

Integrating the e-Business Model

Studies show mortgage lenders still have a way to go in adopting Internet technologies in their production and servicing operations. Lenders see investments in technology as a means to cut costs and boost customer service. Yet the industry will need to rebuild its back-end processes to adapt to Internet time and get any real payback from technology.

BY
BERNADETTE KOGLER
AND
JEFFREY LEBOWITZ

The business shift to consumer-driven sales channels and products and the operational design changes caused by the emerging e-commerce world have begun to have their impact on the mortgage banking industry. Use of the Internet, Web-based information technology (IT), database systems and digital communications technology will transform the traditional mortgage process. The process will be remade into one that adapts more quickly to market changes, operates at a lower cost and responds faster to customer needs and demands.

The Internet has helped create a more sophisticated borrower who has unlimited access to financial information and more choice in providers and products than ever before. Customers will view financial products—including mortgages—as commodities as long as there is only one way to truly differentiate such products, i.e., by interest rates. Consumers have become impatient with companies that lack convenience, access to dynamic/innovative products and the ability to execute quicker transactions.

While the competition was already intense for mortgage products, the changes caused by the Internet and related technologies create an even more challenging environment—one in which the customer tells the lender what they want and doesn't ask what the lender has to offer. This new customer-owned world will challenge the basic underpinnings of an industry that has primarily been investor- and/or lender-focused.

Building an interactive Web site for online origination will not pay for itself unless additional changes are made to the lender's operating structure. Successful companies that will increase their market share and see margins increase at the same time will need to "e-enable" their entire way of doing business.

The very fundamentals of how a mortgage is created today will need to change. For example, changes will be needed so that: the cost is at least half of today's cost; there are more customized products with better rates; the time to approve, close and deliver a loan shrinks to less than two weeks; and the customer service levels improve dramatically. To improve customer service, the lender will require better access to and analysis of customer behavioral and operational performance data.

The transition to the new e-business model will require lenders to invest in integrating Web technology software and hardware with their legacy lending and servicing systems. While building the necessary e-competencies, mortgage companies must maintain or reduce operational expenses to stay competitive and fund technology.

The back-office platform needs to be e-engineered so that it saves money, increases revenue potential and begins to offer a fast and efficient workflow for creating the loan. Workflow technology, risk-based pricing engines, database capability and smart decisioning systems will be necessary for the e-engineered mortgage company to provide better customer service, nimble market responses to consumer demands and faster delivery, all at a lower operating cost to produce such a loan.

As traditional corporations develop their Internet channel and Web-enabled production operation strategies, they must institute concrete measures of core profitability, cost savings obtained and payback on investment. Basic questions that should be answered include: How quickly should I be transitioning to the new e-business model? What customer and revenue growth rates should I expect? When should I expect to break even?

Whether a company's objective is to reduce costs, improve service levels or both, determining and then tracking key performance measures is critical to success.

KPMG Consulting's Consumer Lending Team and the annual MORTECH technology survey recently shared the results of their most recent (June 1999) mortgage study, MORTECH 99, to evaluate technology strategies and their impact on the mortgage industry's overall profitability.

The very fundamentals of how a mortgage is created today will need to change.

KPMG's annual mortgage production and servicing studies (*MorPro* and *MorServ*) provide performance measures—such as profitability, revenue, cost and productivity—that allow companies to evaluate themselves against industry peers and measure internal improvement from year to year. The annual MORTECH study focuses on current strategic issues with regard to mortgage technology as well as expected trends. Review of study results yields a wide variety of findings, a few of which are summarized in this article.

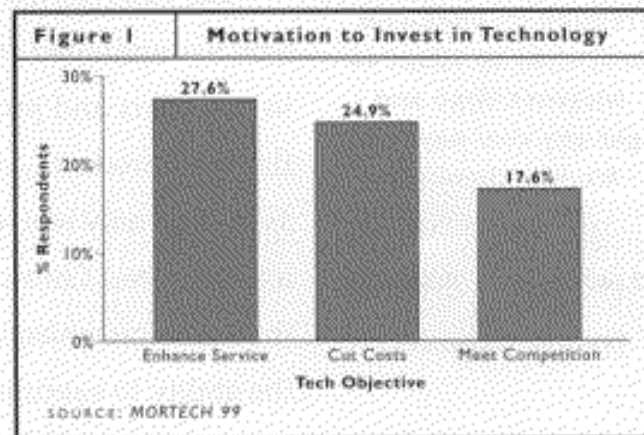
IT investment objectives

Financial services companies, in general, have committed to spending millions of dollars to develop e-commerce capabilities covering a range of objectives. Mortgage bankers also have focused their spending on e-commerce and improving technology overall. According to the most recent MORTECH study, MORTECH 99, there appear to be two main objectives for their technology expenditures (see Figure 1). When asked what motivation underlies their technology spending programs, 27.6 percent of MORTECH 99 respondents cited improving customer service, while 24.9 percent of the respondents as a whole responded that cutting costs is their primary objective.

Loan volume is a primary determinant of the benefits lenders expect from their technology investments. Also, compared with the industry at large, 42.3 percent of larger lenders with origination volume of \$1 billion or more are focused on reducing costs rather than applying technology investment to enhance customer service.

Whether the customer seeks out a lender on the Internet or meets a loan officer at the local coffee shop, his or her expectations regarding level of service are the same. Customers want access at any time, speed of completing the transaction and reliability—all at a reasonable cost. They also want more customized products and pricing that fits their individual situations. Based on KPMG *MorPro* results, the time to originate through the traditional mortgage retail channel takes anywhere from 40 to 60 days for a purchase mortgage and 30 to 40 days to refinance. By comparison, KPMG expects that an Internet mortgage origination will take 48 to 72 hours for a purchase mortgage and less than 30 minutes for a refinance.

Speed of call response and completeness are key indicators of how customers measure service levels on the servicing



side. KPMG's *MorServ* includes data to measure the number of calls and response time for both operator-assisted and voice-response-unit (VRU) calls. Based on *MorServ* results from December 1995 through June 1999, incoming call-to-initial help time averages 60 to 90 seconds for operator-assisted calls, compared with an average of 30 to 40 seconds for VRU calls.

The Internet, however, takes response time and customer service to a new level. Web-enabling technologies improve service by offering the customer self-service opportunities. Internet customer service solutions provide customers with imaged documents, access to real-time account postings, enhanced level of research while they are online and the ability to respond to inquiries through keyword searches without human intervention. Consumers feel more in control of their mortgage account and perceive service as better because they don't have to wait.

Type of technology investment

When measuring recurring technology expense per loan, KPMG study results indicate a wide range—from a reported low of \$30 per loan to a high of \$373 per loan (for both production and servicing). Figure 2 shows average IT expense per loan. The amount of technology deployed by various companies differs widely as well. Many companies have installed or are installing new origination systems. We expect such companies to begin to realize the benefits of recent IT investments by year-end 2000. However, many companies that fail to redesign the current process around and in support of new technology may not see the benefits as quickly or at all.

As there are profound differences in business strategies across the lending community, there is no unanimous choice of a single technology that is most crucial to business success. According to *MORTECH 99*, respondents indicated that browser-based technology is seen as more critical to loan production needs. Workflow-enabled applications are seen as necessary by originators and servicing managers alike (see Figure 3).

An interesting dichotomy occurs when assessing the perceived impact of data mining. Data mining is seen as an essential technology by twice as many servicing managers as loan production managers, according to *MORTECH 99*. There is also a positive correlation between cost cutting and data mining, where data mining is perceived as a way of avoiding

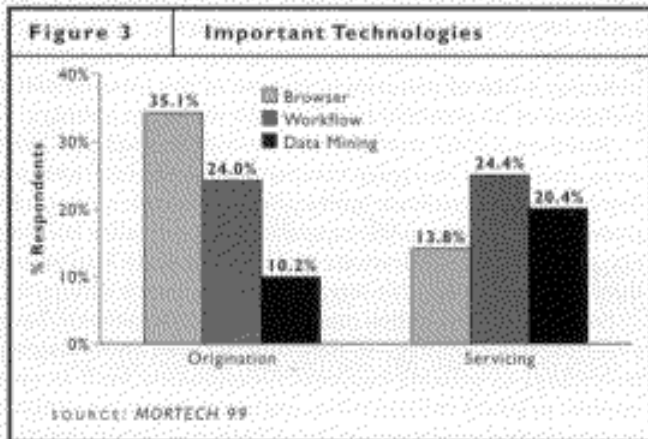
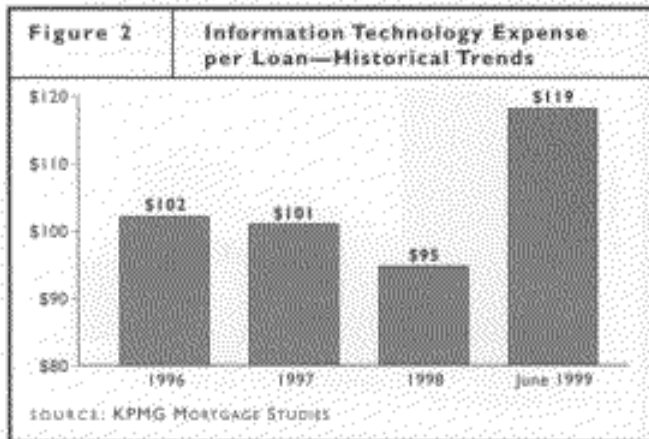
costs before they occur. For example, predicting high-cost loan delinquencies before they enter the operational pipeline and anticipating payoffs (avoiding processing costs by improving retention).

While data mining is seen as useful to producing new revenues through cross-selling, cost avoidance seems a more compelling reason to invest in data-mining tools. An informal survey of lenders conducted by KPMG supports the results of *MORTECH 99*. KPMG has found that although mortgage banks place significant value on the customer relationship and customer data, most companies do not yet maintain extensive customer databases and place a low value on investing in them to obtain such data.

While the industry is focusing a great deal on customer retention, the actual success rates are not that good. Best performers will capture between 30 percent and 40 percent of the loans paying off from their servicing portfolio, while average performers are in the range of 10 percent to 20 percent. To maximize profitability and gain market share, companies will need to improve their understanding of current and potential customers. Mortgage banking companies will need to invest more in the data, the data-mining tools and the use of analysis in taking steps to retain and deepen the value of customer relationships.

We expect call centers to increase in importance, as this technology is a key component for an Internet strategy. *MORTECH 99* results indicate that approximately 50 percent of traditional mortgage companies have implemented, budgeted or planned to install or upgrade call centers. Most call centers are underutilized because they are often set up to accommodate only the functional business line that invested in the call centers and do not generate revenue (see Figure 4). An example is that only 26 percent of nontraditional loans are originated using a call center, or an average of 9 percent of all originations done through call centers.

While the industry is focusing a great deal on customer retention, the actual success rates are not that good.



Improving customer service levels and the customer experience involves integrating the call center with tools like Web browser screens, scripting and customer data ready for use. When fully integrated with these tools, the customer service representative is equipped to perform multiple functions, such as responding to inquiries, making collection calls and cross-selling other products. The technology employed by call centers and the processes developed around them will be a key determinant of success.

To date, the impact of technology has not been clearly evident.

Internet use still in its infancy

MORTECH 99 results indicate the Internet is increasingly becoming integrated into lenders' thinking about their businesses. Almost half of lenders have implemented the Internet into their core businesses, according to **MORTECH 99** (see Figure 5). KPMG's *MorPro* study from June 1999 showed that the percentage of Internet origination ranged from 1 percent to 70 percent of total consumer-direct channel production (*MorPro* defines the consumer-direct channel as loans originated through a telemarketing operation, the Internet or a corporate relocation program). Another indicator that alternative channels are minor contributors, based on **MORTECH** results: Internet loan applications resulted in 3 percent of origination volume). The problem is that use of the Internet remains quite shallow. Slightly less than half of the lenders have implemented a Web site, as of June 30, 1999, according to **MORTECH 99**. Although this is a significant proportion of the lending community, it has not grown over the past couple years.

The Internet can be an effective tool for reducing incremental operating costs. However, the challenge is that lenders have yet to use Web-based technology to its full potential. For instance, the deeper into the loan production process we probe, the more application of Web-based technology falls off precipitously. Although nearly one lender out of two has a Web site, only one in six lenders can take a loan application through their Web site, according to **MORTECH 99**. Further, the companies that do have Web sites have generally not incorporated Web browser usage throughout the organization and especially in other channels. The Web browser could easily be put into the hands of loan officers, bank branch personnel and call center representatives. This inattention indicates a lack of maturity in the use of the Internet and a forfeiture of its potential benefit to the mortgage industry.

Based on KPMG studies from December 1998 and June 1999, traditional mortgage companies use the Internet predominantly to distribute information. Although some traditional companies have the capabilities to prequalify borrowers, process loan applications and communicate loan status through the Internet, this segment still represents a minority.

Some of the new online mortgage companies seem to have a competitive advantage as they have focused on leveraging technology to provide business functionality such as rate quotes, product information, online application, online approvals and credit reporting. KPMG has found that the

"best in class" online lending companies incorporate a high degree of technology expertise, marketing and integrated process/workflow management. The online companies employ various strategic models from mortgage referral and auction sites to production strategy sites for wholesale broker, correspondent and direct to the consumer.

Direct cost per loan shows steady decline

Once Web-based technology is fully implemented with the appropriate changes to the company's operating procedure, the mortgage company can deliver products and services at a very low cost (direct cost to produce of \$500-\$700 per loan) with better customer service. Lenders that plan and develop processes around this new technology will be ahead of those companies that simply add technology around the current traditional processes—this is also where the largest component of savings occurs. Companies with strong Web sites but a traditional-looking back office will be poor performers because of their inability to respond to the customer and operate at a significantly reduced cost basis.

Within servicing operations, direct cost per loan should be targeted at less than \$35 per loan, while increasing cross-sell revenue and increasing customer service levels.

To date, the impact of technology has not been clearly evident. Origination costs have increased and decreased depending on volume, but continue to range between \$2,000 and \$3,000 (see Figure 6). In 1999, the traditional retail loan origination

Figure 4 Use of Call Centers

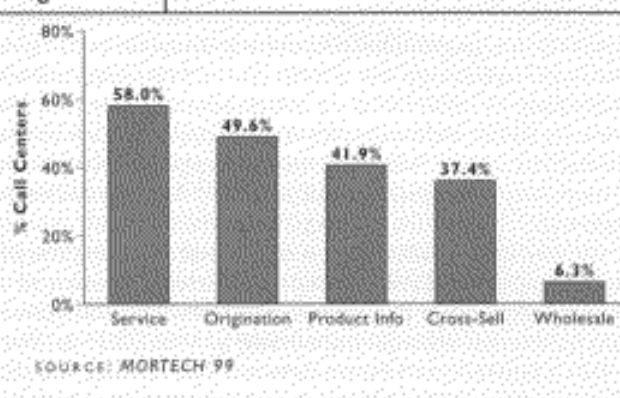
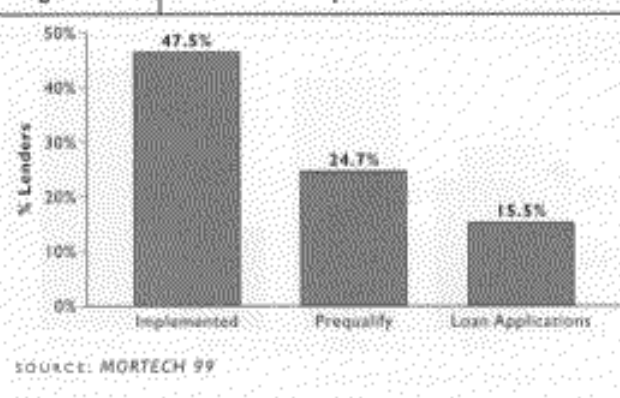


Figure 5 Internet Implementation



cost is \$2,800 per loan, with 65 percent attributable to branch origination costs and 35 percent to back-office (processing to closing) costs, according to KPMG findings.

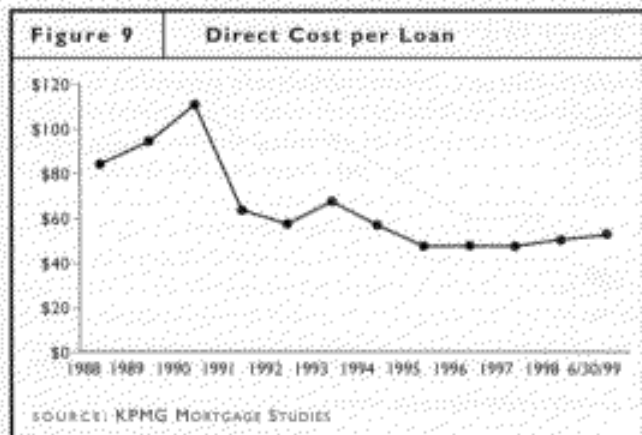
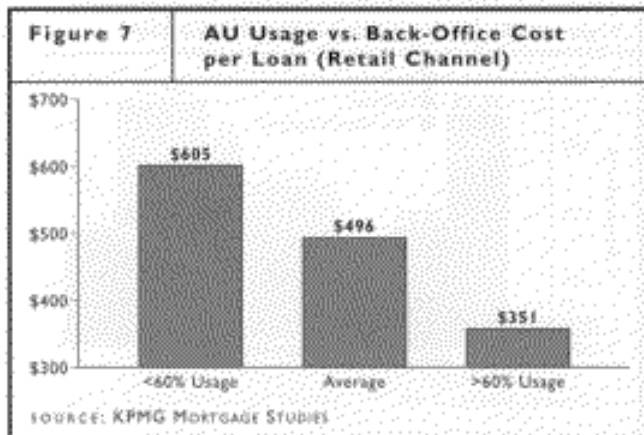
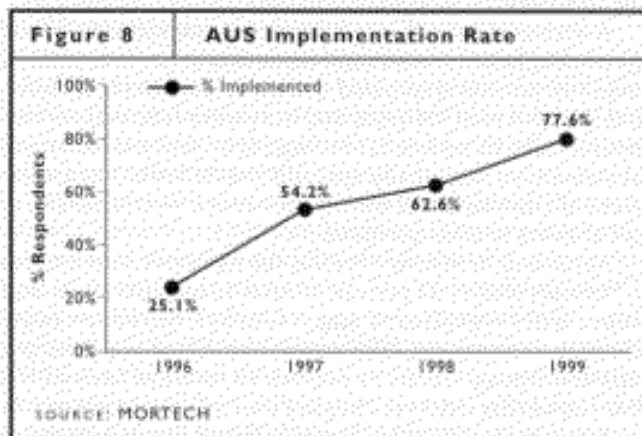
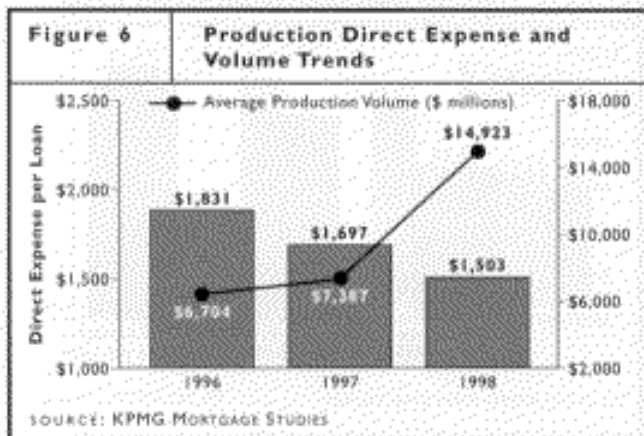
A large contributor to reducing costs has been the implementation of automated underwriting systems (AUS) and the associated process changes. Based on KPMG *MorPro* results, not only has AUS increased the efficiency, consistency and speed of the underwriting function, but it also has improved the overall origination process. Total underwriting costs were almost one-third lower for those companies that use AUS on more than 60 percent of the loans they underwrite (see Figure 7). In addition, total back-office productivity was 20 percent greater for those companies that reported usage greater than 60 percent. This improved productivity contributed to a 42 percent improvement in total back-office costs per loan as of June 1999.

Contributing to the impact of AUS is the length of time it has been deployed, with 45 percent of participants in *MorPro* reporting implementation of AUS prior to 1997. The remaining 55 percent have been using this technology throughout 1997 and 1998. *MORTECH 99* results support this conclusion, indicating that since Freddie Mac introduced Loan Prospector®, lenders have made automated underwriting a core technology (see Figure 8). We authors estimate that by year-end 2000, 90 percent of lenders will be using AUS. Installations of AUS will have grown by more than 250 percent since 1996. The cost savings from AUS have resulted in almost universal use of

these systems—primarily those systems developed by the government-sponsored enterprises (GSEs).

Most of the changes in technology within the mortgage servicing area have been investments made more to keep pace with needed changes; however, these technology changes have caused little change in direct cost to service over the past five years, according to KPMG data. Direct costs have come down from approximately \$65 to \$70 per loan in 1990 to \$55 to \$60 per loan in 1999 (see Figure 9). The servicing business continues to be labor intensive, with personnel costs representing between 55 percent and 60 percent of total direct costs. Although technology has certainly contributed to the ability to scale servicing operations, the advent of outsourcing heavy FTE (full-time equivalent) areas like escrow administration has also been a key driver of this statistic. On average, *MorServ* participants (surveyed from 1997 to June 1999) service approximately 1,000 loans per direct FTE, with best performers servicing up to 1,800 loans per FTE. Looking back to 1992, loans serviced per direct FTE averaged 700 (see Figure 10).

The economies of scale that are achievable through Web-enabling technologies will be significant because the current servicing business will have a new business model. Servicers will be configured differently to focus more on customer needs—both the borrower and the investor. The level of customer service will improve as a result of having more data about the customer, more automated key-servicing functions



like inquiry and fewer handoffs in the process than currently exist.

Specifically, Web-enabled technologies can interface with legacy systems while also providing better user interfaces (Web browser screens, better toggle capabilities, etc.), more customer and investor data accessible at the customer service representative's (CSR's) "click," and workflow capabilities that allow multiple processes to occur simultaneously. Those companies that are focused on e-servicing beyond the simple Web-based customer inquiry are on the leading edge of making the necessary dramatic changes to the processes and technologies for the customer service, default management, investor reporting and vendor interface areas of the servicing business.

For example, in the collections area, e-servicing will allow for lower operating expense and increased operating efficiencies through the following:

- E-mail, at \$.01 per item vs. cost of letter/processing/postage, at \$.50;
- Internet promise to pay, at \$.05 vs. three-minute collector contact, at \$2;
- Internet online payment, at \$.25 vs. three-minute collector contact, at \$7+ (Western Union Quick Collect, PhonePay or similar service);
- High hit rate for Internet-based users/instant messaging;
- Lower-risk users self-select payment options and self-cure; and
- Medium/high-risk users can be segmented for appropriate treatment.

A Web-enabled call center can reduce overall call volume (providing better answers and more data at the first point of inquiry), provide automated written responses via an Internet site or e-mail vehicles, and maximize inbound vs. outbound calls. In addition, blockage rates (busy signals) and abandonment rates (hang-ups) will also be lower since a segment of customers will use the self-service Web capability to get answers to their questions.

According to *MorServ* results, the customer inquiry area represents almost 20 percent of total direct costs alone, and represents significant opportunities to reduce costs through Internet use. The number of verbal inquiries per operator average about 70 per day. In terms of cost, KPMG has found that customer inquiry cost averages between \$2 and \$3 per inquiry. This figure is based on an average of

four to five inquiries per loan per year (see Figure 11).

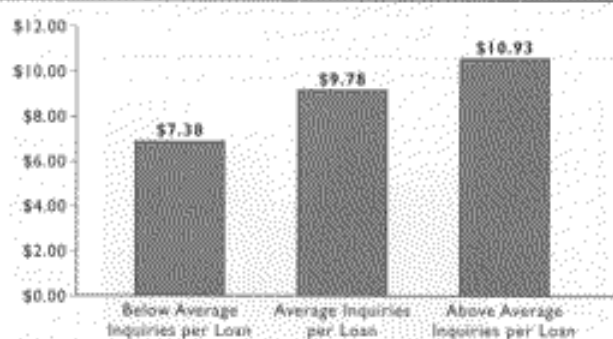
A large retail network is the most relied-upon channel

Although lenders are expanding their use of electronic channels of product distribution, more lenders rely on expanded branch networks to grow their businesses. *MORTECH 99* results indicate that 35.2 percent of lenders say their core origination strategy is to expand the number of production offices they operate. Ninety percent more lenders focus on production through physical distribution than will rely on the Internet over the next 12 months (see Figure 12).

KPMG *MorPro '99* and *MorPro '98* support the *MORTECH 99* results indicating that an estimated 72 percent of production stems from the traditional retail channel. In addition, according to *MORTECH 99*, more than half of all mortgage companies cite branch expansion as a key origination strategy for the next 12 months (January to December 2000). An interesting corollary from the *MORTECH 99* research is that there are no statistically significant differences between the attitudes of large lenders toward branch expansion and that of smaller lenders. The importance of physical distribution has yet to diminish in the face of electronic alternatives in the minds of many mortgage executives.

KPMG *MorPro* results indicate that lenders tend to favor one channel of production over another. That is, the majority

Figure 11 Customer Inquiry Cost per Loan vs. Customer Inquiries per Loan



SOURCE: KPMG MORTGAGE STUDIES

Figure 10 Direct Productivity



SOURCE: KPMG MORTGAGE STUDIES

Figure 12 Expanding Loan Production



SOURCE: MORTECH 99

of lenders reported that more than 60 percent of total originations develop from a single channel source. However, wide variations in cost per loan indicate that many companies are not positioned to maximize their preferred channel of origination.

Distribution channel use is another aspect of the business that correlates tightly with size. More than 80 percent of lenders are predominately retail originators; large lenders are heavily dependent on wholesale sources of product (see Figure 13).

Lenders producing more than \$1 billion annually obtain approximately 50 percent of their volume from wholesale. Clearly, large lenders enjoy more significant operating economies than do smaller lenders. Aside from the specialized labor and systems required to manage wholesale businesses, large lenders achieve considerable advantage when pricing their securities or selling to the secondary market. These economies reinforce the large lender use of wholesale channels.

However, higher fees and points and lower costs in the wholesale business do not necessarily lead to higher profits. Although the broker/wholesale channel represents lower fixed costs for the mortgage banker (see Figure 14), they also have less control over production, and, in periods of declining volume, mortgage companies may find themselves paying higher broker fees. Fees paid to brokers represent the largest

expense associated with this channel, and they can quickly erode any profit realized.

No matter what the origination source, retail or wholesale, there is a clear opportunity to deploy Web-browser capabilities that will help take applications or in the purchase of loans. KPMG has been working with clients to develop the Web-browser capability for deployment to loan officers, bank branch personnel and broker/correspondent customers that will significantly enhance the loan origination and/or purchase process.

Solutions for a new business model

Web-enabling the mortgage business, specifically the back-office components, will create clear opportunities to increase returns by boosting revenue and reducing costs. The future business model will offer better rates, better service and nimble responses to consumer demands, all at a lower operational cost.

Key success factors for the future include:

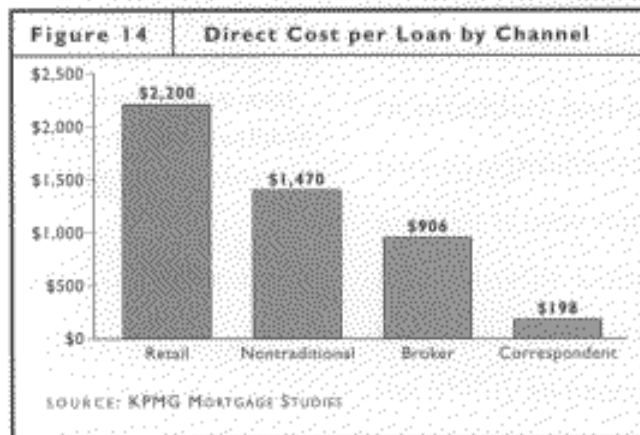
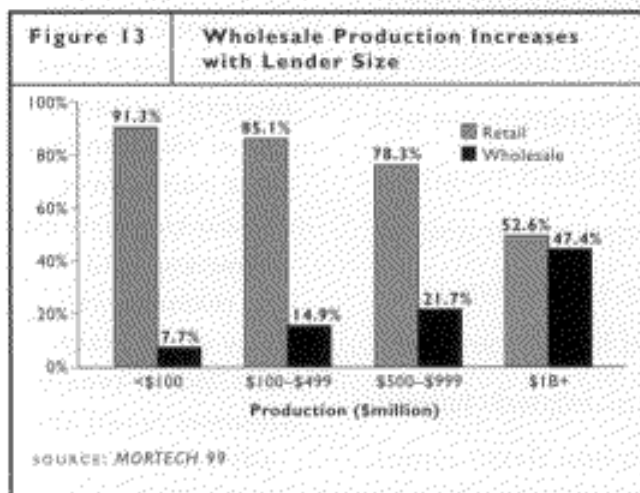
- Technology management;
- Information management;
- Customer service and experience; and
- Breakaway process changes.

Whether a company's objective is to reduce costs, improve customer service or both, determining and then tracking key performance measures is critical to success. Only by measuring success through tangible benchmarks will you ensure your objectives are being met.

Companies will also need to better understand their customers' behaviors and what business solutions (probably beyond basic mortgage servicing efforts) they can provide that will be perceived as value-added. The Web-enabling of core legacy systems will allow for data to be extracted and stored, analyzed and used for decisions about new products/services. Without a combined data repository concerning customers, the company will have little chance of cross-selling any other products and will thereby forgo new revenue opportunities.

Continuing to operate under the traditional business model will leave companies with outdated business processes, unresponsive customer service efforts and little or no chance of enhancing shareholder returns. The industry leaders of the future will be those that capitalize on available technology and are willing to change fundamental business concepts, products and processes. **MB**

Only by measuring success through tangible benchmarks will you ensure your objectives are being met.



Bernadette Kogler is a senior manager with KPMG Consulting's Consumer Lending Team, McLean, Virginia. She is responsible for KPMG Consulting's annual performance-based studies for the mortgage banking segment (MorPro and MorServ). Jeffrey Labowitz is managing director of Pedestal, Inc., Washington, D.C. The authors have combined certain results in this article to assess the impact of technology on the performance of mortgage banking entities. More information about MORTECH 99 can be found at <http://mortech-llc.com>. Questions regarding KPMG's studies can be directed to mortgagestudies@kpmg.com.