HARVARD | BUSINESS | SCHOOL

9-603-022
REV: OCTOBER 28, 2002

STEFAN THOMKE

Bank of America (A)

The banking industry is ripe for innovation. We need to grow through value creation and excellent service that is appreciated by customers as opposed to price alone.

—Milton Jones, president, Georgia Banking Group

"I wonder if we're being 'overrewarded'!" exclaimed Warren Butler to Amy Brady, the executive responsible for Bank of America's Innovation & Development (I&D) Team in Atlanta, Georgia. As an executive in the consumer bank's quality and productivity group, Butler led innovation and process change in Brady's group, which was responsible for testing new product and service concepts for the bank's branches. In the company's elegant 55th floor conference room on a day in May 2002, the two prepared for a team meeting on an important strategic decision that would affect how experimentation would be done in the I&D Market.

Seeds of change were in the air at Bank of America. Indeed, earlier in the day, Butler had escorted an astonished visitor, a European banking executive, on a tour of some two dozen real-life "laboratories" in Atlanta. Each was a fully operating banking branch, yet in every location new product and service concepts were being tested continuously. Experiments included "virtual tellers," video monitors displaying financial and investment news, computer stations uploading images of personal checks, and "hosting stations." (See **Exhibit 1** for a selection of experiments carried out in a single branch.)

Currently, the I&D team had 25 bank branches in Atlanta in its experimentation portfolio. Senior management, however, had now offered them additional branches across the country that could expand experimentation capacity by nearly 50%. This offer appeared a vindication of the I&D Market project, which had been launched as an experiment itself only two years earlier. This reward posed some tough questions. Would increasing the size of its innovation laboratories aid or inhibit the group's ability to develop new product and services? What would be the effect on the group itself? The issue of whether it was a dedicated research and development (R&D) operation or not had yet to be resolved. And, finally, what kinds of expectations would be placed on the group if its size were to increase so dramatically?

Professor Stefan Thomke and Research Associate Ashok Nimgade prepared this case. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

Bank of America: A Pioneer in Banking

Many innovative banks have gone out of business, often because they deviated from the "best practices" followed by most.

—Rick Parsons, executive vice president, Strategic Projects

When Bank of America was formed in 1998 through a merger between California-based Bank of America and NationsBank of North Carolina, it could be proud of a long and rich history that spanned more than 150 years. Under its last CEO, the colorful but controversial Hugh McColl, the company had gone on a three-decade-long acquisition binge that resulted in a truly nationwide bank. In the fitting end to an era of hunting, McColl left his last annual meeting wearing cowboy boots and jeans on his way to a turkey shoot in Texas. Toward the end of the 20th century, Bank of America was the second-largest national bank with nearly 4,500 banking centers in 21 states, more than any other financial services company and with most of them in the high-growth belts of the South and the West Coast (see **Exhibit 2** for a map of the bank's regional market share). In the United States, the bank served 27 million households and two million businesses and processed more checks per day than the Federal Reserve System. Globally, it boasted over 140,000 employees across 190 nations, over $8 billion in annual revenues, $360 billion in deposits, and some $600 billion in assets (see **Exhibit 3** for key financial data).

Yet, increasing competition ensured that Bank of America could not rest on its laurels. Like many of its successful peers, its growth had been driven by cost reduction and consolidation. From 1985 until 2000, the number of U.S. banks had dwindled from around 14,000 to about 7,000. These still large numbers—especially when compared with there being only six major banks in Canada—reflected the highly competitive nature of the U.S. banking industry as well as its regional focus. Driving consolidation had been a realization that while service was local, products were national. Despite this realization, however, banks continued viewing financial services as commodities, and this bottom-line orientation did not make for an industry rife with innovation. In the estimation of Butler, a senior vice president and industry veteran, "People's expectations for banks are very low; in fact, they're used to being treated badly by banks."

To meet the challenges of an increasingly competitive environment, Bank of America had started decentralizing its national operations and encouraged branch managers to undertake more responsibilities. According to reengineering expert Michael Hammer, however, the era of acquisitions had left the bank with "the loopiest organizational structure I'd ever seen"—organized partly by customer, partly by geography, and partly by product (see **Exhibit 4** for a section of the bank's organization). As CEO Kenneth Lewis put it, "We'd talk about customer satisfaction, then go out and buy that next bank."[1]

For the new century, however, things would change. *Fortune* magazine observed:

> The hunter will become a farmer. "Organic growth" is the strategy, reduced earnings volatility and greater profitability the goals. The plan is to make more money from essentially the same customers by selling more services. In the huge Consumer & Commercial bank, which generated 65% of earnings, that means getting a bigger "share of wallet" by encouraging

[1] T.A. Stewart, "BA: Where the Money Is," *Fortune,* September 3, 2001.

consumers to consolidate their banking and—the Holy Grail—bring their portfolios over from Fidelity and Merrill Lynch.[2]

Few banks, however, had formal efforts under way that would generate the continuous stream of new products and services needed to grow organically. Only in recent years did banks start filing for patent applications. When innovation occurred, it did so only in specific areas: the Fifth/Third Bank in Ohio, for instance, innovated on the cost side, while Washington Mutual (WAMU) innovated on the service side. Many large banks had pockets of innovation that quite often simply remained that—pockets.

WAMU, one of the more innovative U.S. banks, had aggressively started opening traditional as well as experimental branches, sometimes directly across the street from Bank of America's I&D Market branches. Taking a cue from retailers such as department stores as well as coffee retailer Starbucks, WAMU started its Occasio pilot program. A concierge at the front entrance and several casually dressed roving sales representatives carrying mobile handheld computer devices answered customer questions. Several strategically placed teller stations replaced the traditional monolithic teller counter. Play areas for children also provided parents more time for banking. The first five Occasio branches opened in Las Vegas in April 2000, and customers opened checking accounts at twice the rate of regular branches.[3] For most banks, however, little sense of urgency existed.

The State of Innovation in Banking

Our banking branches haven't really changed much in the last hundred years. If Jesse James brought his gang here, he'd still know where to go for the cash.

— Al Groover, senior process design consultant and I&D Team design lead

One of the first actions Lewis took when becoming CEO was to consult several outside executives in areas from e-commerce to process management on what they considered to be "best management practice." "Process and competence will win," insisted Lewis, who also announced a Six Sigma quality program to reduce errors and streamline processes. In his focus on operational excellence, Lewis tried to rectify a situation that, according to a leading financial consultant, could be best described as "banks are very good at being mediocre at a lot of different things." [4]

Innovation, too, would require a revolution. That banks traditionally downplayed product and service development was reflected by a near universal lack of R&D departments. The comforting, stolid shadow of the three-piece-suited banker, after all, still loomed over most large banks. New products and services in the banking industry, if and when they came, generally arose from marketing departments, which lacked the formal processes, methodologies, and resource commitments that companies in many other industries took for granted. In fact, even inspired senior executives with sufficient initiative could, through relatively informal channels, bring their own ideas to test markets. Although banks had IT departments, these primarily supported ongoing infrastructure changes in technology and software.

---

[2] Ibid.

[3] WAMM Web site at <http://www.wamunewsroom.com>.

[4] T.A. Stewart, "BA: Where the Money Is," *Fortune*, September 3, 2001.

In the late 1990s, however, several converging forces led Bank of America to launch its formalized system for product and service development, the I&D Team. First, along with other industries, the bank began appreciating the value of continuous experimentation and testing in its efforts to grow through innovation. Second, Internet fever had nurtured a spirit of innovation everywhere, including the banking world. Third, banks began realizing that value creation had to be based on the voice of the customer to grow revenue and deepen customer relationships.

Bank of America initially viewed the emerging Internet as a way to overcome geography. This led to a strategy of moving customers out of branches. As a result, according to Butler, "Sometimes we were downright rude in our attempts to get people out of our branches. But eventually we realized that people like dealing with people and therefore branches were our strongest base." Frank Petrilli, president of TD Waterhouse, the country's second-largest discount brokerage, also acknowledged that "branches are a crucial customer acquisition tool which solicits 30% to 50% of our clients through the 160 offices in the U.S. The branches are continuous advertising outlets, allowing us to spend only $58 per new account, compared with our online competitors that have cost up to $250."[5]

The question then became how to change the role of the branches to balance customers' needs for a human touch with the bank's desire for cost-efficient, high-technology-based transaction platforms. The strategists at Bank of America realized that such a balance could not be found overnight; nor, in a world of changing technologies, could solutions ever prove permanent. A dynamic test bed for experimenting with new banking concepts had to be found.

The Innovation & Development Team Vision

The Innovation and Development Market is a test bed for creative ideas to increase customer satisfaction and grow revenues.

— Amy Brady, senior vice president, I&D Team executive

Every day, Bank of America processed 3.8 million transactions—including more checks than the entire Federal Reserve System. A typical noncommercial customer entered a branch every nine days and used an ATM nearly three times a week.[6] Thus, even a 99.9% success rate would still mushroom into over one million mistakes a year and expose consumers to problems ranging anywhere from paycheck deposit errors to bill mispayments. It was feared, therefore, that "experiment" and "mistakes" would be considered synonymous. Yet if consumers wanted Swiss-watch precision for their money, they also craved Mediterranean warmth for their service experiences. At about the same time that WAMU was taking a page from successful retailers to create more inviting bank branches, so too was Bank of America thinking about how to experiment with the human dimension of its bank branches as well as the human-technology interfaces. To reduce risks of large-scale failure, the bank confined its experimentation to a set of bank branches eventually called the "I&D Market."

In the controlled environment of these laboratory branches, routine transactions could be handled efficiently while customers' wishes for a good experience could be studied and experimented with. The bank could explore myriad questions: Could people's waiting time in line be made more tolerable? Was there even a need for lines? Could technology-inexperienced customers relate well to

---

[5] *American Banker*, October 7, 1999.

[6] T.A. Stewart, "BA: Where the Money Is," *Fortune*, September 3, 2001.

using keyboards and other devices? How best could staff members coach customers about Internet banking options? The goal was to boost customer and staff satisfaction at bank branches, which would ideally boost revenue growth within a given customer base while secondarily lowering staff turnover.

The original idea for the I&D Market came from different sources, including several senior executives. "Proceeding with the Innovation & Development Market project was a no brainer," according to Rick Parsons, one such executive. "What was trickier were issues such as execution and budgeting of the project. For execution-level leadership, we assigned Amy Brady, Rob Johnson, and Warren Butler, all managers with good track records of getting results on a day-to-day basis."

The team sought to establish a process whereby ideas could be generated, collated, and queued up for systematic, objective evaluation (see **Exhibit 5** for its product and service innovation process). For the few ideas that made it through this "filter," experiments would be designed and planned for the I&D Market branches. Successful experiments—determined on the basis of consumer satisfaction or revenue growth—could then be recommended to senior management for a national rollout

To set up the new system for innovation, little upfront financial investment was required, as many team members worked part time on the project. Soon, however, the team grew to roughly a dozen managers, who often worked evenings and weekends. The 2001 budget allocation was $11 million, of which only $6.3 million was spent on the team's experiments. Management considered this allocation generous, even for a company with $8 billion in revenues. The company's senior leadership resisted any attempts to carve out a "president-level" special budget for the innovation and process change team, arguing that, instead of enabling it to become another cost center, the group's funding should be tied directly to the performance of the 25 I&D banking centers. These branches also "brought their own checkbook" and paid for part of the experiments themselves.

Intensive initial debates had centered on whether the new group should operate as a stand-alone R&D center. Those in favor argued that a specific budget for new products and service development would protect the team from the day-to-day responsibilities of running a bank. Without such protection, the risk always existed that short-term market pressure would stifle long-term thinking and opportunities. It would also prevent comparisons between new concepts and mature products or even help prevent premature testing in live conditions. Thus, products and services under development could incubate properly without risking premature termination. After all, no automobile company would want a customer to walk up to one of its dealers and drive away with an untested prototype car. And finally, creating an R&D group charged to tinker allowed for much more organizational focus on innovation rather than a group that was supposed to also show operating results.

Many executives, however, felt that a separate R&D center would run the risk of becoming "too hypothetical and impractical." Some feared that results from the I&D Market might then not prove duplicable elsewhere. Marrying experiments with real-world banking facilities would thus decrease cycle time for rollout. As Jones reflected on the thinking of the bank's senior leadership: "We were really looking at being able to execute fast—so making a separate R&D center is harder. Furthermore, ideas in some R&D centers never get a chance to see the light of day."

But the issue of dual operating and innovation responsibility was hardly settled. As one employee in a feedback seminar put it succinctly, "We are building a plane as we are flying it." Indeed, the issue was still up in the air in May 2002.

The Vision at Work: Atlanta's I&D Market Branches

For a variety of reasons, Bank of America settled on Atlanta as the site for its I&D Market. The bank branches here boasted the most advanced communications infrastructure, with T1 and broadband communication lines installed. Atlanta also represented a "stable" market, with the bank's last major acquisition there in 1996. Finally, Atlanta lay a stone's throw from the bank's national headquarters in Charlotte, North Carolina.

Of its 200 branches in Atlanta, Bank of America initially gave 20 to the I&D Team. This hardly proved an imposition on the Mid-South Banking Group. The locations generally came from richer neighborhoods where customers were more computer literate and interested in a wider range of services. The I&D Team also replaced the conventional "one size fits all" mentality with three different types of branches configured to satisfy varying customer needs: "express centers," where consumers could quickly perform routine transactions; "financial centers," where consumers could access more complex technologies and more highly trained associates for a wider range of services; and "traditional centers," which provided conventional banking services, albeit with enhanced processes and technologies (see **Exhibit 6** for a brief description of the banking centers). The Atlanta I&D Market included 5 express centers, 5 financial centers, and 15 traditional centers.

The group unveiled its first remodeled branch—a financial center—in the posh Buckhead section of Atlanta at a cost of about $1 million, for mostly technology. The other branches were remodeled to one of the three branch types and reopened shortly thereafter. Customers entering any financial center were greeted by a host at the door—an idea taken from department and clothing stores. Customers no longer needed to sign in to see bank officers. At freestanding low kiosks, associates stood ready to perform transactions such as opening accounts, creating loans, retrieving copies of old checks, or, in some instances, even selling stocks and mutual funds. None of these associates had private offices. Customers could visit an "investment bar" with computers where, once online, they could bank, check personal portfolios, or just surf the Internet. Customers waiting for tellers could pass the few minutes in line watching television news monitors above the tellers' desks or observing electronic stock tickers running along another wall. Some branches featured "investment centers" where customers, sipping complimentary coffee, could lounge on couches reading magazines, newspapers, or financial journals or hook up their personal computers.

All these nontraditional items were, in fact, experiments. The flat-panel monitors above the tellers, for instance, represented part of the "Transaction Zone Media" experiment (detailed in a later section); the instant retrieval of old checks comprised the "ImageView" experiment; the investment centers and complimentary coffee, too, came under experimental scrutiny. All branches closely monitored customer reactions to these innovations through a variety of means, including customer satisfaction surveys and statistics on such factors as revenue growth, deposit growth, and number of services used by each customer.

Prior to introducing these experiments into the I&D Market branches, the team actually rehearsed how the activity should occur. So, in a "prototype center" in Charlotte, North Carolina, people acted out how the host would behave as he or she handed off customers to specialists. They choreographed how a bank associate (not a specialist) might spend only 30 minutes with a customer to set up a mortgage. To maximize the fidelity of these prototype rehearsals, actual specialists mimicked the intervening steps. When all the kinks were worked out in this rehearsal process, the experiment was launched in the "living laboratory." The Walt Disney Company designed and taught them a "Bank of America Spirit" program—demonstrated in theme parks and taught through seminars as a service approach to other industries—which was a principal motivator of the team.

The staff at local branches put the "Bank of America Spirit" into action in different ways. They got to know their customers better, more personally. And the results were impressive. Bank teller Kemaly Jacques recalled: "One customer had been boycotting our branch for the past three months because of poor service; now he swears he won't go anywhere else." The host, a key figure who guided customers as they entered the branch toward appropriate services, became a great success story, though at the outset the role confused some customers, particularly those with complex transactions. "Where do I sign in?" many would ask. Host Kilah Willingham, who had worked her way up the organization from teller to loan officer, described the host's role as follows:

> I spend up to five minutes probing customer needs. I also intercept people going toward the old-fashioned tellers and usher them toward our innovative stations [where "experimental" technologies were offered]. A lot of customers are wary of technological change, for instance, of having the camera on them at the virtual personal banker station. My role is to make them comfortable here. I like not knowing what's coming up next; it keeps me on my toes.

During the early months, however, planning and running experiments tied up tellers and associates in meetings for almost 30%-50% of their time (later this would drop to about 25%). On one occasion, a fill-in teller, providing temporary coverage during one of the meetings, mistakenly gave a customer a "dye pack," a fake wad of dollar notes meant for use only during robberies. As the customer walked out, the wad started smoking in his pocket and exploded. The Bank of America Spirit, however, persevered. Hosts and tellers emerging from the meeting showed their service experiments to firemen arriving at the scene. "This is so cool!" cried out one fireman before opening an account.

Experimentation, Learning, and Measurement

At the end of the day, the most critical aspect of experimentation and learning is measurement. Measurements will defend you if done right; otherwise they will inhibit you.

—Milton Jones, president, Georgia Banking Group

Of the many difficulties the team faced, one of the thorniest was resolving "how to" questions: how to gauge success of a concept, how to prioritize which concepts would be tested, how to run several experiments at once, and how to avoid the novelty factor itself from altering the experimental outcome. Moreover, according to Butler: "While we were building R&D capabilities, those controlling the purse strings thought we were doing just a one-time experiment." Thus, the problem list included one last addition: how to defend the I&D Market itself from budget cuts.

The team selected concepts to be tested on the basis of available funding, business fit, and business case. To some extent, just continuing with the evaluation process served as a natural filter for ideas. But with many ideas and concepts that needed formal testing, according to team managers Joann Donlan and Mark Lewis, "Even top-priority experiments need prioritization." As a result, the team started assigning priorities (high, medium, or low) based on the assumed impact to customers, and Brady and Butler made the final decisions about which product or service concepts to actually test. By May 2002, more than 200 new ideas had been generated, of which 40 made it to testing, 36 were successfully implemented and measured, and 20 were recommended or had been already rolled out nationally. Only four experiments eventually failed—and one of these became a "redefined" concept.

Central to the team's innovation process was how quickly people could learn from experiments, and measurements played an important role. The group amassed considerable experience and mastery of the subtle factors that affected learning.

High-fidelity experiments The team sought to ensure that its experiments mirrored reality, or possessed high "fidelity." Concepts that worked only inside their branches, after all, had little value to senior management interested in the scale effect of national rollouts. But high fidelity also meant high cost and commitment, which was hard to justify when ideas were at an early stage. Sometimes, low-fidelity tests using small focus groups gave the team an alternative during the very early stages of idea assessment. Experiments requiring minimal human intervention, such as news monitors over the teller's counter, for instance, would likely work just as well in regular branches as in I&D Market branches. But not all innovations might transfer perfectly in the course of a nationwide rollout. For instance, would staff in a regular branch provide the handholding and attention required to initiate technophobes to a virtual teller? In such cases, the insistence by upper management that experimentation occur in a live banking situation helped ensure high fidelity and confidence in the team's learning.

Minimize the effect of noise Isolating the effect of a particular experiment on a bank branch's performance meant being clear on what that effect was *in itself*, minus "noise" factors. Such noise could arise from a variety of sources such as seasonal performance fluctuations and changing market or even weather conditions. To minimize the effect of noise on learning, the team made heavy use of two techniques, *repetition of trials* and *experimental controls*. First, repeating the same experiment at one branch or running it simultaneously at different branches averaged out the effect of noise and thus reduced the possibility of obscuring the changes that teams were interested in observing and measuring. It would also ensure that success of a given concept would not rely on factors unique to a given branch. Second, pairing up two similar branches, one with an experiment (the "intervention") and the other running under normal conditions (the "control"), enabled the team to attribute differences between the branches primarily to the intervention itself. It could draw on controls from the I&D Market, or even from other branches in Atlanta or nearby regions such as North Carolina. The best controls, however, were likely the very same I&D Market branches themselves in a before-and-after type of experiment; if properly done, this would help factor out the so-called Hawthorne effect. The Hawthorne effect referred to the implications of actually participating in an experiment and how that might affect its outcome. The team was aware this was possible, given the direct and indirect pressure on staff to perform. Willingham acknowledged, "We are spoiled. We get special corporate shirts, we get parties; every quarter we have special 'let's talk' sessions. We associates can even contact the regional manager if we need. Other associates envy us. So we had better do well."

Rapid feedback The cycle time for any given experiment carried out by the I&D Team was specified at 90 days. This did not include a preliminary "washout" period of a couple of weeks during which the novelty for both staff and customers hopefully subsided. Obviously, shorter turnaround time for feedback would help experimenters learn and prepare modified experiments more rapidly. Occasionally, it became quickly evident after the first few days if a concept would flop or succeed. Only rarely, however, did the team remove flops prematurely. On one occasion the team canceled a mortgage loan program after just a 30-day trial, primarily because getting credit approvals took far too long. The early termination allowed for quicker revision of this experiment, leading to a successful mortgage program.

Increase experimentation capacity The number of experiments a single branch could run depended on available floor space and personnel, among other things. Less capacity would force the team to cram more experiments into one branch. If no capacity remained, the team could be forced to

do things sequentially, which, in turn, would slow the entire concept-evaluation process. If the team succumbed to the understandable temptation of cramming too many experiments in a single branch, it would be hard to analyze the contribution of each individual experiment—another signal-to-noise problem. A single branch might have as many as 15 active experiments running at any given time. If customers loved an experiment, however, it was left in the branch even after the 90-day trial period. This being the real world, after all, the branches could not simply pull the plug on something customers had grown to relish. Measurement team leader Scott Arcure admitted, "We often worry about changing too many chemicals in the mix and wonder about which one made it explode. As bankers, we're not experts at this type of measurement." The team planned to bring in a statistics expert to help sort out the effects of multiple variables. One of the bank's outside research partners suggested moving to an entirely different market for further experiments. But the group was focused on its Atlanta market. With the customer satisfaction percentage higher than in traditional bank branches, some felt that capacity still remained for assessing additional experiments. In any case, Arcure warned that "the Hawthorne effect would spike again in any new bank branch."

More learning comes from more radical experiments The biggest problem with experimenting in a real-world laboratory was balancing innovation with a need for bottom-line success. Pursuing radical innovations would allow the team to explore entirely new possibilities; an incrementalist approach, however, allowed for improving current banking processes. Successful radical innovations would bring glory to the team. But home runs came at the cost of strikeouts. With its future not ensured, the team could simply not take outrageous chances. Many tests thus ended up validating ideas that were likely to succeed. Team members readily acknowledged such to be the case for host stations Transaction Zone Media and Bank of America Spirit. According to Teri Gann, a former regional executive, "Interestingly, and not surprisingly, many of our successes, such as the host station, have been simple and low cost." The biggest impact so far came from Bank of America Spirit—technologically, a nonrevolutionary program transplanted wholesale from Disney. While the original vision called for a 30% failure rate, the actual rate in the first year hovered close to 10%. Butler commented, "We're trying to sell ourselves to the bank. If we have too many failures, we just won't be accepted. Currently, we may have failure *within* concepts, but not failure *in* concepts."

"We might tweak a process, but everything conforms to the status quo," observed Wells Stanwick, Bank of America manager of channel strategy. "Could we try out a more radical concept such as providing branch offices similar to attorney offices in large office buildings for wealthy customers?" Deborah McAdams, banking center manager, agreed: "Let's do something really innovative, such as trying out loan machines similar to automatic teller machines like they do in Japan. When I mention this, some people aren't sure if I am joking."

Concepts that appeared intuitively obvious did not always prove so in reality. Such was the case for innovation and for financial payback. Team leaders wondered if a "breakthrough" product should be measured through its degree of innovation or through financial payback or both. According to Brady, "Our metric should be how an innovation affects the bottom line two years out, rather than looking for instant feedback [through customer satisfaction]." Problems with assessing innovation soon surfaced. What might appear radical to one person, for instance a "mobile teller" to a technophobe, might prove less radical from a purely technical standpoint.

Nor did the innovation team take financial performance into account, largely because of an anticipated lag of 18 months to 2 years in going from concept to rollout beyond Atlanta. The I&D Market, instead, would settle on the proxy measure of consumer satisfaction. Many team members recognized the shortcomings of their measurement process. Gann stated, "I believe we're doing the wrong thing by measuring the I&D Market staff on productivity, not innovation." But, she added,

"You can't chase two rabbits at the same time." Some team members pointed to WAMU as a possible benchmark, for it was "a competitor willing to change and willing to raise the bar."

The Transaction Zone Media Experiment

A good example of the bank's new innovation process at work was the Transaction Zone Media (TZM) experiment. Internal researchers, who "intercepted" some 1,000 customers at bank lines, noted that after about three minutes the gap between actual and perceived wait time rose exponentially. Two focus groups with sales associates and a formal analysis by the Gallup organization provided further corroboration—and the TZM experiment was born. The team speculated, based on published psychology literature, that "entertaining" clients through television monitors above the lobby tellers would reduce perceived wait times by at least 15%.

The team chose one enhanced "traditional center" for the TZM experiment and another one as a control branch so it could maximize learning from the experiment. In the summer of 2001, the team installed monitors set to the Atlanta-based news station CNN over teller booths in the branch. The team then waited for a week's washout period to allow the novelty to wear off before measuring results for the subsequent two weeks.

Results from the TZM-equipped branch showed that the number of people who overestimated their actual wait times dropped from 32% to 15%. During the same period, none of the other branches reported drops of this magnitude. In fact, the control branch saw an increase in over-estimated wait times from 15%–26% (see **Exhibit 7** for results from the experiment). Though these were encouraging results, the team still had to prove to senior management that TZM could positively affect the corporate bottom line. To do so, the team relied on a model that used the easily measurable "customer satisfaction index" (based on a 30-question survey) as a proxy for future revenue growth.

Prior studies indicated that every one-point improvement in a customer satisfaction index corresponded to $1.40 in added annual revenue per household from increased customer purchases and retention. A banking center (branch) with a customer base of 10,000 households would thus increase its annual revenues by $28,000 should the index increase by just two points. Percentages generally ranged in the mid-80s in Atlanta's I&D Market and in the high 70s to low 80s nationally. The team measured an overall 1.7% increase after installation of the TZM monitors. Sufficiently encouraged, it entered a second phase, to study and optimize the impact of more varied programming, advertising, and sound speaker parameters.

While the benefits of the TZM program were laudable, the team now had to consider whether they outweighed the costs. Studies indicated that it would cost some $22,000 to install the special TV monitors at each I&D Market branch. For a national rollout, the estimated economies of scale would bring costs down to about $10,000 per site.

Incentive and Compensation Issues: Tellers Do Not Like Change

Another thorny "how to" issue the team faced was how to motivate its staff. Could—and should—the performance of employees who were part of continuous experimentation be measured and rewarded conventionally?

At the Atlanta branches, Bank of America tellers earned about $20,000 a year; annual turnover averaged about 50%. The next step up from teller was sales associate; people in this job helped

customers start up savings or checking accounts, fill out mortgage applications, notarize documents, and entice customers with new services. At I&D Market branches, some associates could serve as hosts—making many decisions without bringing in the branch manager.

Some 30%–50% of associates' compensation derived from performance bonuses based on a decade-old point system that used sales quotas—where points varied according to product, customer satisfaction, local market demographics, as well as managerial discretion. Given this system, associates were tempted to ignore customers' actual needs. "For instance, they would encourage customers to open up a checking account, which yields one point, rather than a savings account, which yields none," said an internal financial consultant.

For the first several months, the I&D Market maintained the conventional incentive scheme. The sales associates seemed to relish the additional pressure. But it soon became apparent that they would have to spend as much as a quarter of their time in special training sessions, not to mention "alternate" time working as hosts, an experiment that yielded no bonus points. The staff, thus, began feeling disadvantaged by their rewards as hosts, since they faced the same monthly quota of points despite having less time with customers as part of an actual selling activity.

For some, however, being part of the experiment proved reward in itself. "I would not go back to my old job," said one associate who looked forward to working every morning. "It would be like stepping several years back in terms of technology and service." Annual "Bank of America Spirit" motivational sessions with vibrant music and motivational speakers reinforced this sense of exclusivity. Yet cracks in the prevailing incentive scheme began showing. "Let's be realistic," one sales associate admitted, "you can't be happy all day long; sometimes you have to fake it."

In January 2001, senior management switched associates in all 25 branches to fixed-incentive compensation. Most of them welcomed the change, which added to the feeling of being special. It also represented a commitment from top management to the experimentation process. But not all staff thrived under the new fixed incentives. One executive complained that "those in the I&D Market branches now thought they didn't have to chin to the same level as others." Another manager had to reassign an associate "since that person now sat passively at a desk; the team mentality of working for the customer proved foreign to her."

With all the attention and resources dedicated to the I&D Team, some senior executives echoed a growing impatience that it was time "to pay the piper." Resentment from personnel in other conventional branches might also have fueled this feeling. The group already enjoyed more resources than other branches, and there was a fear that different incentive schemes would remove them further from the daily realities of banking. There was also uncertainty whether the concepts tested in prototype form would work nationally because of different market conditions. As Allen Jones, a regional executive, pointed out, "If a test is successful only under fixed-incentive schemes, then we can't roll it out elsewhere." With growing discomfort, senior management switched the staff back to the old point-based incentive system after just a six-month trial.

Not surprisingly, with this about-face the behavior of the staff reverted as well. Hosts, for instance, became reluctant to send customers over to insurance agents because they got no points for such referrals. On two occasions, in fact, supervisors witnessed a host undertake entire transactions just to make his points quota rather than direct customers to associates. The about-face also led one staff member to question Brady about senior management's commitment to the I&D Market vision. What concerned Brady and Butler the most, however, was the impact of incentives on the learning and quality of in-branch experiments.

First-Year Performance

I see the following challenges for the I&D Market: ownership, evaluation, and continued support in a changing environment. The solution is to highlight successes, have a good batting average, rapid experimentation cycles, and maintain awareness at senior management level.

—Milton Jones, president, Georgia Banking Group

By traditional banking measures, the I&D Market performance appeared less than stellar. Overall deposit growth in 2001 stood at just 0.5%, compared with 3.7% growth in other Atlanta branches. In terms of revenue, however, I&D branches did about 10% better than traditional branches. Some experiments proved quite effective; for instance, a "loan solutions" experiment generated an extra $700,000 in the first quarter in all 15 participating I&D branches combined. With all additional costs factored in, however, the I&D Market was not, at least on a pilot scale, a winning proposition. The team therefore wondered about how senior management would react to its performance in an environment where many programs throughout the bank were being axed. Were comparisons with traditional benchmarks fair, given its mission of being the bank's product and service development laboratory?

Despite just a slight rise in customer volume, many associates observed a larger spike in customer satisfaction, with some customers now coming from longer distances just to bank at the new branches. Another promising trend not captured by traditional measures involved personnel turnover. Except for an initial turnover spike, annual teller turnover had dropped from 50% over the past three years to 28%. In the last quarter of 2001, annualized teller turnover had dropped to as low as 20%, but it was unclear how much of this stemmed from employment uncertainties in the aftermath of the terrorist attacks on September 11, 2001.

At the same time, some senior executives viewed the I&D Market as the crown jewels of the Atlanta branches. The bank offered tours of its gleaming prototype facilities to customers, Bank of America executives, visitors from other industries, and even competing banks. "Everyone's eyes are on us," admitted Allen Jones. "Just last week, one of the bank's top executives visited us."

In 2001 the I&D Team received an additional five branches as part of a corporate reorganization that would increase each regional manager's branch portfolio. While these measures increased operating budgets, they did not boost the research budget for experimentation and testing. Brady and Butler wondered how to deal with the unexpected "reward." Some people even suggested leaving these five new branches untouched to serve as additional experimental controls. Ultimately, the five branches joined the ongoing experimental portfolio, bringing the total to 25.

The new branches added much-needed experimentation capacity. Operationally, however, taking on additional branches stretched the team's efforts thin, since it required staff retraining and the setup of additional experiments, let alone all the minor logistics of managing branches that literally involved running among them all day long. With the potential drag of these branches on overall portfolio performance, the team also worried about increased corporate pressure for positive results.

A Vote of Confidence?

"We had a good first year," Brady said as the last of the small group took their seats at the conference table overlooking downtown Atlanta. "[The year] 2001 was our year to prove the I&D Team vision; 2002 is our year to grow up. At the end of this year I will have to restate our case, but

hopefully to double funding." The I&D Team had been one of the few projects to survive companywide cuts, albeit with a smaller budget. "We still make a small profit in our branches," Brady added, "and potentially, this could cover our salaries, but it is too early to say."

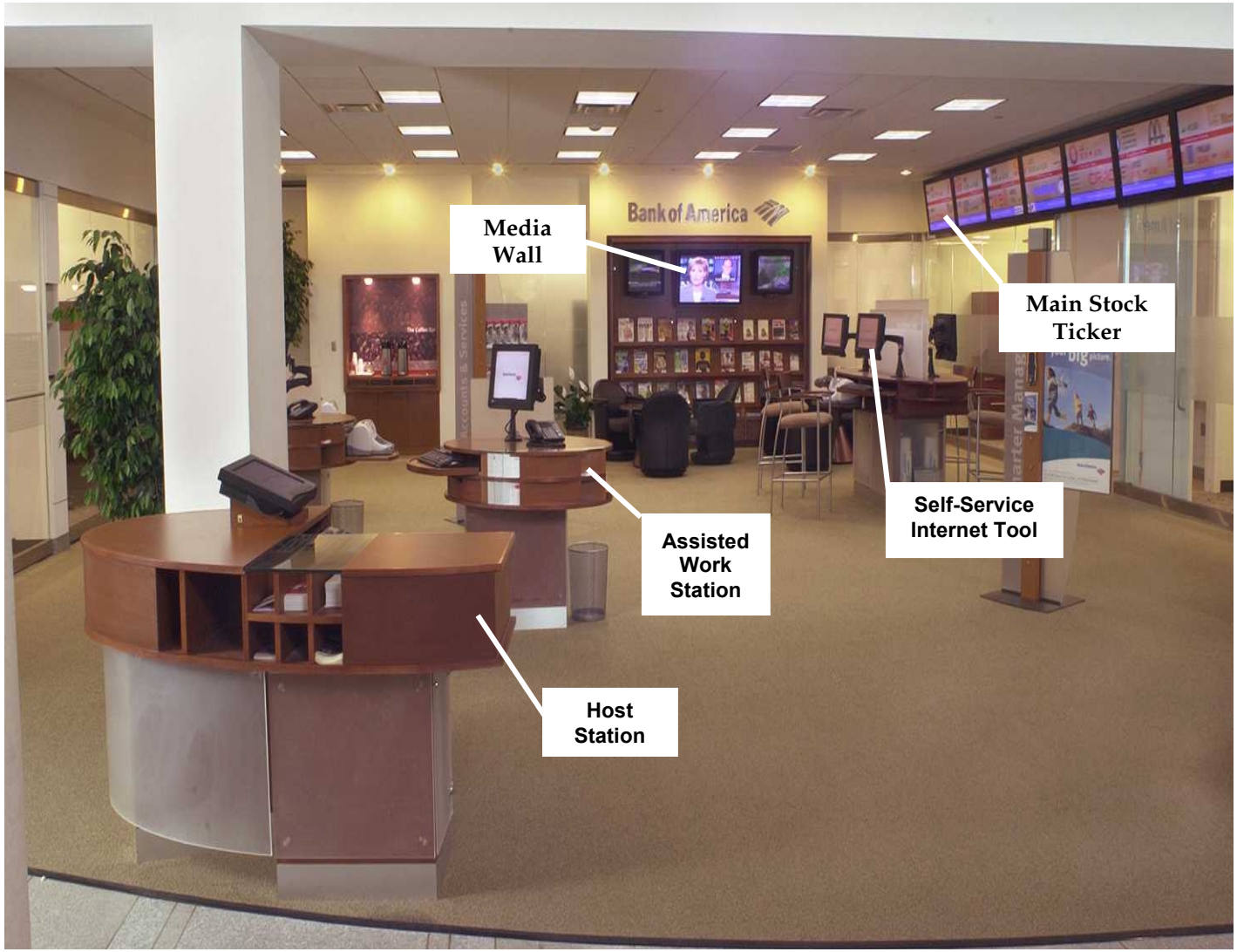
Next, Brady explained how the bank's senior leadership had offered the group yet another "reward" of additional branches across the country. These branches could expand experimentation capacity by some 40%–60% and take the strain off the 25 branches that were piling up so many experiments. But only about half the team responded to the news with smiles—just as Brady and Butler had expected. The team had debated almost since inception the use of external control branches from North Carolina or even other Mid-Atlantic or East Coast regions. Some felt that geography did not matter in this Internet age, as long as demographics, customer profiles, and size of banking centers were comparable. Others, such as Stanwick, disagreed: "The prospect of using, say, North Carolina branches as controls for our Atlanta Innovation and Development Market scares me to death."

Those in favor of taking on the new branches pointed to the limited experimentation capacity and the increasing testing backlog. In 2002 alone, 26 new experiments were added to about 25 on-going tests carried over from 2001, bringing the number of active experiments to more than 50 (see **Exhibit 8a** for the group's growing idea pipeline). They argued that more experimentation capacity allowed for faster evaluation of ideas through the running of more tests simultaneously and reduced feedback times because of potentially lower capacity utilization (see **Exhibit 8b**). Alternatively, the bank could run fewer simultaneous experiments and obtain cleaner and more reliable results. They further noted that the team by now had gained much experience in running experiments. In any case, it took the same time to design concepts for one center as for 10. Having a larger portfolio of branches might also make scale-up and national rollout of successful concepts easier and quicker. By making a big splash within the corporation, the I&D Team could win greater prominence. Because the offered branches were underperfomers, the team would look good in case of turnarounds but lose little if these new branches failed.

Those against taking on the additional branches argued that the current 25 branches (or even fewer) in the portfolio were optimal. Taking on five branches within Atlanta had been difficult enough. Ten additional branches would be difficult to manage even if they were all in Atlanta. How much harder would it be for Atlanta managers, who were already stretched thin, to simply march into another branch and say, "Hi, we're here to test." Specifically, some pointed out that associates in other states such as California appeared more individual than team oriented. Experience had also shown that associates would need to spend a quarter of their time undergoing additional training. In Atlanta, increased demands on tellers and associates had led to an initial rise in turnover (before eventually declining). Who could predict teller and associate turnover in a different geographic area? Some executives further noted that a larger I&D Market would increase the drag on the balance sheet, potentially stifling innovation. Too large a market might also confuse customers using more than one branch. Brady and Butler jotted down the rapidly flying ideas. Soon they would formulate a recommendation to the bank's senior leadership about whether to accept new branches into its experimentation portfolio.

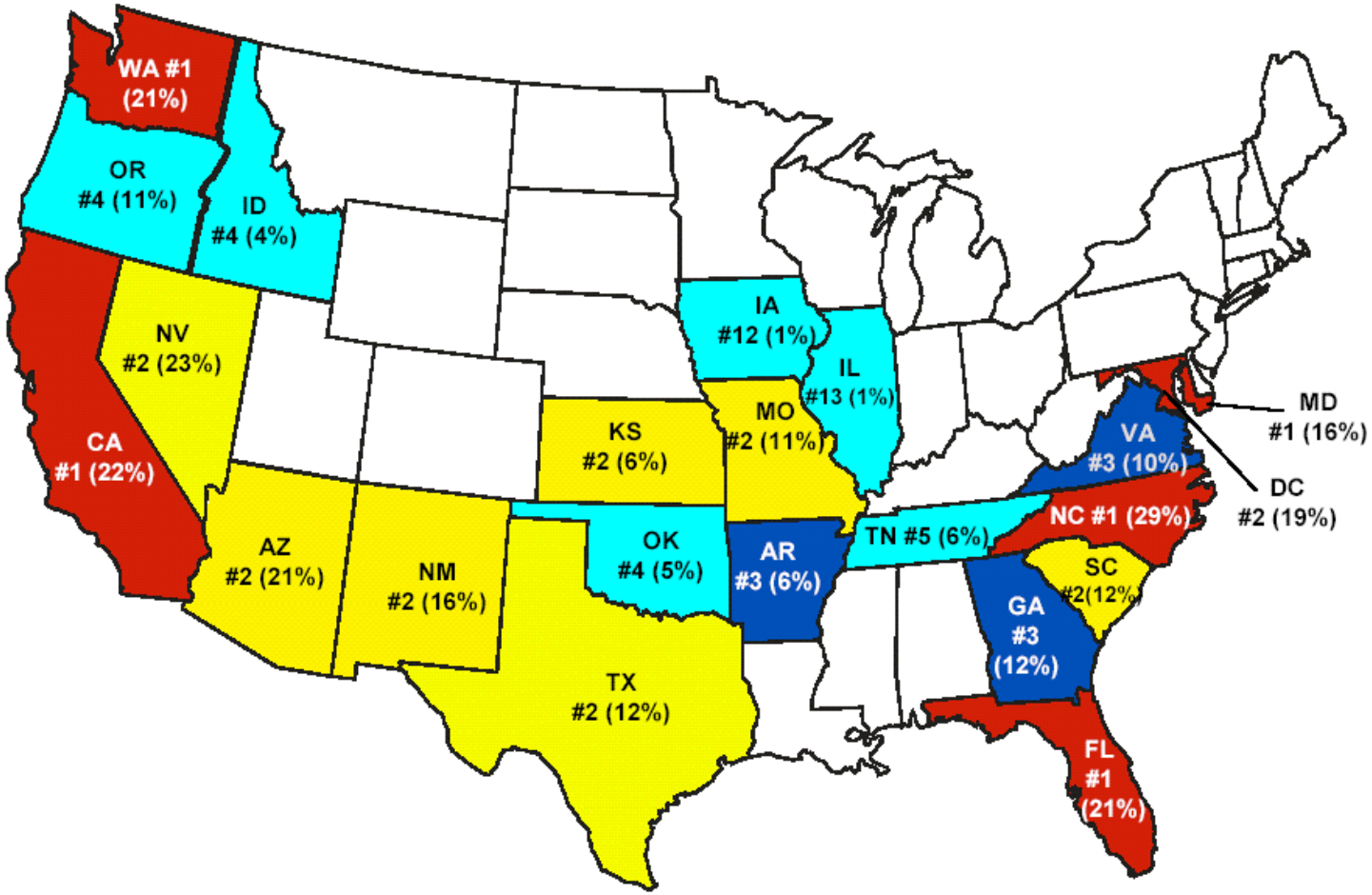
One thing that stuck in both their minds was, ironically, "failure." In particular, the need for failure so as to generate more learning. Failures had been few and far between so far—indeed, the last failure was that of a mortgage loan experiment whose post-mortem analyses indicated "red tape" as the cause, that is, too much paperwork at the back end. Hardly a "revolutionary" experiment, thought Brady; hardly something—even if it had worked—remarkable. For both Brady and Butler, the words of their superior, Jones, an enthusiastic champion of their efforts, rang loud: "So far, most of our experiments have been successful. Perhaps we don't fail often enough."

Exhibit 1 Examples of Selected Experiments in Atlanta's Buckhead Financial Center



Source: Bank of America.

Exhibit 2 Bank of America's Regional Deposit Market Position and Share (consumer and commercial banking)



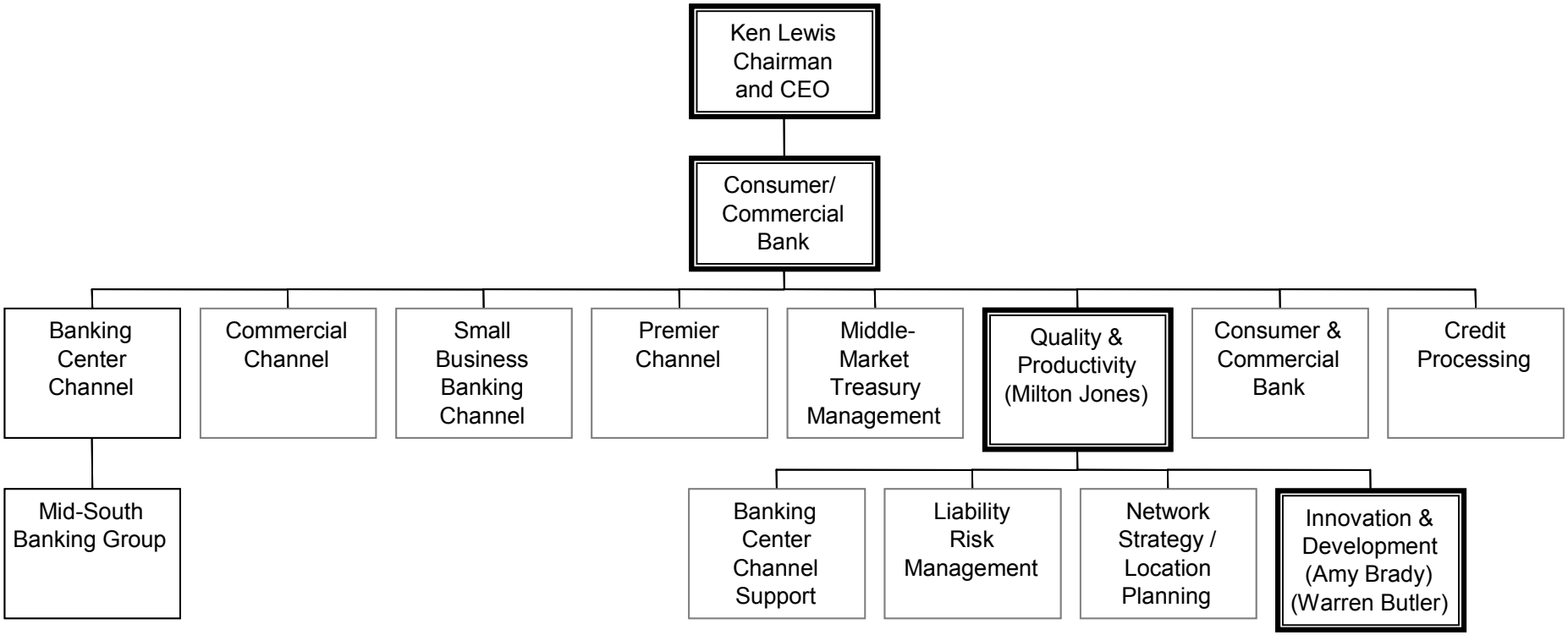
Source: Bank of America Web site, <www.bankofamerica.com>. Deposits are as of June 2001.

Exhibit 3 Selected Financials and Operating Data (dollars in millions, except per-share data)

Bank of America			
Year	**2001**	**2000**	**1999**
Cost of goods sold	22,290	27,351	20,906
Selling and administrative expenses	12,718	12,255	12,281
Research and development expenses	n.a.	n.a.	n.a.
ROA	1.1	1.2	1.2
ROE	14	15.8	17.8
Market value	98,158	74,025	84,179
Total interest income	38,293	43,258	37,588
Total interest expenses	18,003	24,816	19,086
Net interest income	**20,290**	**18,442**	**18,237**
Provision for loan losses	4,287	2,535	1,820
Net interest income after provision for loan losses	**16,003**	**15,907**	**16,417**
Other Income	8,564	9,920	9,996
Salaries, occupancy, and equipment	12,718	12,255	12,281
Depreciation	1,732	1,784	1,917
Total other expenses	**14,450**	**14,039**	**14,198**
Pre-tax income	**10,117**	**11,788**	**12,215**
Income taxes	3,325	4,271	4,333
Income before extraordinary Items & discontinued operations	**6,792**	**7,517**	**7,882**
Earnings per share basic from operations	4.8	4.77	4.77
Earnings per share diluted from operations	4.71	4.72	4.68

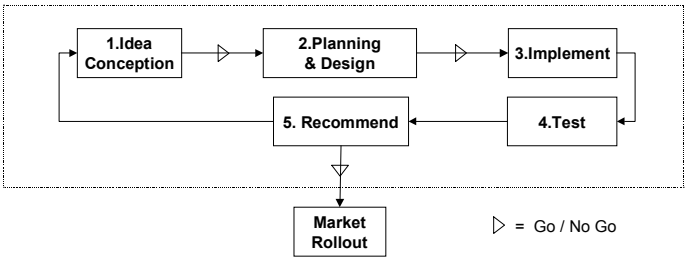
Source: Compustat.

Exhibit 4 Section of Bank of America's Organizational Chart



Source: Bank of America.

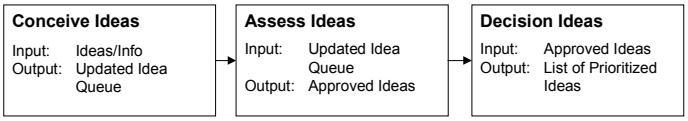
Exhibit 5 The I&D Market's Product and Service Innovation Process and Activities



The Innovation Process

- Accepts, implements, and tests ideas and concepts ("experiments")
- Optimizes speed to market and cost
- Coordinates activities and decisions through stages

1. Idea Conception

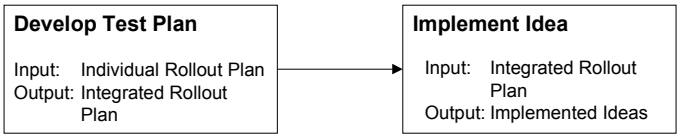


Desired outcome	Innovative ideas generated through internal and external sources
Success factors	Bank awareness and commitment
Key measures	# of total ideas % of approved ideas

2. Planning and Design

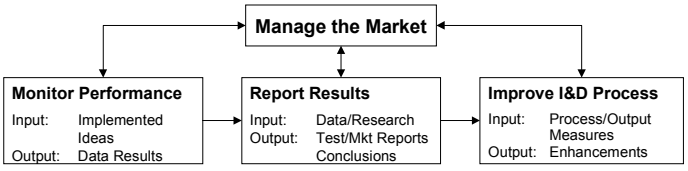
Desired outcome	Rapid design, build and rollout planning
Success factors	Minimal planning time Timing and quality of design
Key measures	Cycle time for design types Ratio of redesigns

3. Implement



Desired outcome	Successful implementation of ideas
Success factors	Successful integration Zero market overload
Key measures	Cycle time Market readiness On-time implementation

4. Test



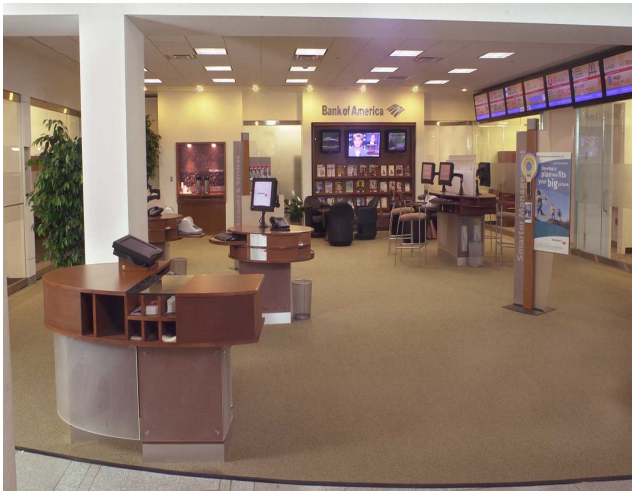
Desired outcome	Stable operating environment for testing of new concepts and ideas
Success factors	Fast feedback of results Meeting test and mkt. goals
Key measures	Test cycle < 90 days Operating results

5. Recommend

Desired outcome	Idea evaluation and national market rollout
Success factors	Quality recommendation package
Key measures	Cycle time Clarity/completeness

Source: Bank of America.

Exhibit 6 Banking Branches in the Innovation and Development Experimentation Portfolio



Financial Centers (5):

Provide ability to advise across product line with expanded people, technology, process, and environment capabilities

Express Centers (5):

Provide fast, friendly, convenient access for routine transactions with self-directed options and teller services

Traditional Centers (15):

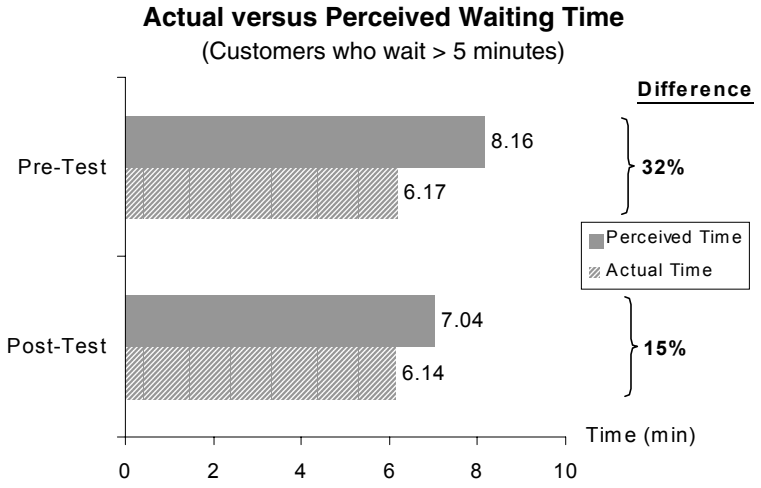
Provide traditional banking products and services with enhanced processes and technology

Source: Bank of America.

Exhibit 7 Data from Transaction Zone Media (TZM) Experiment

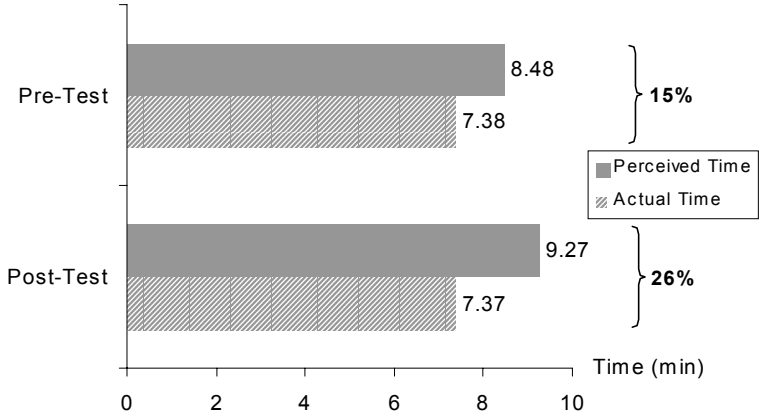
The TZM Experiment:

- Flat-panel monitors above bank tellers broadcast news for people waiting for service.
- Do such customers perceive shorter waiting times to service?
- Are such customers more satisfied with their banking experience?



Experimental Site:

- Prior to installation of TZM, customers who waited longer than five minutes significantly overestimated their waiting time (32%).
- After installation, overestimates for the same customer group dropped to 15%.



Control Branch:

- No experimental intervention was carried out during the observation period.
- Control branch had very similar customer demographics to experimental site.
- During the observation period, overestimates actually increased from 15% to 26%.

Source: Bank of America.

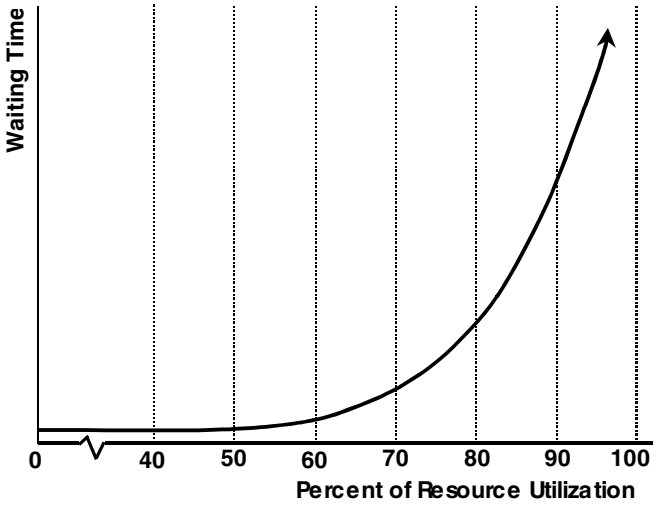
Exhibit 8a List of Product or Service Concepts Waiting to be Tested

Process Measure	January	February	March	April	May	*Total*
Inflow of new ideas before assessment*	13	5	27	3	27	75
Ideas put on hold/reactivated	(4)	(1)	4	0	0	(1)
Assessments completed	(10)	(6)	(1)	(4)	(6)	(27)
-- recommended for design/testing	10	6	1	4	6	27
-- not approved	0	0	0	0	0	0
Ideas moved to design/testing	**10**	**6**	**1**	**4**	**6**	**27**
New ideas discontinued (before or during assessment)	(7)	(7)	(1)	(20)	(5)	(40)
Change in idea backlog**	-8	-9	+29	-21	+16	+7

* New ideas come from brainstorming workshops, employee input, etc.
** The January 1, 2002, backlog of new ideas awaiting a decision (assessment or discontinuation) is about two months.

Source: Bank of America.

Exhibit 8b Waiting for a Resource



According to queuing theory, the waiting time for a resource increases gradually as more of the resource is used. But when the utilization passes 70%, delays increase dramatically.

Source: S. Thomke, "Enlightened Experimentation: The New Imperative for Innovation," *Harvard Business Review*, February 2001.