tools are typically used by our respondents and therefore we focus only on these tools in subsequent analyses.

1. We assessed managers’ use of the top tool by asking them to identify in which stages they applied it. We used the following three stages: a) Strategy analysis and formulation (e.g. Analysing internal and external environment and/or establishing a strategic direction); b) Strategic choice (e.g. Generating strategic options and/or evaluating these options and/or choosing a strategy); c) Strategy implementation (Developing detailed plans; implementing these plans; monitoring, controlling & reviewing strategic performance).

2. We assessed value of that tool for each of the three strategy stages by asking respondent to indicate on a 5 – point Likert scale (anchored between 1, adds little value to 5, adds much value) the extent to which the tool adds value to that stage.

**Results (Full paper will show the tables mentioned below)**

Table 2 shows the frequency count of those who selected one of the 10 top tools as their top 1 tool. For example, SWOT (32.6%) was ranked (1st) as the top tool used by most respondents and Portfolio matrices (3.4%) was ranked (10th) as the least used tool out of the 10 top tools.
A Cross tabulation procedure was used to show how managers allocated each tool to the different stages of the strategy process.

Table 3 indicates that, in total, respondents use strategy tools more in the strategy analyses and formulation stage (77.9%) than in strategy choice (67.6%) or implementation (59.1%). The results show that particular tools are very prominent in their use during the strategy analysis activity (e.g. SWOT = 88.3%; PESTLE = 90.2%; and Porter 5 Forces = 87.3%), while others stand out in strategic choice (e.g. e.g. Portfolio Matrices = 86.8%; Core Competences = 78.4%; Scenario Planning = 77.3%) or strategy implementation (Resource Analysis= 83.3%; Critical Success Factors = 78.3%).

These results thus show that respondents select and use their top tools differently for different stages of the strategy process. We were thus interested to probe this further by examining how the value managers attribute to the tools is related with their levels of use in each stage.

Tables 4 to 6 show the results of the mean and standard deviation for each of the 10 tools in each stage of the strategy process (formulation, choice and implementation). For example, Table 4 indicates that PESTLE (4.47), Core Competences (4.20) and Portfolio Matrices (4.18) are the tools most valued for strategy analysis while Life Cycle (3.50), Resource Analysis (3.74) and Critical Success Factors (3.75) are the least valued tools. We did a one-way ANOVA Turkey Multiple Comparison test, which highlights significant statistical differences between the different tools in each stage of the strategy process. For example, scenario planning is significantly more valuable in strategy formulation stage than the life cycle model (mean difference 0.647; p=0.008) or key success factors (mean difference 0.399; p=0.008).

Table 5 highlights that Scenario Planning (4.13), Portfolio Matrices (4.11) and Core Competences (4.10) are the tools most valued for strategy choice while SWOT (3.66), Critical Success Factors (3.68) and PESTLE (3.75) are the least valued tools. One-way ANOVA tests show that, for example, scenario planning was found to be significantly more valued for strategy choice than SWOT (mean difference 0.474; p=0.000) or key success factors (mean difference 0.451; p=0.002). In general, the value attributed to strategy tools in the strategy choice stage is lower than in strategy analysis.

Table 6 demonstrates that Critical Success Factors (4.11), Resource Analysis (3.88) and Life Cycle (3.84) are the tools most valued for strategy implementation while Porter Five Forces
(3.04), PESTLE (3.19) and Portfolio Matrices (3.22) are the least valued tools. The one-way ANOVA highlights statistical differences, such as that the value chain is more valued for strategy implementation than SWOT (mean difference 0.543; p=0.002) and Porter five forces (mean difference 0.718; p=0.005). The value attributed to strategy tools in the strategy implementation stage is considerably lower than in strategy analysis or choice.

Table 7 shows a rank-order correlation which highlights the discrepancies between the level of use of strategy tools and the value attributed to them in the different stages of the strategy process.

Some results of individual tools are interesting to highlight. For example although SWOT is the most popular tool in terms of its percentage usage (ranked 1st), it is lowly ranked (7th or lower) in terms of the value it adds during the strategy stages and indeed it is ranked least (10th) in terms of the value it adds during the strategy choice activities. This suggests that some other features of the tool drive its use, as its popularity during the strategy stages is not due to the added value. Portfolio Matrices confirm this divergence between tool usage and tool value although in the opposite direction. While it is the lowest ranked tool (10th) in terms of use, it is highly valued for strategy analysis (2nd) and choice (3rd) (see Table 7).

However, this discrepancy between tool usage and tool value does not apply to all tools. For example, tools like Resource Analysis and Lifecycle Model are both more used in the strategy implementation stage (83.3% and 76.3% respectively) than in the other two strategy phases and also more highly valued, being ranked 2nd and 3rd respectively (see strategy implementation column of table 7).

**Discussion and Conclusion**

Overall our findings contribute to knowledge about the actual use of strategy tools. Firstly, it was found that strategy tools use is not specific to a single stage of the strategy process. Rather their use is spread across all stages. This is counterintuitive given that most tools are presented in strategy theory as being more relevant for strategy analysis. This point is further strengthened by the finding that tool usage in practice does not resemble their prescribed use in strategy texts. For example, Resource Analysis and Critical Success Factors were clearly considered in strategy text as tools for strategy analysis. However, our results indicate that these tools are most used and valued for strategy implementation. Similarly, Portfolio
Matrices were mainly regarded an analysis tool in strategy texts (see Table 1) but managers use them more for choice. These findings counter the dominant assumptions about representationalist epistemology of knowledge use and indicate that managers themselves hold a practice epistemology in their use of strategy tools.

Secondly, we found that strategy tools use and value are not strongly correlated. In fact, our results showed that some tools are highly used although managers clearly attribute less value to them (e.g. SWOT). This may be an indication that institutionalized norms drive the adoption of those strategy tools.

Thirdly, the findings highlighted that the use and value of strategy tools decreases progressively as we move from strategy analysis to strategy implementation. This might indicate that few strategy tools are appropriate for strategy implementation where our respondents clearly attributed less value to strategy tools. Nevertheless, this result was somehow expected given that our review of the expected use for strategy tools in strategy texts (see Table 1) demonstrated that no tool was clearly oriented for implementation. This finding seems to highlight that although managers use tools in creative ways that go beyond what theory has envisioned, there is some place to develop tools that are more appropriate to certain contextual conditions as the representational epistemology of knowledge defends.

In sum, our research provides some findings that support the view that strategy tools expected use is not always correlated with their actual use. This is an important contribution for the literature on the practice of strategy, as it shows that managers tend to use tools in unexpected and unpredictable ways. Hence, we clearly need to focus and study what people really do in practice and not textbook expectations. Moreover, the finding that tool usage and value is not correlated gives credence to strategy as practice findings which highlighted that non-rational motivations influence tool use and adoption. Although, some qualitative research in the strategy as practice literature (e.g. Jarratt & Stiles, 2010; Stenfors & Tanner, 2006) have highlighted some of the practices indicated by our study, the scale of our study and its findings indicate the importance of developing more detailed qualitative research into how managers use strategy tools in their everyday strategy work. Subsequent developments in our own research will show more detail on the differences between expected use and actual use and will provide stronger statistical tests to strengthen our findings.
References


