

Strategic Planners in More Turbulent Times: the Changing Job Characteristics of Strategy Professionals, 1960-2003

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ABSTRACT

This paper investigates the changing job characteristics of strategic planners in the face of long-run increases in environmental turbulence since the 1960s. We build on contingency theory to examine how growing turbulence may have impacted three aspects of strategic planner jobs: temporal range, processes and organizational location. Drawing on job advertisement data between 1960 and 2003, we compare strategic planner jobs over time and relative to a similar managerial function, marketing. We find that the secular increase in environmental turbulence is negatively associated with forecasting (temporal range), economics and analysis (processes) and centralization (organizational location), especially when compared with marketing. These findings broadly support contingency theory in a domain that has so far lacked empirical consensus. We contribute further by introducing a fine-grained methodology that allows a detailed approach to contingency theory studies of managerial roles and opens a bridge to the Strategy as Practice tradition of research. Our findings have implications too for participation in strategic planning in firms, for the role of analysis in management education, and for research attention to strategic planning as an enduring strategy practice.

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INTRODUCTION

It is commonly held that strategic planning must change with the long-run increases in environmental turbulence since the 1980s (D'Aveni, Dagnino and Smith 2010). Particular targets for change are the strategic planners working in strategic planning departments. Thus, early on, Hamel and Prahalad (1994: 281) warned that traditional strategic planning departments faced downsizing in the new 'world of turbulent seas'. Similarly, Mintzberg (1994: 238) described strategic planners' initial attempts to adapt as inadequate, typically resulting only in 'providing even more delectable meals for the turbulence wolf'. There are more positive reports of change, none the less. For example, Grant's (2003) study of strategic planning departments in the increasingly turbulent oil industry does find a shift towards new planning practices, in combination with partial downsizing. Similarly, there were changes to strategic planning systems at General Electric during the leadership of Jack Welch in the 1980s and 1990s (Ocasio and Joseph, 2008; Joseph and Ocasio, 2012). However, such positive reports are patchy. Generally, it is still true that the evidence for change by strategic planners in the face of rising turbulence is 'limited' and 'fragmented' (Grant, 2003: 494).

This paper examines how strategic planning has responded to the dramatic challenges described by Hamel and Prahalad (1994) and Mintzberg (1994). To do this, we go beyond the limited and fragmented evidence provided so far by examining data across many industries and more than four decades. Our data are drawn from job advertisements for strategic planners and equivalent roles, applying for the first time to strategic planning a methodology originally developed in occupational sociology (e.g. Jackson, Goldthorpe, and Mills, 2005). These long-run data allow us to compare what D'Aveni et al (2010) describe as 'old-

fashioned' strategic planning from before the rise in environmental turbulence with strategic planning more recently. Our concern is specifically strategy 'professionals', those specialists employed in planning or equivalent departments and for whom strategy is a core part of their job (Wolf and Floyd, 2013; Whittington, Cailluet, and Yakis-Douglas 2011). It is these strategy professionals whose jobs are directly on the line in the face of increased turbulence (Hamel and Prahalad, 1994). They form a significant group for readers of this journal. In 2008, about half of Standard & Poor top 500 American corporations employed Chief Strategy Officers (Menz and Scheef, 2014) and in Europe's leading firms, the median number of full-time strategic planners is about five (Zimmerman and Menz, 2013). Strategic planners' capacity to adapt in the face of rising turbulence is likely to be important for the strategic capabilities of their firms. We compare the adaptability of strategic planners to a control group drawn from a similar occupation, marketing professionals,

In developing our hypotheses, we rely primarily on a contingency theory approach to organizations (Donaldson, 2001). In particular, we follow a number of recent studies that focus on how contingencies shape the design of managerial positions and roles within organizations (Hambrick and Cannella, 2004; Nath and Mahajan, 2011; Menz and Scheef, 2014). For our hypotheses about strategic planners, we are able to draw on a substantial stream of contingency theory research addressing the impact of increasing environmental turbulence (e.g. Grinyer, Al-Bazzaz, and Yasaiardekani 1986; Kukalis, 1991). Contingency theory turns attention particularly to the roles of forecasting and formal analysis, processes that have traditionally been integral to the work of strategic planning professionals (Mintzberg, 1994). It also addresses the organizational location of strategic planners, originally assumed to be necessarily centralized close to top management (Williamson, 1970). Contingency theory tends to predict reductions in forecasting, analysis and centralization in

the face of increasing turbulence. However, as explored later, earlier studies do not provide unequivocal support for these predictions.

This paper makes a number of contributions. First, drawing on a uniquely long-run and multi-sector data-set, we address the fundamental historical question of how strategic planning, as conducted by professional planners, has responded to challenges since the 1960s (D'Aveni et al., 2010; Grant, 2003). By comparison with the pessimism of Mintzberg (1994), we find support for change, albeit nuanced. Second, we contribute to contingency theory by offering broad support to its propositions on planning's relationship to environmental turbulence, a topic where results have been equivocal before. In short, we find that demand for centralization and economic analysis falls with rising turbulence, but the predicted negative relationship of forecasting and analysis with environmental turbulence is only strongly significant for strategic planners when compared with the control group of marketing. Third, we introduce to contingency theoretic studies of managerial positions a methodology that both allows more detailed empirical analysis and opens a bridge to practice-orientated studies of what managers do, as for example in the Strategy as Practice tradition (Vaara and Whittington, 2012). Our conclusion discusses the implications of our findings for strategic planning practice, particularly with regard to managerial participation in strategy, and for business education, with regard to the role of analysis in teaching. We also note limitations to this study and propose further research.

STRATEGIC PLANNING AND ENVIRONMENTAL TURBULENCE

As Mintzberg (1994) observes, strategic planning originated in an environment characterized by considerable economic stability, the 1960s. In this period, prominent contemporary commentators developed a model of strategic planning in which forecasting, analysis and organizational centralization were the principal motifs. Thus for the prominent economist J.

K. Galbraith (1967: 29), planning was the defining characteristic of the post-war 'New Industrial State' and 'foreseeing' was its essential core. Indeed, according to Galbraith (1967), large American firms of this period were sufficiently powerful actually to mould to a large extent the environments which they forecast. In Oliver Williamson's (1970: 124-5) account of the new multidivisional enterprises of the period, strategic planning was hierarchical and analytical, part of the firm's 'peak coordinating function': strategic planning should be carried out centrally by 'an elite staff capable of performing the depth analyses necessary to discharge the strategic overseer task effectively'. Strategy's pioneering theorist Igor Ansoff (1964) identified a shift in strategic planning during the 1960s from an unscientific practice to a 'quasi-analytic' stage, closer to the formal, structured rationality of operations research. The model of strategic planning was organizationally remote and technically demanding, tending to marginalize the role of line managers in the businesses.

However, this model of strategic planning based on forecasting, analysis and centralization came to be challenged by a secular shift in environmental conditions. A wide range of commentators have characterized the period from the 1980s onwards as one of increasing turbulence, volatility and hypercompetition (Bettis and Hitt, 1995; D'Aveni, 1994; Sull, 2009). There is long-range statistical support for this change in environmental conditions. Thus Comin and Mulani (2006) show a surge in the volatility of firm-level and aggregate sales in the United States from in the late 1970s and early 1980s. Wiggins and Ruefli (2005) find that American firms' capacity to sustain periods of superior performance declined through the 1980s into the mid-1990s. In the longest-run study, Thomas and D'Aveni (2009) show a rise in the median standard deviation for annual profit shocks amongst American corporations from 2 percent in the 1950s to over 8 percent in the early 2000s, with a marked inflection point in the 1980s. For D'Aveni et al. (2010: 1373), such indicators of rising turbulence have radical implications for strategic planning: 'Strategic

planning models were originally conceived for conditions of stability. In fast-changing environments where unexpected changes occur, strategic planning is inevitably fated to fail ... More than engaging in old-fashioned formal planning, firms need to engage in a continual evaluation of their actions, developing a strategy as they go by seeing which actions bring about the best results...’.

However, the evidence in favour of widespread change in strategic planning is limited and unsystematic. The pessimistic commentaries of Hamel and Prahalad (1994) and Mintzberg (1994) at the start of this paper rely mostly on secondary literature and a few illustrative examples, such as General Electric. Joseph and Ocasio’s (2012) in-depth study of General Electric over more than half a century does find considerable decentralization of strategic planning in the 1980s, for example the abolition of sector-level strategic planning units, but also suggests greater continuity than reported by many external observers. Joseph and Ocasio (2012) cover just one rather unusual company. There are larger-sample longitudinal studies of strategic planning, but they tend to take short time-periods: Javidan (1984) from 1976 to 1981; Wilson (1994) and Grant (2003) from the 1980s to the mid-1990s. Two of these studies are limited to single industries: thus Javidan (1984) considers only the savings industry, and Grant (2003) focuses on oil. On the other hand, Wilson’s (1994) broader industry coverage is not systematic or controlled for. Further, using either surveys or interviews, these three wider studies all draw on retrospective recall by respondents, a method liable to exaggerate reports of change (Golden, 1992). Retrospective surveys and interviews may also reflect changing fashions in describing managerial roles generally, independently of environmental turbulence (Abrahamson, 1996). Thus Barley and Kunda (1992) identify the period 1955-1980, coincident with the early years of strategic planning, with a general increase in ‘rationalistic’ managerial ideologies, while the 1980s apparently saw the onset of an era of more ‘normative’ ideologies. Changing characterizations of strategic planning may

simply reflect terminological fashions in society at large, for instance a greater reluctance to refer to rational analysis. It is important therefore to check whether changing descriptions are specific to strategic planning or are part of wider shifts in fashion.

Contingency Theory and Strategic Planning

The empirical evidence for increasing turbulence bringing widespread change for strategic planners is limited therefore. However, contingency theory does offer a substantial body of relevant work on strategic planning in general (Menz and Scheef, 2014), and particularly with regard to the implications of environmental turbulence (Lindsay and Rue, 1980; Kukalis, 1991; Grinyer, Al-Bazzaz, and Yasaiardekani, 1986). For example, in his study of oil industry strategic planning departments, Grant (2003) uses contingency theory to identify three characteristics liable to be particularly affected by rising turbulence: the temporal range of the planning role, with particular regard to time horizons; the planning processes, for instance reliance on formal analysis; and planning's organizational location, especially the role's centralization. All three characteristics are central to the original model of strategic planning developed in the 1960s. They are also characteristics that have been extensively studied from a contingency theoretical point of view. Even so, contingency theory research, both on strategic planning in general and on strategic planning departments specifically, has not yet arrived at a clear empirical consensus on how environmental turbulence affects the three dimensions of temporal range, process and location. Reviewing both theoretical arguments and evidence, we now develop hypotheses relating to how these three dimensions may have responded to the secular rise in turbulence since the 1960s.

To start with planning's temporal range, contingency theory suggests that greater turbulence increases uncertainty about the future, leading firms to shorten planning horizons and reduce forecasting activity (Grinyer et al., 1986). On this reasoning, there is not much

point in forecasting where so little is predictable. Grant (2003) indeed found that oil companies' strategic planning departments have responded to greater uncertainty by shortening their time horizons and reducing forecasting since the 1980s. On the other hand, Javidan (1984) found no significant decrease in planning horizons in the increasingly uncertain Savings and Loan industry between 1976 and 1981. In a cross-sectional study, Lindsay and Rue (1980) found no relationship between environmental turbulence and planning time-horizons, at least in large firms. Turbulence may reinforce efforts to look ahead, rather than prompting the abandonment of forecasting altogether. In any case, the relationship between environmental turbulence and forecasting and planning horizons remains unsettled. Against this background of empirical uncertainty, we follow Grinyer et al.'s (1986) argument in favour of shorter planning horizons by proposing the following hypothesis, taking the demand for forecasting capabilities as our measure (Grant, 2003):

Hypothesis 1: The secular rise in environmental turbulence will be associated with decreasing demand for forecasting in strategic planner jobs

With regard to processes, greater turbulence is often expected to undermine the role of analysis in strategic planning, assumed to be insufficiently flexible to cope with dynamism and uncertainty (Kukalis, 1991; Mintzberg, 1994). Analysis is supposedly too slow, rigid and reliant on past data to cope with such turbulence. However, the empirical relationship between analysis and environment remains unclear. While Kukalis (1991) found that strategic planning processes were more flexible in complex environments, Brews and Hunt (1999) supported increased flexibility in unstable environments only for 'ends' (plan goals), but not 'means' (plan programs). Lindsay and Rue (1980) found no correlation between turbulence and planning review frequency, a proxy for flexibility. With regard to analysis specifically, Wilson's (1994) survey of large firms' strategic planning departments did find that processes had become less analytical since the 1980s. Similarly, Grant's (2003) planning departments

were reducing their use of analytical strategy tools. These departments were also cutting back on staff economists, whose work concerned not only forecasting but also economic analysis more broadly (Grant, 2003). On the other hand, in the wider strategic decision-making literature, early findings that environmental dynamism is associated with reduced analytical comprehensiveness (e.g. Fredrickson, 1984) have later been questioned by both case study and survey research (Eisenhardt, 1989; Priem, Rasheed, and Kotulic, 1995). In the light of their results, Priem et al. (1995) suggest that the uncertainty of dynamic environments may actually call for more comprehensive scanning and analysis, rather than less. In sum, the evidence in favour of reduced analysis in more turbulent environments is not yet conclusive. Our next two hypotheses therefore examine whether rising environmental turbulence has impacted processes, both analytical processes in general and economic analysis in particular (Grant, 2003):

Hypothesis 2: The secular rise in environmental turbulence will be associated with decreasing demand for analysis in strategic planner jobs

Hypothesis 3: The secular rise in environmental turbulence will be associated with decreasing demand for economics in strategic planner jobs

Turning finally to organizational location, growing turbulence is generally supposed to encourage planning decentralization, as central corporate planning departments are held to be too remote from rapid change on the ground (e.g. Grinyer et al., 1986; Grant, 2003). Decentralized strategic planning is potentially more responsive to local turbulence. Again, there is some empirical support for this, but not complete. Thus Lindsay and Rue (1980) did find that large firms tended to use more 'open systems' in more turbulent conditions. Both Wilson (1994) and Grant (2003) report increased downsizing of central planning staffs and the redistribution of responsibilities and staffs to divisions and business units during the 1980s and early 1990s. On the other hand, Grinyer et al.'s (1986) cross-sectional study could find no significant relationship between environmental instability and planning delegation to line-

managers. It may be that decentralized strategic planning efforts are ill-placed to take the panoptic view required by uncertainty. As for the other dimensions, the empirical case for decentralization is not closed. Our final hypothesis therefore follows Wilson (1994) and Grant (2003), addressing the relationship between environmental turbulence and organizational location:

Hypothesis 4: The secular rise in environmental turbulence will be associated with decreasing organizational centralization of strategic planner jobs

DATA AND METHODS

We depart from previous survey and interview studies by constructing a unique long-run dataset of US job advertisements for strategic planners covering more than forty years, from the period of relative stability to recent more turbulent times. In this, we follow occupational sociologists who typically regard job advertisements as effective indicators of actual job demands (e.g. Jackson et al., 2005; den Hartog, Caley, and Dewe, 2007; Dörfler and van de Werfhorst, 2009). Advertisers are usually deliberate in appraising key job requirements and regard accurate job descriptions as important to avoiding the high costs of failing to attract and retain appropriate candidates (Jackson et al., 2005). For employers, there is more at stake in advertisements than in survey or interview responses to external researchers. Indeed, potential recruits do typically rate job advertisements as broadly accurate (Rafaeli, 2006). Moreover, advertisements are contemporary documents. By comparison with retrospective recall by interviewees or survey subjects, therefore, advertisements are less likely to be subject to exaggeration of change (Golden, 1992). For all these reasons, advertisements are often used in the study of occupational change (e.g. Applegate, 2010; Choi and Rasmussen, 2009; Lynch and Smith, 2001; Pooley and Dunn, 1994; Todd, McKeen, and Gallupe, 1995).

None the less, we note several limitations in these data. First of all advertisements refer only to posts being recruited externally; many planner jobs are filled internally (Grant,

2003). Second, although there are material reasons for advertisers to minimize discrepancies, job descriptions do not necessarily fully describe either the actual roles or the individuals finally appointed: there may be some gap between advertisement and practice (Lynch and Smith, 2001). Finally, we recall that our job advertisements place the focus specifically on strategic planning professionals: they do not cover the whole of strategic planning practice. However, it is the fate of planners and planning departments that is particularly at issue in the debate with which we started this paper (e.g. Mintzberg, 1994; Grant, 2003), and, given their positions at the heart of the process, we may expect that shifting demands on them are likely to reflect changes in wider strategy systems within their firms.

Data-Set

Data for most of our variables are drawn from the classified and display advertisements of the *New York Times* and the *Los Angeles Times* from 1960 to 2003. This period is chosen as covering both the stable 1960s and early 1970s and the more turbulent years that follow (Thomas and D'Aveni, 2009). In these years, the *New York Times* was the dominant managerial employment advertiser in the commuter region of New York, New Jersey and Connecticut, location of the largest number of corporate headquarters in the United States. The *Los Angeles Times* is included to check for regional effects. Although the largest newspaper in California (for most of this period, the region with the second largest number of corporate headquarters), the *Los Angeles Times* carries fewer advertisements than its East Coast peer. To check the comparability of the two data sources, we conducted a two-sample Kolmogorov-Smirnov (K-S) test which tests the null hypothesis that the two sets of data (*New York Times* and *Los Angeles Times*) come from the same source. The K-S test results show that there are no significant differences ($p < 0.05$) between the two sets of data for either strategic planning or marketing advertisements.

INSERT TABLE 1 ABOUT HERE

In identifying relevant advertisements, we follow Mintzberg's (1994: 32) definition of strategic planners: '... people with that title (or something similar), but without line (operating) responsibilities and so with time on their hands to worry about the future of the organization that employs them'. These are planning specialists, not general managers for whom strategy might be just one part of a larger role. Planner roles might include support for senior executives, preparing forecasts and market analyses, fostering dialog throughout the organization on strategic issues, and internal strategy consulting (Grant, 2003). The job carries a variety of formal titles historically (Ocasio and Joseph, 2008; Angwin, Paroutis, and Mitson, 2009). Based on the literature and a sampling across decades, we identified for potential inclusion a range of job titles or descriptions corresponding to Mintzberg's (1994) definition. The most common job titles in the 1960s were Corporate Planning and Long Range Planning; by the beginning of the 21st century, both these titles had disappeared, with Strategic Planning dominant. The overall number of strategic planner job advertisements appearing in the *New York Times* and *Los Angeles Times* declined significantly during the first decade of the 21st century, perhaps reflecting the rise of online job advertising.

For the *New York Times*, we searched for advertisements electronically (using the Proquest Historical Newspapers archive) under the following terms: strateg*; corporate plan*; business plan*; range plan*; policy; corporate development; econom*; forecast*; business model*. For the *Los Angeles Times*, we searched for the same terms on microfilm. We focused on two months (February and May) each year for the *New York Times* (about 15 per cent of advertisements annually) and, reflecting the smaller numbers, all months in the *Los Angeles Times*. In the *New York Times*, we identified an initial pool of just over 4900 potentially relevant strategic planning advertisements. In the *Los Angeles Times*, we collected

an initial pool of 1100 potentially relevant advertisements. These initial pools contained many irrelevant advertisements (for example, 'IT strategist'). Using a standard protocol (available from the authors) and consulting the first author on all borderline decisions, the two research associates made an initial discard of 62.3 percent of the initial pool of strategic planner advertisements in the *New York Times* and 38.0 percent for the *Los Angeles Times* (we eliminated more advertisements from the *New York Times* because the electronic search retrieved more irrelevant advertisements compared to the more selective human search used to collect data from the *Los Angeles Times*). To check this initial screening, two authors independently assessed 390 randomly selected strategic planner advertisements from both sources, including initial exclusions: K-alpha for the overall agreement rate on inclusion/exclusion decisions for the *New York Times* and *Los Angeles Times* was 88.7, within the normally-accepted level of agreement (Weber, 1990). Finally, two authors independently reviewed all the remaining advertisements, leading to the discard of a further 6.2 percent.

As in Table 1, the final total was 1734 strategic planner advertisements for 2082 positions in the *New York Times* and 682 advertisements for 800 positions in the *Los Angeles Times* (some advertisements were for more than one position). On average, each position had 68.7 words (1960-69: 67.4 words; 1970-79: 69.2; 1980-79: 68.2; 1990-03: 69.8). These advertisements variously provide data on job title, job description, desired experience or qualifications, rewards, organizational level, reporting relationships, organizational name, size and industry. All strategic planner advertisements have been fully transcribed into Excel to allow content analysis and coding (total number of transcribed words just under 200,000). Figure 1 provides examples of fairly typical advertisements from the two extremes of our time period.

We control for general fashions in describing managerial jobs by comparing with a similar occupation, marketing. We collected data from the *New York Times* and the *Los*

Angeles Times for marketing jobs over the same period, using equivalent procedures and sampling from one month per year. Marketing is similar to strategic planning in being a staff function (as opposed to sales), being located either at divisional or corporate levels and being externally focused. 24.3 percent of marketing advertisements were excluded by the research associates on the first round (typically because of a sales role); K-alpha (Krippendorff, 2004; Lombard, Snyder-Duch, and Bracken., 2002) for the authors' agreement rate at the second stage was 86.4. After a final round of review, the total for marketing was 3055 positions in 2535 advertisements (Table 1).

Variables

We define our variables by the presence or absence in the advertisements of relevant words (or variations using their trunks): e.g. 'analysis', 'economist' or 'forecasting'. For centralization, we coded for the words corporate, head office/quarters, and HQ. Table 2 compares the absolute trends by decade for these words in marketing and strategic planning advertisements, which allow us to comment on the long-run trends.

However, for the more formal hypothesis testing we transform these words into two dependent variables, adjusted for marketing and unadjusted. For the adjusted variable, we used a procedure similar to Mishina, Dykes, Block, and Pollock et al. (2010) and Gujarati (2003: 820-21). Thus we partial out fashion or similar effects by regressing the yearly averages for the measures in the marketing advertisements on the individual observations in the strategic planner advertisements and using the residuals from this regression as the dependent variables in the adjusted models. The unadjusted dependent variables are binary (relevant words present or absent); the adjusted dependent variables are continuous, based on the residuals of the regression with marketing.

INSERT TABLE 2 ABOUT HERE

Neither Grant (2003) nor Wilson (1994) formally operationalize their concepts of turbulence and both also use related terms such as dynamism, volatility and instability. While some researchers have suggested that turbulence is largely cyclical (McNamara, Vaaler, and Devers 2003), more recent researchers from both management and economics support a secular increase based on a longer time period and a variety of metrics (e.g. Thomas, 1996; Wiggins and Ruefli, 2005; Comin and Mulani, 2006; Chun, Kim, Morck, and Yeung, 2008; Thomas and D'Aveni, 2009). For our measure of turbulence, we use Thomas and D'Aveni's (2009: Figure 1) data on the volatility of U.S. manufacturing firms' profitability between 1950 and 2002, a uniquely long data-set (underlying data kindly provided by the authors). We lag by one year. Because there are large fluctuations on an annual basis, we use a ten-year rolling average as in Thomas and D'Aveni (2009) (shorter windows risk large and complex serial correlation in the error term). These data show rising volatility in firm profitability from 1969, interpreted as reflecting an increasingly turbulent environment. Thomas and D'Aveni (2009) cover only manufacturing, but Comin and Mulani's (2006) long-run study of volatility in firm sales shows a close correlation between manufacturing and the whole economy, as well as corresponding to the upward trend identified by Thomas and D'Aveni (2009).

As the turbulence data have an exponential growth pattern, we take the log-transformation to extract the linearized trend matching the nature of other variables. Because theory focuses on a secular rise in turbulence (Hamel and Prahalad, 1994; Grant, 2003), we distinguish between the long-run trend and short-run perturbations around this trend. Thus we take as our independent variable the long-run trend data ('secular turbulence'), and control for short-run perturbations using the residual of the turbulence data ('cyclical turbulence'). We expect the effects of cyclical turbulence to be similar to those of secular turbulence, but

weaker because short-term. Periods of high cyclical turbulence are the early 1960s, the mid-1980s to mid-1990s and the early 2000s.

We developed five further control variables. Regarding our dependent variables forecasting, analysis, and economics, we introduced an industry control in the form of ‘dynamic industry’. Industry characteristics have been associated with the adoption of formal strategic planning (Lindsay and Rue, 1980) and Mintzberg (1994: 402-10) associates less analytical approaches to strategic planning with dynamic, high technology and knowledge-intensive industries. Advertisements do not use standard industrial classifications, but do usually identify main industries. Following Mintzberg’s (1994) distinction, our industry control variable is therefore binary: we designate as ‘dynamic’ industry high-technology industries and knowledge-intensive industries such as media, advertising and investment banking; ‘non-dynamic’ industries are the rest.

With regard to analysis, we controlled for three more variables. Following Wilson’s (1994) association of analysis with a strong role for finance, we controlled both for the requirement for finance qualifications (e.g. CPA or finance major in degree) and for an internal reporting relationship to finance managers (e.g. to VP Finance). We also controlled for entry or junior level positions (where two or less years’ experience was specified), on the grounds that such junior positions are liable to be orientated to analysis regardless of the organization’s overall strategic planning approach (the entry grade in a strategy consulting firm is often ‘analyst’).

With regard to centralization, we controlled for organization size with the binary variable of ‘large’ and ‘not large’ firms. Large firms are more likely to specify corporate or head-office locations for strategic planning (Williamson, 1970). Because advertisements do not report organizational size systematically, we classified firms as ‘large’ if they described themselves as Fortune 500 members, ‘leaders’, ‘leading’, ‘major’, ‘global’, ‘blue chip’, ‘top’,

‘conglomerate’ and ‘multiplant’, or if they referred to a ‘corporate headquarters’, ‘subsidiaries’, ‘divisions’ and similar. Firms were classified as ‘not large’ where there were no such descriptions, or where they specifically indicated small or medium size (‘entrepreneurial’, ‘start-up’ etc). We control for time with 11 period dummies for the 43 year data. We use period rather than year dummies to preserve degrees of freedom and minimize multicollinearity with secular turbulence.

Because our control variables involved the coding of non-standard descriptors, we tested for inter-coder reliability. The first and second authors independently coded a random 260 strategic planner advertisements (10.8 percent of strategic planner advertisements) for size, level, finance reporting and finance qualification. The agreement percentages for control variables were as follows: dynamic industry: 85.45; large organizational size: 83.6; finance qualification: 99.2; reporting to finance: 98.6; junior: 87.7. We resolved the disagreements in coding decisions through face-to-face discussions. K-alpha for inter-coder reliability across these subjective variables is 94.16 indicating a high level of agreement (Weber, 1990). Table 3 reports correlations.

INSERT TABLE 3 ABOUT HERE

ANALYSIS

Our analysis proceeds in two parts: first a discussion of trends, in answer to the broad historical question regarding the fate of ‘old-fashioned’ strategic planning since the 1960s, at least as represented by strategic planners (D’Aveni et al., 2010); second a more formal testing of the hypotheses drawn from contingency theory focusing on the effects of turbulence on the three job characteristics of temporal range, process and organizational location (Grant, 2003).

Long-term Trends

To start with, Table 2 compares the absolute trends over time for positions in marketing and strategic planning. We need to be cautious about using the advertised positions as an index for the total demand for strategic planners, as many posts are not advertised (Grant, 2003). However, it is noticeable that the largest number of advertised positions come in the 1980s (1223), a period associated with a critical rise in environmental turbulence by many commentators (e.g. Hamel and Prahalad, 1994; D'Aveni et al., 2010). The last period (1990-2003) has more than twice as many advertised positions as the first period (the 1960s). These data may suggest some long-run trends in the total demand for strategic planners in the external labour market at least, but any decline in strategic planning lagged the general rise of environmental turbulence in the 1980s and there was continuing substantial demand into the early years of this century. Marketing, however, has enjoyed fairly steadily increasing demand, with the last period its strongest.

Despite the fluctuations, this data-set of nearly three thousand strategic planning positions provides a large enough sample spread across the whole four decades to comment on each specific time period. Contrary to experience from the oil industry (Grant, 2003), there has apparently been no proportional decline in demand for forecasting skills amongst strategic planners, at least as reflected in references to forecasting in the advertisements: around one fifth refer to forecasting throughout the four decades. Amongst marketers, by contrast, there has been some increase in the proportion referring to forecasting, though starting from a much lower level. Likewise, although Grant (2003) and Wilson (1994) reported less analytical methods, the role of analysis in general appears to have increased amongst the strategic planners of our sample, with nearly three quarters of advertisements referring to it in 1990-2003. The apparent demand for analysis amongst marketers simultaneously doubled, again from a lower level. However, Grant's (2003) finding with regard to the declining role of

economics is strongly corroborated in our sample, with mentions of economics in our advertisements declining from about one fifth in the 1960s to less than a twentieth recently. Marketing advertisements make little and declining reference to economics. The long-run trend towards decentralization identified by Grant (2003) and Wilson (1994) is supported by our sample: whereas over a third of strategic planning advertisements were associated with the organizational centre at the beginning of our period, this proportion had more than halved by the end. Marketing had become more centralized in these years, but once more from a low level.

In response to the basic historical question, therefore, strategic planners do seem to have changed from the 1960s to the early 21st Century. As reflected in externally advertised positions, strategic planners are less involved in economics and more decentralized. On the other hand, contrary to some expectations, strategic planners still need to do analysis and still engage in forecasting. With regard to these two characteristics, marketing's changes add a perspective which will be particularly significant in the more formal hypothesis testing of strategic planning's response to rising turbulence.

Hypothesis testing

Our more formal testing examines the hypothesized relationships between forecasting, analysis, economics and centralization and fluctuating levels of environmental turbulence in our sample more generally. Table 4 presents our regression analysis, with four models, representing the dependent variables of forecasting, analysis, economics, and centralization. To guard against general fashion effects, each model tests its dependent variable in both unadjusted and adjusted (for marketing) forms: here it is useful to bear in mind the different long-run tendencies of marketing and strategic planning. For the unadjusted forms of the

dependent variables we used logistic regression; for the adjusted forms we used OLS regression. Analysis was carried out on MATLAB.

INSERT TABLE 4 ABOUT HERE

Model 1 tests Hypothesis 1, the effect of secular turbulence on forecasting, relevant to strategic planning's temporal range. Table 2 reported slight declines in demand for forecasting in planner advertisements since the 1970s, against an upwards trend amongst marketers. As in all four models, our unadjusted regression includes time fixed-effects: these are marginally significant for the first two periods. Our controls for cyclical turbulence and dynamic industry are in the expected direction, but not significant. We find that the negative association between forecasting and secular turbulence is statistically significant at $p < 0.05$ when adjusted for marketing, but only at $p < 0.1$ when unadjusted. While the unadjusted model overall is statistically significant at $p < 0.1$, the adjusted model is statistically significant at $p < 0.05$. This broadly supports Hypothesis 1 regarding turbulence's negative effect on forecasting.

Model 2 tests the importance of analysis in strategic planner roles, for which proportionate demand peaked in the 1980s (Table 2). As controls, we include cyclical turbulence, dynamic industry, finance qualification, financial reporting, and junior positions. In the unadjusted version, we find marginally significant negative associations between analysis and both types of turbulence at $p < 0.1$. When adjusting for marketing (where analysis demand doubles), we find that analysis is negatively and significantly associated with secular turbulence at $p < 0.05$. Except for industry dynamism, all control variables are significantly associated with analysis in both versions of the model, in the expected directions. Both versions of Model 2 are statistically significant overall (the unadjusted version weakly and the

adjusted version more strongly). We find support therefore for Hypothesis 2 regarding the negative effects of secular turbulence on analysis in strategic planner roles.

In Model 3, we test for the effects of turbulence on economics, as a particular kind of analysis used by strategic planners. We include cyclical turbulence and dynamic industry as controls. Demand for economics amongst strategic planners fell sharply over the period, while rising in marketing (Table 2). In both the unadjusted and adjusted model versions, economics is negatively associated with turbulence, at high levels of significance. The cyclical turbulence control variable is significant; dynamic industry is not. Time fixed-effects are significant for four periods out of the eleven, scattered across the four decades of our study. Both versions of the model are highly significant overall. Our analysis thus supports Hypothesis 3 regarding the sensitivity of economics to rising turbulence.

Model 4 tests for the effects of turbulence on strategic planner centralization. The trends for centralization for planners and marketers go in opposite directions (Table 2). We find that both unadjusted and adjusted centralization are associated negatively and significantly with secular turbulence. Our control variables, cyclical turbulence and large organization, are also significantly associated with centralization in the expected directions. Both versions of the model are significant overall. We therefore support Hypothesis 4 on the negative secular effect of turbulence on centralization.

DISCUSSION AND CONCLUSION

This paper addresses changes in the roles and locations of strategic planning professionals in the face of an economy-wide rise in environmental turbulence. The paper thus addresses both historical and theoretical questions. Firstly, despite some influential and rather downbeat opinions (e.g. Mintzberg, 1994; Hamel and Prahalad, 1994), we do not know much about how strategic planners have responded to the challenges of the late twentieth century. Secondly,

after decades of research, contingency theoretic studies are still inconclusive about the impact of environmental turbulence, particularly across Grant's (2003) three job characteristics of temporal range, process and organizational location.

This paper has brought to the puzzle of strategic planners' change a unique data-set, stretching over more than four decades, covering many sectors and comparing with a similar professional group. At least for the significant labour markets of New York and Los Angeles, the long-run rise in turbulence has seen change in strategic planner roles and locations. In particular, there is markedly reduced demand for both economics and centralization, consistent with, for example, Grant's (2003) findings from the oil industry. The changes in demand for forecasting and analysis in general are less consistent with expectations, with the first broadly flat and the second actually rising. The negative association between turbulence and forecasting and analysis is only weakly-significant in the unadjusted models. Forecasting and analysis are enduring parts of the strategic planners' job. It is only in comparison with marketing, where demand for forecasting and analysis is rising, that it is possible to identify significantly different tendencies with regard to these characteristics: a study focused on planners alone might have missed such effects. Thus, despite Mintzberg's (1994) doubts about its adaptability, we find long-run, multi-sector support for strategic planners' capacity to respond to rising environmental turbulence, in a manner that discriminates across the characteristics of temporal range, analytical orientation and organizational location.

Our findings contribute to two streams of literature. Firstly, we comment on the mainstream debate about the historical fate of 'old-fashioned' strategic planning in a more turbulent environment. As authorities have urged (D'Aveni et al., 2010; Grant, 2003), strategic planning has changed, at least to some degree. To the extent that the strategic planners can serve as an index, gloom about strategic planning's historical capacity to change appears exaggerated. There is more going on than simple 'down-sizing' of strategic planning

departments (Hamel and Prahalad, 1994). Strategic planners have adapted discriminatingly to increased levels of environmental turbulence, decentralizing organizationally and rebalancing analytically. In this sense, strategic planners are not locked into any particular model, whether ‘old-fashioned’ or otherwise. Strategic planners are selectively responsive to environments, apparently preserving some dimensions of their jobs and adapting others. Analysis and forecasting appear fundamental parts of their jobs over time; economics and centralization are less so. Moreover, having shown responsiveness towards the acute challenge of environmental turbulence, it may be expected that strategic planners have the capacity to adapt to other kinds of change in the future. Strategic planners emerge from this study as a flexible professional group.

Our findings contribute to contingency theory as well. While contingency theory has recently been applied to explain the appointment of Chief Strategy Officers, for instance in terms of firms’ strategies (Menz and Scheef, 2014), it has been less successful so far in explaining the relationship between strategic planning and environmental turbulence (Grinyer et al., 1986). Previous studies of strategic planning’s responsiveness to environmental turbulence have been undertaken over short periods of time or in limited numbers of sectors, while typically relying on self-report through researcher surveys. Our study uses data generated independently of researchers, it draws from a wide range of organizations and a long stretch of time, and it introduces marketing as a control group. These data do generally confirm the propositions from contingency theory about change in response to growing environmental turbulence, at least in respect to strategic planners and in comparison to marketing. It is important to note again the differential responsiveness of strategic planners across contingency theory’s various dimensions: organizational location and the demand for economic analysis change more than forecasting and analysis in general. Overall, however,

this study supports contingency theory's emphasis on the impact of environmental turbulence on this important aspect of organizational design.

Our findings have two direct implications for further research. First, this paper builds on a series of recent contingency theory studies exploring managerial positions and roles within organizations, for example those of Chief Operating Officers, Chief Marketing Officers and Chief Strategy Officers (Hambrick and Cannella, 2004; Nath and Mahajan, 2011; Menz and Scheef, 2014). These studies typically rely on sources such as 10-K filings and annual reports, which provide reasonably objective and systematic secondary data on a large number of firms in a way that primary data, from questionnaires for instance, are typically less able to do (Nath and Mahajan, 2011). However, such official sources are limited in describing the specific responsibilities of managerial positions. By introducing another kind of secondary data, job advertisements, this study opens up the possibility of studying managerial roles in more detail. The kinds of advertisements displayed in Figure 1 include a wide range of information. Future contingency theory research relying on advertising data can examine not only what explains the existence of particular managerial positions across large populations of organizations, but also the positions' specific characteristics, such as desired skills and expected responsibilities.

This leads to a second direct research implication. To the extent that contingency theory can draw from advertising data a finer-grained understanding of what managers are expected to do, it can contribute to contemporary practice theorists' concerns for what managers actually do. Although practice theorists are interested in many kinds of managerial work (e.g. Orlikowski, 2008), in this context there is a particularly strong connection to the Strategy as Practice conception of strategy as something that people do (Vaara and Whittington, 2012). Strategy as Practice researchers have tended so far to feature close ethnographic study of strategizing activity, yet the tradition has always been open in principle

to contingency theoretic approaches and quantitative research as well (Johnson, Langley, Melin, and Whittington, 2007). To illustrate the research possibilities of collaboration between traditions, we propose that large sample contingency theoretic studies of job advertisements could be used to identify the typical salience of strategy responsibilities in different managerial groups, for example chief marketing, finance or operating officers, and in different circumstances, for example various kinds of organizational, industry or national environments. Informed of such broad patterns, Strategy as Practice researchers could then ‘zoom in’ (Nicolini, 2012) to examine more closely how different managerial groups’ strategy responsibilities are enacted in practice. In this sense, contingency theory and Strategy as Practice research traditions can be complementary, the first identifying broad tendencies through quantitative research, the second scrutinizing them critically and in depth using qualitative methods.

Our findings also have both organizational and educational implications. In the first place, the organizational decentralization of strategic planner jobs implies increasing managerial participation in strategic planning, consistent with the broad trend to greater inclusiveness of organizational members in strategy proposed by Whittington et al. (2011). The decline in economics may similarly reflect a reduction in at least one dimension of the ‘technologicalization’ (Mantere and Vaara, 2008) of strategy, where specialized analytic discourses serve to distance managers without the relevant expertise. To this extent, our findings suggest strategic planning activity is becoming less organizationally remote, and more discursively accessible. In turbulent environments, strategy appears likely to involve more people than Williamson’s (1970) centralized ‘elite’. To the degree that the environment is generally becoming more turbulent, then this suggests that strategy work will broadly tend to be more organizationally inclusive.

The tendencies reported here have implications for business education as well. As strategic planners descend from corporate headquarters, they are likely to engage more with lower-level managers in operating business units. These managers need strategy awareness and skills in order to work effectively with such strategic planners. To this extent, the pessimism expressed by Mahoney and McGahan (2007) about the continuing demand for strategy courses might be assuaged: more managers will need strategy education. At stake, though, is the content of those strategy courses. The declining requirement for economics in our advertisements may qualify the case for economic approaches to strategy teaching made by Grant (2008), for example. However, this does not imply a wholesale move in business education away from analysis in general: demand for analysis appears higher in the most recent period than in the 1960s. The kinds of largely business school analytical tools (SWOT, matrices and so on) described by Wright, Paroutis, and Blettner (2013) are likely therefore still to be relevant in strategy education. Many of these have fundamental roots in economic thinking, but not all. Strategy analysis should continue as an important part of the business education curriculum, drawing on a range of disciplines including economics.

Limitations and future research

We should recall some limitations of this study. We follow Grant (2003) in focusing on the work of strategic planners, and do not cover the strategic planning activities of those from outside this group. As indicated by Table 2, and elsewhere (Menz and Scheef, 2014), strategic planners remain an important group. Where strategic planners are present, their changing job characteristics are likely to relate to changes in strategic planning activities throughout their organizations. Where such specialists have been eliminated altogether, change in strategic planning is likely to have been even greater than that recorded here, but we cannot tell precisely how. Although occupational sociologists regard advertisements as

generally robust (Jackson et al., 2005), and readers see them as broadly accurate (Rafaeli, 2006), we cannot know how closely advertised characteristics correspond to those of the actual jobs themselves. The advertisements also oblige fairly simple characterizations of our control variables (for example, ‘dynamic industries’). The large majority of advertisements being anonymous, we cannot link the presence of strategic planners to the economic performance of their firms. Finally, because we go back so many decades in order to compare with a less turbulent period, we are only able to use one measure of turbulence, albeit one that is both established and developed by a proponent of strategic planning change (Thomas and D’Aveni, 2009; D’Aveni et al., 2010).

These limitations invite further research. Although Strategy as Practice researchers have begun to investigate strategic planning in recent years (e.g. Kornberger and Clegg, 2011; Spee and Jarzabkowski, 2011; Paroutis and Heracleous, 2013), research on formal strategic planning systems is still much reduced compared to the 1970s and 1980s, leaving us still heavily reliant on studies done some time ago (Whittington and Caillaet, 2008; Ronda-Pupo and Guerras-Martin, 2012; Wolf and Floyd, 2013). While our findings broadly support original contingency theoretic contentions that strategic planning adapts to its environment (Lindsay and Rue, 1980; Grinyer et al., 1986; Kukalis, 1991), contemporary conditions are very different from that earlier generation of research. As well as increased turbulence, strategic planners are being challenged by new technologies and a strategically more sophisticated managerial workforce (Whittington et al, 2011). This study suggests that strategic planning is a dynamic practice, capable of developing new approaches. However, there is more to be said about the broad patterns of strategic planning change, how new approaches actually work in practice and the complementary changes that reinforce them. Given its enduring importance (Rigby and Bilodeau, 2007; Angwin et al., 2009; Menz and Scheef, 2014), and the various challenges it faces, contemporary strategic planning deserves

more investigation, and along a wider set of dimensions than we have been able to examine here.

Figure 1. Illustrative strategic planning advertisements

New York Times, 09/05/1965



**DIRECTOR OF
CORPORATE PLANNING**

Midwest metal fabricator approaching \$100,000,000 range, multi-plant, has excellent opportunity for well qualified man in above function. Will direct and conduct studies on potential acquisitions, affiliations and consolidations; assist in the introduction, evaluation and growth of new products; perform special studies and advise on organizational structures of operating units; advise and counsel operating units in terms of consolidation or expansion facilities, product lines, etc., and carry out varied special assignments. We require sound experience in industrial program planning and/or marketing, plus background in acquisition analyses and general corporate planning, in a company of \$50,000,000 volume or larger. Financial analysis exposure helpful, as is some production know-how, but emphasis is on preceding sentence. Degree in engineering or business preferred, and M.B.A. is highly desirable. Age 35-45. Starting salary to \$30,000, plus bonus. Your full reply is invited in confidence.

X 7360 TIMES

New York Times, 20/02/2000

Finance \$90-\$110K + Bonus

STRATEGIC PLANNING

Northern New Jersey

Prominent financial inst seeks indiv w/
6-8 yrs related business planning/fincl
analysis exp in FINANCIAL SERVICES
Ideal candidate for this VP pos should
have MBA & strong analytical/planning
skills. Respons incl business planning/
performance analysis, internal
mgmt reports, profit planning & ad hoc
projects. Pos offers extensive interface
w/senior management. Exclnt benefits
pckg w/this outstanding opply. Email
resume to lindascott@lgald.com
or fax to 212-447-1816

See our website for additional listings

www.lgalid.com

Table 1. Data sources

Data sources		Data set		
		Strategy Planners	Marketing	Total
Advertisements	NY Times	1734	1766	3500
	LA Times	682	769	1451
	Total	2416	2535	4951
Positions	NY Times	2082	2129	4211
	LA Times	800	926	1726
	Total	2882	3055	5937

Table 2. Job advertisement characteristics: Percentages by decade

Data set	Decades							
	1960-9		1970-9		1980-9		1990-2003	
	Strategy Planners	Marketing	Strategy Planners	Marketing	Strategy Planners	Marketing	Strategy Planners	Marketing
No. of positions	267	368	806	528	1223	751	586	1408
Dependent variables								
Forecasting	19.85	4.08	20.35	4.17	19.54	6.39	18.09	6.46
Analysis	62.55	12.50	66.13	15.53	76.37	25.03	72.53	25.21
Economics	21.35	3.53	11.29	1.52	5.56	0.67	4.27	2.34
Centralization	36.70	1.36	30.77	3.03	23.79	3.06	14.16	7.46

Table 3. Correlations between strategic planner job advertisement characteristics

Variables	N	Mean	St.Dev.	1	2	3	4	5	6	7	8	9	10
1 Forecasting	562	0.195	0.364	1									
2 Analysis	205 9	0.714	0.306	0.096**	1								
3 Economics	241	0.084	0.234	0.138*	0.012	1							
4 Centralization	720	0.250	0.166	0.076*	0.011	0.078***	1						
5 Dynamic ind.	714	0.248	0.201	-0.010	-0.004	-0.008	-0.012	1					
6 Large org.	203 3	0.705	0.354	0.004	0.130***	0.001	0.142***	-0.105†	1				
7 Finance qual.	424	0.147	0.142	-0.008	0.062***	-0.063*	-0.021	-0.024†	0.038	1			
8 Financial rep.	144	0.050	0.116	0.041	0.054*	0.065*	0.042*	-0.009	-0.007	0.079**	1		
9 Junior	359	0.125	0.104	0.062*	0.071**	0.084**	0.020*	-0.004	0.026	0.029	0.043*	1	
10 Cyclical	-	0.113	0.419	-0.021	-0.066†	-0.079*	-0.032	0.029	-0.081*	-0.015†	-0.009	-0.012	1

Table 4. Strategic planner job advertisement characteristics and secular turbulence

DV	Model 1		Model 2		Model 3		Model 4	
	Forecast		Analysis		Economics		Centralization	
Hypotheses tested	H1a Unadjusted ^{a,†}	H1b Adjusted*	H2a Unadjusted ^{a,†}	H2b Adjusted*	H3a Unadjusted ^{a,***}	H3b Adjusted ^{***}	H4a Unadjusted ^{a,**}	H4b Adjusted *
IV								
Intercept	-0.017 (-0.234)	-0.066 (-0.002)	0.204 (0.347)	-0.058* (-0.2531)	-0.764 ^{****} (-0.631)	-0.530 ^{****} (-0.125)	-0.451 ^{****} (-0.095)	-0.572 ^{****} (-0.371)
Secular turbulence	-0.128 [†] (-0.191)	-0.132* (-0.091)	-0.075 [†] (-0.102)	-0.172* (-0.0913)	-0.283 ^{**} (-0.211)	-0.319 ^{****} (-0.194)	-0.310 ^{****} (-0.337)	-0.297 ^{****} (-0.107)
CV								
Cyclical turbulence	-0.107 (-0.097)	-0.118 (-0.068)	-0.194 [†] (-0.078)	-0.217* (-0.0613)	-0.166* (-0.252)	-0.178 ^{****} (-0.115)	-0.015 [†] (-0.166)	-0.041 [†] (-0.137)
Dynamic Industry	-0.032 (-0.400)	-0.042 (-0.179)	-0.010 (-0.388)	-0.020 (0.572)	-0.024 (-0.472)	-0.034 (-0.467)		
Large Organization							0.372 ^{***} (0.442)	0.671 ^{****} (0.235)
Finance Qualification			0.231* (0.156)	0.375 ^{**} (0.349)				
Financial Reporting			0.361* (0.272)	0.391 ^{**} (0.213)				
Junior			0.290* (0.216)	0.386 ^{**} (0.167)				
Time fixed-effects	Included (T1 [†] , T2 [†])		Included (T1 [†] , T2*)		Included (T1*, T7 [†] , T10 [†] , T11*)		Included (T1*)	
R sq.	0.152	0.335	0.236	0.446	0.470	0.470	0.311	0.337
Adj. R sq.	0.150	0.314	0.229	0.438	0.460	0.468	0.299	0.330
RMSE	0.178	0.170	0.289	0.110	0.101	0.100	0.167	0.157

[†]p<0.10 *p<0.05 **p<0.005 ***p<0.001 ****p<0.0001 ^aRegressions include time fixed-effects

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