

STRATEGY MAKING AS ITERATED PROCESSES OF RESOURCE ALLOCATION

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Capitalizing on the Bower–Burgelman process model of strategy making in a large, complex organization, we investigate the multilevel managerial activities that lead firms facing similar new business opportunities to respond with different strategic commitments. Our field-based data provide evidence on (1) the role of 'corporate contexts' that reflects top managers' crude strategic intent in shaping strategic initiatives of business-unit managers; (2) the critical influence of early business development results on increasing or decreasing middle managers' enthusiasm to the new businesses and top managers' confidence in these middle managers in a resource allocation; (3) the escalation or deescalation of a firm's strategic commitment to the new businesses as a consequence of iterations of resource allocation. We conclude that it is useful to conceptualize strategy making in a large, complex firm as an iterated process of resource allocation.

INTRODUCTION

Despite that many well-known discussions of strategy invoke the image that strategy is a course of action consciously deliberated by top management (e.g., Chandler, 1962; Andrews, 1971) or an analytical exercise undertaken by staff strategists (e.g., Ansoff, 1965; Porter, 1980), descriptive analysis of the complexity of real organizational phenomena challenges such simplified conceptualization (e.g., Allison, 1971). An explicit recognition of inherent organizational complexities, often described as 'possible goal incongruence,' 'information asymmetry,' and 'organizational politics' (e.g., Barnard, 1938; Simon, 1945; Cyert and March, 1963; Crozier, 1964), as well as 'unpredictable' and 'uncontrollable' environments (e.g., Schumpeter, 1934; Nelson and Winter, 1982; Thompson, 1967; Pfeffer and Salancik, 1978; Miles, 1982), has led some strategic management scholars to describe how

strategy is actually formed instead of prescribing what it should be. Findings from their empirical studies suggest that strategy is, more or less, emergent from lower levels of organizations (e.g., Mintzberg, 1978; Pascale, 1984; Mintzberg and Waters, 1985), whether through trial-and-error learning (Mintzberg and McHugh, 1985), incrementally with logical guidance from the top (Quinn, 1980), or such that small changes are often punctuated by a sudden big change in a relatively short period (Miller and Friesen, 1984; Tushman and Romanelli, 1985; Gersick, 1991). From this *strategy process* perspective, strategy is 'a pattern in a stream of decisions and actions' (Mintzberg and McHugh, 1985: 161) that are distributed across multiple levels of an organization.

Whereas some of the scholars associated with this line of research see the process as unguided or 'muddling through' (e.g., Lindbloom, 1959; Wrapp, 1967), others see part of top management's task as intervening in the emergent strategy process and attempting to maneuver the enterprise to a preferable course of direction. These scholars explore multilevel managerial

Key words: strategy process; resource allocation; role of top managers; new business development; strategy and evolution

activities that shape the strategy process, interacting with external and internal forces. Bower (1970) initiated this line of inquiry by conducting an intensive field-based study on strategic planning and capital investment in a large, diversified firm and presenting a parsimonious framework, grounded in the field data, for understanding the interplay of those managerial activities. His process model was validated by subsequent field studies in different organizational settings and on various strategic processes (see Bower and Doz, 1979, for the details of these studies). It was then further extended by Burgelman (1983a) in his clinical study on internal corporate venturing (ICV) in a large corporation.

The Bower–Burgelman (B–B) process model of strategy making in a large, complex firm depicts multiple, simultaneous, interlocking, and sequential managerial activities over three levels of organizational hierarchy (i.e., front-line or bottom, middle, and top managers) and conceptualizes intraorganizational strategy-making processes as consisting of four subprocesses: two interlocking bottom-up core processes of ‘definition’ and ‘impetus’ and two overlaying corporate processes of ‘structural context determination’ and ‘strategic context determination.’ *Definition* is a cognitive process in which technological and market forces, initially ill defined, are communicated to the organization, and strategic initiatives are developed primarily by front-line managers who usually have specific knowledge on technology and are closer to the market (Chakravarthy and Lorange, 1991; Jensen and Meckling, 1992). *Impetus* is a largely sociopolitical process by which these strategic initiatives are continually championed by front-line managers, and are adopted and brokered by middle managers who, in doing so, put their reputations for good judgment and organizational career at stake. The role of top managers is limited in that they do not necessarily have the appropriate knowledge or information to evaluate technical and economic aspects of the strategic initiatives, and tend to rely on the track records or credibility of proposing middle managers in making resource allocation decisions (Bower, 1970).

Strategic initiatives therefore ‘emerge’ primarily from managerial activities of front-line and middle managers, as implied by the Carnegie school bottom-up problem-solving perspective (Simon, 1945; Cyert and March, 1963; March

and Simon, 1965) and suggested in many other descriptive strategy process studies. Nevertheless, top managers can exercise critical influences on these activities by setting up the *structural context* (i.e., various organizational and administrative mechanisms such as organizational architecture, information and measurement systems, and reward and punishing systems) to reflect the corporate objectives, and thereby manipulating the context in which the decisions and actions of lower-level managers are made (Bower, 1970), as suggested by the Harvard top-down administrative perspective (Chandler, 1962; Learned *et al.*, 1965; Andrews, 1971). The development of those strategic initiatives would lead to the refinement or change of the concept of corporate strategy, thereby determining ‘strategic context’ over time. Strategic context determination is conceived primarily as a political process through which middle managers delineate in concrete terms the content of new fields of business development for the corporation and attempt to convince top managers that the current concept of corporate strategy needs to be changed so as to accommodate successful new business development (Burgelman, 1983a, 1983b).

The central feature of the B–B model is a resource allocation process in which bottom-up strategic initiatives compete for scarce corporate resources and top managers’ attention to survive within the corporate contexts—structural and strategic contexts. Burgelman (1991), in his in-depth field study on Intel’s corporate renewal, further developed the idea of intraorganizational competition among bottom-up initiatives and proposed an intraorganizational ecological perspective, following the variation–selection–retention framework of cultural evolutionary theory (Campbell, 1969; Aldrich, 1979; Weick, 1979). Strategic initiatives are identified and examined in the definition process, within the corporate context (variation), are selected out in the impetus process by corporate context as ‘internal selection environment’ (selection), and lead to the reinforcement or modification of corporate context (retention). Burgelman (1994) argues that Intel’s internal selection environment, particularly its ‘maximizing margin-per-wafer-start’ resource allocation rule, reflected selective pressures from the product market in ways that helped the firm exit from the increasingly competitive memory business and refocus on microprocessors.

Although the B-B model, together with insights from the intraorganizational ecology perspective, elucidates organizational dynamics, conflicts and dilemmas and provides a useful way of understanding managerial activities in the emergent strategy process, it leaves simple, but fundamental questions in theory and practice unanswered: Why is it that firms, facing similar opportunities, respond differently and come up with different strategic commitments to the business? How and why do managerial activities at multiple levels of organization, which add up to such different emergent concepts of corporate strategy, differ among these firms? Most past studies which contributed to the establishment of the model compared different capital investment projects (e.g., Bower, 1970; Ackerman, 1970), different intracorporate ventures (e.g., Burgelman, 1983a), and different business units (e.g., Haspelagh, 1983; Hamermesh, 1986) within a single firm to develop an in-depth understanding of the inner workings of a complex organization, particularly at the levels of project, venture, and business units. What is missing are studies tracing the efforts of multiple firms to respond with new ventures or business units to the same market opportunity—precisely the data needed to provide insight into the interfirm comparative questions.

The study presented in this paper fills the critical gap and extends the B-B model to a comparative analysis of a single business across multiple firms, as opposed to multiple types of businesses within a single firm. It explores the interfirm comparative questions in the context of new business development by comparing divergent business development experiences of two very similar firms. The next section of this paper describes the research design and field study research methodology employed in the study. The third section presents the field data using the extended framework of the B-B process model. The Discussion section presents several propositions derived from the research. The paper closes with implications and conclusions.

METHODOLOGY

The application of the B-B model at the firm level of analysis poses significant challenges to researchers. The inherent diversity among firms

is often so dominant that the researchers find it difficult to isolate managerial activities and other critical variables that might have caused the firms to respond differently to new business opportunities. In order to overcome the difficulties in research design that impede interfirm comparison, this study uses the contrasting experiences of BellSouth and U S WEST—two of the seven Bell regional holding companies ('RHCs') created by the breakup of the Bell system and the consequent spin-off of AT&T's telephone operating companies on January 1, 1984—in newly developing and expanding wireless communications businesses between 1983 and mid 1994.

Research setting

The seven RHCs constitute a unique research sample: they were of the same age because they were created at the same time. At the time of breakup, they were engaged in the same core business, wired telephony or local exchange business, employing the same operational and technological capabilities. Their executives had common backgrounds, usually spending their entire business careers within the Bell system and sharing an administrative heritage developed throughout its over-100-year history. Although they certainly differed in some respects, most notably in geographical locations (i.e., franchised regions for local exchange businesses), the significant similarities make the RHCs a relatively controlled research sample.

What is particularly unique to the RHCs are their experiences in developing cellular telephone service and other wireless communications businesses (e.g., paging service). Almost at the same time as when they started independent operations, the RHCs entered cellular telephone service business, first in major local markets within their franchised regions, using the cellular business plan inherited from the prebreakup AT&T. Although the RHCs faced the same freedoms and constraints in developing and expanding cellular and other wireless communications businesses both nationwide (i.e., beyond their franchised region) and overseas, they responded quite differently to these growth opportunities, and consequently, came up with different strategic commitments to, or corporate-level strategies for, wireless communications businesses.

Table 1. Company profiles of BellSouth and U S WEST at the time of breakup

	BellSouth	U S WEST
Assets as of 1 Jan. 1984	\$21.4 billion	\$15.6 billion
Revenues FY 1983	\$10.7 billion	\$7.8 billion
Net income FY 1983	\$1.4 billion	\$0.9 billion
ROE FY 1983	13%	12%
Debt ratio as of 1 Jan. 1984	43%	43%
Employees as of 1 Jan. 1984	99,100	75,000
Access lines as of 31 Dec. 1983	13.6 million	10.6 million
No. of BOCs as of 1 Jan. 1984	2 (Southern Bell, South Central Bell)	3 (Northwestern Bell, Mountain Bell, Pacific Northwest Bell)
No. of states served as of 1 Jan. 1984	9 (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee)	14 (Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming)

Source: Company annual reports.

Focus on BellSouth and U S WEST

While the fuller study (Noda, 1996), from which this paper borrows data, analyzes all of the seven RHCs, this paper focuses on two of them because of its primary purpose to present an in-depth analysis of business development and strategy-making process based on the B-B model. Table 1 provides company profiles, at the time of breakup, of Atlanta-based BellSouth, which serves nine sun-belt states as a franchised region, and Denver-based U S WEST, which operates in a T-shaped franchised territory consisting of 14 states in the Pacific Northwest, the Rocky Mountain region, and the midwest.

BellSouth and U S WEST were selected for this paper because their initial local cellular markets within the franchised regions were similar, yet they represented polar opposites regarding strategic commitments to wireless communications businesses 10 years after their initial entry. Divergent business development results out of similar starting conditions suggest that much of the variance can be expected to come from the business development and strategy-making processes.

Similar starting conditions. Recent studies on the origin of competitive advantage (e.g., Porter, 1990, 1994) suggest that proximate or local mar-

kets may exercise a critical impact on a firm's subsequent business development. In entering the cellular business, the RHCs were endowed with wireline cellular licenses—one of two (wireline and nonwireline) licenses granted for each local cellular service area—for a share of the nation's 30 largest areas located within each of their franchised regions.¹ BellSouth received wireline licenses for Atlanta, Miami, and New Orleans; U S WEST got Minneapolis, Denver, Seattle, and Phoenix. Table 2 assesses the attractiveness of these local markets for cellular operations based on population size, the number of automobile commuters, and the percentage of high-income households. Industry experts viewed these three variables (size, driving intensity, and income propensity) as major determinants of the area's attractiveness because cellular telephone service was a network business with strong economies of scale, and cellular telephones were permanently installed in cars and were very expensive 'executive toys' in the earliest days. As shown in Table 2, BellSouth and U S WEST were quite

¹ In setting up the rules for competition, the Federal Communications Commission divided the nation into 734 cellular service areas, issued two licenses for each of these areas, one for wireline telephone companies such as the RHCs and other independent telephone companies (the wireline license) and one for nontelephone companies (the nonwireline license).

Table 2. Characteristics of initial local cellular markets of BellSouth and US WEST

Initial local market (portions of U.S. top 30 cellular service areas [ranking by population size])	Market size (1980 population)	Drive intensity (Drive-alone commuters as percentage of population)	Income level (Earnings over \$50,000 as percentage of population)
<i>BellSouth</i>			
Miami-Ft. Lauderdale [12]	2.6 mil.	30.5%	1.01%
Atlanta [17]	2.0 mil.	31.3%	0.95%
New Orleans [29]	1.2 mil.	25.1%	0.86%
Total (weighted average)	5.8 mil.	29.7%	0.96%
<i>U S WEST</i>			
Minneapolis [15]	2.1 mil.	31.3%	1.04%
Denver-Boulder [19]	1.6 mil.	32.6%	1.14%
Seattle-Everett [20]	1.6 mil.	30.7%	1.05%
Phoenix [26]	1.5 mil.	30.6%	0.77%
Total (weighted average)	6.9 mil.	31.3%	1.01%
Average of 7 RHCs	11.2 mil.	27.0%	0.97%

Source: Calculated by the authors, using the data from 1980 *State and Metropolitan Area Data Book* and 1980 *Census: Characteristics of Workers in Metropolitan Areas*.

similar, even among the seven siblings, in these variables.

Polar cases. Second and more important, these two companies had quite contrasting experiences in developing wireless communications businesses since their entry into the field in 1984, and consequently, differed significantly in regard to corporate-level strategy or strategic commitments for the businesses. Brief histories of their business development are presented in the Appendix. Table 3 lists chronologies of their major strategic actions (B1-33 for BellSouth and U1-19 for U S WEST).

At the end of 1993, BellSouth was the largest of the seven RHCs in domestic wireless revenues, as well as in international wireless operations measured by the number of POPs (*point of presence, or population*) in areas where it held licenses. The company was also the nation's second largest paging operator. With its well-articulated 'global/mobile' strategy, it was active in a wide range of wireless communications businesses, from paging to mobile data service. In contrast, U S WEST was the smallest in domestic wireless revenues of the seven companies. Although it had fairly active international cellular operations, U S WEST was more committed to broadband and multimedia businesses, and did

not put strategic emphasis on its wireless communications businesses. Table 4 compares the two companies' operation statistics of wireless communications.

Retrospective, longitudinal, nested field study research methodology

How did BellSouth and U S WEST deal with new business opportunities presented by cellular and other wireless technologies? Why and how did BellSouth come up with a strong strategic commitment to wireless communications businesses? Why and how did U S WEST take a different course of action? What was the sequence of managerial activities at multiple levels of the organizations which led them to come up with such different strategic commitments to or corporate strategies for the wireless communications businesses? Why were such decisions and actions taken? These questions were examined by retrospective field studies—the appropriate research methodology when the subject matter is an otherwise undocumented process and the boundary between phenomena and context is not well established (Yin, 1989).

The field study research method is particularly useful for theory development. It allows for a continual interplay between theory and data,

Table 3. Key strategic actions in wireless communications business development at BellSouth and U S WEST

	Date	BellSouth's strategic actions
B1	10/83	BellSouth Mobility Incorporated (BMI) was established
B2	5/84	BMI introduced cellular service in Miami, its first local service area
B3	7/85	The formation of BellSouth International was announced
B4	5/85	BellSouth lost the Communications Industries deal to Pacific Telesis. This was the first acquisition of an out-of-region nonwireline cellular license by Bell regional holding companies
B5	7/85	BellSouth agreed with Mobile Communications Corporation of America (MCCA) to form a 50-50 cellular joint venture
B6	1/86	BellSouth Enterprises was formed as a holding company to supervise BellSouth's unregulated businesses
B7	1/86	BMI added a paging business in Atlanta
B8	8/86	BellSouth International announced its plan to enter joint venture with AirCall Communications, the U.K.'s largest independent mobile communications company (BellSouth Enterprises acquired an interest in AirCall in 11/86)
B9	9/87	BellSouth Enterprises announced acquisition of Link Telecommunications, an independent paging and telephone-answering company in Australia
B10	10/87	BellSouth International reached an agreement with TDF Radio Service, a new national paging operator in France, to provide a range of customer services for TDF
B11	2/88	BellSouth reached a definitive agreement to purchase Mobile Communications Corporation of America
B12	8/88	The consortium led by BellSouth was awarded the franchise for cellular service in Buenos Aires, Argentina, South America's first private cellular mobile communications network
B13	8/88	BellSouth purchased two paging operations in Australia to become part of Link Telecommunications
B14	2/89	BellSouth formed a consortium to compete for the private Pan-European digital cellular telephone license (D2) in the Federal Republic of Germany
B15	7/89	BellSouth formed a consortium to bid for one of the Personal Communications Network (PCN) licenses in the U.K.
B16	9/89	BellSouth announced a merger with Lin Broadcasting (It terminated the merger agreement in 12/89)
B17	11/89	Buenos Aires Cellular inaugurated service
B18	3/90	The consortium, which BellSouth was part of, was awarded a cellular license in the western region of Mexico
B19	6/90	BellSouth International was awarded one of the New Zealand's cellular licenses
B20	12/90	A BellSouth-led consortium finalized a contract for the development and operation of a cellular system in Uruguay
B21	12/90	BellSouth signed a definitive agreement to purchase Graphic Scanning, a cellular and paging company
B22	1/91	BellSouth International was the highest bidder for a Venezuelan cellular license
B23	3/91	BellSouth Cellular announced a definitive agreement to acquire cellular properties from GTE Mobilnet
B24	4/91	BellSouth's paging subsidiary, MobileComm, purchased one of the three nationwide paging licenses from CellTelCo
B25	4/91	BellSouth announced the purchase from McCaw Cellular Communications of cellular properties in Indiana and Wisconsin
B26	6/91	BellSouth's consortium was awarded the nationwide digital cellular license in Denmark
B27	9/91	BellSouth Enterprises purchased Pacific Telecom's nonwireline cellular telecommunications operations in Chile
B28	10/91	BellSouth Enterprises announced an agreement with RAM Broadcasting to jointly own and operate mobile data communications networks worldwide as well as specific paging and cellular assets in the U.S.A.
B29	11/91	The consortium of BellSouth Enterprises was named the second telecommunications provider in Australia that would also provide cellular service

Table 3. *Continued*

	Date	BellSouth's strategic actions
B30	2/93	The BellSouth consortium was awarded the second private digital cellular license in Germany
B31	3/93	BellSouth acquired a minority interest in France Telecom Mobile Data, a France Telecom subsidiary that will build and operate a mobile data network throughout France. It also announced development of a nationwide mobile data network in the Netherlands
B32	5/93	BellSouth agreed to acquire cellular operations in Wisconsin
B33	7/93	BellSouth agreed to acquire cellular operations in Indiana
	Date	U S WEST's strategic actions
U1	9/83	U S WEST NewVector Group was established
U2	1/84	NewVector proposed a venture outside its region, providing cellular service to the Gulf of Mexico
U3	6/84	NewVector introduced cellular telephone service first in Minneapolis
U4	9/84	NewVector announced a plan to build and operate cellular networks in Costa Rica
U5	early 85	U S WEST International was established
U6	12/85	NewVector announced its intent to acquire from Communications Industries a cellular license and paging operations in San Diego
U7	3/86	U S WEST Diversified Group was formed to supervise unregulated businesses
U8	5/86	U S WEST Paging was established by acquiring paging assets in Oregon and Washington
U9	6/86	NewVector agreed to acquire a minority interest in a cellular license in Omaha
U10	12/89	U S WEST and the Hungarian PTT signed a joint venture agreement to own and operate a national cellular telephone system in Hungary
U11	12/89	U S WEST, with its international partners, was awarded a license to develop a Personal Communications Network (PCN) in the U.K.
U12	6/90	U S WEST announced that it, along with Bell Atlantic, had been selected by the Czech and Slovak Federal Republic to build and operate a cellular telephone network
U13	7/90	U S WEST announced the creation of Spectrum Enterprises to handle its domestic and international cellular, paging, and personal communications interests
U14	10/90	U S WEST Spectrum Enterprises signed an agreement to provide a cellular telephone system in Leningrad (now St. Petersburg)
U15	1/91	U S WEST announced that its consortium was chosen as one of two cellular carriers to serve Moscow
U16	7/91	U S WEST participated in TU-KA cellular company in Japan
U17	9/93	U S WEST International was awarded a 900 GSM cellular license in Hungary
U18	10/93	U S WEST announced the sale of its paging operations
U19	5/94	U S WEST announced the formation of cellular joint venture with AirTouch Communications

Sources: Company annual reports, company documents, *Inside BellSouth* (1993) and *Inside U S WEST* (1993), Telecom Publishing Group, Alexandria, VA.

Table 4. Wireless communications businesses at BellSouth and US WEST (1993)

	BellSouth	U S WEST
Wireless revenues as a percentage of total revenues	9.8%	5.5%
<i>Domestic cellular</i>		
Revenues (\$ millions)	1150	507
Operating income (\$ millions)	282	n.a.
Operating cash flow (\$ millions)	483	125
Cash operating margin	42.0%	28.2%
POPs (millions)	38.8	18.2
Subscribers	1,559,132	601,000
Penetration rate	4.01%	3.30%
<i>Domestic paging</i>		
Revenues (\$: millions)	190	0 ^a
Subscribers	1,232,172	0 ^a
<i>International cellular</i>		
POPs (millions)	55.4	13.3
Subscribers	192,181	18,200
Countries in Operation	France, Chile, Argentina, New Zealand, Uruguay, Venezuela, Denmark, Australia, Germany	Czech Republic, Slovakia, Hungary, Japan, Russia
<i>International paging</i>		
Subscribers	112,211	0
<i>Other international operations</i>		
	Mobile Data (U.K., Australia, France, Netherlands, Belgium)	Personal Communications Network (U.K.)

^aU S WEST announced the sales of domestic paging operations in 1993.

Source: 1993 BellSouth Annual Report, 1994 BellSouth Source Book, 1993 U S WEST Annual Report, 1993 U S WEST Fact Book, *Inside BellSouth* (1993) and *Inside U S WEST* (1993), Telecom Publishing Group, Alexandria, VA.

whereby theory evolving during this research is grounded in data actually gathered and analyzed (Glaser and Strauss, 1967; Eisenhardt, 1989). In this instance, the study was guided by the B-B process model of strategy making in a multilevel, multibusiness organization (a large, complex firm), which was grounded in substantive areas such as strategic capital investment, internal corporate venturing, and portfolio planning within a single firm. By extending the model based on the data gathered in the new field (i.e., new business development across multiple firms), it is possible

to develop a higher-order grounded theory or a more formal theory (Glaser and Strauss, 1967; Vaughan, 1992; Strauss and Corbin, 1994).

The field study research relies on *theoretical* rather than *statistical sampling* (Glaser and Strauss, 1967; Eisenhardt, 1989). The use of polar cases, BellSouth and U S WEST, which illustrate strong and weak resultant strategic commitments to wireless communications businesses, allows researchers to explore the phenomenon of interest. The progress of the phenomenon is 'transparently observable' in such extreme situations (Pettigrew,

1990). The field study research also allows for the use of a *nested* research design with multiple units of analysis (Yin, 1989), which is indispensable for the analysis using the B-B process model. Accordingly, the decisions and actions of managers were studied at multiple levels of organization. Because these decisions and actions took place over long periods, particular attention was also paid to their sequence and interconnections (Pettigrew, 1990).

Data collection

The field studies make use of multiple sources of data, both qualitative and quantitative (Yin, 1989), derived from interviews and archival documents. The use of multiple sources permitted a degree of verification through triangulation. Data gathering took place between November 1992 and June 1995.

Fifty managers (30 managers at BellSouth and 20 managers at U S WEST) were interviewed. They included top corporate executives, corporate staff managers, and senior officers in the subsidiaries responsible for the domestic and international wireless communications businesses. Some senior business-unit officers supervising local exchange and other unregulated businesses were interviewed to better understand the evolution of the companies' overall strategic direction and gain insights about changes in perceptions concerning wireless communications businesses. Table 5 lists the job titles of the informants at the time of interview at the two companies.

The interviews, conducted by this paper's first author, typically lasted 1–2 hours, some as long as 4 hours. A majority were conducted on site, but many of the follow-up interviews were made by telephone. All but three interviews at the two companies were taped and transcribed. Though an interview protocol ensured that the same material was covered, the interviews themselves were open ended. As key events, issues, and people were identified later in the study, interviews became more structured.

Sources of archival data included company annual reports, 10Ks, annual statistical fact books, trade journals, the general business press, and reports of market research institutions. Despite generous cooperation of executives from the two companies, the authors were not given access to the details of company documents, particularly

business plans and actual capital appropriation that were not also available to regulators. The collected data provided a comparable data base that served as the foundation for 'time-line' style histories of major changes in the business portfolio, organization, personnel, and other key events in the lives of the two companies. The analysis of this data in tabular and graphic form permitted the interviewer to review responses of the informants for lapse in memory, thereby protecting against possible retrospective bias of informants.

Data analysis and conceptualization

The data collection and analysis components of a field study overlap, particularly in the case of theory building (Glaser and Strauss, 1967; Eisenhardt, 1989; Leonard-Barton, 1990). In this study, the early phase of data analysis confirmed that the B-B process model basically provides a useful lens to analyze wireless communications business development at BellSouth and U S WEST, and guided further data collection. At the same time, however, the interfirm, corporate-level comparison revealed some key variables that were unobserved in past studies, and the identification of such variables challenged some elements of the B-B process model, particularly determination of strategic context. Most important, the longitudinal nature of the phenomenon of interest, in which a sequence of proposals to develop and expand wireless communications businesses over the 10-year period added up to the emergence or lack of strategic commitment to the business, necessitated that the B-B process model should be applied in an iterated way so that it could capture the managerial activities involved in these multiple, sequential projects. Findings from the field studies at BellSouth and U S WEST are presented below, using this iterated framework.

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Although the iterated framework can be conceptualized project by project, doing so would add overwhelming complexity to the analysis. For the convenience of data analysis, the experiences of BellSouth and U S WEST in developing wireless

Table 5. List of interviewees at BellSouth and U S WEST

BellSouth (30 managers)**Corporate executives**

- Chairman and chief executive officer
- Vice chairman and president of a holding company for unregulated businesses
- President of telephone operating companies (former vice president–strategic planning)
- Chief financial officer (former group president for mobile communications)
- Vice president and comptroller
- Vice president for strategic planning and corporate development
- Vice president–planning–of telephone companies (former vice president–strategic planning)

Corporate staff managers/functional middle managers

- Former vice president for corporate development
- Assistant vice president for strategic planning
- Assistant vice president for worldwide wireless strategy
- Five corporate planning managers
- Corporate economist (financial management)
- Director–strategic planning

Business-unit managers (wireless/international)

- Former president of wireless subsidiary
- President of international subsidiary
- Former president of international subsidiary
- Vice president for mobile data operations
- Manager of wireless subsidiary
- Anonymous wireless manager

Others

- Former group president for diversified operations
- Vice president–marketing–of telephone companies
- Executive assistant and secretary of telephone companies
- Chief strategist of advertising and publishing subsidiary
- Manager–business information systems

U S WEST (20 managers)**Corporate executive**

- Former chairman and chief executive officer
- Former executive vice president and chief financial officer
- Former corporate vice president and president of commercial development
- Vice president–strategic marketing

Corporate staff managers/functional middle managers

- Assistant vice president–public policy
- Executive director–corporate strategy
- Director–corporate strategy
- Former director–financial management
- Former director–corporate strategy
- Manager–strategic marketing

Business-unit managers (wireless/international)

- Two vice presidents of wireless subsidiary
- Former executive director of wireless subsidiary
- Former strategist of wireless subsidiary
- Managing director for international and business development
- Former president–international subsidiary
- Anonymous wireless manager

Others

- Former president of marketing services
 - Executive director for multimedia planning and development
 - Director for multimedia technology
-

communications businesses between 1983 and mid-1994 are described in three time periods: 'getting started' (the prebreakup era to late 1985), 'unexpected growth' (early 1986 to mid-1989), and 'full bloom' (mid-1989 to mid-1994). Figure 1 maps the two companies' strategic actions (from Table 3) by each time period, and highlights their activities in domestic cellular, domestic paging, and international wireless operations. Dotted lines indicate bottom-up efforts to promote the new businesses whereas their changes into solid lines represent the emergence of corporate-level strategy for the businesses.

The first period: Getting started (the prebreakup era to late 1985)

At the time of the breakup, cellular telephone service was novel to American consumers. Because of rudimentary incipient network and equipment technologies and untested customer demand, development of the cellular business involved a great deal of uncertainty. Managers at BellSouth and U S WEST therefore experimented with this uncertain business, first starting with the assessment or evaluation of new business opportunities presented by wireless technologies. A majority of managerial activities in this early period therefore centered around the definition process. As the companies proceeded with the preparation and introduction of cellular operations in major local markets, early 'product-championing' activities for wireless communications businesses emerged, thus providing a connection between the definition and impetus processes (Burgelman, 1983a). Figure 2 compares major activities at the two companies during this time period, using the 12-cell (3-level by 4-subprocess) framework of the B-B process model.

Definition

Since the commercialization of cellular technology was pursued by AT&T's cellular subsidiary, called Advanced Mobile Phone Systems (AMPS), prior to the breakup, and was transferred to the Bell regional holding companies as part of the breakup arrangement, BellSouth and U S WEST did not experience 'technical/need linking activities' in the strict sense observed in Bower's (1970) study on strategic capital investment or Burgelman's (1983a) ICV study. Never-

theless, both faced the task of evaluating and defining the business opportunities at hand and needed to answer such questions as: What are the cellular and wireless communications technologies? What is the scope of the businesses? What kind of customer needs do they serve? How much potential do the cellular and other wireless communications businesses have for profit and growth?

AMPS mind-set of top corporate executives. At this early stage of business development, top corporate executives of both BellSouth and U S WEST did not pay much attention to the new wireless opportunities. The AMPS business plan inherited from AT&T assumed only 1 percent ultimate service penetration, and envisioned the cellular and other wireless communications businesses as never achieving a big-business status. A cellular telephone was nothing but an 'executive toy' in the eyes of these executives. Although John Clendenin, BellSouth's chief executive officer since the official January 1984 breakup, supervised Bell experiments on precellular technology at Illinois Bell early in his career, and retained an interest in cellular technology, his interest was still vague, as he recalled:

Even with the low level of penetration anticipated in the early days, which have proved to be very conservative, cellular was still going to be a good business, and it was going to complement the rest of the telecommunications business. It was not thought, in those days, to be anything more than a complement.

One of many new businesses for middle managers. Similarly, strategic planners and corporate development managers at BellSouth and U S WEST did not pay much attention to wireless communications businesses. They were exploring and evaluating new growth opportunities in a variety of business areas from publishing and advertising, to selling telecommunications and information equipment and systems, and even to leasing and financial services and real estate services. Wireless communications businesses were therefore regarded by middle managers as just one of the new unregulated business opportunities.

Different business strategies taken by business-unit officers. The lack of relative interests of

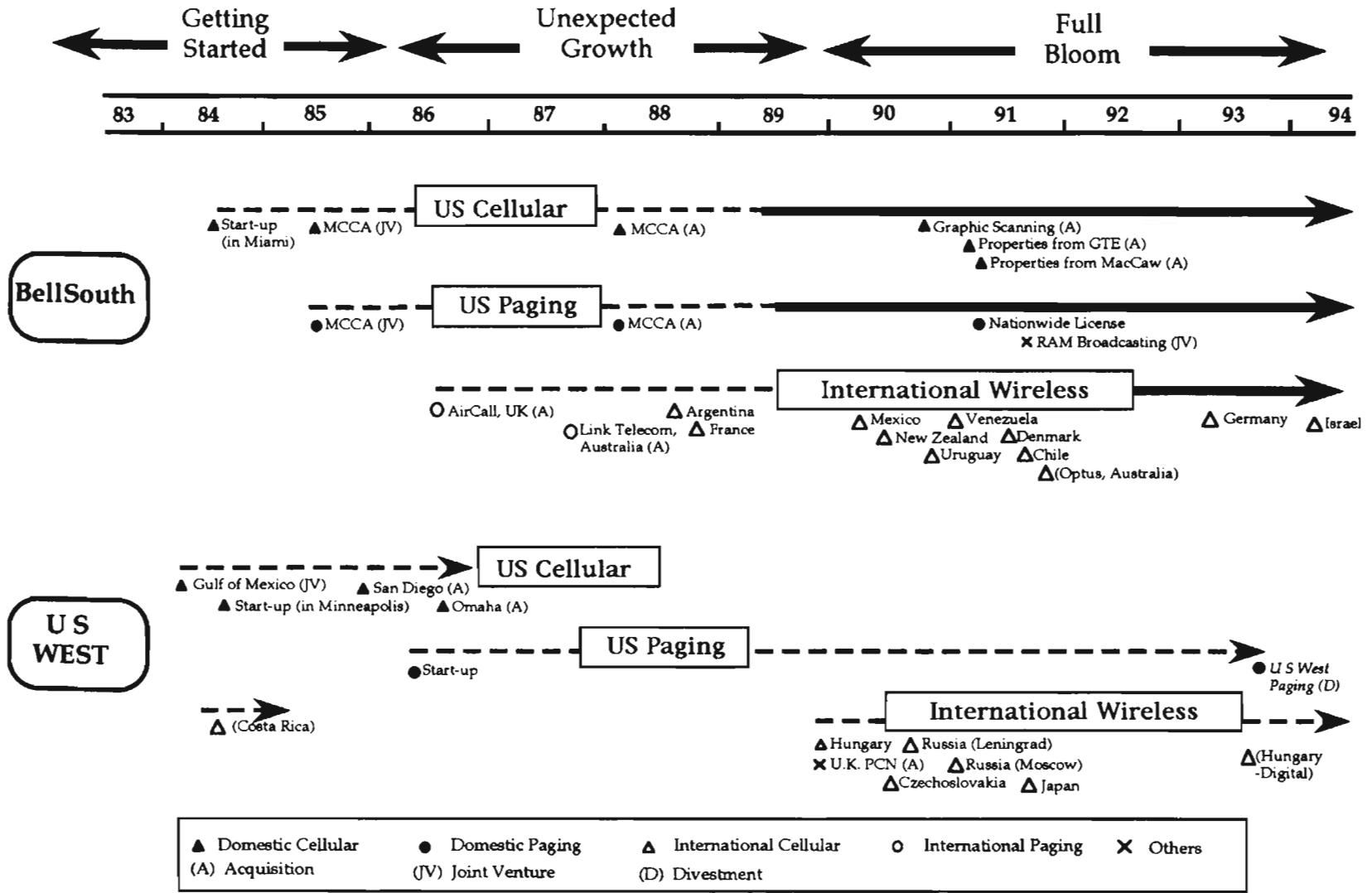


Figure 1. Wireless communications business development at BellSouth and U S WEST

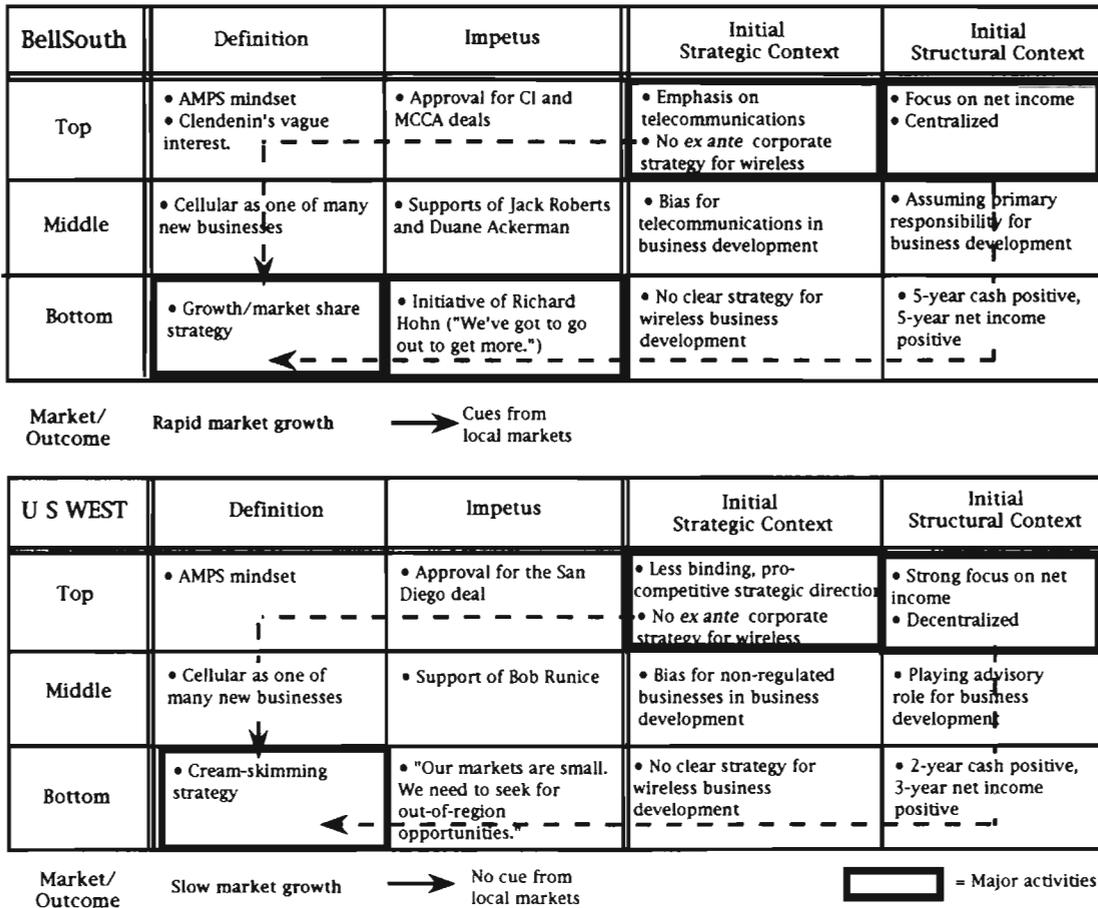


Figure 2. Process interpretation of field data: Getting started (predivestiture-1986)

top and middle managers left the task of defining new business opportunities primarily to the officers of newly formed business units for cellular telephone service: BellSouth Mobility Incorporated ('BMI') and U S WEST NewVector Group ('NewVector'). Although these officers at the two companies were much too pessimistic in hindsight, there was an important difference in their evaluation of the new business opportunities, a difference manifested in opposite business-level strategies—a growth/market share strategy of BMI and a cream-skimming strategy of NewVector—despite the relative similarity in size and demographics of their primary local cellular markets.

BMI, located in suburban Atlanta, was headed by Bob Tonsfeldt, former chief operating officer of AMPS (B1 from Table 3). John Clendenin, with his personal interest in the cellular technology, had recruited Tonsfeldt, who brought

Richard Hohn, AMPS's chief strategist, as his second in command. It was Hohn who strongly believed in the potential of cellular. According to Tonsfeldt:

Richard Hohn was the keeper of the [AMPS] model. Richard always felt that the AMPS numbers were too low, and he had argued with the AMPS president on that. The AMPS president wanted to make sure that whatever he promised to Charlie Brown [then AT&T's chief executive officer], he could deliver. And so we went at it [the AMPS business plan] ... However, the model, of course, could accept any kind of parameters you wanted to put into it, so Richard and I played a lot of 'what if' games in terms of double penetration [of the AMPS business plan] and all those things. Richard was really an optimist.

The optimistic strategist and the supportive president developed a growth/market share strat-

egy that aimed to gain customers and maximize revenues for its initial major cellular markets. Tonsfeldt explained:

We didn't have a greater vision than anybody else, except we thought that the key was to get customers ... The idea was to price cheaper, to sell harder, and that's going to get customers ... We paid a lot of money for customers [as commissions]. We probably paid too much ... We concluded [by playing 'what if' games] that we were much better off getting more customers at a middle price than by trying to cream-skim. We also went out to get customers fast, and we tried to build bigger networks [with larger service coverage].

NewVector, located in Bellvue, Washington, was initially headed by an entrepreneurial, visionary, and aggressive president, Dick Callahan, originally from one of three Bell operating companies reorganized into U S WEST (U1). Without an optimistic strategist such as Richard Hohn, the NewVector officers shared a common belief in the assumption of the AMPS business plan. They developed a kind of cream-skimming strategy for its initial major local markets. Bill Dixon, NewVector's vice president for network and planning, explained the subsidiary's early business strategy:

We were determined not to get leveraged by the distribution channel. We tried to ensure that the business was done half through our indirect organization and half through our direct sales organization. In that way, we wouldn't have either group leveraging, saying, 'We're doing all of your business so we want bigger commissions, or we want this or that.' ... We weren't sure that people were very interested in the service ... we didn't think that the price would drive them to buy into cellular. There were others who believed that if you said 'air time is cheap, come buy it now, we have a special deal', you would get more people. We didn't believe that ... and we purposefully kept the prices high. I think we were one of the higher-priced carriers in the industry.

Influence of corporate contexts on the definition process

Though the personal beliefs of key business-unit officers were a major reason why BMI and NewVector took such contrasting business strategies, the field data suggest strong influences of the companies' corporate contexts—structural and

strategic contexts—which were designed primarily by top corporate executives. Arrows with dotted lines in Figure 2 show how different corporate contexts induced different business strategies at the two companies.

Initial structural context. At the time of the breakup, BellSouth's and U S WEST's organizational structure and administrative systems and processes were quite similar, both reflecting the administrative heritage of the Bell systems and conforming themselves to common institutional forces.² Despite many similarities, however, there were two major differences in structural context between BellSouth and U S WEST.

Centralized vs. decentralized structure. One difference was the degree of delegation in decision making by the corporate office to business units. BellSouth inherited the traditional centralized management style of the Bell system, whereas U S WEST adopted a strong decentralized management style, with a lean corporate office of about 160 people, reflecting the personality of Jack MacAllister, the founding CEO, who had been known as a maverick in the Bell system for his approach to leadership even before the breakup. This difference in management style between BellSouth (centralized) and U S WEST (decentralized) resulted in difference in business development practices, specifically in the way business development ideas were initiated and pursued. For example, BellSouth's corporate development team, which reported to a chief planning officer, shared responsibility in identifying, initiating, and pursuing growth opportunities with the business units. In contrast, the primary responsibilities for growth opportunities were left to relevant business units at U S WEST, and the role of U S WEST's commercial development division was limited to provide advisory

² Because of legal and regulatory requirements, both adopted a similar multihierarchical holding company structure, with strict separation between regulated telephone operating companies and new unregulated subsidiaries, and with the corporate office focusing primarily on policy matters such as strategic planning, financial management, resource allocation, and regulatory relations. Resource allocation was centralized: 100 percent of net income of business units, including telephone operating companies, was passed up to the corporate office as dividends and then reallocated down to business units to accomplish financial and strategic objectives. Performance measurement and evaluation also were similar: both based almost exclusively on net income.

assistance to existing business units and to investigate additional opportunities that fell beyond the boundaries of these business units.

Financial grip of the corporate office on business units. The second major difference in the structural context between the two companies concerned the strength of the corporate office's financial grip on business units. Because the capital markets viewed the RHCs' stock as dividend stocks, not growth stocks, all of the RHCs were financially oriented, focusing particularly on net income. They needed to constantly increase earnings in order to satisfy investors' expectations. Moreover, many financial analysts were pessimistic about the financial prospects of the RHCs, which were left by AT&T with aging local exchange businesses, and this pessimism further fueled the RHCs' financial emphasis. Top corporate executives of BellSouth were very concerned about their enterprise's financial viability and set 'to be financial driven' as one of key strategic objectives (BellSouth 1984 Annual Report, p. 3). U S WEST's financial emphasis was even stronger—much stronger. Financial analysts frequently compared the prospects of these seven siblings and ranked U S WEST as the lowest in investment potential because of the company's less attractive franchised territory for local exchange business. Jack MacAllister explained:

When divestiture was announced, security analysts on the East and West coasts talked about U S WEST as a company of wide-open spaces, relatively small advantage, and the least value ... That really got my attention. I decided we had to meet the investment community and tell them what our philosophy was. So, even before divestiture, we had security analyst meetings ... We stressed our philosophies on competition, regulation, the MFJ, and what all that meant in terms of share value. My chief financial officer and I made tour after tour not only in the U.S. but in Europe and Japan, telling people about our focus on creating value for the share owners. We included that in our fundamental mission statement. We put more emphasis on that than anyone else because of the American security analysts' indifference to us.

Concern of U S WEST's top corporate executives for financial viability imprinted the company with a particularly strong emphasis on share owner value, and hence on bottom line.

Initial strategic context. Strategic contexts of

BellSouth and U S WEST were initially similar in that top corporate executives of the two companies, who shared, more or less, the AMPS mindset, had no articulated corporate-level strategy for wireless communications businesses. Yet, the field data reveal that these top executives established very rough 'overall strategic directions' for their enterprises, which slightly differed between the two companies. This corporate-level variable for strategic context, which reflected top management's personal beliefs and strategic intents, was not observed in either Bower's or Burgelman's study, presumably because it had been controlled in these studies that compared multiple projects or ventures within the same single multibusiness firm.

Binding, conservative vs. less binding, procompetitive strategic direction. BellSouth's initial overall strategic direction emphasized a familiar business territory for telephone companies, i.e., 'telecommunications.' The company's fundamental strategies announced in late 1983, for example, included 'to emphasize telecommunications, the business we know best' and 'to pursue orderly diversification' (BellSouth 1984 Annual Report, p. 3). The company viewed telecommunications as its principal business (BellSouth 1985 Annual Report, p. 1). This emphasis on telecommunications resulted from management's assessment of the company's strategic prospect. John Clendenin commented:

One of the principal differences [between BellSouth and other RHCs] was that the [BellSouth's] nine southeastern states had a much faster growth rate than other parts of the country. There was a lot of continuing growth in our core business ... We began to realize that we would continue to have an active core business, which had us emphasize [what we know best], and not jump into things that were far removed until we had fully undertaken all that was in the core telecommunications business ... From the start, we focused our energy on staying close to telecommunications.

U S WEST, on the other hand, defined itself as 'a *diversified* telecommunications holding company' (emphasis added by the authors) that 'owns a growing base of information industry companies' (U S WEST 1984 Annual Report, back of cover page). Although this statement seems somewhat similar to BellSouth's, it was much broader and less binding in setting a direction

for the enterprise. The less attractive image of the company's territory led it to explore growth opportunities with a broader scope in a spirit best characterized by MacAllister's own words 'aim high, hit hard, and don't be afraid to raise a little dust' (the CEO's letter to share owners, U S WEST 1985 Annual Report, p. 2). U S WEST's overall strategic direction also differed from BellSouth's in its procompetitive, aggressive posture of moving away from regulation, reflecting MacAllister's belief in the coming of competition in telecommunications. One former corporate executive commented:

The feeling was that competitive market forces were present, and we thought at that time that they were going to move more quickly and profoundly than they actually did. The greater good for U S WEST was getting more of the business out from under regulation as quickly as possible. Our CEO [MacAllister] had considerable experience dealing with state public service commissions. He believed that the solution was getting as much of the business out from under regulation as possible. He based the company on those beliefs.

Different business plans for business units.

These different corporate contexts—structural and strategic—of BellSouth and U S WEST resulted in different business plans for their cellular subsidiaries, and caused the subsidiaries to develop different business strategies in their initial local cellular markets.

The U S WEST corporate office's particularly strong focus on net income led to a very ambitious business plan for NewVector: 'being cash positive in two years and net income positive in three years.' Under U S WEST's strategy of moving away from regulated businesses, the cellular business, which was mostly unregulated but was closer to regulated local exchange businesses, was assigned to generate net income rather than provide a growth vehicle for the company. This ambitious business plan led NewVector to follow a cream-skimming strategy with high cellular rates, small commissions for distributors, and small upfront capital expenditures in order to generate net income as quickly as possible.

At BellSouth, **BMI**, in contrast, initially agreed with its corporate office on a much less stringent business plan, which was 'being cash positive and net income positive both in five years.' The corporate office was not as insistent for early

profits as U S WEST's. In BellSouth's strategic context, which emphasized 'telecommunications', cellular telephone service was viewed as a small, yet complementary business to the core local exchange business, and long-term growth was considered as much as short-term profitability. Though Richard Hohn's vision, under Bob Tonsfeldt's patronage, was certainly a key driver behind BMI's growth/market share strategy, the less stringent business plan given by the corporate office allowed the subsidiary to choose this strategy as one of many possible options.

Product championing

As cellular telephone service was introduced in their major local service areas within franchised regions (B2, U3), and as early operations results became available, BellSouth and U S WEST continually reevaluated the technical and economic aspects of the cellular business and assessed the potential of other wireless communications businesses. While still busy constructing and operating cellular networks in initial local markets as well as applying for wireline cellular licenses for lower-ranked areas, some of BMI and NewVector officers were eyeing wireless opportunities beyond their existing operations and taking on the role of 'product champions.'

Different operating results in relatively similar local markets. Soon after introducing cellular operations, **BMI** found an unexpectedly strong customer response, particularly in Miami and Atlanta, boosted by its growth/market share strategy. The number of Mobility's total cellular subscribers consistently exceeded its projections, increasing from 6500 (0.11% penetration) in three local areas at the end of 1984, to 26,300 (0.24% penetration) in 12 markets by the end of 1985. In contrast, **NewVector** did not find as strong a market response in its local markets as BMI did, due, at least partially, to its cream-skimming strategy. The number of subscribers was 5300 total (0.09% penetration) in the initial four markets at the end of 1984, and increased to 15,500 (0.20% penetration) in eight markets at the end of 1985.³ Although the difference in subscribers

³ These penetration rates are calculated by using the 1980 Census data and the company's estimated ownership in each local cellular market.

and penetration rate numbers between Mobility and NewVector was not significant, it was still important considering that the prevailing belief was that ultimate service penetration would remain a few percentage points by the turn of the century.

Product championing and early impetus. At BellSouth, encouraged by the unexpectedly strong market response particularly in Miami and Atlanta, visionary strategist Richard Hohn initiated the idea of expanding cellular telephone business by acquiring out-of-region nonwireline cellular licenses. Bob Tonsfeldt, to whom Hohn reported directly at that time, recalled:

Richard had the idea of expansion. He was the first person to say, 'We've really got to go out and buy other stuff'. And I kind of said, 'Good gosh, we've got enough to do here' but he kept pushing to grow.

Shortly, Tonsfeldt and Hohn found a supporter in the corporate office, Jack Roberts, a former investment banker who had joined BellSouth as director of corporate development in September 1984. Roberts and Hohn worked together and developed business plans for acquiring wireline cellular licenses. 'Richard Hohn and Jack Roberts both had a lot of confidence in each other, and convinced each other that this [wireless business] was clearly something to take a chance on,' as one former strategic planner at the corporate recalled. Tonsfeldt, in the capacity of BMI's president, supported them by letting Hohn work for the corporate development group while he was still on BMI's payroll. The first proposal, pursuing the acquisition of Communications Industries (CI), a Dallas-based paging and cellular company, was rolled out and presented to senior corporate executives in early 1985. Duane Ackerman, to whom Roberts reported directly, gave it his support, and the proposal was then approved by top corporate executives, including Bill McCoy, then vice chairman for Finance, Strategy, and Administration, and John Clendenin. Although these senior executives did not then share the vision and enthusiasm of early product champions, the unexpectedly strong market growth in Atlanta and Miami helped to win their approval. According to Roberts:

I think we were lucky. The development of our markets [Atlanta and Miami] proceeded faster

early on, and they [senior corporate executives] could sense that this was a more attractive business. We had a good beginning experience, even in 1984.

Although BellSouth's corporate development team lost Communication Industries to Pacific Telesis by a very small amount (B4), it successfully moved on to its second target (B5).

Senior officers of NewVector, primarily responsible for growth opportunities related to wireless communications, moved early to explore cellular opportunities outside of U S WEST's franchised region, even before the introduction of cellular service in major within-region local service areas (U2, U4). Compared with BellSouth's early moves, however, NewVector's aggressive moves were rather opportunistic.⁴ When Pacific Telesis won CI over BellSouth, it was unable to hold the CI's nonwireline license for San Diego because it had already owned wireline side in this service area. Although they had not originally pursued the CI deal, Dick Callahan, then NewVector's president, and his staff became aware of it and interested in acquiring the San Diego nonwireline license. Unlike BellSouth, negotiation with the corporate office was very tough without early favorable experiences in the major local markets. 'When we proposed the San Diego deal, everyone at U S WEST, Inc. [i.e., the corporate office] thought we were crazy,' according to one senior officer of NewVector. The NewVector managers were 'locked into a lot of boxing with the corporate office,' but eventually persuaded the corporate executives to pursue the San Diego deal (U6).

The second period: Unexpected growth (early 1986 to mid-1989)

As cellular service took off in the nation's major local areas, and the industry began to experience

⁴ Bill Dixon commented on NewVector's attitudes at that time. 'We knew that those markets [Minneapolis, Denver, Seattle and all those within the region] were not Los Angeles and Chicago. So, we said to ourselves very consciously that we would not be able to survive long term in this business with the markets we have. We have to go build presence in other places. We have to make ourselves bigger. We believed that from the very beginning. We said any time that we can find an opportunity on the outside that looks as though it's going to be a winner, we have to add that to our portfolio.'

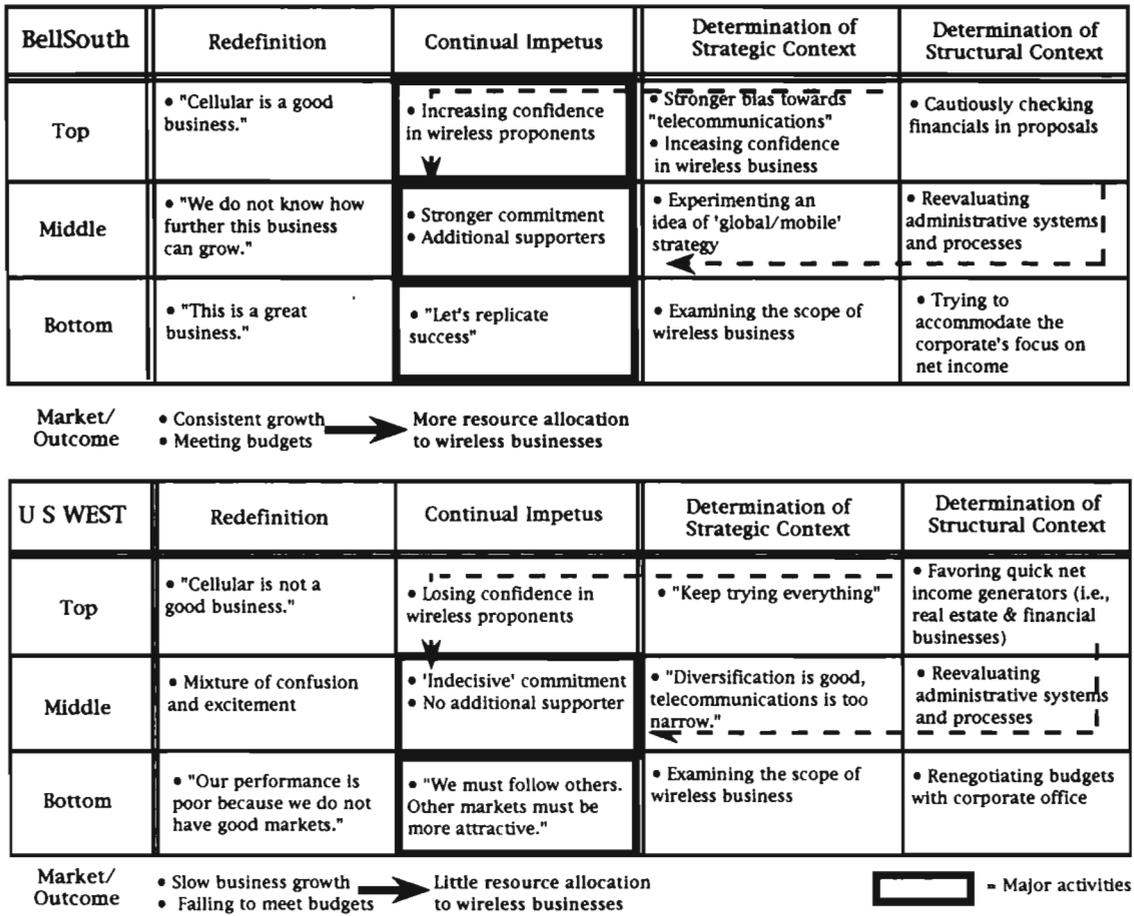


Figure 3. Process interpretation of field data: unexpected growth (1986-1989)

unexpected growth,⁵ officers of BMI and New Vector continually redefined the scope of their businesses, and corporate managers reevaluated the potential of wireless communications businesses. These activities together constituted continuation of the definition process. Major managerial activities of business development during this period, however, shifted to the impetus process and early product champions of BellSouth and U S WEST actively pursued further expansion of cellular and other wireless communications businesses. Figure 3 compares major managerial activities of the two companies during this period of unexpected growth.

Wireless proponents of the two companies had

contrasting experiences in attracting the attention of their top corporate executives and obtaining necessary resources from their corporate offices. Two factors are important in explaining the difference between the two companies in the impetus process. One is the operating results of BMI and NewVector, which were, in fact, determined largely by their initial business strategies and business plans. Another appears to have been selective forces exercised by the corporate context of the two companies. The influences of the two factors are graphically displayed in Figure 3 by solid lines (results) and dotted lines and arrows (corporate context).

Continual impetus

During this period, different business plans and strategies together brought about quite different operations results for BMI and NewVector. BMI experienced continual strong market growth

⁵ The nation's total subscribers increased from 340,000 at the end of 1985 to 682,000 by 1986 and to 1,231,000 by 1987. Cellular license prices, which used to be \$7-10 per POP in 1984, skyrocketed from \$40-60 per POP in mid-1986 to more than \$300 per POP in 1989.

in its major local markets, being continually boosted by its growth/market share strategy. 'Every time a projection was done, it was exceeded ... Every year, it went faster and faster. We kept thinking we don't really know where this is going, but it's faster than we can believe and understand,' according to Jack Roberts. In contrast, NewVector's early cream-skimming strategy suppressed the growth of cellular business in major local markets.⁶ Because comprehensive data on cellular operation by carrier or by local market were not available at that time, managers relied mostly on their actual experiences in assessing the potential of cellular businesses. Consequently, the New Vector officers were slower than their BMI counterparts in recognizing the potential of cellular opportunities.

More importantly, the two cellular subsidiaries differed significantly in their accomplishment of budget and business plan, which served as preset 'aspiration levels' (e.g., Cyert and March, 1963; Levitt and March, 1988). BMI always met its budget. According to Bob Tonsfeldt, 'In terms of cash, we probably were on target or better. In terms of net income, we were way ahead.' In contrast, after 2 years of operation, NewVector failed to meet its business plan, which initially was simply too ambitious. Even after it renegotiated with its corporate office and lowered the level of the budget, NewVector still did not meet the modified budget.⁷

Strategic forcing by business-unit officers. Business-unit officers at BMI and NewVector were delighted about the booming cellular acquisitions, although their reasons differed. BMI officers, who had better-than-expected operations results, thought they should replicate success, whereas NewVector officers reasoned that their cellular operations results were unsatisfactory because

they were not in major markets, and therefore the company should act to find bigger ones. At the same time, the business-unit officers of the two companies reevaluated the scope of their operations and added paging service to its portfolio (B7, U8). These officers therefore played a role of 'strategic forcing' by urging a need and rationale for acquiring cellular properties and expanding into other wireless communications businesses.

Strategic building by middle managers. As observed in past studies (Burgelman, 1983a), middle managers played the most critical role of 'strategic building' in the impetus process, capitalizing on strategic forcing activities of business-unit officers and trying to articulate a master strategy for wireless communications businesses.

At BellSouth, BMI as well as the corporate development team moved to BellSouth Enterprises, newly established as a holding company for all its unregulated businesses with Bill McCoy, formerly vice chairman, as the president (B6). In the new organization, Jack Roberts and Richard Hohn, who had left BMI to join the Roberts' team, continued to pursue domestic cellular opportunities in close collaboration with Bob Tonsfeldt of BMI (B11). They soon recognized, however, that winning domestic cellular deals was becoming increasingly difficult as more companies started participating in the deals, and turned their attentions to international wireless opportunities, i.e., acquisitions of foreign paging operations (B8, B9, B10, B13). Although it was still too early for foreign countries to introduce cellular and other advanced wireless communications services, they believed that the presence as a paging operator in a country would allow BellSouth to claim expertise necessary to be qualified as cellular operators and increase the likelihood that the company would get a cellular license when the cellular service was introduced in the country. To support the strategic initiatives, Hohn developed the 'global/mobile' concept in late 1986 and discussed it with Roberts and Tonsfeldt. The concept represented a belief that mobile (wireless) communications service, including cellular and paging, would shortly be introduced everywhere in the world, and articulated the intention that BellSouth should be a leader in exploiting these opportunities worldwide. Although Hohn suddenly died of cancer in

⁶ NewVector's total cellular subscribers in those local markets at the end of 1986 remained at 32,700, which represented 0.32 percent service penetration, compared to BMI's 80,000 subscribers (0.69% penetration) in 15 within-region local markets.

⁷ Part of the reason for this poor performance was that NewVector faced rising competitive challenges in major local markets, eventually was forced to switch from cream-skimming to a growth/market share strategy to win customers, and consequently got 'stuck in the middle' (Porter, 1980). It is also fair to note here that NewVector was more unfortunate than BMI because the former faced duopoly competition in its major local markets relatively earlier than the latter did.

March of 1987, Jack Roberts further advocated this concept.

Faster-than-expected market growth and consistent budget accomplishment by BMI's cellular operations not only made these product champions more enthusiastic about wireless opportunities, but also helped them to gain additional support of middle managers. Charlie Coe, who became the president of BellSouth International in early 1986, and Roger Hale, the then BellSouth Enterprises' group vice president who supervised domestic wireless communications businesses, international operations and market development, bought in to the idea, and became strong advocates for the global/mobile concept. Sid Boren, who took over Duane Ackerman's position of vice president for strategic planning, provided support from the corporate side. Under the leadership of these former and new wireless proponents, BellSouth entered cellular operations in Buenos Aires, Argentina (B12).

Experiences of U S WEST's wireless proponents were quite different. In 1986, Dick Callahan was called back to Denver and became group vice president for Diversified Operations, including NewVector and U S WEST International (U7), and John DeFeo, the former VP of Marketing, was promoted to president of NewVector. After the San Diego deal, Callahan and DeFeo were more excited about cellular opportunities and aggressively pursued the expansion of business. Bob Runice, the then president of Commercial Development Division, continued to support Callahan and DeFeo from the corporate side. 'We looked at all the deals [which appeared in the market] and we were a player,' according to Runice. These products champions, however, did not find strong support from other middle or senior managers, and they were unsuccessful in pursuing the cellular deals, except a very small deal in Omaha (U9). Slower market growth of NewVector's markets and its failure to meet its budgets made many senior managers at U S WEST skeptical of wireless opportunities. Even Runice, one of the few corporate supporters, became uneasy and often indecisive in his commitment to wireless opportunities. He recollected his vacillation:

I remember sitting in a Corporate Development Counsel meeting when they took votes [for cellular acquisition], and the votes were split. Feelings were so strong that I told Dick McCormick [who

became COO in 1986 and succeeded Jack MacAllister later in 1990] that we shouldn't do it because there were three dissenting votes. I didn't want future discussions to be affected by these three people saying they never believed in the deal. [My belief was] if we didn't convince more than half of the voters, we hadn't convinced them that it was a good deal, and so we shouldn't do it.

Over time, wireless proponents faced increasingly strong opposition from the corporate office, particularly from the financial management group, and became inactive in the domestic cellular deals. One senior officer of NewVector, who promoted these initiatives, described this situation by saying, 'We were very aggressive and bold [in pursuing cellular opportunities], and then, all of a sudden, it changed. After the San Diego deal, they [the corporate office] clammed up.'

Confidence building by top corporate executives. Although the B-B model assumes that top management plays a passive role by saying 'yes' or 'no' (Bower, 1970) or by 'authorizing' (Burgelman, 1983a) in the impetus process, the field data of this study suggest a more active role of 'confidence building' by top corporate executives.

Even for BellSouth's wireless proponents, top corporate approval was not automatic during this period. These executives were still skeptical about the potential of wireless communications and hesitated very much to pay an 'extraordinarily expensive' price for cellular properties. BMI's favorable operating results, however, turned again to be a key in business development. Rapid growth of the business in major local markets and BMI's consistent success in meeting its budgets caused the corporate executives to gain confidence not only in wireless communications businesses but also in wireless proponents. Tonsfeldt explained:

We [BMI] were fairly successful early on—that, I think, makes a big difference. I mean, if your first city goes well, and then your second city goes well, you've got a track record that they [corporate managers] will go along with ... Our chief financial officer was a very number-oriented person. If you meet your budgets, he loves you. If you do not meet your budgets, he hates you. It's real simple. There's no gray area; it's black and white. We kept meeting budgets like crazy.

Additionally, early actions of the expanding

wireless business turned out to be successful, which further boosted the top executives' confidence. The following comment of Bill McCoy on the Bakersfield deal illustrates this point:⁸

We had a chance to build out in Bakersfield, California [in 1987]. We already had Los Angeles [nonwireline license] which we got with the MCCA [joint venture] deal. Bakersfield did not prove itself in our model, and we couldn't bid high enough to get it. However, we said, 'Well, isn't Bakersfield important, being where it is? We ought to put a strategic component in evaluation.' So we lowered it to a strategic level, maybe another hundred basic points, and, on the basis of that, bought it. Once again, it did better than we thought it would do. We had positive reinforcement from our properties really quickly after we got them. The more we did, the more confident we became that we knew what we were doing, so we began to get aggressive.

Although an investment in Argentine cellular operations was generally considered risky because of the Latin American country's slow recovery from its debt crisis in the early 1980s, BellSouth's top corporate executives, who had gradually gained confidence in wireless businesses and their proponents, felt comfortable enough to take risks.

The experiences of U S WEST's wireless proponents in dealing with the corporate executives were contrary. Slow market growth of the cellular business in primary markets handicapped Callahan and DeFeo in proving to top corporate executives the economics of acquisition proposals. Most important, NewVector's failure to meet its budgets shook the confidence of its top executives; the wireless proponents lost credibility in their eyes. The NewVector's senior officer, introduced above, commented from the perspective of a wireless proponent:

When we [NewVector] didn't meet those goals [of the original business plan] in the first two years, they [the corporate office] said cellular was a terrible business. It was sort of a self-fulfilling prophecy: we didn't meet those goals,

and then we brought them growth opportunities [acquisition proposals]. They said 'Why should we go and do those [cellular deals] when they [NewVector] can't even meet their goals for the business that they have? Besides that, we have some other ways that we want to invest the money.' It just got to be this big circle. [Our corporate office] was concerned only about the bottom line. It was as though, if you made the bottom line, then you earned the right to do something else.

Although NewVector's early acquisition of the San Diego cellular license turned out to be successful, the success was discounted and treated as some lucky accident by top corporate executives, who did not receive positive cues from local cellular markets and were increasingly disappointed with the company's poor performance. Howard Doerr, then executive vice president and chief financial officer, explained the situation from the perspective of a top corporate executive.

The first major acquisition we [U S WEST] made was the nonwireline license in San Diego. We bought it for \$24-25 per POP. Because the other cellular licenses had been given to us free of charge [by the FCC], people said we were out of our minds. Some of us also wondered if we were out of our minds ... As more nonwireline franchises became available, NewVector executives became more aggressive in asking the board for approval to bid for licenses. We were part of five or six major bids. For some reason, we were unsuccessful within these biddings ... Cellular performance within our [U S WEST's] territory was a little slow. It took a few more years than we had predicted to become profitable ... There were some deals we [the corporate office] should have said yes to, but they [NewVector executives] were not convincing enough with their own performance.

Although Jack MacAllister personally became more interested in cellular opportunities, he did not support these proposals strongly. MacAllister recalled with regret:

I had the ability to over-rule [the decision of rejecting cellular proposals.] I was the CEO. Even though they [Callahan and Runice] were very interested, I was sufficiently influenced by those who weren't. I look at it as my personal decision.

⁸ It will be possible and necessary to theoretically distinguish between two aspects of confidence building—the cognitive (i.e., confidence in the business) and the sociopsychological or organizational (i.e., confidence in the individuals who promote the business), although top managers often mix them up in actual behavior. In the B-B model, the former is related to strategic context determination and the latter to the impetus process.

Influence of corporate contexts on the impetus process

In addition to cellular operating results, the company's structural and strategic contexts presented another critical factor in determining the fate of wireless proposals in the impetus process. These contexts together functioned as an 'internal selection environment' in choosing between competing business proposals as suggested by the intraorganizational ecological perspective (Burgelman, 1991, 1994).

Selecting. At BellSouth, proposals to expand cellular and other wireless communications businesses were consistent with an overall strategic orientation to emphasize telecommunications as opposed to nontelecommunications. BellSouth's structural context, particularly its conservative, financially driven management practices, provided a cautious stoppage to the escalating expansion of wireless communications businesses, because wireless ventures—domestic acquisitions or international start-ups—usually required up-front investments of capital and caused a short-term earning dilution. Yet, it was not a fundamental deterrence for wireless proponents in pursuing domestic and international wireless opportunities.

The strategic and structural contexts of U S WEST posed contrasting influences on wireless proposals. During this period, U S WEST was still feeling that 'diversification is good, and telecommunications is too narrow,' according to one corporate manager. Its strategic context therefore did not bind business units when exploring new growth opportunities as much as BellSouth's strategic context, which emphasized telecommunications, did. At the same time, the company's structural context of a heavy-net income focus strongly favored proposals that would allow U S WEST to earn net income quickly. These corporate contexts drove U S WEST into unrelated diversification, particularly real estate and later, financial services, businesses that produced handsome net income almost immediately without short-term earning dilution.

Changing corporate contexts. It is important to note the iterative nature of the influence of strategic context on the impetus process. While the initial strategic context favored proposals of one business over another, the context kept changing

as the operating success of a winning proposal provided further impetus, while failure of another business to obtain incremental resources fueled further operating disappointments. In contrast, structural context including many diverse organizational and administrative elements is much more stable over time.

BellSouth's emphasis on telecommunications was not readily apparent at the beginning, but took clearer shape as its business development efforts progressed. For example, like U S WEST, BellSouth established subsidiaries for real estate and financial service businesses. Although the company was at one time tempted to grow these businesses, the good progress of other telecommunications-related businesses allowed top corporate executives to recognize that these diversifications were not consistent with their strategic orientation. The company continued to define itself as a 'telecommunications holding company' in the late 1980s (e.g., BellSouth 1989 Source Book, p. 1) although, according to Sid Boren, what telecommunications meant had become clearer and also changed to include wireless 'telecommunications.'

U S WEST's expansion in real estate and financial services also progressed incrementally. These businesses turned out initially to be financially successful, enabling the company's corporate executives to gain confidence in them quickly and to approve further expansion of their operations. The development of strategic initiatives in these unrelated businesses kept the U S WEST's strategic context less binding than BellSouth's. Although the company's corporate vision was to become 'a leader in the information industry' (U S WEST 1987 Annual Report, p. 5), what the 'information industry' meant was not necessarily clear, even to top corporate executives. The corporate definition then evolved to 'a diversified corporation' that concentrated on 'four lines of businesses' such as communications, data solutions (e.g., software and system integration), marketing services (e.g., directory publishing), and financial services (U S WEST 1988 Annual Report, p. 2).

The third period: Full bloom (mid-1989 to mid-1994)

By mid-1989, the potential of cellular and other wireless communications businesses became obvi-

ous almost to everyone, and the industry experts started to discuss seriously the concept of a 'wireless local loop,' suggesting that wireless communications service would substitute or replace wired local exchange in the near future.⁹ In the meantime, many foreign governments started to introduce wireless communications services, opening their markets to foreign companies as part of their deregulation programs.

At BellSouth, major managerial activities in this period shifted to determine the strategic context. The global/mobile strategy was articulated and became an integral part of corporate strategy, which then further drove BellSouth into new wireless ventures. At U S WEST, wireless proponents, who previously failed to gain the impetus to pursue domestic cellular deals, turned to new international opportunities. Their efforts to shape strategic context failed, however, due to poor performance of NewVector's domestic cellular operations, coupled with emerging strategic initiatives in the area of cable TV/telephony. Managerial activities of the two companies during this third period of full bloom of wireless communications are mapped in Figure 4.

Continual impetus and organizational championing

At BellSouth, the corporate development team led by Jack Roberts became more committed to wireless communications businesses and more aggressive in pursuing opportunities in the U.S.A. The team persuaded top corporate executives to pursue a megamerger with Lin Broadcasting, though the extraordinarily high bid of McCaw Communications, then one of the largest independent cellular companies, eventually led BellSouth to withdraw from the deal (B16). The corporate development team then pursued acquiring neighborhood cellular properties in order to develop a larger 'cluster' of local cellular operations and enhance the company's competitive position (B21, B23, B25).

In the meantime, BellSouth's drive into global wireless opportunities (B14, B15) was accelerated by the successful start-up of cellular operations in Argentina, in which the undeveloped wired telephone infrastructure inspired consumers to

choose available cellular service immediately rather than enter a long wait list for wired service (B17). BellSouth's wireless proponents aggressively explored wireless opportunities overseas, particularly in other Latin American countries, and further advocated the global/mobile concept (B19, B20, B22). Earl Mauldin, who succeeded Roger Hale to become a group president of mobile communications (including international), became one of the strongest voices promoting these initiatives, working actively to keep top corporate executives such as John Clendenin and Bill McCoy informed and enthusiastic about the new area of business development. Such 'organizational championing' activities by Mauldin and others provided a connection between impetus and determination of strategic context, thereby paving the way for the articulation of a corporate-level strategy for wireless communications businesses (Burgelman, 1983a). Like the Bakersfield deal, the success in Argentina was particularly significant to top corporate executives' confidence in wireless businesses and wireless proponents.¹⁰

At U S WEST, wireless proponents such as Callahan and DeFeo came to realize that 'the corporate office would not allow us to spend a penny [to acquire cellular licenses in the U.S.A.],' and instead turned their attention to burgeoning international opportunities. They worked hard to get a new personal communications network (PCN) license in the U.K. (U11) and drove the company to enter cellular operations in several Eastern European countries and Russia (U10, U12, U14, U15).¹¹

¹⁰ The following comment of Bill McCoy is illustrative: '[In the domestic wireless business] we always did better than we thought we would. The same thing happened internationally. About that time, various countries began to talk about issuing licenses, and so we decided to start putting all of our efforts right there. And we entered into the Argentine market at a time when a lot of people were concerned about [the country's economics.] We introduced the service there in 1989. We had to lease equipment instead of selling it because nobody had any money. But, it has just gone gang busters. We've grown that business about as fast as we can get the equipment down there to do it. So we've been making a profit there for a good while. Then, we bid for the Venezuela license. That [cellular] business has been fantastic. In the U.S., we're averaging about 150 minutes of use per customer per month, and that number is coming down a little bit. In Argentina and Venezuela, we're running about 425 minutes a month, and it's going up ... Then, we went to Guadalajara, Mexico, Uruguay, and Chile.'

¹¹ The pursuit of international opportunities was driven by an idea somewhat similar to what BellSouth found in Buenos Aires: a wireless communications business as a successful

⁹ The nation's cellular subscribers exceeded 3.5 million by the end of 1989.

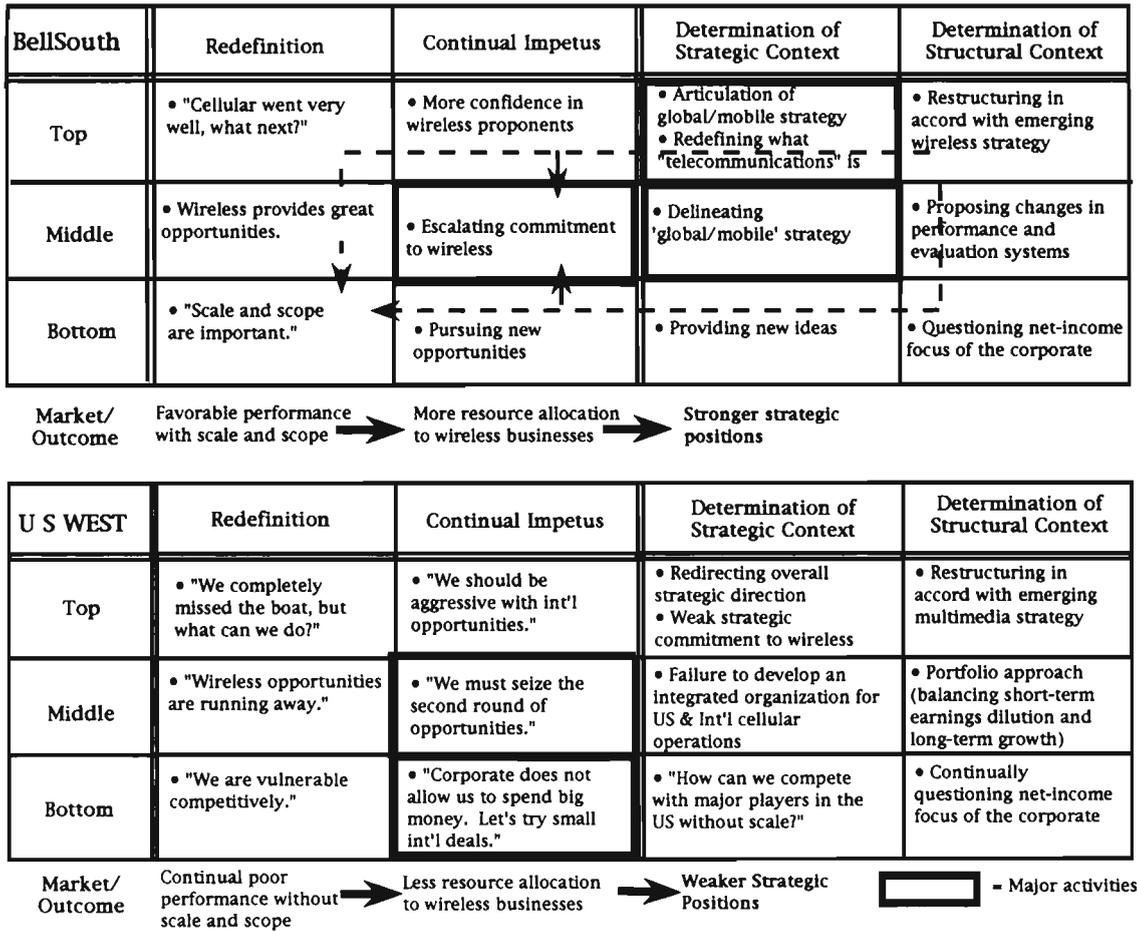


Figure 4. Process interpretation of field data: Full blossom (1989-1994)

International expansion was supported by some of the top corporate executives, particularly Jack MacAllister. They had come to realize that wireless communications businesses would be much bigger and more important than they had originally thought, and that they had missed initial opportunities in the U.S.A. Seeing the second round of opportunities arising overseas, they became aggressive and supported international wireless proposals. MacAllister commented:

We had cellular opportunities first in the U.S. Outside of San Diego, we passed on them. It

became obvious that we had been too cautious. The next opportunity was wireless and cable TV in Europe. We learned from our experience, so we became very aggressive in Europe ... What I learned and did in Europe was to become very aggressive. For example, when the PCN license came up in London, there were a lot of people who said that's going to cost billions of dollars to exploit that market. We had a chance to enter that market by merely applying. Dick Callahan, Bob Runice and I worked together and decided we were going to do it. I explained to the board all the risks and opportunities. The board supported me and we pursued the license. We got it.

substitute for wired telephone service in developing countries with an inadequate telecommunications infrastructure. It was also a result of acquiescing to pressures from the corporate structural context. Because of the very early phase of industry development, acquiring cellular licenses overseas cost much less than in the U.S.A. These international investments with smaller earning dilution were therefore more congruent to U S WEST's heavy net income focus.

Determination of strategic context

By the late 1980s performance of the two companies' domestic cellular operations differed greatly. BellSouth's growth/market share strategy, past acquisitions of cellular properties as well as

cluster strategy brought about higher penetration, a larger customer base, and a broader geographical coverage, all of which gave scale economies to cellular operations. BellSouth's full year domestic cellular operations, including acquired properties, became profitable for the first time in 1990. Additionally, by this time, BellSouth's paging properties grew to a considerable scale through acquisitions (B21), which allowed the company to enjoy scope economies associated with joint marketing of cellular and paging services. In contrast, U S WEST suffered from a lack of scale and scope economies as a consequence of its early cream-skimming strategy and a lack of past major domestic acquisitions.¹² One NewVector officer commented cynically that 'They [corporate office] are paying for the past. They shouldn't complain that we don't have scope and scale advantages when they failed to give us money to buy properties.' In 1990, the last year for which NewVector disclosed the details of its financial results, the operating margin of NewVector's cellular operations was 0.59 per cent, whereas that of BellSouth's domestic operations recorded 16.36 percent. Even in 1993, NewVector continued to suffer a net income loss.

Delineating by middle managers. While pursuing wireless opportunities worldwide, BellSouth's wireless proponents worked to develop a master strategy to support such a pursuit. Although Jack Roberts left the company shortly after the Lin Broadcasting deal and Bob Tonsfeldt retired in 1991, Eric Ensor, who joined BellSouth in 1987 and replaced the late Richard Hohn as a strategist in BellSouth Enterprises, became, with Earl Mauldin at the senior level, a primary advocate for wireless communications. Ensor and his staff built on the Hohn's global/mobile concept, and gave substance to it by scrutinizing the scope of business opportunities BellSouth should pursue and analyzing why such a scope would be strategically important. They envisioned BellSouth as a more comprehensive provider of wireless com-

munications services ranging from tone-only paging to two-way cellular. They also upgraded the global/mobile concept by strategically repositioning BellSouth's presence in one country as a wireless provider as 'beachhead' which would allow the company to successfully explore other telecommunications-related opportunities (e.g., second general carrier license) in that country. The steady performance of BellSouth's domestic cellular operations supported these middle managers' 'delineation' of a master strategy. In early 1990, within BellSouth Enterprises and under the direction of Eric Ensor, the BellSouth Worldwide Wireless group was formed to coordinate all wireless-related activities that were then handled by several subsidiaries and to pursue new wireless opportunities such as personal communications services in the U.S.A. (B29).

As U S WEST became active in international cellular operations, Callahan and his staff in the Diversified Business Group similarly attempted to develop an integrated strategy for domestic and international operations. They worked to create Spectrum Enterprises as a holding company for both domestic and international cellular operations with John DeFeo appointed president (U13). The continuing poor performance of NewVector's domestic cellular operations, however, disrupted the idea of coordinating the two operations. Within several months, Spectrum Enterprises was dismantled, and DeFeo returned to NewVector to work on improving domestic cellular operations. Soon after, the Diversified Business Group headed by Dick Callahan was reorganized into the International and Business Development Group to focus on international opportunities, and the supervision of domestic cellular operations was transferred from Callahan to Chuck Lillis, then chief planning officer.

Strategy articulation by top corporate executives. At BellSouth, the delineating efforts of middle managers, combined with the executives' increasing confidence in wireless operations, finally resulted in a formal articulation of a corporate-level strategy for wireless communications businesses. In his letter to shareholders in BellSouth's 1988 Annual Report, CEO John Clendenin implied for the first time the emergence of a corporate-level wireless strategy: 'We are emerging as one of the world's largest providers

¹² BellSouth's domestic cellular subscribers continued to increase, from 498,000 (1.63% penetration) in 1990 to 774,000 (2.14%) in 1991, to more than 1,118,000 in 1992 (2.92%), and to 1,559,000 (4.01%) in 1993, whereas the number of NewVector's cellular subscribers was 180,000 (1.30% penetration) in 1990, 259,500 (1.75%) in 1991, 358,000 (2.32%) in 1992, and 408,000 (3.30%) in 1993.

of mobile communications' (p. 2).¹³ The 'global/mobile' strategy of 'making BellSouth a leader in wireless worldwide' (1992 BellSouth Annual Report, p. 10), an earlier rough draft of which was first envisioned in 1986 by Richard Hohn and then promoted by Jack Roberts and Bob Tonsfeldt, materialized over time, gained additional supporters, and finally became an integral part of BellSouth's corporate strategy in the early 1990s.

For U S WEST, this time period was a critical turning point for determining its overall strategic direction. The company's early diversification efforts in such areas as real estate and data solutions were unsuccessful. Like other RHCs, it also found a great deal of difficulty in expanding directory publishing and in selling telecommunications and information equipment. In the meantime, with investments in a variety of operations such as wireless and cable TV in the U.K., Eastern Europe, and Russia since 1988, international activities quickly became a strategic focus. A new management team, led by Dick McCormick who became the CEO in early 1991, wanted to lead the company back to the 'network' business by shedding some unrelated businesses such as real estate. This refocus and international thrust led U S WEST to pay attention to emerging cable TV/telephony opportunities. U S WEST's early experience with the cable TV/telephony businesses in Europe made Callahan and his staff in the International Business Group increasingly confident that the broadband/multimedia opportunities would be 'the second wireless' in the 1990s. Learning from the U.K. operations was transferred back to Denver, and a 'multimedia/broadband' corporate strategy

quickly gained consensus among a new management team.¹⁴

Accelerated/decelerated business development. At BellSouth, the articulated global/mobile strategy accelerated the company's development of wireless communications businesses (B24, B26, B29, B30, B32, B33). One notable example was a mobile-data venture with RAM Broadcasting announced in late 1991 (B28, B31). John Clendenin explained his rationale in promoting this venture:

I spend a lot of time thinking about the company's strategy and direction. I try to look over the horizon and ask what the next technology is. Cellular has done well, but what is the next version of cellular? We made a huge investment in mobile data, for example—building nationwide systems in this country and in several European countries. That's an attempt to say there's another technology coming over the horizon and that will have a significant impact on our revenue streams after I am gone.

By contrast, at U S WEST, the emergent focus on the multimedia/broadband area further diverted the company's attention from wireless businesses, although the company continued to explore some international wireless opportunities (U16, U17). Consequently, the company announced the sale of its paging operations, in 1993 (U18), and its commitment to wireless communications, particularly cellular telephone service, remained very weak. Then, in July 1994, U S WEST agreed with AirTouch Communications to combine their domestic cellular assets to form a joint venture, in which U S WEST would take a minority (30%) ownership (U19). One anonymous U S WEST cellular executive commented:

U S WEST really had no idea how to deal with the wireless business. They still cannot make a decision as to what the wireless business means to U S WEST. I think it [the reason why they did the AirTouch deal] was almost out of frustration. It was like, 'OK, we can't figure it out.

¹³ He became more specific in the 1991 Annual Report (pp. 2–3): 'We aggressively grew our cellular operations worldwide last year—with acquisitions, through partnerships, and internally through marketing ... We strengthened the foundation for long-term growth in promising new wireless markets. We enhanced our position in key areas, both geographically and from a marketing standpoint. Now we can offer our customers almost anything on the wireless continuum—from tone-only paging to fully featured cellular. In between are numeric and alphanumeric paging, mobile data, and innovative personal communications services—and BellSouth is moving assertively in all these markets. Geographically, we now have as many cellular POPs, or potential customers, outside the U.S.—some 36 million in nine countries—as we do in the 54 metropolitan markets we serve in this country ... BellSouth's wireless operations contributed significantly to our financial results in 1991 ... While cellular is now well established in the U.S., it also is still clearly a growth market here.'

¹⁴ The consensus paved the way for U S WEST's strategic alliance with Time Warner in May 1993 to develop a 'Full Service Network' across the nation as well as in some other advanced countries. U S WEST emerged with a new mission to be 'a leading provider of integrated communications, entertainment, and information services over wired broadband and wireless networks in selected local markets worldwide' (1993 U S WEST Annual Report p. 2).

We have an opportunity to take 30% in a bigger venture. Let's just go do this.'

TOWARD A FORMAL PROCESS THEORY OF STRATEGY MAKING IN LARGE, COMPLEX FIRMS

At considerable length, we have demonstrated that the strategy making for wireless communications businesses at BellSouth and U S WEST can be modeled as an iterated process of resource allocation. The iterated process model capitalizes on the B-B process model of strategy making and extends it with new insights. These insights, which help us to understand the interfirm comparative questions raised earlier in the paper, are discussed and developed below as a series of propositions.

The role of corporate context in strategy making

Firm-level analysis of the field data from the present study reveals the important difference in corporate—structural and strategic—context in the two Bell siblings. Structural contexts varied: financial hurdles were higher and control more decentralized at U S WEST than at BellSouth. Strategic context also differed, specifically in the overall or corporate strategic direction, a variable that was not observed in earlier studies with the project/venture level of analysis: BellSouth's initial strategic context focused thinking on the telecommunications businesses, while U S WEST's did not have a clear focus with its aggressive, procompetitive approach to diversification. The corporate contexts of the two companies were partially determined by the distinctive strategic and financial status of their core local exchange businesses in different local franchised territories. The growth potential of local exchange businesses in the sun-belt states allowed BellSouth's top corporate executives to pay more attention to telecommunications businesses, while the 'wide open space' of U S WEST's franchised territory and the consequent disinterest of financial analysts in the company led U S WEST executives to prioritize in short-term net income and consider a wider range of new growth opportunities. Nevertheless, each firm's top managers still had a certain level of discretion in designing

corporate context to reflect their personal visions and beliefs (Child, 1972). BellSouth's Clendenin saw the continual viability of a traditional area of telecommunications whereas MacAllister predicted forthcoming competition in that area and felt the need to explore broader opportunities. This observation therefore further validates and extends the proposition of earlier studies (Bower, 1970):

Proposition 1a: Top managers exercise a critical influence on the strategic initiatives of lower-level managers by setting up the context in which these managers make decisions and take actions.

What was particularly noticeable in this study is the strong impact of the corporate context on the business development processes. The difference in corporate context of the two companies resulted in their varied responses to cellular opportunities in the definition process despite the fact that they both had very similar local markets: they came up with different business plans—cash positive and net income positive in 5 years (BMI) and cash positive in 2 years and net income positive in 3 years (NewVector). As a response to these plans, they developed contrary business strategies—growth/market share (BMI) and cream-skimming (NewVector). The same corporate context also influenced the impetus process by functioning as an internal selection environment, that led the two companies to different courses of action. The strong net income focus of the U S WEST's structural context, coupled with procompetitive strategic direction of its strategic context, favored real estate and financial service projects rather than cellular, whereas BellSouth's less stringent structural context, combined with emphasis on telecommunications, weighted more favourably toward cellular projects. Accordingly:

Proposition 1b: Both strategic and structural contexts influence bottom-up initiatives in the definition process, and shape resource allocation in the impetus process in a way that virtually defines a course of business development and subsequent emergence of a corporate strategy for the new business.

Ironically, the impact of corporate context, parti-

cularly that of structural context, is so strong that it often presents a dilemma to top managers even though they were initial architects of the context. The regret of U S WEST's Jack MacAllister, reported earlier in this paper, demonstrates an interesting example for this point. Although MacAllister, unlike most of the other corporate executives who lost confidence in cellular, altered his initial pessimistic perception toward cellular and became interested in cellular acquisitions in the mid to late 1980s, he could not support the acquisition proposals of NewVector managers. These proposals did not meet the firm's stringent financial hurdle of the company. Additionally, the decentralized management style, which MacAllister set up himself, prevented him from overruling the majority-based decisions rejecting the proposals. Structural context, once designed and institutionalized as part of a firm's administrative systems and processes, seems to present a strong source of a firm's inertia (Hannan and Freeman, 1984, 1989) and continuously exercises strong selecting forces regardless of possible subsequent changes in top managers' intentions and brings about undesirable unanticipated consequences to the top managers.¹⁵ Therefore:

Proposition 1c: A firm's structural context is relatively stable over time, and its persistent impact on the subsequent business development process constrains the discretion of top managers who may want to change the firm's course of actions in response to the development of technology and the market for a new business.

Escalation (deescalation) of a firm's strategic commitment

Like several studies on strategic innovation and change (e.g., Kanter, 1983; Nonaka, 1988), the B-B model emphasizes the role of middle managers as integrators and value creators. Middle managers interpret corporate visions and broker the bottom-up initiatives of front-line managers based on their beliefs and motives, thereby bridg-

ing the gap between those with authority to commit corporate resources to strategic proposals and those with direct knowledge of the market and new technology. These middle managers sponsor strategic initiatives of front-line managers, and then strive in obtaining corporate resources and top managers' attention, while putting their organizational reputation for good judgment at stake. This critical role played by middle managers in the resource allocation process helps us understand another striking observation in the study—that is, the impact of early operational results for a new business, particularly their evaluations against planned targets, on the subsequent business development process, resulting in the escalation or deescalation of a firm's strategic commitment to the new business.

The field data reveal that early operational results critically determine whether strategic initiatives of front-line managers would gain support of middle managers in the impetus process. The early successful ('better-than-expected') operations of BMI created excitement among middle managers—initially with Jack Roberts and Duane Ackerman, followed by Charlie Coe, Roger Hale, Sid Boren and Earl Mauldin—while the poor ('worse-than-expected') operating results of NewVector made a few supportive middle managers like Bob Runice indecisive. Additionally, the early operational results affect the credibility of middle managers who decide to support the initiatives. This is a proxy which top managers, in making resource allocation judgments concerning strategic proposal, tend to rely on for calibrating the soundness of highly uncertain forecasts of the market and technology incorporated in the proposal. At BellSouth, the early successful results of cellular business enhanced the track record of wireless proponents in the eyes of top managers and made it relatively easier for wireless proposals to get resources, but in comparison, wireless proponents at U S WEST lost credibility with the top managers due to the early poor operation results of NewVector.

These two critical links—one between operational results and middle managers' sponsorship and the other between operation result and the credibility of supporting middle managers—seem to provide an explanation for the escalation (or deescalation) of a firm's commitment in new business development through iterations of resource allocation. Early successful results create

¹⁵ U S WEST's failure to exploit cellular opportunities is not an 'unintended' outcome, but an 'unanticipated' consequence. When Jack MacAllister initially designed the corporate context, he intended to move away from regulated businesses (including cellular). He did not anticipate at that time that cellular would be an important business for the company.

excitement among middle managers, whose strong support leads to the realization of strategic proposal. The resulting success of subsequent moves, in turn, induces further excitement of middle managers to the new business. At the same time, successful early operational results and the success of subsequent strategic actions increase the batting average of proposing middle managers and enhances their track record in the eyes of top managers, which, in turn, increases the likelihood that their next proposal will be selected in resource allocation. The escalation (deescalation) process observed in this study is similar to the success-bred-success (failure-bred-failure) pattern reported in Burgelman's (1983a) ICV study. BellSouth followed this favorable cycle of business expansion and consequently escalated its strategic commitment to wireless communications businesses over time. U S WEST, in contrast, fell into a vicious cycle. Most of its top executives lost confidence in the wireless business and proponents. Jack MacAllister did not overrule the decisions of rejecting cellular acquisition proposals not only due to inertial forces of structural context, but also because his confidence in wireless proponents was somewhat shaken, although to a lesser extent than other corporate executives. Instead, the company allocated resources into nonwireless businesses, in particular, real estate and financial service businesses, and later cable TV business, and consequently developed a weak strategic commitment to wireless. Thus, these observations lead to the following proposition:

Proposition 2: In the case of a new business development that involves a high degree of uncertainty, the iterations of the resource allocation process generate a pattern of escalation or deescalation of a firm's strategic commitment based on early results from operations that confirm or disconfirm the premises of the first investment and the credibility of the champions.

The determination of strategic context revisited

The study's observation on the escalation (deescalation) of strategic commitments through iterations of resource allocation allows us to better understand the role of top managers in determining strategic context, i.e., their incremental learn-

ing leading to the increasing/decreasing belief in the new business. Top managers learn as a consequence of earlier actions, and this learning changes their beliefs in the business and subsequently reshapes the firm's strategic context. As subsequent rounds of resource allocation proceed, top managers become more actively involved in defining opportunities and further modifying the strategic context. What might first appear as a developing cognitive bias towards a new business that is meeting its forecasts takes clearer shape over time, and eventually develops into a fully expressed commitment to the business. This incremental view of strategy making is consistent with the following observation of Quinn (1980: 58):

The most effective strategies of major enterprises tend to emerge step by step from an iterative process in which the organization probes the future, experiments, and learns from a series of partial (incremental) commitments rather than through global formulations of total strategies.

What should be reconciled here is the discrepancy between this incremental change in top managers' beliefs in a new business and the seemingly sudden emergence of the official or explicit corporate strategy in the case of successful business development. In the context of this study, BellSouth's top managers did not articulate their strategic commitments to the wireless communications business until the late 1980s, as demonstrated in the following comment by one anonymous wireless proponent:

John Clendenin, of all the seven CEOs of the RHCs, was probably the most predisposed to like cellular if it worked well. He always cautioned us. He said, 'You know, I like cellular, but by God, it better pay off, or I am not supporting it.' So it was not that he was supporting it automatically, but once it looked good, he was already saying, 'Yep, I knew that stuff would work.'

The discrepancy exists presumably because top managers may delay the official announcement of a new corporate strategy until the potential of the new business or the need for change in their enterprise's strategic direction become obvious in order to avoid political friction between multiple groups or subunits within the organization. As pointed out by Neustadt (1960), successful leaders, who know that influence for any manager is

based on the success of his interventions, are very cautious in their public positions. From this perspective, deferring the announcement of public commitments until learning reduces uncertainty in new business development can be a wise choice for top managers who are concerned to preserve and enhance their 'power' within the organization.¹⁶

Burgelman's (1983a, 1983b) conceptualization of the change in corporate strategy as 'retroactive rationalization' of strategic initiatives seems to be based on the observation of this political aspect of the strategic determination process. The top manager's role in determining strategic context is active, not passive, in the sense that they are willing enough to recognize strategically bottom up initiatives and capitalize on them rather than pass them by. The present study, however, provides more detailed insights into the critical role played by top managers in the strategic context determination. The data of the study strongly suggest that corporate strategy is the outcome of continuous, incremental confidence building made manifest in iterations of resource allocation rather than formal, explicit statements of 'the corporate strategy.' Whereas such public statements are not announced in a timely fashion, the incremental learning of top managers can shift (escalate or deescalate) resource allocation quite readily. BellSouth allocated more resources to wireless projects over time without its official announcement of global/mobile corporate strategy, and so did U S WEST to nonwireless projects without an explicit strategy for neither supporting such projects nor rejecting wireless ones. Accordingly:

Proposition 3: In the case of successful business development, continuous, incremental learning of top managers during business development, and the resulting fine tuning of strategic context, shift resource allocation and

precede the articulation or change in official statements of the corporate strategy for the new business.

CONCLUSIONS

The interfirm comparison of new business development and strategy-making processes using the B-B model highlights intraorganizational dynamics by which managers at multiple levels relate to external and internal forces and deal with cognitive, political and organizational consequences of their actions. The iterated process model proposed in this paper capitalizes on the process map of the B-B model to identify seminal elements of strategy making in a complex firm, such as entrepreneurial initiatives of front-line managers, integrating/brokering activities of middle managers, and the corporate context set up by top managers and its subsequent changes. It suggests that the interaction of these elements causes two firms, which are facing similar business opportunities and are endowed with virtually the same marketing and technological capabilities, to respond differently—one with escalating and the other with deescalating strategic commitments to the new businesses. The iterated model therefore contributes to the field of strategy by enriching our understanding of intraorganizational strategy process and elucidating multilevel, simultaneous, interrelated managerial activities which are combined to generate 'emergent' strategy.

The model makes additional contributions to the field by providing a framework that links multilevel managerial activities with organizational learning in the strategy-making process. The findings reveal that overall strategic direction for an enterprise, which reflects top managers' crude strategic intentions, has noticeable impact on the business development at operating levels of a complex firm. This preliminary phrasing of strategic direction, together with the structural context, strongly influences the way managers at responsible operating or business units perceive new business opportunities, and shapes the premises of the concrete and detailed strategic analysis for new businesses. For example, NewVector managers were aware that the U S WEST corporate thought cellular to be an 'executive toy.' Cellular was also close to the regulated core business from which it made sense to move away.

¹⁶ While this discussion is most relevant to the case of successful business development (i.e., BellSouth), it can also be applied to the unsuccessful case (i.e., U S WEST). For example, it was not until the end of the 1980s when the potential of cellular became obvious to almost everyone and the uncertainty in the business development was significantly reduced, that MacAllister started to take steps to support cellular initiatives. It may also be possible that MacAllister hesitated to overrule the decisions of rejecting cellular proposals because he was correctly aware that his early interventions would incur risks of damaging his power base within organization.

The message, in effect, was 'don't get excited and invest too much.' In contrast, BMI managers heard that 'cellular is small, but complementary to the core telecommunications business to which we are committed.' This message at least did not preclude BMI managers from developing an innovative approach to cellular and investing in the new business.

These primitive assertions, what we might call 'strategic premises', then serve as aspiration levels (Cyert and March, 1963; Levitt and March, 1988) for local search by entrepreneurs at lower levels of the organization, and provide the standards of performance that they must meet. Contrasting cellular business plans for BMI and NewVector were tangible manifestations of these standards. Early operating results are measured against the standards and, in this way, determine what is learned about the potential of the new markets. The inability of NewVector to meet its forecasts taught U S WEST corporate executives that cellular was a bad business, while BellSouth executives learned that cellular was more interesting than expected. Middle managers play a key mediating role in interpreting the results and communicating them with the top managers. The iterations of the resource allocation process that then escalate or deescalate a firm's strategic commitments to the new business, therefore, reflect local learning derived from a sequence of tests in which investment outcomes are measured against continuously revised strategic premises.

The strong influence of top managers' crude intentions on strategic assertions for a new business, however, does not rule out the role of entrepreneurial activities by operating managers in the new business development (Burgelman, 1983c). Entrepreneurial managers can and actually do develop independent strategic premises based on their visions and intentions regardless of those of top managers. For example, Richard Hohn, Bob Tonsfeldt and Jack Roberts—the BellSouth's initial cellular champions—rejected the prevailing AMPS mind-set and developed an innovative approach for cellular. While they certainly benefited from the benevolent BellSouth's corporate context, their initiatives are indeed a key driver for the BellSouth's successful wireless business development. On the other hand, the NewVector executives were less innovative although they needed to deal with the more constraining corporate context than their counterparts

at BellSouth. Interesting questions to be addressed are: What would have happened if Hohn, Tonsfeldt and Roberts had worked at U S WEST by accident? Could they have overcome the constraints posed by the U S WEST's corporate context and still initiate the concrete determination process of the strategic context for wireless as they did at BellSouth?¹⁷ Future research should therefore explore the balance between top managers' intents reflected in corporate context and entrepreneurial activities of lower-level managers (Van de Ven, 1992) in determining the strategic context.

As discussed by Burgelman (1991, 1994) and reconfirmed by the field data of this study, the direction of companies evolves in response to changing markets in a way that is mediated by the internal contest for corporate resources and top management attention. The interfirm comparative analysis of this study provides strong field-based evidence on how different corporate contexts function as an internal selection environment to generate a varied resource allocation pattern and to shape different evolutionary dynamics among competing multiple businesses. By identifying the role of top managers and 'strategic levers' available for them to intervene (i.e., the design of corporate context), demonstrating the sources of inertia (e.g., stability of structural context), and highlighting the feedback mechanism through learning by multilevel managers and their interplay, the iterated model of resource allocation extends Burgelman's intraorganizational ecology perspective and contributes to further develop an evolutionary perspective on strategy.

The model and propositions presented in this paper are obviously tentative. They are based on an interesting but very limited sample in a unique industrial situation. Further field studies in different settings as well as large sample studies are required to validate the model and test the propositions. This study demonstrates that firm-level,

¹⁷ The investigation on this balance, however, may face some 'chicken and egg' problems because business-unit managers are chosen by top managers and the selection of business-unit managers reflects top manager's intents. For example, at BellSouth, it was John Clendenin who recruited Bob Tonsfeldt to head BMI with his emphasis on telecommunications and personal interest in cellular. Tonsfeldt was intimately familiar with cellular as a result of his work at AT&T, and it was he who chose Richard Hohn, the man who turned out to be a critical driver for wireless.

comparative longitudinal studies are a very effective approach although they are certainly not easy to execute. It is hoped that this study will spur interests of strategy researchers in the iterative approach and move the field of strategy closer to the establishment of a formal process theory of strategy making.

ACKNOWLEDGEMENTS

This research is part of the doctoral dissertation of this paper's first author. Financial support from the Doctoral Programs of the Harvard Business School is gratefully acknowledged. The authors would like to thank William Barnett, Robert Burgelman, John Roberts and two anonymous *SMJ* reviewers for their insightful comments and suggestions on earlier drafts of this paper.

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APPENDIX

The past decade witnessed a spectacular growth of wireless communications businesses. AT&T, who invented cellular technology and prepared for its commercialization, originally predicted 900,000 cellular subscribers in the nation by the year 2000, but the number reached approximately 16 million by the end of 1993. As the market rapidly grew, acquisition of cellular licenses for local service areas boomed, and prices skyrocketed. With technological advances, paging has evolved from a one-way, tone-only beeper to a two-way, alphanumeric device, and new wireless services such as personal communications and mobile data service have also emerged. Such success in the U.S.A. encouraged many foreign governments to introduce wireless communications services, affording American companies opportunities to leverage their expertise.

Strategic responses of BellSouth and U S WEST to the new opportunities differed widely. BellSouth was one of the first Bell regional holding companies that moved to acquire out-of-region cellular licenses. In mid-1985 it formed a cellular joint venture with Mobile Communications Corporation of America (MCCA), a paging and cellular operator based in Jackson, Mississippi. Since then, BellSouth continued to explore domestic cellular opportunities. It acquired the remaining share of MCCA in early 1988 and battled with McCaw Cellular Communications in the acquisition of Lin Broadcasting in late 1989. Although the company eventually withdrew from the Lin deal, it subsequently acquired Graphic Scanning, a paging and cellular provider, at the end of 1990, and acquired cellular properties from GTE and McCaw in early 1991

to develop a larger cluster of domestic cellular operations. It added paging operations within the region in early 1986 and, since then, consistently expanded the business beyond its franchised region through the acquisition of paging properties of MCCA and Graphic Scanning and the purchase of one of three nationwide paging licenses in 1990. More important, BellSouth has been increasingly aggressive in pursuing international wireless opportunities. Early activities centered around the acquisition of paging operators such as Air Call in the U.K. and Link Telecommunications in Australia. It then led the consortium that was awarded a cellular license for Buenos Aires, Argentina in 1988. As the 'global/mobile' strategy emerged as an articulated corporate strategy for wireless communications businesses, it accelerated expansion of international wireless operations by conquering the Latin American cellular markets, including Uruguay, Venezuela and Chile, and successfully entered Australia, New Zealand, and some European countries, such as France, Denmark, and Germany. In late 1990, BellSouth announced the formation of a major joint venture with Ram Broadcasting to build and operate mobile data networks worldwide.

At the beginning, U S WEST was as aggressive as, or perhaps more aggressive than, BellSouth in exploring new wireless communications opportunities. Immediately after the official breakup, even long before its introduction of cellular operations in four major markets within its franchised region, it had announced its inten-

tion to explore out-of-region wireless opportunities, such as a cellular venture serving the Gulf of Mexico and entry into cellular operations in Costa Rica, although these ventures did not materialize. Observing a few RHCs, including BellSouth, acquiring nonwireline cellular licenses in mid-1985, U S WEST followed suit and announced the acquisition of the San Diego (out-of-region) nonwireline license at the end of 1985, and a small share of the Omaha (within-region) nonwireline license in mid-1986. Although it participated in several subsequent cellular deals, the company became increasingly inactive in exploring domestic cellular opportunities during the second half of the 1980s. Like BellSouth, U S WEST added a paging business in 1986, but its paging operations remained small, mostly limited within the franchised region. In the late 1980s, the company became active in exploring international wireless opportunities. It led the consortium that was awarded a license for a personal communications network—new wireless communications service—in the U.K. in late 1989. It then entered into cellular operations in East European countries, such as Hungary, the Czech Republic, Slovakia, and Russia. With its emerging interests in broadband and multimedia opportunities, however, U S WEST placed less strategic focus on its wireless communications businesses. It announced the sale of its paging business in 1993 and agreed to turn its domestic cellular operations into a 30/70 joint venture with AirTouch Communications, a spin-off of Pacific Telesis, another RHC, in mid-1994.