

Forward Visibility and Management- Accounting-Based Controlling Current Practices in China Compared with Central Europe

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Abstract

This study examines business planning behavior in China. Its bases are an online survey of controlling departments in 124 Mainland enterprises and personal interviews with ten CFOs. The study compares its results with findings from a similar investigation undertaken in the German-speaking countries of Central Europe. The results are sobering in both locations: numerous companies make little or no use of business plans, while firms engaged in standard strategic, midterm or annual planning take too much time. Considerable cost reduction and a corresponding increase in forward visibility likely would result, particularly in China, if more enterprises used planning models, rolling budgets and forecasts, business drivers, and standardized software.

Keywords: budgeting, Chinese enterprises, controlling, forecasting, management accounting, planning

1. Introduction

As the economic processes of regionalization and globalization have progressed, competition among firms has intensified. Accordingly, changes in the business environment can occur more quickly. Such change may take place externally due to shifting customer preferences, introduction of new products and technologies, instability of financial markets, enactment of governmental regulations, and so forth. Change also may come about internally through decisions to reallocate investment resources, alter the balance between sustainability and quick responsiveness, accelerate the pace of innovation, adopt new strategies to deal with various scenarios, and the like.

Given its remarkable record of economic growth since inception of Deng Xiaoping's Opening Policy in 1978, these rapid changes pose particularly serious challenges for China. One of the biggest engines of Chinese economic growth in recent years – construction and other investment in the private sector – currently is sputtering, while exports just have begun to recover from a weak winter in 2013-2014 and retail sales are plateauing. That leaves government investment and spending, which are running strong, due to increased lending in the spring of 2014 by state-controlled banks to the national railroad system, local

governments, and state-owned enterprises (SOEs). Total lending now has risen faster than economic output, even before adjusting for inflation, in every quarter since late 2011. Yet private businesses are becoming less interested in borrowing money because they foresee fewer opportunities to invest it profitably.

This situation poses several interesting questions concerning forward visibility and management accounting-based control in Chinese enterprises. What is the current state of their planning and controlling processes? How much effort and time do they require? Do their plans and budgets focus on growth, sales revenue, and profitability? Or do they orient their planning and controlling on scenarios, which include opportunities, risks, and recognized business drivers as variables? How do they go about financial planning in order to remain liquid during difficult times? To what extent do Chinese planning and controlling practices resemble the behavior of their Central European counterparts?

This study answers those questions. To do so, it begins by defining some key terms. Next, it briefly reviews the relevant literature, develops hypotheses, and explains the methodology employed. After describing the chief characteristics of the firms surveyed and respondents interviewed, it then presents the main results. Following discussion of them, the study acknowledges its shortcomings, recommends improvements to Chinese managers and policymakers, and suggests possible avenues for future research.

2. Terminology

This section explains the meaning of the study's key terms. Its goal is not to arrive at generally acceptable definitions, but to ensure a common understanding of their usage here. The terms are: enterprise planning; budgeting; forecast or prognosis; rolling; strategic, midterm, and annual planning; operational planning; and business driver(s).

Enterprise planning is a concept covering a firm's business planning in general. It involves attempts to optimize the company's internal processes and structures in advance of future developments. The present study deals with financial and cost planning, where the purpose is to show the monetary consequences certain aspects of planning behavior are likely to have.

The term budgeting denotes an enterprise's resource allocation plan for the coming accounting period. One can view it as an agreement to pursue target goals established through negotiation between the firm's top management and its operational units. Annual target goals may or may not have their origins in a company's strategic and/or midterm planning processes. A business typically prepares its budget in detail, disaggregating it to the smallest planning units (i.e., cost centers).

A forecast or prognosis embodies the most precise possible estimate of enterprise-specific key performance indicators (KPIs) for some future period, chiefly the next business year. This estimate usually is less detailed than a budget and relies on general assumptions about changes in important external variables.

The attribute rolling connotes a plan or forecast covering a time period of fixed length. So, for example, a rolling annual plan – or more often a rolling prognosis – always looks ahead for the coming twelve months, regardless of the dates on which a business year begins or ends. Static budgets and forecasts give rise to uncertainty as one approaches the end of the current planning period because an authorized annual budget for the next period may not yet exist. Rolling plans and forecasts reduce such uncertainty by looking beyond the changeover from one business year to the next. Moreover, with rolling plans current business developments and actual results are more closely integrated and continually under scrutiny.

Strategic, midterm, and annual plans have different time horizons. In strategic planning, the time horizon extends more than five years into the future. Midterm planning covers an interval up to five years, while annual planning encompasses just twelve months. In most enterprises, the annual plan corresponds to the annual budget.

Operational planning deals mainly with an enterprise's current challenges and less with its overall profit or loss. It has a shorter time horizon (normally one year) and a strong focus on temporary measures as well as on sales revenue and unit sales. In comparison with other types of planning, operational planning places less emphasis on structural costs.

A business driver is the explanatory variable in an observable and measurable causal relationship, which can influence a company's future economic and cost situation as well as its market position. There are two categories of business drivers: external factors largely beyond a firm's influence, which affect general conditions and planning assumptions; and internal factors, which a company can control.

3. Planning Types

This study examines five main types of planning: strategic; midterm; annual; financial forecast; and scenario. Strategic planning is a core management task. It includes analysis, development, implementation, and controlling of important variables for the entire value chain. Among these variables are the desired market positioning and the business's long-term goals as well as identification and acquisition of competition-relevant resources. Strategic planning also encompasses structural and system decisions (e.g., IT-support). Whenever top management decides to implement strategic measures to attain enterprise goals, it needs to specify them in the form of assumptions and guidelines for shorter-term kinds of planning. So, for example, when a company's leadership communicates such measures as premises for its midterm and annual plans, they become increasingly detailed and more concrete as the planning proceeds until they are anchored everywhere within the organization.

A midterm plan therefore serves as a vehicle for communicating strategy and transferring strategic measures into a firm's medium-run activities. In many cases, however, observers have noted that strategic and midterm planning take place in complete isolation from other kinds of planning (Rottke, 2000; Leyk/Müller/Grünebaum, 2006).

The annual plan usually takes the form of a budget detailing sales revenue and costs, cash flow and working capital as well as management performance agreements for the coming year. Not infrequently, different enterprises emphasize different elements of an

annual plan (e.g., the budgeted statement of comprehensive income, the budgeted statement of financial position, and so forth) (Link/Orbán, 2002).

The financial forecast is an instrument for controlling attainment of budget goals and for documentation of variances. Hence, its sheer size depends on the amount of detail in the budget (Miller/Galeaz, 2007).

Originally developed in connection with strategic planning, scenario planning may involve aspects of systems thinking. It specifically recognizes that many factors may combine in complex ways to create sometimes surprising futures (due to non-linear feedback loops). These factors are key driving forces identified by considering social, technical, economic, environmental, and political (STEEP) trends. At the strategic level, scenario planning also allows inclusion of factors that are difficult to formalize, such as novel insights about the future, deep shifts in values, and unprecedented regulations or inventions. In combination with shorter-term plans, however, one usually prepares just for the most, best, and worst likely situations (Godet, 2000; Chermack/Lynham/Ruona, 2001; Goodwin/Wright, 2001; Phelps/Chan/Kalsalis, 2001)

Empirical investigations have shown that in numerous enterprises strategic, midterm, and annual planning consume too much time and manpower – even though the number of controlling employees has increased continuously since 2006. Juxtaposed to this unsatisfactory efficiency is a pronounced ineffectiveness. For instance, many managers find their plans out-of-date within the first few months of a new accounting period (Lynn/Madison, 2004; Leahy, 2005; Oehler, 2008). Consequently, the resultant forward visibility is quite limited.

The following are the main things so many businesses do wrong, that a few firms do so much better. Most enterprises make do with static plans, which have a striking flaw. Their information content often is unnecessarily voluminous, with too much detail both in breadth and depth. Consequently, their planning involves more and longer discussions, requiring additional rounds of coordination and negotiation that give rise to increasing, often excessive cost and effort. In contrast, business plans focusing more narrowly on concrete goals have less need for coordination, discussion, and detail. That, in turn, reduces the overall amount of planning cost and effort required, while boosting both efficiency and effectiveness (Barkalov/Martin/Wagner, 2010).

Two further features are crucial for an enterprise planning that is both efficient and effective. First, management must know its “business drivers”, i.e. the most important variables influencing the company’s success. The use of business drivers ensures – across almost all kinds of planning – minimization of avoidable planning effort and the necessary number of coordination rounds. Second, controllers need to use models that closely link together the various kinds of plans the firm employs (Rickards/Ritsert, 2013).

The utility of business drivers reveals itself in many different ways. They support planning simulations and decision processes, making goals easier to attain. A driver-oriented system of key performance indicators (KPIs), in combination with clear assignment of responsibilities and continuous controlling of all effects resulting from changes in the business drivers, can have an immediate impact on profitability (KPMG, 2007).

Controlling is an important element of a profit-oriented forward visibility. However, integration in a holistic performance management of all the instruments used in an enterprise's planning and controlling is decisive. In this regard, sensible employment of appropriate IT-systems does its part to achieve an enterprise planning that is transparent, efficient, and ultimately effective (PricewaterhouseCoopers, 2009).

4. Theory and Hypotheses

4.1. Theoretical Framework

Researchers increasingly have used institutional theory to study successful adoption of managerial innovations. It defines an institution as any collectively accepted system of rules, procedures, or practices enabling collective assignment of status functions to create deontic powers (Searle, 2005). It describes success as the extent to which organizations embrace societal norms of rational behavior (Meyer/Rowan, 1977). Innovation, in turn, is use of a new idea or adoption of an established idea in a new context (Kelly-Newton, 1980; Rogers, 1983).

Institutional theory also identifies external forces (e.g., performance gaps) and mimicry as dominant drivers of managerial decisions. When successful strategies become apparent, decision makers in other organizations may adopt them (Güth & Kliemt, 1998; Ostrom, 2007). Adoption transpires through three types of mechanisms: coercive isomorphism (exogenous pressures); mimetic isomorphism (imitation); and normative isomorphism (professional group standards). Isomorphism with the institutional environment, though, can generate conflict between externally legitimated ceremonial rules and internal technical activities requiring efficiency (DiMaggio/Powell, 1983 & 1991; Carruthers, 1995; Greenwood/Hinings, 1996; Fernandez-Alles/Valle-Cabrera, 2006; Lounsbury, 2008).

Scholars increasingly have couched their discourse on the diffusion of managerial innovations generally, and management accounting practice in particular, in terms of this theoretical framework (Scapens, 1994, Burns, 2000; Burns/Scapens, 2000; Yi/Tayles, 2009). Because institutions seek conformity with societal norms, some researchers have recognized a global tendency toward convergence of management accounting ideas, system designs, and practice (Granlund/Lukka, 1998). So, for instance, the diffusion of modern management accounting procedures across corporate enterprises in different countries ought to make the assortment of plans and controlling instruments in company toolkits more homogenous.

4.2. Chinese Institutions

The formal Chinese institutions in this study are state-owned enterprises (SOEs), privately owned enterprises (POEs), and joint ventures with foreign partners (JVs). Although nowadays they coexist and compete with one another in a mixed economy, many managers from the state sector continue to believe in the importance of central planning. In contrast, decision makers in the private sector increasingly have had exposure to Western methods of business planning through in-house training and work abroad. Interaction with foreign joint venture partners as well as new courses offered by the country's universities and consulting firms are helping to familiarize Chinese businessmen with modern management accounting practices too.

Besides China's formal economic institutions, there also are four important informal cultural institutions: Confucianism; the family; collectivism; and egalitarianism. These four institutions embody cultural norms that frequently may conflict with the pursuit of economic efficiency and effectiveness (Fei, 2004). Consequently, they constitute potential impediments to the adoption of management accounting-based controlling instruments.

4.3. Application of Theory to Chinese Practice

China's opening has led to complex institutional changes that have exposed its companies to intensifying domestic and foreign competition (Li/Poppo/Zhou, 2008). Both top Chinese Communist Party officials and enterprise managers also now are aware that the exponential growth rates they have enjoyed for three decades are coming to an end (Haltmaier, 2013). To meet the resulting challenges, the Chinese government and companies generally are eager to learn more about modern practices, including management accounting and controlling (O'Connor/Vera-Muñoz/Chan, 2011).

Only a few empirical studies of Chinese accounting practices have investigated the specific planning types in use rather than variables affecting the diffusion of Western approaches. That may be because the employment of Western, as opposed to traditional socialist, planning and budgeting controls by Chinese enterprises still is in its infancy. For example, planning appears to be one of the biggest challenges facing Chinese suppliers. In a sample of 55 firms, less than ten percent reported using formal master budgets based on sales forecasts and operations planning. Moreover, there was a marked lack of coordination in such planning functions as marketing and purchasing when compared to world-class norms (Handfield/McCormack, 2005). The situation is similar at many Chinese firms in other industries, where the most widely adopted management control practices are strategic planning and budgeting systems (Chow/Duh/Xiao, 2007).

4.4. Hypotheses

This study tests hypotheses based on the theoretical framework and findings from prior research, chiefly a survey on forward visibility undertaken in the Central European countries of Germany, Austria, and Switzerland (Barkalov/Martin/Wagner, 2010). There, enterprises most often employ annual budgets and financial prognoses, followed by strategic, midterm, and scenario planning. The amount of detail involved and the number of coordinating rounds required in plan preparation are highly correlated. Because both the details and the coordinating rounds increase as one proceeds from strategic to midterm to annual planning, so too does the amount of time consumed. Most details pertain to planned sales revenue and costs, which are the main considerations in annual budgets. On account of its limited amount of detail, a financial forecast needs relatively little coordination and thus the least preparation time.

H₁: In descending order, the most frequently used kinds of plans are annual budgets, financial forecasts, strategic, midterm, and scenario planning.

H₂: From strategic through midterm to annual planning, the amount of time consumed increases.

H₃: Planning sales revenue and costs are the primary foci of annual budgets.

H₄: Planning involving fewer coordination rounds tends to go faster.

H₅: The financial forecast requires the least time to prepare.

Ideally, top management takes feedback from operational departments into consideration before finalizing strategic decisions. It then communicates strategic guidelines to those departments as the basis for preparation of midterm and annual plans. Enterprise

planning thus involves multiple top-down and bottom-up coordination rounds. Using a one-time defined handbook and following strategic guidance, the controller service next disaggregates the company's overall goals and assigns them to its various business units and operational departments. For most firms, the sales plan, disaggregated by product groups and individual products, serves as the starting point for annual planning. Cost drivers link strategic projects to annual budgets. There also is strong linkage between a business's annual financial and operational planning. Likewise, the controller coordinates the major financial subplans with one another. Return on sales (ROS), cash flow, capital turnover, and EBIT/EBITDA are important key performance indicators (KPIs) in planning for an enterprise's success. Before ending the planning process, participants test the plausibility of their assumptions and decisions about business drivers by analyzing them in various scenarios (Nevries/Strauß/Goretzki, 2009).

H₆: Top management takes feedback from operational departments into consideration in its strategic planning process.

H₇: Top management communicates strategic guidelines to the operational departments.

H₈: Planning involves multiple top-down and bottom-up coordination rounds.

H₉: Cost drivers link strategic projects to annual budgets.

H₁₀: The sales plan, disaggregated by product groups and individual products, serves as the starting point for annual planning.

H₁₁: Disaggregation of overall goals to business units and reliance on a one-time defined handbook are more likely to initiate the annual planning process than external events.

H₁₂: There is strong linkage between a company's annual financial and operational planning.

H₁₃: Major financial subplans are coordinated with one another.

H₁₄: Return on sales (ROS), cash flow, capital turnover, and EBIT/EBITDA are equally important key performance indicators (KPIs) in planning for an enterprise's success.

H₁₅: Planners analyze key business drivers in various scenarios.

Nowadays, enterprises make considerable use of big data sources in their planning. They analyze these sources with off-the-shelf software and use the analytic results to improve their planning processes. Moreover, companies employ integrated planning models that also support scenario calculations and simulations (Biesdorf/Court/Wilmott, 2013).

H₁₆: Use of big data sources is widespread.

H₁₇: Chinese enterprises analyze big data sources with off-the-shelf software.

H₁₈: Chinese firms use output from analysis of big data sources to improve their planning processes.

H₁₉: Chinese businesses have an integrated planning model in enterprise-wide use that they also use for scenario calculations and simulations.

3. Methodology

3.1. Survey and Interview Questionnaires

To learn about planning and controlling in Chinese companies and to evaluate their current practices, the authors prepared and pre-tested a Mandarin-language online survey with closed-ended questions. The contact persons, who identified potential respondents for the survey, came from a population chosen for its convenience: former students; classmates; friends; and acquaintances. The authors then made the survey available to the potential participants to answer anonymously on a voluntary basis. To limit weaknesses inherent in online surveys, the authors subsequently conducted ten personal interviews with a subset of the respondents. These interviews helped to corroborate and extend the study's findings.

3.2. Data Collection

The target populations consisted of (1) the internal management control departments of Chinese enterprises for the online survey, and (2) company CFOs for the interviews. The survey went online in mid-March 2013. The authors e-mailed a reminder letter two weeks later. Although survey data collection formally ended in mid-April 2013, seven surveys received a bit later also were included in the data analyzed. In total, 124 of the 313 companies making up the panel responded. Relative to the response rates associated with most survey research, the nearly 40 % participation rate attained here appears to be quite respectable. In comparison, Central European researchers sent their survey to 1,300 companies, left it online for six months, and received 107 completed questionnaires for a response rate just 8 %. In addition to the Chinese online survey, four personal interviews with Mainland CFOs took place during June and another six in September 2013.

3.3. Descriptive Characteristics of the Surveyed Enterprises

Figure 1 shows the distribution of participating companies by industry. 88 of these mentions fit into one of the 17 specific category choices. The branch most frequently mentioned (22 times or 25.0 %) was financial services, which includes banking, accounting, auditing, brokerages, investment advice, and so forth. The categories other manufacturing, machine-building, utilities, construction, and telecommunications also were relatively common answers.

The composition of Chinese GDP by sector is: agriculture 10.1 %; industry 45.3 %; and services 44.6 % (CIA, 2012). Excluding agriculture, industry and services therefore stand in the ratio of 50.3 % : 49.7 % to one another. For the 88 enterprises in the sample studied, whose sector could be identified unambiguously, the ratio is industry (automobile, construction, chemical, other manufacturing, consumer goods, food processing, machine building, pharmaceutical and health care, raw materials, and software) 47.7 % : services (retail, financial services, IT, logistics, telecommunications, insurance, and public utilities) 52.3 %. Hence, the distribution of firms by sector in the sample approximates the structure of the Chinese economy outside agriculture and mining rather closely.

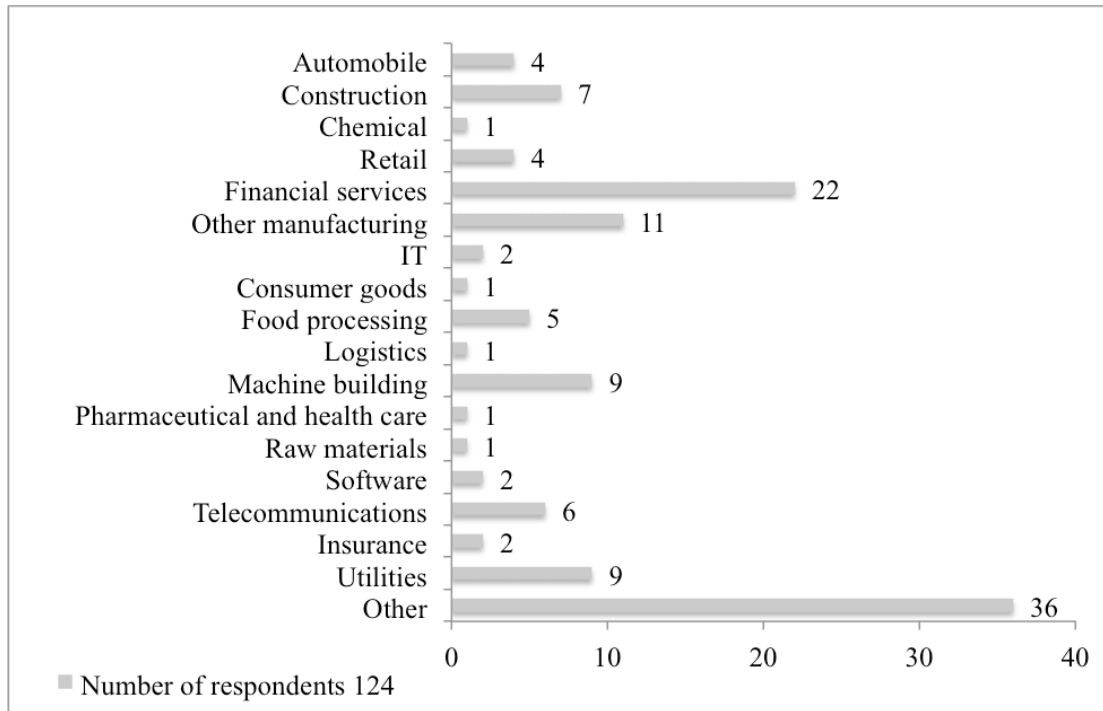


Figure 1. Participating Companies by Industry

Most businesses (70) participating in the study were small- and medium-size enterprises (SMEs), with fewer than 250 employees. Nevertheless, the study population's range on this measure was wide, extending to 11 companies with more than 50,000 workers each. Classified according to sales revenue in 2012, the distribution was more even, with 35 companies reporting less than ¥ 250 mio. and 15 enterprises recording over ¥ 50 bil.

The firms also displayed an interesting mix of ownership forms. Wholly private ownership was the dominant form (76 companies), followed by wholly state-owned enterprises (31). However, there also were state-owned businesses with minority private participants (7) and privately-owned businesses with minority participation by the state (8). Furthermore, 17 of the enterprises were Chinese joint ventures with a foreign partner.

In keeping with the firms' ownership form, 110 employ Chinese accounting standards, while 16 use International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS). In addition, eight report on another basis, chiefly USGAAP (United States' Generally Accepted Accounting Principles) or the German *Handelsgesetzbuch* (HGB). Because there were 134 responses by 124 firms, some of them must be doing their accounting and reporting according to two different sets of standards.

Asked to compare their enterprise's success with that of their strongest competitor, 24.2 % of the respondents felt they were markedly less successful, 20.0 % less successful, and 25.8 % just as successful. In contrast, 16.7 % felt more successful and 13.3 % markedly more successful than their chief rival.

The principal benchmark study used for comparison here reports no demographic information about respondents and relatively little about the Austrian, German, and Swiss enterprises it includes (Barkalov/Martin/Wagner, 2010). However, a pie diagram classifying its participating firms according to ten categories shows 18 % in services, 15 % in the automotive industry, and 13 % each in utilities and machine building. In comparison, the

percentages for the four industries found most frequently in the present study are 26 % in financial services, 13 % in other manufacturing, 11 % in utilities, and 8 % in construction. The two study populations therefore differ somewhat in their composition, with the automotive industry and machine building being relatively more important in Central Europe versus financial services and construction in China.

4. Results

4.1. Types of Plans Made, Time and Effort Required

Survey respondents answered questions about the types of planning in which they engage as well as the amount of time and effort involved. As shown in Figure 2, most frequently mentioned were annual planning/annual budgeting (87 %) and forecasting of yearend-likely financial values (79 %), followed by midterm planning (67 %), strategic planning (61 %), and scenario planning (54 %). Comparative data on the first four types of planning are available for Central European companies: annual planning/annual budgeting (87 %); forecasting of yearend-likely financial values (60 %); midterm planning (58 %); and strategic planning (56 %). Although Chinese enterprises are more likely to forecast their yearend financial values, the two patterns of planning usage nevertheless are quite similar.

	Strategic Planning	Midterm Planning	Annual Planning/ Annual Budget	Financial Forecast	Scenario Planning
Yes	63	62	94	73	47
No	41	31	14	20	40
Total	104	93	108	93	87
Missing	20	31	16	31	37
Yes/Total	61 %	67 %	87 %	79 %	54 %

Figure 2. Kinds of Planning Used

Figure 3 profiles the time companies devote to each of the planning types investigated. For the most frequently used form, annual planning/annual budget, 27 companies need between 15 and 30 man-days. The range, though, is quite wide, with 29 enterprises requiring six man-days or less, while another 11 firms take more than 90 man-days for this task.

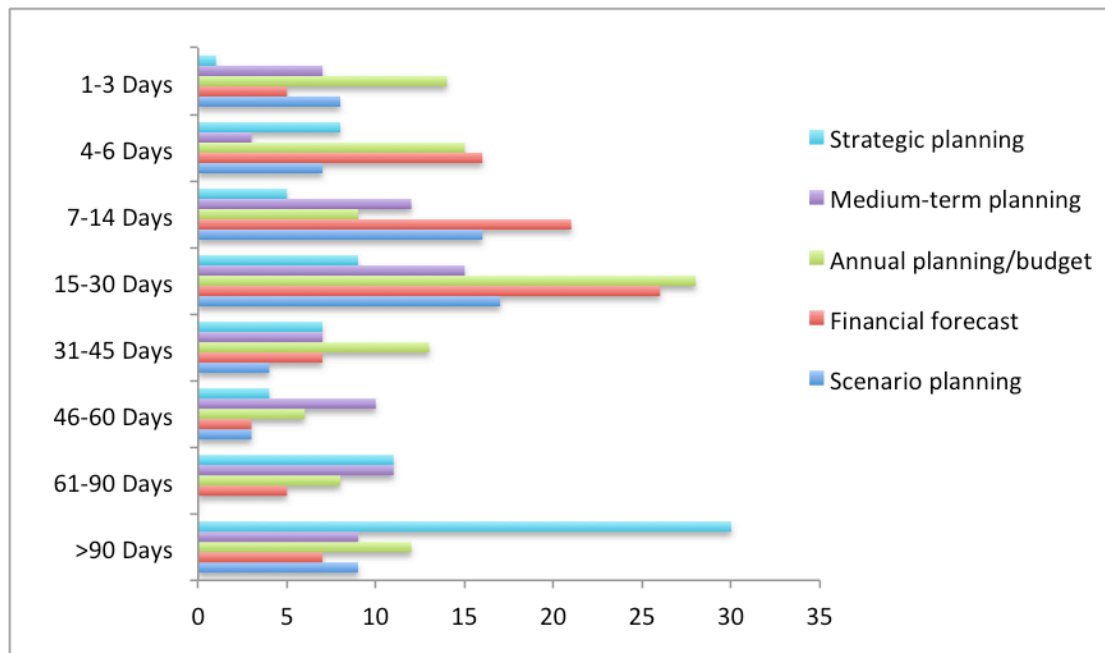


Figure 3. Days Needed To Complete Planning

Forecasting yearend financial values, in turn, generally goes more quickly. 64 of the 86 reporting companies complete their forecast in 30 man-days or less. This result makes sense because the forecast's purpose is just to predict the future state of the enterprise's business development as accurately as possible (Leyk, 2006; Bartl/Schneider, 2011). A budget, on the other hand, usually has linkage to a binding service contract between management levels and represents an authorized plan of action for reaching a certain goal condition. It therefore necessarily involves more planning input (Rickards/Ritsert, 2012).

The Chinese enterprises engaging in midterm planning also seem to accomplish it relatively quickly, with half of them taking a man-month or less. The same is true for the least frequently undertaken type of planning, scenario analysis. That is unsurprising because one usually analyzes various scenarios in connection with short-term operational decisions requiring prompt action. For strategic planning, on the other hand, over half the firms use more than two man-months.

Compared with their Central European counterparts, again a broadly similar pattern emerges. There, too, financial forecasting requires the least time, with 86 % of the companies needing two weeks or less. However, it goes much faster in Austria, Germany, and Switzerland – on average just 11 man-days. In contrast, annual planning/annual budgeting takes Central European firms about the same time, an average of 28 man-days, with 24 % of the participating companies requiring more than 45 man-days for the job (versus 22 % in China). 65 % and 70 % of the enterprises in German-speaking countries complete their midterm and strategic planning, respectively, in less than two weeks. While 51 % of the Chinese firms surveyed match this figure for midterm planning, only 20 % finish their strategic planning so quickly.

Central European controllers emphasize differing areas in making their various types of plans. Consequently, whether Chinese controllers do likewise, and, if so, which areas are most important to them comprise interesting questions in this context. Figure 4 summarizes the average time Chinese controllers say they spend planning sales revenue, costs, cash flow, liquidity, working capital, and other aspects for annual planning/annual budgeting, financial forecasting, and scenario planning.

	Sales revenue	Cost	Cashflow	Liquidity	Working Capital	Others
Annual planning/Annual budget	31%	23%	13%	11%	12%	14%
Financial forecast of year end likely values in Statement of Financial Position, Statement of Comprehensive Income and Cash Flow Statement	28%	22%	13%	13%	14%	14%
Scenario planning	27%	21%	14%	12%	13%	15%

Figure 4. Planning Foci

The sum of the means across these areas for each plan yields a bit more than 100 %. That suggests the reported numbers are somewhat imprecise. For all three planning types, though, controllers spend the most time on sales revenues and costs. The relative time spent on them is greatest for the annual plan/annual budget, while that for cash flow, liquidity, working capital, and other aspects is greater in financial forecasting and scenario analyses.

Even greater imprecision is apparent in the data for the time Central European controllers dedicate to the same aspects of their planning. Nevertheless, the behavioral pattern is similar. Sales revenue and costs are the dominant foci, especially in annual planning/annual budgeting. Though absolutely less important, the other planning areas play relatively larger roles in financial forecasting and scenario analyses.

The number of meetings to coordinate decisions taken at various managerial levels tends to retard completion of planning processes. Figure 5 portrays respondents' answers to questions about the number of coordinating rounds required for the five types of planning in their enterprise. Financial forecasting and scenario analyses need the least coordination, with 73 % of respondents saying three or fewer meetings are necessary. Although annual planning/annual budgeting may require only one or two coordinating rounds (31%), the bulk of Chinese firms need between three and six (55 %) sessions to complete this task. The same is true for midterm planning, where 77 % of the enterprises have between three and six meetings to coordinate estimates. Strategic planning requires the most coordination, with 50 % of the companies needing from three to six sessions and another 34 % holding

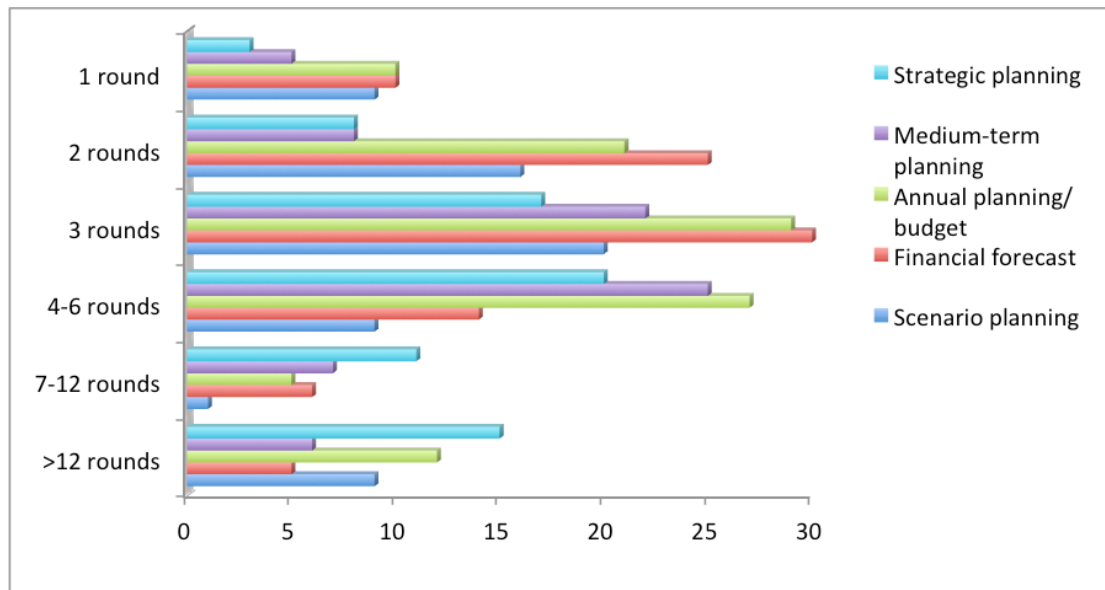


Figure 5. Coordinating Rounds Needed To Complete Planning

seven or more meetings for that purpose.

Relative to their Central European peers, Chinese planning practices involve more rounds of adjustments. Three or fewer meetings are necessary for forecasting in 83 % of the former firms, 48 % for annual planning/annual budgeting, 63 % for midterm planning, and 71 % for strategic planning.

4.2. Communication, Data Sources, KPIs, Software, and Linkages

Figure 6 shows that 68 of 117 companies (58 %) give strategic guidelines to their operational departments, but only 43 of them (36 %) link strategic initiatives and projects with operational planning via business drivers. While 58 enterprises (48 %) reported having multiple top-down and bottom-up coordination rounds for operational planning, somewhat fewer, 49 (41 %) also integrated feedback from operational departments into their strategic planning process. Hence, considerable room exists for improved linkage between strategic and operational planning in all four of these respects.

	Strategic guidelines are given to operational departments	Strategic initiatives/projects are linked to operational planning via business drivers	There are multiple top-down and bottom-up coordination rounds	Operational departments' feedback is considered in the strategic planning process
Yes	70	43	58	49
No	50	77	62	71
Total	120	120	120	120
Missing	4	4	4	4

Y/Total	58 %	36 %	48.3 %	40.8 %
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Figure 6. Linkages between Strategic Goals and Operational Planning

Figure 7 depicts Chinese controllers' responses to a question about how they communicate goals, the planning process, and deadlines to the various departments in their enterprise. 29 companies or 26 % use a one-time defined planning handbook, updated with new annual goals, for this purpose. Corporate controlling assumes responsibility for coordinating the budget preparation process. However, the majority of firms, almost 60 %, additionally disaggregates overall goals for their subordinated business units, specifies assumptions made about future developments, and adjusts figures at regular intervals. Their top management defines subordinates' roles and responsibilities clearly. Extensive individual contributions to plan fulfillment are transparent and communicated largely through reports. For the smallest group, 14 % of the surveyed enterprises, external events trigger the planning process, which is not exclusively co-terminus with the business year. Business drivers constitute an integral part of their planning process, and reporting is both flexible and scenario-based. In these companies, business drivers are an integral part of the reporting and controlling for every department.

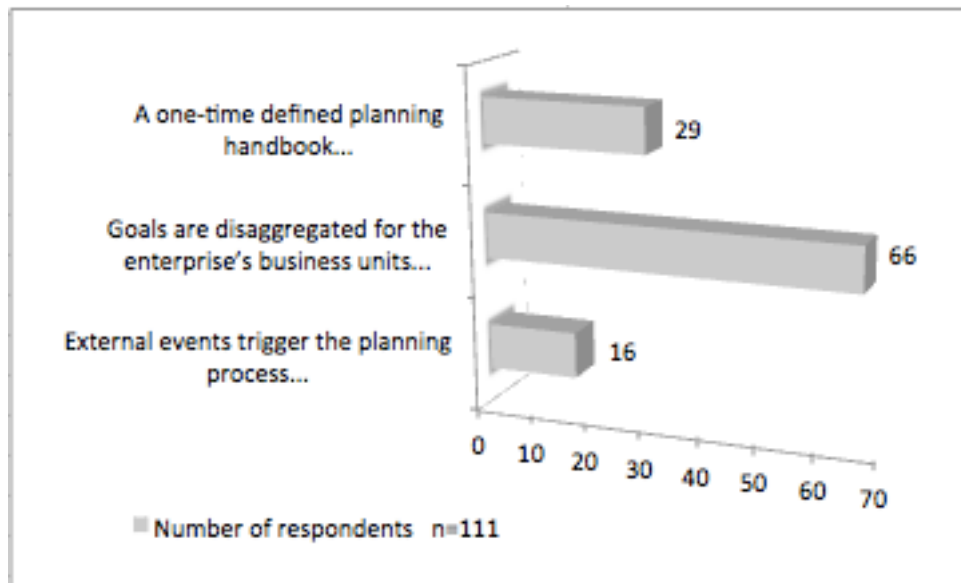


Figure 7. Communication Modes for Planning

Respondents then ranked four key performance indicators in keeping with their perceived importance for planning, forecasting, and budgeting. Figure 8 lists them in their order of importance according to the weighted average of their ranking): return on sales, cash flow, ebit/ebitda, and capital turnover. The percentages of enterprises ranking an indicator as most important are: return on sales (41%); cash flow (26 %); ebit/ebitda (21 %); and capital turnover (12 %). In Central Europe, ebit/ebitda is by far the most important KPI (39 %), followed by cash flow (19 %), profit and net sales revenue (11 % apiece). Although these differences in KPIs suggest divergent management strategies, there is no a priori reason to believe one necessarily is superior to the other.

The survey next queried Chinese controllers about linkages between their various plans. Here, a respondent could select one or more of the three descriptions as applicable to his/her enterprise.

Figure 9 reports the answers, which again become increasingly sophisticated as one proceeds from the top to the bottom. While 74 of 124 firms (60 %) communicate the relevant assumptions in writing, and 56 (45 %) integrate their strategic goals into short-term plans in some other transparent way, just 30 (24 %) have an enterprise-wide, integrated model for all types of planning that also can support scenario calculations and simulations.

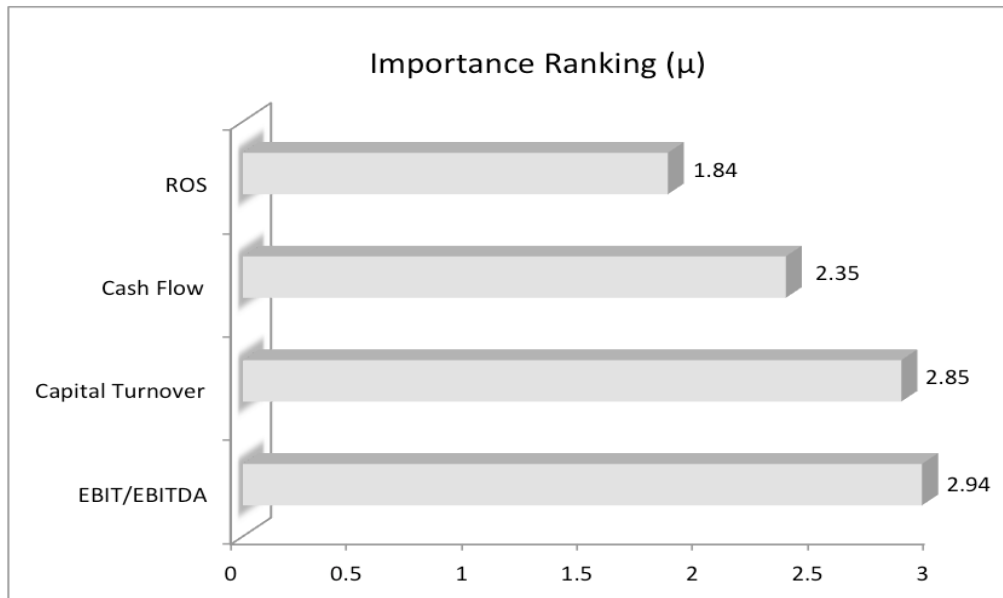


Figure 8. Success Indicators Used in Planning

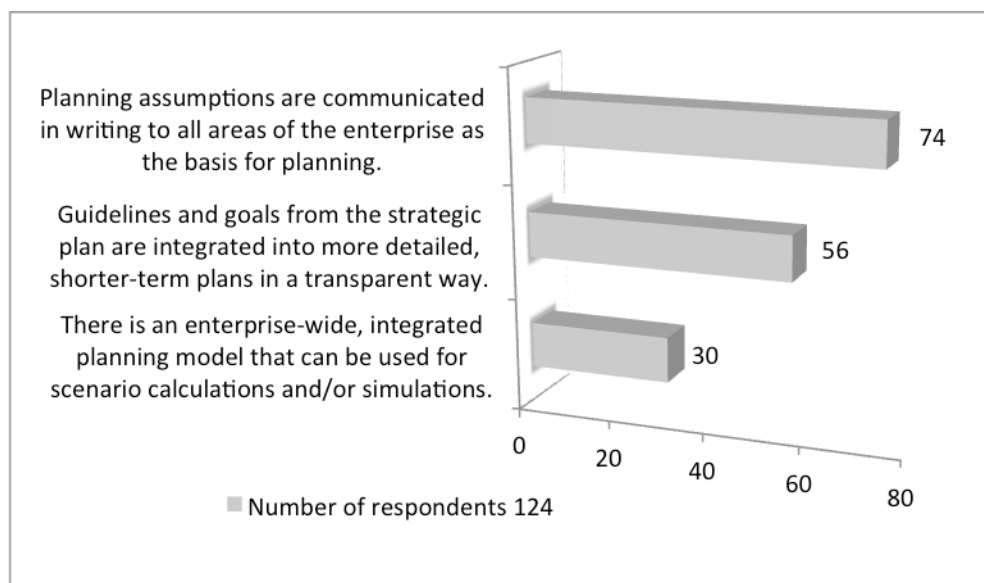


Figure 9. Linkages Between Plans

The corresponding data for Central European planners show 73 %, 45 %, and 26 %, respectively, chose the first, second, and third description. At the intermediate and advanced levels, Chinese and Central European practices concerning linkage between plans are almost identical.

The survey investigated linkage with regard to financial plans too. 92 of the Chinese firms (79 %) reported coordinating their major financial subplans (budgeted statements of financial position, comprehensive income, and cash flows, as well as the capital budget) with one another. 93

respondents (80 %) said they linked their financial and operational planning too. However, just 55 (47 %) used a general planning model to link their operational subplans with their financial planning. Still fewer, 38 (32 %), additionally analyzed key business drivers in various scenarios. Thus, there also is room for improvement in the use of models and business drivers.

The last question in this section of the survey inquired about linkage between functional departments in the form of an integrated plan. Figure 10 shows that 30 (24 %) of participating companies said their planning for functional areas takes place in isolated silos and is based largely on historical data. On the other hand, 57 enterprises (46 %) reported their production and procurement planning as linked with their sales planning. Another 30 (24 %) of the businesses employed the most advanced form of linkage, using their sales plan, disaggregated for products or product groups, as the starting point for their functional planning in an end-to-end process.

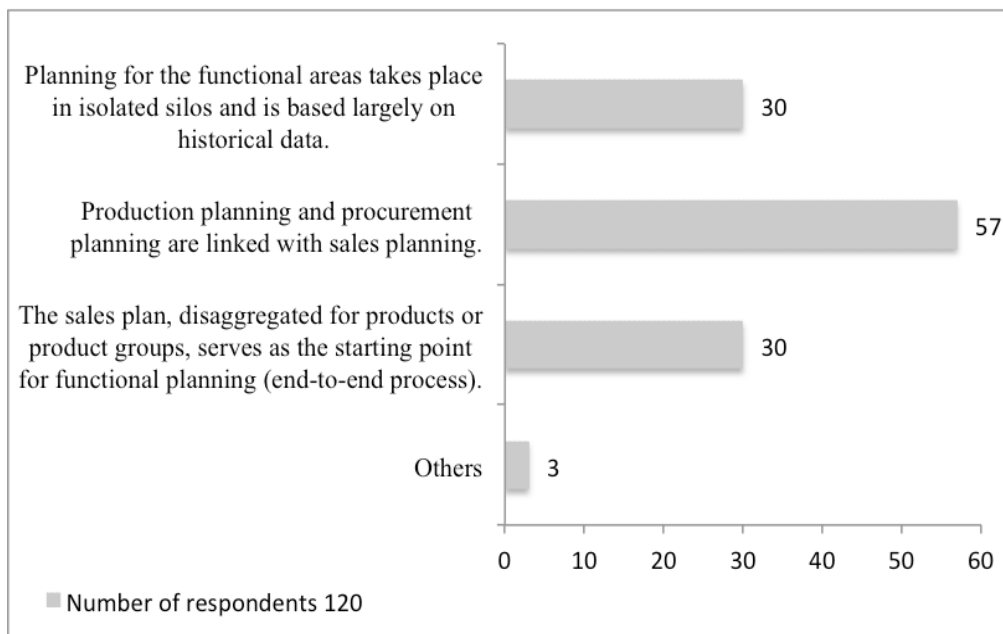


Figure 10. Integration of Plans

71 % of the Chinese companies surveyed use big data sources (e.g., clickstream data, online data, and information from social media or intelligent devices). Yet only 30 % of them have an off-the-shelf software tool to analyze big data sets for use in prognosis models and decision-making. Moreover, just 49 % utilize the output of their software analytic tools to improve and assist their planning. No comparable Central European data are available in this regard or with respect to communication practices for planning. Nevertheless, one must wonder why so many Chinese users of big data have not invested in software for analyzing them and are not using the output to better their plans.

5. Discussion

The results reported above support the first five hypotheses regarding the types of planning Chinese enterprises use, the time and number of coordination rounds required to prepare them, and the annual budget's primary foci. Furthermore, insofar as comparable data are available, Chinese planning and controlling behavior appears quite similar to that of Central European companies in most of these respects. Although not tested here, the findings do not challenge institutional theory as an explanation for the diffusion of Western management

accounting innovations in China following Deng Xiaoping's Opening Policy (Firth, 1996; O'Connor et al. 2004; O'Connor et al. 2010).

Another noteworthy similarity is that in both China and Central Europe, a sizable percentage of firms engage in no planning at all, not even budgeting or forecasting. Interviews conducted with CFOs suggest some reasons for this phenomenon in China are related to a company's size. Besides lacking trained personnel and the requisite IT-support, smaller businesses' managers often have an imperfect understanding of controlling. If they think about it all, they usually do so in terms of internal accounting control, cost control, and/or risk management. These managers mostly are concerned with obtaining and fulfilling the next contract rather than the relationships among planning, controlling, and forward visibility. Last but not least, there are cultural impediments too, such as the Confucian notions of 关系 or *guan xi*, "personal obligations," 面子 or *mian zi*, "saving face," and the negative connotation of "control" in Chinese. Being personally obligated to someone may be more decisive in, say, placing an order than any information about efficiency or effectiveness. Likewise, attributing favorable variances to someone can cause embarrassment in a society that values the appearance of modesty and equality, just as unfavorable variances can lead to a manager's loss of his colleagues' esteem.

While the foci of annual budget planning differ between Chinese and Central European enterprises, cash flow is relatively unimportant in both of them. This finding is surprising because during the world financial crisis of 2008-2010, many companies previously fixated on sales revenue and costs discovered the importance of cash flow. It can help offset some of the distress that arises when an abrupt collapse of demand leads to diminished utilization of capacity and profitability comes under strong downward pressure. In contrast, the alternative, to adjust capacity accordingly, is not very attractive, especially if one expects demand to recover in the midterm. In order to remain profitable and to meet existing financial obligations, one prefers to emphasize generating and freeing up cash instead.

The use of big data sources is not yet widespread in China. Otherwise, evidence from testing the remaining hypotheses reveals weak to moderate tendencies supporting them. Together with information from the CFO interviews, this support suggests that most Mainland businesses, like their Central European counterparts, engage in rather standard kinds of planning and controlling procedures. Their strategic planning encompasses goals, scenarios, and project initiatives. Yet it yields more qualitative results than quantitative guidelines. Top management frequently does not disaggregate strategic goals for individual departments. Consequently, strategic and operational planning usually are separate processes with limited linkages between them and different purposes. Disaggregated planning tends to take place in isolated functional silos, often on the basis of an individual department's own planning assumptions. Middle management's concrete operational goals therefore crystallize during the annual budgetary process. Sales revenue and costs are the primary foci of highly detailed budgets, forecasts, and scenario plans. Prepared substantially in advance of their actual use, these instruments seldom can accommodate short-term developments. Moreover, because ambitious plans are more important than accuracy, budgets usually lose their relevance early in an accounting period. Indeed, in China, a budget is merely a guideline that a manager should not take too seriously lest it restrict his room for maneuver (Wang, 2007). Resource allocation thus is the subject of negotiations and involves numerous coordination rounds. A handbook of rules provides for coordination and communication within the planning processes. Different business units employ different tools, largely developed in-house using spreadsheets, as IT-support for these processes.

In Central Europe, standard controlling takes too long due to ignorance about the key drivers of a company's business, corresponding excess detail in planning and too many coordinating rounds, few linkages between plans, and a dearth of elegant models as well as insufficient IT-support (Barkalov/Martin/Wagner, 2010). As shown here, in comparison Chinese standard planning and controlling take longer, have fewer linkages, and involve more coordinating rounds. Presumably, they thus are even less efficient and effective.

Standard planning and controlling measures yielding very limited forward visibility may have been adequate for China when it was at a lower level of economic development. Domestic and foreign demand was such that the market absorbed almost everything enterprises produced. Managers could externalize costs associated with planning inefficiency and ineffectiveness to the workforce or the environment. However, the country now wants to move up the value chain in the face of heightened competition, while Chinese employees have become more assertive about their rights and citizens more aware of environmental degradation. Hence, standard controlling increasingly is not up to meeting current challenges or the ones lying ahead.

6. SHORTCOMINGS

The current research has three major shortcomings. First, the study population is not a random sample of the universe of Chinese businesses. Accordingly, the results presented here describe only the convenience population investigated. Second, interview data to corroborate and extend the study findings have not yet undergone systematic analysis. Third, due to the space constraint, it was not possible to report simultaneously about statistical associations between various explanatory variables and the planning behavior presented here. The authors are in the process of redressing all three of these shortcomings.

7. POLICY AND RESEARCH RECOMMENDATIONS

To meet the challenges of increasing competition, Chinese enterprises need world-class planning and controlling capabilities. Practically, that means quantifying the effects of strategic initiatives and linking them with midterm and annual plans as well as operational plans and business drivers. Companies need to establish feedback loops in their strategic planning in order both to adjust to changing conditions and to attain the „buy-in“ of operational units. Top management should set its goals in terms of performance relative to performance in comparison to external and internal benchmarks (“beat the competition and beat the budget”), while eliminating factors over which managers have no influence (“split luck from effort”). Firms should base their planning and controlling on enterprise-wide assumptions and prepare alternative plans for certain scenarios and risks. Their financial and sales planning ought to include future-oriented elements such as sales-funnels, market potential studies, and sales effectiveness measures. They should base their planning for production, procurement, and support functions on a uniform model. With it, they ought to simulate various levels of capacity usage and production scheduling, paying close attention to the efficiency of various production sites and periods of peak demand. Businesses must understand that modern planning and controlling are continuous processes and therefore make use of rolling budgets and prognoses. That is, external and internal events, rather than the calendar year, should trigger planning procedures. Personal performance contracts should

reward contributions to prognosis accuracy. An internal marketplace ought to allocate investment resources based on projects' estimated value added. IT should include horizontally and vertically integrated tools supporting the complete planning cycle. Enterprises should procure new tools based on a long-term vision for IT development, which management coordinates with the company's strategy.

However, as long as the economy continues its swift expansion and they can externalize the costs of inefficiency to their workforce and the environment, there will be little incentive for Chinese companies to change their controlling operations. While such efforts gain traction, more future-oriented firms in the meantime could gain a long-term, competitive advantage by recruiting, training (in-house or externally), and supporting qualified controlling personnel. That is precisely what Anglo-Saxon companies' subsidiaries and a few local first-movers (notably the Controller Akademie) did in Germany and Austria in the 1950s and early 1960s (Rickards, 2007).

Interested businesses and the government could encourage and reinforce development of controlling in China by establishing more chairs for teaching and research in this area at some of the country's leading universities. They also could lobby for reform of accounting curricula to include the possibility of majoring in controlling and greater instructional emphasis on modern management accounting skills. Expansion of in-house and external training programs to familiarize managers with controlling tools and their practical application would be appropriate too. Government support, perhaps through tax credits, for controlling training and IT-support in China's family-owned SMEs, could have a major impact on enterprises hitherto outside the mainstream of accounting modernization. These steps would lay the foundation for more rapid expansion of the country's controlling capabilities in the future.

Of course, many obstacles to such measures remain, including government or holding company interference or withholding of decision rights, top managers' lack of knowledge about controlling and its importance, employee resistance to change, and the ability to rely on informal business relationships rather than improve efficiency and effectiveness. Yet none of these obstacles should prove insurmountable in face of determined efforts.

Following this first phase of their research, the authors intend to continue examining various aspects of management-accounting-based controlling in Chinese enterprises. In their next survey and round of personal interviews, they want to explore the use of business drivers in planning, budgeting, and forecasting, the availability and quality of IT-support for these activities, and the current state of Chinese corporate performance management. They also would like to form a large panel of participants. Doing so would have several advantages. To begin with, it would permit time-series analysis of the introduction and diffusion or dissemination of modern management accounting techniques. Working together over time, it is conceivable that a relationship based on greater trust would evolve that would facilitate accessing companies' internal documents and observing their procedures directly. In turn, that would lessen the findings' exclusive dependence on managers' perceptions and what they choose to reveal about them in their survey or interview responses. Working with a large panel also may prove helpful in increasing the number of personal interviews with CFOs and finance directors, thereby enhancing their reliability and usefulness for analysis.

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