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# Information Technology at Rosenbluth Travel: Competitive Advantage in a Rapidly Growing Global Service Company

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**ABSTRACT:** Over the past ten years, Rosenbluth Travel has grown from a regional travel agency with \$40 million in annual sales to one of the five largest travel agencies in the United States, with sales of \$1.3 billion. Their strategy was based on exploiting the structural changes initiated by airline deregulation in 1978, including growth of the corporate travel market and increasing economies of scale leading to consolidation. Information technology (IT) was a fundamental part of this strategy. The case sheds light on several theories on gaining competitive advantage through IT; these theories feature technology leadership, leveraging critical resources, the role of IT infrastructure, and switching costs. While these theories contribute to an explanation of Rosenbluth's success, a critical factor appears to be the vision to see an opportunity and the ability to hustle to exploit it.

**KEY WORDS AND PHRASES:** business history, competitive advantage, information technology, strategic information systems, travel industry.

## 1. Introduction

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ROSENBLUTH TRAVEL, HEADQUARTERED IN PHILADELPHIA, Pennsylvania, is not a typical family business. Yes, the president, a fourth-generation Rosenbluth family member and officer, still personally meets with every new associate (as employees are called), and there is a pervasive concern for associates that may be more characteristic of a progressive family than of a modern corporation. But Rosenbluth Travel (RT) has grown from gross annual sales of \$40 million in 1980 to \$1.3 billion in 1990.<sup>1</sup> RT has emerged as one of the five largest travel management companies in the United States [3], with over 400 offices nationwide. RT has projected their presence across

the globe through the Rosenbluth International Alliance, which was conceived and organized by RT. And in an era dominated by highly leveraged mergers and acquisitions, this dramatic growth was primarily internally funded through retained earnings.

This paper details the story of RT's rapid growth, trying to unravel the complex web of environmental and company-specific factors that have contributed to their current position. Of particular interest is the role information technology (IT) has played in the evolution of the industry and in RT's success.

Rosenbluth Travel exploited a fundamental discontinuity in their environment—the deregulation of the airline industry in 1978. Deregulation radically altered the travel products and services that customers demanded, as well as the cost structure for offering those products and services. The sheer complexity of route and fare structures dramatically increased the demand for services to help manage this complexity. RT successfully anticipated two key implications of this discontinuity:

- the increasing importance of IT for cost-effectively managing the complexity and leveraging valuable expertise; and
- the increasing importance of scale economies, in information and information systems as well as in other strategic resources.

Rosenbluth Travel understood that technology and market changes would interact to produce structural changes in the industry. They did not fully understand those changes at the outset, but were determined to be the first in the industry to understand and to exploit them.

The RT experience also offers insight into the construction of resource barriers that can protect a firm or strategic group against current and potential competitors. RT recognized the importance of IT to the industry early, and invested heavily in systems. While RT's early annual investment level would not have been prohibitive to competitors at the time, it has been used to build an infrastructure of systems and organizational learning that would be costly to match, prohibitively so for many competitors. This IT infrastructure provides a platform for continued innovation, lowering the cost and the development time for new services. Moreover, IT has been used aggressively to leverage and to extend the scale economies available in the industry, building volume, or size, into an important resource barrier for competitors.

But overall, the RT story is one of vision and hustle. At the time, the dramatic changes in the industry could have been exploited by anyone. In 1980 Rosenbluth had no significant financial clout or other resource advantage that many other travel agencies did not also possess. Moreover, RT's early moves could easily have been duplicated. RT's ultimate success appears to have depended on the vision of Hal Rosenbluth and his ability to create an organizational culture predicated on service and innovation.

Do we claim that RT has a "competitive advantage"? This is a notoriously difficult issue to address. RT appears to have established a solid position in the industry. In the Philadelphia market, RT controls 48 percent of business air traffic written out of the area. Moreover, they have been successful in winning large clients on major competitors' home turf, such as a recent contract with Compaq Computer in Houston,

the home base of Lifeco, one of RT's key competitors. Other major national competitors may emerge through mergers and acquisitions, but RT's size and technology infrastructure may give them an advantage in further consolidation. Of course, competitive advantage depends on profitability, not sales. Most firms in the industry are privately held or part of larger entities, so costs and profitability information is largely unavailable. Rosenbluth claims higher margins due to lower costs and more sophisticated pricing arrangements, but the effects of capital structure on this—particularly RT's investment in IT—cannot be determined. A good indication of RT's profitability is the fact that their phenomenal expansion has been funded internally from earnings, rather than through major debt or equity infusions.

But in the final analysis, the issue of competitive advantage is not the most interesting aspect of this case. We are more concerned with understanding the underlying forces, particularly the strategic use of IT, that have contributed to the players' current positions and that are likely to influence their future.

## 2. Travel Agents and the Travel Industry

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TRAVEL AGENTS (TAS) EXIST PRIMARILY AS INTERMEDIARIES between suppliers of travel services, such as airlines and hotels, and customers. Unlike distributors in many industries, TAS do not deal with physical products, but with information. This information ranges from the objective and specific, such as the flights from New York to Boston tomorrow at 6:00 A.M., to the subjective and general, such as the pros and cons of Barbados as a vacation destination. The profitability and survival of TAS depend ultimately on the value of this information to customers.

Changes in the industry over the past ten years have dramatically altered the nature and value of information in the travel industry and, consequently, the role of TAS. At the heart of these changes are the economic forces unleashed by the 1978 airline deregulation and the role of IT in adapting to these forces. In the following sections we investigate in more detail these forces that have shaped competition in the industry and the resulting structure that has emerged.

### 2.1. Before Deregulation

Prior to 1978, the airline industry was regulated by the Civil Aeronautics Board (CAB). The CAB established fares and assigned routes to the carriers. Changes in routes or fares required CAB approval and were relatively infrequent.

Most of the major airlines had their own distribution networks but were in the process of shifting part of this role to independent travel agents. In 1976, it was estimated that only 40 percent of passenger tickets booked were placed through TAS [10]. A key tool in this process was the computerized reservation systems that were increasingly being made available by the airlines to travel agents and major corporate clients; at that time, these systems were just beginning to emerge as important marketing weapons.

In this environment, the travel agent's role was primarily to distribute tickets and to

provide advice on vacation destinations. Agencies with a computer reservation system (CRS) were little more than representatives of the CRS provider. Business travel was still significant, but there was no way for agencies to differentiate service. As a result, the industry was oriented primarily toward the individual traveler, with no distinction made between business or leisure travel. Even the largest agencies derived 90 to 100 percent of their revenues from such undifferentiated individual services.

Travel agents received their revenues primarily from a 10 percent commission on air tickets booked. With low entry costs, the industry remained fragmented and only marginally profitable. In 1979, there were over 11,000 travel agencies, only 25 of which had air sales<sup>2</sup> over \$20 million.<sup>3</sup> Net profit margins were typically 1 to 2 percent.

## 2.2. Impacts of Deregulation

Deregulation led to fundamental changes in the travel industry. Travel agents emerged as key players in managing the increased complexity of purchasing travel services. Business travel costs soared, making corporate travel management an important market segment for TAs. Economic pressures stemming from airline deregulation and the expanding role of IT in the industry led to consolidation of both airlines and travel agencies, which continues to this day.

Following deregulation, airlines could add or delete routes almost at will. The number of available fares and fare changes exploded as competition intensified and as airlines became more sophisticated in pricing and yield management. This explosion of routes and fares created a level of complexity that simply was overwhelming for customers. SABRE, one of the two largest CRSs, contains 45 million fares and processes up to 40 million changes every month [10]. There was a tremendous need for some mechanism to manage this complexity. The airline CRS systems emerged to fill this need by providing rapid, single-source access to most routes and fares. But the complexity of the route and fare structures, and the complexity of the CRSs themselves, created the need for another level of specialist in the distribution chain: travel agents. Moreover, since the reservation systems were at the time extremely biased in favor of the owning carrier, TAs developed as customer-driven brokers, trying to overcome the bias in order to serve the customer. Of course, some agencies were more successful at this than others.<sup>4</sup>

By 1985, over 80 percent of air tickets were being distributed through travel agents [9, 10]. Deregulation had worked to increase the value-added of TAs, but there were still only limited economies of scale available, restricting profitability and consolidation. However, another impact of deregulation, the emergence of the corporate travel market, was occurring at the same time, furthering change in the TA market.

Business travel is the third highest business expense after payroll and data processing for the average U.S. business [1]. Prior to deregulation, this expense was viewed as an unavoidable cost of business. However, the explosion of routes and fares that followed deregulation created the possibility, and even the imperative, for managing these expenses. Expense management was particularly acute for businesses for several reasons. Airlines quickly realized that the average business traveler had little flexibil-

ity on the timing of a trip, and hence was less cost-sensitive than leisure travelers. This gave rise to fare structures that exploited this, increasing business travel costs. Moreover, the decision maker on business travel was most frequently the traveler, but payment was by the corporation, increasing the traveler's price insensitivity and contributing to the success of traveler-driven marketing efforts such as frequent flyer programs. As a result, business travel costs exploded following deregulation. As noted by Hal Rosenbluth, air travel may be the one industry in which the best and biggest corporate customers pay the highest prices when compared to what the leisure traveler pays.

Travel agents were dramatically affected by these changes in business travel. TAs had long been active in corporate accounts, sometimes opening offices on corporate premises ("satellite" and in-plant agreements). The 1982 Runzheimer study found that all but 7 percent of businesses surveyed utilized either an outside agency or an in-plant agreement with the vast majority (67 percent) using only outside agencies [13]. As deregulation put pressure on businesses to reduce costs, TAs found it necessary to increase the level of "rebating" or commission-sharing arrangements in order to compete in the corporate market. TAs had to look for ways to protect profitability, including new services and products as well as reorganization of operations to exploit scale economies. As the information link between suppliers and corporate clients, TAs were in a good position to accumulate travel information for planning and managing travel. In addition, they were well situated to develop a level of expertise in travel expense management, which most corporations could not cost-effectively develop or maintain on their own.

Perhaps the most important aspect of travel management to emerge in the 1980s was the use of negotiated rates and fares. As early as 1982, about one-half of firms surveyed with in-house travel departments were directly negotiating rates with hotels and car rental agencies [13]. These special prices were primarily corporatwide discounts and special group prices for specific meetings and events. In the mid-1980s a new frontier in price negotiation opened. By having access to detailed data on their corporate travel down to the city-pair level, firms were able to identify their high-volume routes and negotiate with suppliers for preferential fares on a route-by-route basis. Rosenbluth pioneered route-by-route negotiated fares and continues to be one of the leaders in this area today.

Maximizing the opportunities for negotiated prices required consolidating travel information over an entire organization to leverage purchasing power fully. This was particularly true for route-by-route negotiations, where the information demands are especially difficult. The organization had to be able to demonstrate to the air supplier that the increase in the volume from a fare program would more than offset the lower fares. This consolidation of information was greatly facilitated by utilizing a single agency. Moreover, the purchasing power of the TA itself could be an important factor in negotiations, creating another benefit for consolidating travel through fewer agencies. Negotiated prices are based on the ability of organizations to move market share. This requires being able to substantiate the effects of the program. TAs were in a good position to monitor compliance after the fact, but they were also more effectively positioned to encourage corporate travelers' compliance at the time reservations are made.

Finally, deregulation has indirectly contributed to consolidation in the travel agent industry. More directly, deregulation led to the importance of IT in managing complexity in the newly competitive industry and the increasing importance of purchasing power in negotiating fares and rates. Both of these factors increase the potential economies of scale, leading to consolidation.

Deregulation dramatically increased the importance of IT in the travel industry. IT was perhaps the only mechanism for cost-effectively managing the complexity that emerged in the industry following deregulation. Without IT, the sophisticated analysis of travel patterns necessary for negotiated fares would probably not be possible. With margins under pressure from rebating, increasing volume and thus increasing utilization of fixed resources was perhaps the best way to support profitability. IT investment is characterized by substantial fixed cost (e.g., development and hardware) with much lower marginal costs, leading to strong scale economies. Just as importantly, IT can be used to exploit latent scale economies in other resources, particularly expertise.

The increasing importance of purchasing power—that is, volume—has also contributed to the economies of scale, leading to further consolidation of travel agents. The process of route-by-route fare negotiations is strongly dependent on the ability to move volume, favoring larger agencies. In addition, larger agencies are in a position to contract for blocks of hotel rooms and other travel services at dramatically lower rates. While such *risk inventories* of contracted travel services provide these agencies with lower rates and higher availability, the agency must be able to manage this inventory effectively, or risk paying for empty hotel rooms or airline seats.

Hard evidence on the extent of scale in leveraging purchasing power is difficult to obtain. There is some evidence that size is an important determinant of an agency's ability to offer special fares: in the first quarter of 1989, 20 percent of total segments booked by mega-agencies were nonstandard, while this figure was 5 percent for large agencies, 2 percent for medium agencies, and less than 1 percent for small agencies [3]. These figures do not distinguish among corporate discounts, special group rates for single meetings and events, and fares negotiated by route.<sup>5</sup>

Ultimately, the increasing scale economies created by the greater importance of IT and of purchasing power are self-reinforcing. Purchasing power cannot be exploited without information technology to identify opportunities for negotiation and to monitor the economic effects of the program. At the same time, information technology cannot be fully exploited without size, since volume is required to drive the average cost of IT down and provide bargaining power for price negotiations.

## 2.3. The Industry Today

### 2.3.1. Players

Despite the tremendous consolidation among travel agencies over the past ten years, the industry still must be considered relatively fragmented. In air sales, no player has

more than a 3 percent share. But there are several definite groupings within the industry.

The industry consists primarily of very small "Mom and Pop" travel agents. In 1989, 19,000 of the 20,000 travel agencies in the United States were under \$1.5 million in air sales, out of total air sales of \$45 billion.<sup>6</sup> This competitive fringe may dominate in terms of numbers, but accounts for less than half of the industry air sales and is a negligible presence in the corporate market.

After the competitive fringe, there is a range of large regional and national agencies. These agencies follow a wide variety of strategies and are generally active in the corporate market. There are only a handful of truly national players in this group, including Rosenbluth, Lifeco, and Thomas Cook/Heritage/Crimson, all of which are in the \$1 billion total revenue range and have air sales over \$500 million [3]. But many smaller agencies can compete for national accounts through the various consortia, affiliate networks, and franchises that have emerged (see below). At the top end of the industry, there are American Express and the Carlson Group. The agency revenues for these diversified travel giants are difficult to gauge, but their total travel agency revenues have been estimated at over \$2 billion [3].

As noted earlier, there are considerable economies of scale emerging in the industry, primarily in corporate travel management. These economies of scale are driven by information technology as well as by the ability to leverage purchasing power through negotiated rates and risk inventory. It is interesting to address whether the technology and purchasing power benefits can be obtained other than by ownership. There are several large consortia, franchise, or affiliate networks that have emerged in the industry. Examples include U.S. Travel Services, Woodside Travel Management, and Hickory Travel Systems. These networks provide systems and negotiating services for members, usually for a membership fee. It is not apparent whether networks offer a reasonable alternative to owned companies. The past few years have seen a decline in consortia in favor of wholly owned systems and franchises [3].

It appears that name identification, service, and control requirements limit the network concept. One company we spoke to that had changed from the Woodside network to Rosenbluth in 1987 noted that Woodside had had considerable difficulty in producing useful consolidated reports. This problem was so severe that the company was not in a position to begin negotiating fares until it moved its account to Rosenbluth.

### 2.3.2. Suppliers

Continued concentration has been the rule in virtually all industry segments supplying the travel industry. From airlines to hotels to rental car companies, consolidation has been rampant and is continuing, particularly into the global arena. One important result of this consolidation has been an increase in the use of negotiated fares for large corporate and travel agency customers.

Perhaps the suppliers having the most impact on the travel agent business are the airline computerized reservations systems. Over 93 percent of travel agencies in the United States use a CRS [4]. This industry is clearly dominated by American Airline's

SABRE system and Covia's Apollo, which together account for 68 percent of all segments booked (1989) [3], and this dominance is expanding globally. The CRSs are critical in performing the TA function. Just as importantly, the CRS provides the primary telecommunications and information systems infrastructure for the travel agents.

Computerized reservation systems have traditionally had considerable power over travel agencies, although this dominance has recently been waning. Regulatory efforts have limited the range for CRS action, covering how flights are displayed on the CRS screens, access to the system, pricing, and other important areas. Additional regulations are expected [4]. A few agencies are of a size where they can counteract some of the CRS's power. While the majority of TAs are tied to a single CRS with restrictive lease agreements, megas such as Rosenbluth possess all major CRSs, a benefit secured by their tremendous purchasing power. Moreover, the CRSs are slowly being forced to open their systems by the avalanche of new technology available on the market. From travel agent back office software to corporate travel management software, new capabilities and customer demands are gradually forcing the CRS to be more accommodating to third-party systems as well as to improve the capabilities and tools offered through the CRS.

### 2.3.3. Customers

The travel market is frequently broken down into three segments: corporate travel, leisure travel, and meetings and incentive travel. Our focus is primarily on the corporate travel market, but we will discuss the other two briefly.

The leisure market is usually for individuals and is characterized by much more cost consciousness and the flexibility to adjust timing to save money. Most of this market is straight commission work for the TA. Knowledge of destinations is highly valued, but to date has not been managed in any cohesive fashion. Recently, tremendous opportunities have opened up for vacation packaging. Large packagers can use their purchasing power to negotiate very attractive rates. Margins in this business can be much higher than in individual or corporate travel.

The meeting and incentive market serves organizations arranging meetings, conventions, and other group events. This market has numerous similarities with the corporate market, but is characterized by a higher need for coordination of various people and elements (hotel, transportation, food, etc.). Purchasing power is very important in negotiating these events, and margins can be higher than individual or corporate business, as is the case with group leisure travel.

Corporate travel is an extremely important part of the TA market. It is estimated that firms spent over \$115 billion on corporate travel in 1990 [1], a good portion of which flows through travel agents. Over 90 percent of corporations surveyed by American Express in 1988 made all of their travel arrangements through TAs [1].

Despite the importance of travel and entertainment (T&E) expenses to corporations, T&E management has historically not had the attention of top management. The 1986-87 American Express Survey of Business Travel Management [1] found that



only 44 percent of respondents had a “strong, consistent management approach toward T&E.” Moreover, only 16 percent had a “travel manager/coordinator” position. The situation appears to be changing slowly. The 1988–89 American Express Study found that firms with a travel manager/coordinator position increased to 29 percent of those surveyed.

One result of the increasing management attention toward T&E has been a trend toward consolidating travel through fewer agencies; a recent survey found that 60 percent of the firms that use travel agencies have consolidated travel through a single agency [1]. There are significant benefits to such consolidation. Firms can better exploit their purchasing power with TAs, bargaining both for special services and for price. Using fewer agencies also makes it easier to accumulate and utilize firmwide travel information. This information is critical in leveraging firms’ bargaining power with specific suppliers and is also important for monitoring and controlling travel expenses. Moreover, there are strong economies of scale for the travel agents in servicing consolidated accounts, which create benefits that are shared by the company.

With the increasing sophistication of clients and the utilization of fewer agencies, the process of selecting a national agency for a large corporation has become very expensive and time-consuming, for both the corporation and the bidding agencies. As a result, TA–client relationships are becoming more long-term and cooperative in nature.

### 3. Rosenbluth

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THE DRAMATIC INDUSTRY CHANGES DESCRIBED IN THE PREVIOUS SECTION provide the backdrop for Rosenbluth Travel’s growth into a national mega travel agency. But RT did more than just ride the wave of change. RT was consistently at the forefront of the industry in terms of services and technology. This section reviews the evolution of their business and strategy, focusing on the role of IT.

#### 3.1. Evolution and Strategy

Rosenbluth Travel was founded as a steamship office in 1892. By 1979, the firm had grown into a significant regional travel agency, deriving the majority of its \$40 million revenues from leisure travel. Deregulation and Hal Rosenbluth hit the company at around the same time.

It is not unusual to hear of an executive starting at the bottom and working his way up. Hal Rosenbluth did it a little differently. After a period of jumping around in various positions, he demoted himself from a vice president to a reservations clerk, where he worked for two years. It was a dramatic and important time for the industry. Deregulation was shattering its foundations, and some experts were predicting the demise of the travel agency as a factor in the industry. Hal Rosenbluth and his colleagues viewed the situation a little differently: “What did deregulation mean? We weren’t sure we knew. But if all the bets were off, the company that could gather information faster and turn it into knowledge would win.” This experience “in the

trenches” was critical in forming the vision that was to guide RT over the next decade: “If you are doing it every day you have a better idea of what is going on. I could sense the customer’s frustration over the phone.”

By 1981 Hal Rosenbluth was convinced of the importance of the corporate travel market and the critical role IT would play in servicing that market. He pulled all the corporate travel agents from all offices and set up the first centralized TA corporate reservation center in the country. The objective was to exploit economies of scale, but, just as important, to facilitate the gathering and utilization of information as a basis for improved service.

During this phase, RT began to experiment with postprocessing reports from the CRS backroom systems to offer more effective travel management reporting. At the time, the CRS allowed agencies to add private data fields to reservations data. This facility was used by TAs to append accounting data for corporate accounts. Through the CRS-provided backroom systems, the agency could generate a limited number of reports. However, there was no capability for modifying reports based on internal information. RT performed some of this reporting by downloading the data from the CRS and manipulating it locally to produce reports better customized to corporate clients.

In 1983 RT introduced READOUT, a product that turned the flight selection process around, listing flights by fare instead of by time of departure. The CRS would display available flights only by time of departure; in order to find out the cost of a flight, the agent would have to switch back and forth between a fare screen and the list of flights. In contrast, READOUT would display the flights for a particular city-pair in order of increasing fare, so the cost implications of a particular flight selection were immediately apparent at the point of sale.

This simple innovation was a tremendous source of value-added to RT and led directly to new corporate accounts. According to Hal Rosenbluth, “The public was confused. No one knew what airfares were available. That’s when we realized we were in the information business, not just the travel business.” The original program was manual and developed and operated at very low cost. Each morning, beginning at 6:00 A.M., all reservation systems were reviewed for fares along major city-pairs. Then by the start of the business day, these fares would be made available to the corporate reservations clerks, at first just posted in the front of the reservation center, but later available automatically through the CRS.<sup>7</sup> The initial forty city-pairs have since been increased to over 700, and the process of scanning the CRSs and compiling the fare lists is now fully automatic.

The period 1983–85 saw continued growth in corporate business. During this period, RT made the significant jump from regional to national player. Air sales doubled from \$150 million in 1983 to \$300 million in 1985. In 1984, Du Pont became RT’s first national account, with a \$100 million per year travel budget. This move put RT up against the Woodside Travel consortium, of which it was a member. RT had joined Woodside to exploit the purchasing power and national presence of the consortium. As RT grew, this membership seemed more and more restraining to Hal Rosenbluth. There was considerable variation in the quality of service among the membership,

which Hal Rosenbluth felt diluted RT's emphasis on "elegant" service. RT's technological sophistication was far ahead of the average Woodside member, increasing the feeling that RT was paying too much for too little. Most important, Woodside had assigned exclusive sales territories that sharply limited RT's potential for expansion. The Du Pont account required RT to establish offices that directly violated these assigned territories. Conflict with Woodside continued as RT's national business grew, until RT left the consortium in 1986, a move Hal Rosenbluth describes as critical in "controlling our own destiny."

The need to "control our own destiny" underlies much of RT's evolution, and by 1985 Hal Rosenbluth was becoming increasingly dissatisfied with another threat to RT's autonomy: the airline CRS. The CRS was essential in performing the TA's function, and the CRS providers had leveraged this critical position into control over virtually all aspects of the business. All hardware and software (including operating systems and protocols) were closed systems, with fixed functionality, and were sold as "black boxes." This included the "front-end" reservations functions, as well as the "back-end" processing for accounting and travel management reporting. The back-end processing was subsidized by the CRS, further tying the agency to the provider. Even though biasing of screen displays had been curtailed by regulation in 1984, this strong position of the CRS gave considerable clout to the host airline. Agents would receive higher commissions, or overrides, based on sales targets negotiated with the airlines. It is certainly not surprising that such deals were more common with the host airline of the CRS used.

For Hal Rosenbluth, the primary issue was control over back-end processing. RT had some flexibility in structuring the reports through postprocessing, but this was still limited. Overall, the CRSs were not sufficiently responsive to corporate clients' needs for reporting and control. In fact, by allowing the CRS to subsidize the back room, the agency was prevented from fully servicing clients' needs. As Hal Rosenbluth has said, "Knowledge is in the back office. If you are dependent on a CRS provider for your back office, you can't fully utilize the knowledge. How can you ask United Airlines' Apollo to help you shift a client's business to American, or vice versa?"

In 1985 and 1986, RT pushed to develop its own back-office technology base independent of the CRS. With little IS expertise, RT began with a third-party software package. As RT gained experience, this package was extended and customized to address RT's needs better, and was eventually replaced with proprietary software. A critical step in this process was the hiring of David Miller (now Vice President, Global Information Technology) as RT's first Director of MIS. This technology initiative was a major commitment for RT and unprecedented in the industry; Miller estimates that in 1986, RT invested close to one-half of pretax profit in systems.

The back-office system, called VISION, produced its first set of reports in 1986. The key benefits of the system were the accuracy and completeness of information and the power and flexibility of reporting. VISION trapped a record of all transactions made on behalf of clients at the time of ticketing, regardless of the RT location or the CRS used. The CRSs were still used for booking a reservation, but a record of the transaction always went to VISION also. Extensive quality control

features were built into the system. Profiles of information required for each client, such as accounting codes and employee numbers, were maintained in VISION. Transactions entered into VISION were checked for completeness and accuracy. Exceptions were cleared within a day.

The resulting VISION database provided complete and accurate information and enabled considerable flexibility in reporting and analysis. The first set of reports streamlined and combined statements to improve their usefulness. Soon, reports could be tailored to specific client needs. Data were retained for thirteen months to allow trend and YTD reporting. Special reports could be produced to identify opportunities for price negotiations and investigate the impact of travel policy changes on expenses. VISION also supported linking directly with clients' internal systems, such as expense reconciliation and accounting.

In contrast, TAs relying on CRS back-office systems would have to wait until tapes of transactions were received (up to forty-five days) and then would manually review them for completeness. Consolidation of client information involved manual merging of data from multiple CRSs and (possibly) multiple agencies. Since there was no front-end control of company-defined codes and formats, this process could be extremely difficult, leading to considerable "reconstruction" of data. Flexible reporting of consolidated information was virtually nonexistent. According to David Miller, "VISION was so different, it was a quantum leap for the marketplace. VISION was key in signing up millions in sales from new accounts."

The capability of VISION also enabled RT to pioneer negotiated route-by-route fares with airlines. While special corporate rates with car rental companies and hotels were common at the time, airlines only offered limited special fares, primarily for group travel. Hal Rosenbluth realized that there were considerable opportunities for exploiting purchasing power if it could be coordinated and directed. With the VISION database, high-volume routes could be identified. The information could be analyzed to convince suppliers that the revenue from additional volume due to a rate program would more than offset the lower fares, benefiting all parties. VISION also enabled the effects of a program to be monitored to ensure that the expected effects were realized.

Negotiated route-by-route programs and the reporting ability of VISION led to a significant change in the way RT approached the corporate travel market. At the time, corporate travel was sold almost exclusively by price, that is, agency commission sharing; travel agents would typically rebate to clients 15 percent of their commissions. At the height of the TA price wars in the late 1980s, rebates could go as high as 40 percent of commissions, or 4 percent of total air sales and room billings. RT took another tack. Instead of competing on price, RT adopted a more cooperative approach based on service and partnership. Instead of rebates, RT offered guaranteed savings through lower airfares. RT maintained that it could reduce overall travel costs for the client while still earning its standard 10 percent commission. This claim could be backed up by reports from the VISION system comparing prices paid to the lowest available fare.

The next phase in RT's back-room strategy was to push information down to the

hands of users. This has led to the PC-based USERVISION product, a flexible query system to access VISION data that is currently being rolled out. Information is available online with only a one-day lag, compared to the forty-five-day lag common in competitors' systems. The package has a variety of standard analyses and a capacity for flexible custom reporting. Information can be downloaded to other popular PC programs for further analysis.

In 1988, RT began another strategic move that, while based on technology, was much more far-reaching than just a technology play. In 1988, Apollo introduced the ability to access the CRS through intelligent workstations with local programming capability (called scripting). Combined with the ability to store proprietary information within the CRS, TAs could now build sophisticated proprietary applications that had access to the CRS data and network. RT used this opportunity to undertake a major reevaluation of the front-end sales process. According to David Miller, "We did not just automate the old way of doing business." The result was PRECISION, a radically new front-end support system. PRECISION made available to the reservation agent the relevant employee and client profiles as well as the READOUT database. The dialog was designed to reduce data entry and increase front-end validation. For example, the dialog identifies all information required by that particular client for subsequent reporting and, where possible, pulls that information up from the traveler or company profile. Fares are shown from the READOUT database, that is, from lowest to highest relevant fare, including any Rosenbluth or company-specific negotiated fares. While Rosenbluth guarantees that the lowest available fare will be used, if two fares are equal, the one with the highest margin for RT will be listed first.

PRECISION creates several advantages for consolidating travel through Rosenbluth. Corporate policy and traveler profiles are available through PRECISION to all Rosenbluth offices. One corporate client pointed out that this greatly facilitated the ability of the company to "move share" with special fare programs. A new or modified fare program would be immediately available to all travelers anywhere in the country. Very few companies actually charge the TA with enforcing policy, but by making policy and special prices available at the reservation point, PRECISION enhances compliance with travel policies. PRECISION also greatly improves the quality of the data by pushing validation closer to the point of sale.

The quality control aspects of VISION and PRECISION were significantly enhanced with the introduction of ULTRAVISION. Running parallel to the normal reservation process, this system monitors transactions for completeness and accuracy, using criteria from the VISION database. Errors are identified and routed for correction on a real-time basis.

The VISION, PRECISION, and ULTRAVISION initiatives fueled a tremendous burst of growth. Gross annual sales jumped from \$400 million in 1987 to \$1.3 billion for 1990. The number of offices has jumped from eighty-five locations in 1987 to over 400 today. This sales growth has overwhelmingly been from internally generated sales, as opposed to acquisition. RT only opens offices in locations where they have committed clients, never on speculation. While acquisitions have been made, the objective has always been to service RT clients rather than to acquire clients.

Currently, RT is coming under some increased competitive pressure. Consolidation in the industry is continuing. In 1989, the top five players accounted for 67 percent of the air sales of the largest twenty-five companies, compared to 55 percent in 1984 [3]. Globalization is introducing new competitive pressures. Moreover, competing megas are beginning to respond to RT's technology initiatives.

But RT is still resisting competition based solely on price, preferring to negotiate with services. Where RT has been forced to compete on price, other mechanisms are employed to protect their revenue stream. For example, RT may adjust the number and timing of management reports to fit a particular client's needs while protecting RT profitability. Moreover, RT can negotiate how savings created through RT negotiated airfares and risk inventory are shared with the customer.

Rosenbluth Travel's focus on value-added service has been a key element of their strategy from the beginning. Services range from programming a custom EDI interface with a client's internal systems to providing support for price negotiations. This approach often has beneficial side effects. For example, according to Gene Barraro, Transportation Planning, Administration, and Services Manager at Scott Paper Co. (Philadelphia, PA), RT developed a program at Scott for analytical support for car rental negotiations. This package is now being marketed to other clients. Also at Scott Paper, RT pays for a full-time travel consultant, whose presence Barraro credits with selling three Scott Paper divisions on Rosenbluth.

Closely related to RT's strategy of differentiation through value-added services is their dedication to the concept of partnership. This cooperative approach was very evident when we were talking with Gerald Ephraim, Manager of Travel and Fleet Services for Kodak. Kodak consolidated their national travel through RT in 1987. When asked to estimate what portion of Kodak's negotiated fares were due to Rosenbluth's efforts as opposed to Kodak's, Ephraim pointed out that they generally meet with suppliers together and that it is very difficult to "define who did what." The partnership approach extends to the CRS providers and travel suppliers. According to Ralph Smith, VP for Industry Relations at Rosenbluth, RT aggressively uses its purchasing power, but never in an exploitive way. The objective is to fashion an arrangement that is win-win-win—for the airline, the client, and RT. The information available through RT's systems supports this process by enabling goals and commitments to be quantified and monitored.

Rosenbluth's independence is also critical in their partnership approach. Independence from the CRS was one of the objectives behind the development of VISION, RT's back-office system. All of RT's systems are integrated with all of the major CRSs to further reduce reliance on any one supplier. RT views itself as a broker and feels most competitors are too wedded to their CRS and its host airline always to serve the client best. RT was the first in the industry to establish a lab that thoroughly tests all third-party hardware and systems (such as those from the CRS) prior to offering them to clients.

This desire for independence is also evident in RT's strategy for integrated T&E management. Several products are available that integrate pretravel information from the CRS, payment information from credit cards, and internal accounting information.

An example is Diners Club's TRACS system, which fully automates the filing and reconciliation of expense reports. Rather than committing to any one card or system, RT wants to work with all systems, a capability they call Fusion. Fusion currently provides links to Diners Club's TRACS, Covia's Travelmaster and SABRE's Capture products. RT is also investigating arrangements with VISA and Mastercard.

### 3.2. International Alliance

Rosenbluth Travel has extended their reach globally with the Rosenbluth International Alliance (RIA), which they organized in 1987. RIA currently includes thirty-four agencies in thirty-seven countries, having combined annual sales of over \$5 billion. With the increasing globalization of business in general, an international presence has become increasingly important to the corporate travel management business. RT feels that their alliance concept gives them a significant advantage in this globalization process. Once again, IT is playing a central role in this strategy.

Global presence is important in providing service for global corporate clients for two reasons: local travel support and global travel management. International business travelers are demanding local service wherever in the world they happen to be. This service ranges from adjustments to travel plans to handling medical or legal emergencies. RIA members have dedicated facilities for providing this local support to any RIA client.

Global travel management is, at this time, conceptually attractive but not yet practiced. However, RT believes there are tremendous opportunities for global travel management, and that exploiting these opportunities will drive the travel management business in the future. The RIA hopes to be in a position to allow its members to capitalize on these opportunities. At the heart of global travel management is the ability to aggregate travel information worldwide. Firms will be able to pinpoint high-volume routes and adjust policies to control travel costs. Carl Nurick, Vice President of International Development for RT, foresees the day where facilitating the global flow of people becomes an important part of overall logistics management for international firms. More important, global visibility of travel patterns can create opportunities for negotiating fares with suppliers. RT has pioneered such negotiated programs in the United States with tremendous success, and Nurick feels the global possibilities are even more dramatic.

In order to approach truly global travel management, an organization must be in a position to accumulate travel information from around the world. This requires coordinating the coding and formatting of travel records and arranging the physical accumulation of these records. A travel agency with a closely integrated global network is in an excellent position to support this information accumulation and consolidation. The RIA is developing procedures to achieve this level of integrated information management for any RIA client, anywhere in the world.

In addition to addressing the travel needs of global businesses, a global service network also yields additional advantages to a travel agency, such as new sources of business, increased purchasing power, and a larger business base to support capital

expenditures. Successful handling of a company's travel needs can lead to additional business for the global travel management organization, servicing the firm's overseas subsidiaries and affiliates. For example, Nurick tells of one RIA client in Europe who has formally directed all subsidiaries in the United States to use RT. According to Nurick, such global referrals, while not yet significant, are growing in the RIA. A global network can dramatically increase the bargaining power of the firm when dealing with suppliers. The RIA has established a system where individual RIA members can negotiate programs with local hotels using the entire volume of the alliance, yielding significantly better rates. Finally, servicing global business requires expensive capital outlays for technology infrastructure. These expenditures can be shared by all participants, lowering the cost to any one participant.

While many TAs believe developing a global network is critical for future survival and growth, there are several ways to accomplish this. RT feels that its alliance concept has several advantages over the approaches being utilized by competitors. Several competitors, such as American Express and the Carlson Group, are spearheading their global expansion through establishing new, wholly owned subsidiaries, or through acquisition. According to Nurick, this ownership strategy was not feasible or desirable for RT. Global business requires omnipresence, and trying to establish owned entities throughout the world would have been prohibitively expensive for RT. Nurick feels the capital requirements for such a strategy are proving burdensome even for giants like the Carlson Group. Moreover, the nature of the travel business varies tremendously from country to country. RT felt that attempting to manage that diversity within a single firm would have been close to impossible. As a result, the RIA is structured as an alliance of independent organizations bound by common interest. Each member has the freedom to adjust to local conditions as they see fit and the areas of cooperation within the alliance are determined by mutual business needs.

The alliance concept is also significantly different from other cooperative approaches tried in the industry, such as the consortium approach of Woodside and the Business Travel International. According to Nurick, previous cooperative approaches have not succeeded, because of either burdensome administrative structures or lack of adequate integration. The RIA has attempted to avoid these problems through an innovative organizational structure and an extensive technology infrastructure to ensure integration.

The RIA organizational structure is based on the principles of equality of members and mutual self-interest. Potential members were carefully screened to ensure cultural compatibility and sufficient resources to meet RT's service requirements. The alliance is based on entrepreneurial local nationals with a service orientation and management style that fit well with RT. All decisions of the alliance are determined directly by the membership, including the allocation of the costs of the alliance. All members of the alliance have one vote regardless of size, so that smaller members do not feel overwhelmed. There is very little permanent administrative structure. Special-purpose committees are formed for specific projects and objectives, but these are staffed and funded by the participants.

Just as important as the organizational aspects is the technological infrastructure put



in place to ensure coordinated service. The backbone of this infrastructure is currently the Apollo CRS offered by Covia.<sup>8</sup> All RIA members must use Apollo for RIA functions (although actual transactions may be executed through other CRSs). The Apollo front end has been extended by the alliance with a RIA member reference system, E-mail, and a proprietary international hotel system. The RIA has been working aggressively with Covia, Galileo, and Gemini to extend the capability of the infrastructure. The capability for all RIA members to access a customer's itinerary and profile information (for RIA clients) is being implemented now. The RIA is developing procedures and formats for consistent travel records to support global reporting, and is developing front-end interfaces similar to PRECISION to facilitate information control and access.

Rosenbluth Travel does appear to be in the forefront in terms of technological infrastructure linking their global alliance.<sup>9</sup> Even though much of the infrastructure is based on Apollo, making the same basic functionality available to competitors, no competitor has been as aggressive in exploiting the available capability. Moreover, many of the systems that augment the front room and back room are proprietary. The RIA is continuing to work closely with the CRS provider to shape the evolution of CRS functionality and is investing heavily in proprietary systems to exploit and build on that functionality.

The future evolution of global strategies is highly uncertain at this point. Most of the other megas are embarking on major acquisition programs supplemented with affiliate relationships, while RT has not yet made an acquisition. Relying on the alliance concept for global presence introduces the possibility that the control problems that have plagued domestic consortia may also emerge in the RIA. RT hopes that the careful selection of members and the organizational structure of the alliance will minimize such problems. Hal Rosenbluth views the alliance as extremely successful to-date and does not envision the need for major foreign expansion through acquisition. This does not mean RT entirely rules out overseas equity participation: RT participates in equity joint ventures in Japan and in Hungary. While these are viewed as unique situations, the ownership situation will continue to evolve. Nurick points out that there are discussions among RIA members (other than RT) about stock swaps and potential mergers. Europe in particular is likely to see considerable ownership consolidation in the light of the 1992 accords. Nurick feels ownership consolidation and exchange will increase the stability of the alliance, although it is too early to make any predictions.

Another risk to the alliance is the possibility of opportunistic behavior on the part of members. This may take the form of performance shirking or appropriation of the alliance's technology or know-how. Nurick feels both of these risks are low. While there are no formal mechanisms for monitoring service levels, the close relationship with clients provides constant feedback as to the quality of RIA service. In only one situation has there been a significant service problem. In this case, the service problems were immediately apparent and the member was asked to leave the alliance. There are also no formal controls over technology or know-how. In fact, the free flow of ideas is essential to the alliance. But most of this expertise and technology is of limited use

outside the alliance. According to Nurick, the biggest risk is that a member will use alliance participation to increase its market value and then sell out.

#### 4. Competitive Position

ROSENBLUTH TRAVEL HAS MANAGED THE TRANSITION from a local player to one of the handful of "megas" that dominate the market. They have accomplished this through a strategy of service, leveraging IT while exploiting, and at points defining, the emergence and growth of the corporate travel management market. The majority of small TAs cannot begin to compete with the service levels and cost structure of RT. But at the same time, RT is dwarfed by the consolidated sales and financial resources of diversified travel giants like American Express and the Carlson Group. Comparisons with similar megas, such as Lifeco and Cook/Heritage/Crimson, can be very difficult.

One way of looking at relative positions is in terms of *strategic resources* [e.g., 14]. Firms with an advantage in some key resources that are not easily duplicable or substitutable will generally be in a position to earn higher returns. There appear to be four critical resources in this industry: *information*, *expertise*, *information technology*, and *scale of operations*. In addition, there are important organizational factors, such as culture and management style, that significantly influence the effectiveness of these other resources.

One of the primary roles of travel agents is to be a conduit and accumulation point for *information*. This enables them to buffer customers from the complexity of the marketplace, reducing travelers' search costs and improving the match between customers and providers. TAs also accumulate information on travel patterns to aid corporate clients in developing effective travel policies and programs. Closely related to information is the ability to convert the information into effective action. This involves analyzing traffic patterns, designing travel policies, and negotiating supplier programs, all of which require specialized *expertise*. And, of course, *information technology* is the mechanism for accumulating information and converting it through expertise into effective action.

*Scale of operations* is perhaps the most critical resource, since it influences the potential economies of scale from information, expertise, and information technology. All three of these other resources are characterized by high fixed costs and low marginal costs, leading to significant economies of scale. Moreover, the purchasing power inherent in scale of operations is important in negotiating with suppliers and with customers.

In the following sections, we investigate each of these key resources. The key questions that need to be addressed are:

- Does RT have a comparative advantage in the resource?
- To what extent is the resource nonduplicable and nonsubstitutable?

##### 4.1. Information

Travel agents serve to filter the vast quantity of information on supplier offerings in order to service customers' travel needs better. However, much of the information on

suppliers is actually accumulated and controlled by the computerized reservations systems, and is, therefore, not a strategic resource of the TA. However, there are some areas where TAs can build an information endowment that is definitely strategic.

- Other supplier information—Not all information is available through the supplier reservations systems. Traditionally, TAs have capitalized on this fact and have supplemented these data with information on quality, ambience, and other less concrete factors gleaned from personal experience and feedback from their clients.
- Travel policies and preferences—TAs can be an accumulation point for travel policies and preferences, and can utilize this information to match offerings to clients' needs better.
- Client travel history—TAs can be an accumulation point for travel history that can be used for internal management reporting, for developing and monitoring travel policies, and for negotiating special fare and rate programs.

In all of these cases, TAs serve as an accumulation point, rather than as the original source of the information. Since TAs are primarily information intermediaries, the strategic value of TAs' information base depends on their ability to accumulate and process the information at less cost than other intermediaries or the principal parties (suppliers and clients).

Rosenbluth Travel has sought to enlarge and leverage their information endowment in several ways. The IT infrastructure of VISION and PRECISION has been used to systematize and automate the accumulation, storage, and retrieval of information. The range of information handled by IT is continually being extended. For example, RT's hotel system can now report on travel distances among major hotels, airports, and meeting sites.

At this point it appears that RT has a comparative advantage in information over other TAs in the industry. No TA competitor has the IT and organizational infrastructure. However, there are some potential threats to this advantage. As more information becomes systematized and automated through IT, it becomes easier to transfer this information. New specialized information providers may emerge. Perhaps more importantly, the CRS may be in a position to expand its information base and functionality to cut into the value of RT's information endowment.

## 4.2. Expertise

A TA also provides value by being able to utilize the information from suppliers and customers to produce effective decisions and actions. This know-how, or expertise, can be an important strategic resource. RT has aggressively acted to build and exploit their expertise base. This can most easily be seen in their development of negotiated fares. Their ability to identify and to implement such programs has been continually enhanced. The experience has led to the development of new techniques and the identification of new opportunities. RT pioneered this area of service and remains a leader today.

Duplication of RT's expertise advantage is difficult. First, it is difficult for other parties to observe the processes involved. They may see the outcomes, but must infer the underlying activities leading to them. Second, the knowledge is embedded in a specific organizational context. The specific "how to" of rate negotiations would have less value without RT's information systems, relationships, and market share.

Still, the value of an expertise advantage will tend to dissipate over time, as competitors work out similar systems and practices. Continued innovation is critical in maintaining and exploiting a knowledge base, and RT appears to be well situated to continue to build and leverage their expertise base.

### 4.3. Information Technology

As noted earlier, RT's strategy has emphasized IT, leading them to be an aggressive innovator in the use of this technology. A key aspect of their IT strategy has been the creation and leverage of technical infrastructure: new applications are integrated with and build on the existing platform. The result is an IT resource base that is arguably the most advanced in the industry. They are investing heavily in maintaining this advantage.

Rosenbluth Travel's infrastructure allows clients to define their own information needs for management and then assures that information is complete and accurate. It supports flexible access to this information through relational database technology in a form appropriate for decision making. At the same time, it reduces costs by automating quality control and pushing problem resolution down to the point of sale. The impacts of the infrastructure extend to travelers. All information relevant to the transaction is available at the point of sale. The process of making travel arrangements is streamlined, improving service to the customer and also reducing the costs of handling the account.

Rosenbluth Travel's technology base also provides a platform for further innovation. Applications cascade, with each being based on previous applications. For example, USERVISION, which allows online access to travel data by the client, would not be possible without the VISION infrastructure. But perhaps the most important innovations made possible by the technology are in using the data; the sophistication and usefulness of analytical routines are subject to strong learning effects. Much of what RT does today in negotiating prices could not even have been considered without the technology base.

Although RT's initial annual investment in IT was easily within reach of most of their larger competitors, there has been considerable lag in competitors' response. Only within the past two years have competitors been seriously responding to RT's technology, and even then, the responses have typically been in a piece-by-piece fashion rather than based on a coordinated strategy. For example, all large players now offer their corporate accounts some form of online access to their travel data, as RT's USERVISION product does. However, no other firm has its own back-office systems such as VISION, so data must be collected from the CRS, usually by tape. Where USERVISION has a lag of one day in access to information, competing systems could average forty-five days. Moreover, with extensive automated quality control, RT

believes they have higher quality at lower costs than competitors' manual quality control procedures.

While RT seems to have enjoyed a technology resource advantage over other megas, and to have been able to leverage this advantage successfully in the marketplace, the other megas cannot be dismissed as threats. They certainly have the financial resources, and the additional advantages of learning from RT's experience. The CRS providers have recently been aggressively improving the tools and services available through the CRS, making it easier for competitor agencies to match RT's proprietary systems. Competitors' failure to respond rapidly may have had more to do with the fact that alternative strategies, such as the price competition pursued by most TAs, were at the time as viable as the differentiation strategy followed by RT. As technology increases in importance to the market, it is unlikely competitors will remain so complacent. This is evidenced by the increase in technology activity among the megas over the past year. Moreover, third-party packages are beginning to become available, making the technology available to many smaller travel agents.

Perhaps the biggest threat to RT's technology comes from the CRSs. A significant portion of RT's technology is actually an add-on to the CRSs to perform functions the CRSs were not able or willing to provide. As the CRSs become more independent of specific airlines, through the diffusion of ownership<sup>10</sup> and the introduction of non-industry owners, such as EDS, it is more likely they will expand to provide these services. All CRSs provide some system capabilities for corporate travel management. Moreover, the quality of tools available from the CRSs is being greatly enhanced. Competition among CRSs seems to be evolving in terms of the quality of these tools [10]. Involvement by the CRSs is even more threatening in that it could eliminate some of the TAs' information advantage, since the fundamental information source for all TAs is the CRS.

Rosenbluth Travel recognizes that CRSs may have an advantage in providing some of the services that are now proprietary to RT, particularly in the front room. The CRS could offer these services directly to corporations or to other TAs. However, there are significant limitations to the CRSs' ability to threaten RT and its technology base in the near term. Computerized reservation systems are historically and culturally tied to their host airlines. The risk of being tied to a single CRS provider is compounded by these links to the airlines, since it may be very difficult for them to establish the independence necessary to be an impartial provider of TA services. Moreover, the CRSs currently lack the deep understanding of the corporate travel market that TAs have. Of course, the CRSs are becoming less tied to their hosts over time, and they are beginning to develop internal expertise in corporate travel management, a process that could be accelerated through aggressive hiring or through acquisition of one or more major agencies, but there are substantial uncertainties surrounding the organizational and strategic changes required for the CRSs to be major competitors to TAs.

#### 4.4. Scale of Operations

Size is becoming increasingly important in the travel industry. Larger firms are in a better position to negotiate with suppliers. More important, the key resources of

information, expertise, and information technology are subject to economies of scale. Rosenbluth's growth strategy can be best described as "bootstrapping." Expansion was sought through new business based on value-added services. IT was critical for providing these services while driving down costs. The scale effects of technology and size detailed above led to decreasing average costs as business expanded. At the same time, a premium could be charged for the superior services. The profits generated in this fashion were then reinvested in IT to fuel further growth. This strategy required RT to be an aggressive innovator. In fact, most of the services that define the corporate market today were pioneered by RT, from negotiating prices with the airlines to lowest fare guarantees for corporate accounts. The success of the strategy is clearly evidenced by RT's catapulting into one of the five largest agencies in the United States. RT's size advantage clearly is now a barrier to the majority of smaller agencies. Without the purchasing power, financial resources, service network, and technology base, the smaller agencies are at a significant disadvantage in the corporate travel management market.

Rosenbluth Travel's size advantage is not unassailable. The travel revenues of American Express and the Carlson Group are each about twice those of RT; the overall resources of these giants are considerably greater. Moreover, there are several other megas that have achieved size similar to RT, while following very different strategies. The other extreme from RT is USTS, founded in 1986. This company has grown almost entirely by acquisition. Most of the other "megs" have pursued some balance between acquisition and growth. For example, Lifeco has made several significant purchases, but a good portion of its growth has been internally generated.

Mergers and acquisitions make becoming a mega within reach of a large number of large regional players. For example, the recent merger of Thomas Cook and Crimson/Heritage created one of the five largest agencies in the United States. Information is not available to evaluate the profitability of these acquisition strategies. It is possible that acquisition premiums are high enough to erode any increased current profitability from the combinations. At the same time, the increasing rate of consolidation in the industry is clear evidence that the expectations of future scale economies and the current size distribution are not yet balanced. It is too soon to identify the ultimate survivors.

Continuing consolidation raises another issue. The TA industry still must be considered relatively fragmented, despite the rate of consolidation. And the consolidation is now expanding globally. It may be that the level of growth needed to stay at the top of the pack in the industry is higher than the level of growth possible through the internal expansion RT has relied on in the past. Acquisitions may be necessary for survival. RT is not necessarily disadvantaged in an acquisition game; their systems infrastructure may give them an advantage in integrating acquired operations, allowing them more rapidly to exploit the additional scale. On the other hand, Rosenbluth's family ownership may be a liability in the future for gaining access to the capital necessary to finance acquisitions.

Finally, technology may ultimately reduce the competitive benefits of size. Consortia and franchise networks have been around in the industry for some time. In fact, the

ten largest consortia account for over \$32 billion in air sales. There are clearly some problems with the consortia concept as currently practiced, evidenced by considerable turmoil in membership and a leveling off of growth [3]. However, it is possible that cooperative networks can be viable over the long term, particularly with advances in technology and the development of management techniques for cooperation [8]. In fact, RT is relying on a cooperative approach, the RIA, for global expansion.

#### 4.5. Organizational Factors

The importance of resources such as scale of operations, information, expertise, and IT depend on the effectiveness with which they are utilized. Such organizational issues as culture, management style, incentive structure, and leadership ultimately determine the outcome of the competitive game. Here, RT is more than well situated.

Few large competitors possess the coordination and consistent focus of RT. In most cases, such as those of USTS and Cook/Heritage/Crimson, problems arise from trying to integrate acquisitions with very diverse systems, cultures, and strategies. RT is extremely concerned with organizational, strategic, and technological coordination. This can be seen readily in their extensive search for compatible organizations in forming the RIA, and also in the technological infrastructure put in place to coordinate the alliance. RT also possesses an innovative capability that stems from a combination of these organizational factors. While the causal relationships may be unclear, the effects are very evident. No competitor can boast the rate of innovation RT maintained over the 1980s.

#### 4.6. Competitive Position Summarized

Rosenbluth's strategy has clearly been successful in projecting them to the head of the competitive pack over the past ten years. They successfully exploited the emergence of the corporate market to enter (and to help establish) the new strategic group of mega agencies. Over time, technology and scale economies have built substantial entry barriers to this strategic group. Information technology has played a critical role in this, both by enabling value-added services that differentiated RT in the market and by leveraging emerging scale economies in the industry.

The majority of agencies cannot surmount these barriers. However, RT's position is far from secure. Threats are emerging to the critical resources of scale of operations, technology, information, and expertise. What is certain is that IT will remain critical in the evolution of the industry. By focusing on IT for the past ten years, RT may be in a better position to jump into the next decade.

### 5. Conclusions: IT and Competitive Advantage

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THE STRATEGIC ROLE OF IT HAS OCCUPIED RESEARCHERS for some time, and several theories and frameworks have been put forth to advance our understanding of this role. A case study is a scientifically sound method for examining these theories [11]. Of

course, no one case will establish the validity of a theory. But evidence in a case will tend either to support or to undermine hypotheses and suggest directions for enhancing the theory. The RT case allows us to make several observations about the strategic use of IT.

### 5.1. Exploiting a Discontinuity

Clemons [5] hypothesized that major discontinuities in the environment create the opportunity for strategic applications of IT. This was definitely true for several well-publicized IT success stories such as the airline computer reservations systems and Merrill Lynch's CMA Financial Product. The RT case also supports this view. RT's evolution depended fundamentally on the impacts of deregulation. This discontinuity led to a dramatic increase in complexity and created a demand for a means of managing that complexity. Hal Rosenbluth correctly anticipated the importance of the corporate travel management market as well as the critical role technology would play in servicing that market.

### 5.2. First-Mover Effects, Switching Costs

Recognizing an opportunity is merely the first step in competition and is not the same as exploiting it. McFarlan [12] suggested that the IT innovator will capture the market and maintain an edge through first-mover effects and switching costs. Clemons later expanded this view to point out that this requires that customers adopt faster than competitors can react [6]. This "create-capture-keep" paradigm is strongly supported by the RT case.

Rosenbluth Travel has clearly been the technology leader in the industry. From the introduction of READOUT in 1983 to the recent rollout of USERVISION, RT has continually utilized IT to up the ante in service innovation. Even innovations such as route-by-route fare negotiations with carriers were heavily predicated on an IT base to support the negotiation and monitoring of these programs.

Rosenbluth's innovations fueled dramatic growth through the 1980s, with sales increasing from \$40 million to \$1.3 billion. Most of this growth came at the expense of "Mom and Pop" agencies. During this period, competitor reaction was surprisingly low, even among the giants and the other large agencies that made the jump to "mega" during the decade. Only in the past two years have significant competitors seriously invested in closing the technology gap.

The growth in sales will likely continue as the industry consolidates further. Moreover, RT's customer base appears reasonably secure against competitors, even if not totally due to switching costs. The importance of switching costs is ambiguous. Switching costs seem to be increasing in the industry, as TAs and clients form more long-term and complex interrelationships, and IT clearly plays a role in this by enabling services that create significant economic benefits from closer integration and by establishing mechanisms for managing the more complex interactions. At the same time, most of the monetary switching costs are usually paid by the new TA, indicating



they have not yielded significant bargaining power. And IT is also becoming more important in reducing the switching costs, through easier data conversions and standard interfaces.

More important than switching costs in holding and expanding the market share gains from innovation is the role of IT in creating and exploiting economies of scale. Even firms of comparable size will continue to be at a disadvantage unless they can match RT's integration and coordination.

### 5.3. Using Systems to Leverage Critical Resources

We have posited that competitive advantage through IT is not simply a matter of technology leadership [7]. Even though competitors may duplicate a technology innovation, relative advantage can be created and sustained where the technology leverages some other critical resources [7]. At first glance, the RT case does not seem to support this view. RT in 1980 did not possess any significant resource advantage over other reasonably sized agencies. However, RT does appear to have used their initial technology lead to expand, acquiring key resources such as size, information, and expertise. Currently, RT has a significant resource advantage over all but a handful of competitors, even if they were now to obtain identical access to the technology.

Information technology can itself emerge as a critical resource that can be leveraged strategically. This can occur when applications build on previous applications to the point where a strong systems infrastructure emerges. Such a technology platform can drastically reduce the costs and development times of future innovations or responses to competitive moves. RT has successfully integrated its IT investments to yield a consistent IT infrastructure.

The RT case clearly demonstrates the importance of infrastructure. RT's technology push in the 1980s was oriented around the concept of a technology platform. Most competitors, when forced to react to RT innovations, chose to do so with ad-hoc, stand-alone systems. This has made it much more difficult for them to respond to more recent competitive developments. For example, TAs have recently begun to offer rechecking of lowest fare and waitlisted seats between the time of reservation and time of flight. This is typically accomplished by repeated automated queries to the CRS. The CRSs are in the process of responding by changing their fee structure to make such systems prohibitively expensive. RT, on the other hand, is building farechecking and waitlist checking functionality into their ULTRAVISION system. ULTRAVISION was developed in a negotiated and approved partnership mode with the CRS and allows a direct interface to the CRS, reducing the processing load on the CRS host, and is integrated with RT's internal infrastructure.

### 5.4. The Role of Vision and Culture

The importance of leadership and vision in the success of strategic applications of IT has been recognized [2]. The RT case clearly supports the importance of these "soft" factors. RT's success would not have been possible without the vision of Hal

Rosenbluth, as well as the people and organizational environment he assembled to implement that vision. It took the technology expertise and vision of David Miller to translate Hal's business vision into feasible strategies and systems. And it took the aggressive service and innovation orientation of the RT culture to make these strategies successful. The leadership and people enabled RT to emerge as a national mega, and will undoubtedly be important in the continuing competitive game.

## NOTES

1. These are company figures. Rosenbluth Travel is privately held and does not publish financial results.

2. TAs earn revenues from other sources, but air sales are typically the largest revenue item. These figures are the most reliable and complete indication of travel agency sales available.

3. Numbers compiled from industry sources by Advanced Distribution Technologies, Inc., in Framingham, MA.

4. This is a somewhat simplistic summary. The airlines originally intended TAs to be captive agents augmenting internal distribution systems. Competitive and regulatory forces led to a gradual opening of the systems that continues to this day. Moreover, the complexity of route and fare structures and the technology to manage that complexity are fundamentally interrelated. See Copeland and McKenney [9] for an excellent discussion of these issues.

5. Fares negotiated by route are a very small percentage of special fares. According to Hal Rosenbluth, RT pioneered this practice and still accounts for the majority of such arrangements, although other large agencies have recently begun to offer similar deals.

6. Numbers compiled from industry sources by Advanced Distribution Technologies, Inc. in Framingham, MA.

7. While the READOUT database was available to Rosenbluth reservations clerks, through the CRS, this product was totally proprietary. The CRSs all offered special private data areas that could be defined and used by the TA. They also provided simple functions for viewing such private data. RT maintained the READOUT database in this private data area and used CRS functions for making it available to the reservation agent.

8. The exclusive reliance on Covia's Apollo is temporary. Covia (U.S.), Galileo (Europe), and Gemini (Canada) have entered into a federation to provide a global reservations systems network. The goal is to have common interfaces and transparent access to any of the three participants' systems. The RIA is working closely with all members of the federation. Eventually, as is the case with RT in the United States, the RIA will support all major CRSs.

9. American Express has a global network, but it does not support comprehensive coordination of travel services or data. For example, an American Express office in London would not necessarily have access to itineraries, traveler profiles, or corporate policy information from another Amex office.

10. Only one CRS in the United States is now wholly owned by a single airline. Moreover, CRSs in Europe and Asia are all co-owned by multiple airlines.

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