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**Financial  
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*Value Creation and Process  
Management: Evidence from Retail  
Banking*

**by  
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**VALUE CREATION AND PROCESS MANAGEMENT:  
EVIDENCE FROM RETAIL BANKING\***

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## **Abstract**

This chapter summarizes a multi-year research effort to understand the role of process performance in the overall efficiency of banks. By focusing on the process as the unit of analysis, the authors consider how technology, human resources, and most importantly, the interaction between these factors of production contribute to overall performance. The results of this paper lead to a set of recommendations to managers of financial service organizations as to the most effective approaches for designing and managing their key service delivery processes.

## 1.0 Introduction

The design and implementation of service delivery processes plays a key role in the overall competitiveness of modern organizations. For example, Roth and Jackson (1995) provide clear evidence that process capability and execution are major drivers of performance due to their impact on customer satisfaction and service quality in banking. Thus, any study of the efficiency of service organizations *must* focus on the role of process design and performance.

The development of quality management, reengineering, and other process management methodologies have led organizations to focus on the design and management of production processes. In services, and in particular in banking, this process orientation deals most directly with customer interactions with the organization. This focus raises two important questions: (a) does such a process-orientation matter to the overall efficiency of the organization, and (b) what are the characteristics of effective process management in financial services?

There is a rich history of literature demonstrating the importance of processes in analyzing firm performance (Chase, 1981; Chase and Tansik, 1983; Levitt, 1972; Roth and van der Velde, 1991; Roth and Jackson, 1995, Shostack, 1987). In addition, there has been a stream of literature on strategic frameworks to help conceptualize performance specifically in retail banking (Chase, Northcraft, and Wolf, 1984; Huete and Roth, 1988; Sherman and Gold, 1985, Haag and Jaska, 1995, Roth and van der Velde, 1989). The framework presented in Roth and Jackson (1995) describes how both process capabilities and people impact business performance.

Banks are getting much better at optimizing the customer service delivery processes for a single channel but they are still coming up short when these processes involve the interaction of more than one channel. This chapter will rely on three channel-specific studies of the retail banking industry to talk about optimizing individual channel performance through process management, which includes work design, human resource policies, and information technology

capabilities. To date these service channels have largely been considered as discrete and independent entities. Subsequently, their optimization has been diagnosed and enacted at a micro level, and with the primary goal of decreasing the overall cost structure. However, when firms consider optimizing a particular channel, they tend to underestimate the impact of customer interactions with other channels.

In this chapter, we present what we have learned from studying the branch, call center, and PC distribution channels both at the individual channel level as well as, and perhaps more importantly, at their aggregate level. It is our belief that when firms design their service delivery channels from the perspective of customer interactions, they are better able to anticipate the changes in customer behavior that will (eventually) affect their cost structure throughout all of their channels. We end this chapter with a set of recommendation to managers of financial service organizations that delineate the most effective approaches for designing and managing their key service delivery processes.

## **2.0 Channel-Specific Analyses**

We begin our discussion of process management in the retail banking industry by considering the management of each individual distribution channel.

### **2.1 The Branch**

There is a growing body of literature that has demonstrates that customer-service delivery processes at the branch level affect firm performance, as measured by financial measures and customer satisfaction. Frei, Kalakota, Leone, and Marx (1998) studied the effect of a group of branch-based customer service delivery processes on a retail bank's financial performance, as measured by return on assets (ROA). Their study analyzed eleven of the most common customer-service delivery processes within a branch across five products: checking, CD, home equity loan, small business loan, and mutual funds. The types of processes they analyzed were opening of accounts, basic transactions, and problem resolution within the account. The process analysis looked at the inputs and outputs of each process and determined the relative performance of each bank for each process. The inputs and outputs consisted of measures of convenience (the amount of time a customer is involved in the process), labor, technology, and duration (the time from beginning to end from the customer's perspective). Their study, which analyzed branches in 121 retail banks in 1994, demonstrated that both the aggregate performance as well as the variation of performance across these eleven processes was closely associated with firm financial performance. In addition, they found that the variation in process performance, what they called process variation, was the stronger of the two predictors of overall financial performance for the firm.

In Frei, Harker, and Hunter (1999), this work on process variation was extended to demonstrate that process variation was not only a strong predictor of financial performance, but

that it was also strongly correlated with customer satisfaction. The customer satisfaction measures used in their paper were the result of detailed phone interviews with customers. A bank's average customer satisfaction score was used as the firm's performance measure. In addition, their research found that banks with more consistent process performance also had more consistent human resource policies and more consistent deployment of technology<sup>1</sup>.

In both of the above-mentioned papers, the major theme was how process consistency affects firm performance. That is, when attempting to improve firm performance through the branch, it is important to consider the collection of processes performed in the branch, rather than optimizing individual processes. This point is further illustrated by the example presented in Frei, Harker, and Hunter (1999). In the customer satisfaction interviews conducted for this paper, customers were asked to consider their most recent experience in which they had a problem with their retail bank. They were then asked whom they blamed for the problem. Next,

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<sup>1</sup> The human resource policy score used in Frei, Harker, and Hunter (1999) relied on five different human resource measures. These measures covered training, individual performance incentives, group performance incentives, non-monetary incentives, and cross training. Banks received a score of one if they were above average in each of these fields and a score of zero otherwise. The five scores were then summed to determine a human resource policy score for the bank. Banks with scores of five were considered to have high empowerment workplaces, whereas banks with scores of one were considered to have low empowerment workplaces. In addition, banks were classified as consistent along the human resource policy dimension if they had either high or low empowerment scores, and inconsistent if they were somewhere in-between. Similarly, the technology measures used in their paper relied on five different technology measures. Each measure represented the level of technology functionality deployed in a bank branch's customer service delivery process in the account opening procedure across the five products mentioned above. Banks received a technology functionality score for each product based on their ability to perform product-related tasks online. The technology variation measure was determined by taking the standard deviation of these five product-based technology scores.

the customer's were asked to consider their most recent experience in which they had a pleasurable experience with their retail bank. They were then asked whom they praised for this experience. In 80% of the cases, when customers had a problem they blamed their financial institution, however in 100% of the cases, when customers had a pleasurable experience they credited a specific person.

Thus, institutions get the blame when things go wrong, but when things go particularly well, they get little credit, at least at the individual experience level. This is further evidence of the need for retail banks to have consistency in their processes since they seem to get most of the down-side blame, yet little of the upside credit. Thus, when attempting to improve firm performance through the branch, it is important to consider the collection of processes performed in the branch, rather than optimizing individual processes.

## **2.2 The Call Center**

Call centers are undergoing a dramatic change in focus in the retail banking industry. What began as a way to handle routine customer transactions in a lower-cost environment has become an enormous resource-consuming channel, necessitating call centers to generate revenue in order to justify their costs. This shift from the call center as a pure service channel to a sales and service channel is not without tremendous difficulties. Increasingly, banks have gotten quite good at optimizing their call centers across service measures such as average speed of answer, queue length, time since last talk, and other easily quantified measures. However, many have struggled with the shift from a cost center to a profit center for call centers that the new banking climate has necessitated. In this section, we describe a few of the common situations that occur with this shift.

In their study of effective call center management, Evenson, Harker and Frei (1998)

found that call centers that shifted resources from service to sales commonly experienced an unanticipated *decrease* in sales. The cause of this decrease was explained in part by the degradation of service levels resulting from a shift of resources away from this function in order to fulfill the new sales function. With the decrease in service levels, customer retention suffered, which then prompted increased efforts on sales to make up for the exiting customers. However, customer acquisition is typically more expensive than selling to existing customers, requiring even more resources (and, thus, shifting resources away from service efforts, continuing the downward spiral of service versus sales). When the new customers arrive, the decreasing service levels provide an obstacle for making them long-term and high-value customers. Firms that did not have this problem tended to have separate functions for sales and service, often with outbound sales outsourced, so as to completely separate the two functions<sup>2</sup>.

The study of effective call center management also demonstrated another potential hazard in optimizing call center performance. Most firms, in response to the escalating costs of the call center, are attempting to have more calls handled by the automated voice response system (VRU) instead of by people. The intention is to decrease the call volume that reaches the call center representatives (CSR) by increasing the functionality of the VRU. After increasing the functionality in the VRU, a significant number of firms had just the opposite effect; that is, firms that spent the resources to increase the VRU functionality in an attempt to decrease CSR call volume actually ended up increasing CSR call volumes. The cause of this increase in CSR call volume was explained in part by the customer's frustration with what they perceived to be a more cumbersome VRU. The increase in functionality of the VRU resulted in fewer customers

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<sup>2</sup> An analytical model that explains the tension caused by sales versus service mixing in call center operations can be found in Aksin and Harker (1996).

using the VRU to complete their calls because the customers found the VRU's complexity too difficult to navigate. However, not all firms had this unfortunate consequence. Through conversations with the firms, we found that those who spent more time on the VRU design from the customer's perspective (e.g., analyzing the number of levels and touch-tones various requests required) had a higher proportion of calls answered by the VRU (and, thereby, successfully decreased the CSR call volume). When firms did not consider the VRU as a customer service delivery process, necessitating customer-oriented design, their efforts to increase the VRU functionality and decrease the calls reaching the CSRs tended to result in the opposite, undesired behavior.

### **2.3 PC Banking**

The newest and lower marginal cost channel in this industry is PC or home computer-based banking. To date, this channel has had the same effect of each previous lower cost channel – it has resulted in an increase in the overall channel cost structure and an inability to generate the originally anticipated cost savings. A precursor to this example is the advent of ATMs. When banks introduced ATMs in the late 1970s, they did so with the expectation of decreasing their distribution system cost structure by providing customers with a lower cost channel to perform their transactions. The anticipated decrease in branch and teller use was not realized; instead, customer behavior changed, increasing the distribution cost structure. Cost savings were not realized until banks decided to charge usage fees over a decade after ATMs were introduced. Similarly, when call centers were introduced in financial services, it was again anticipated that they would decrease the distribution system cost structure. Due to a change in customer behavior in the channels (i.e., an increase in the number of transactions customers performed

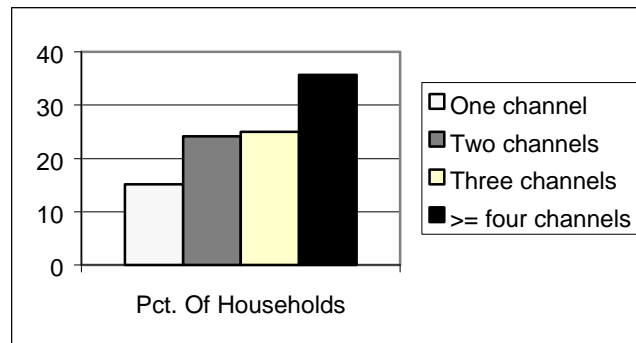
with the addition of each new channel) as well as an inability to realize the cost savings through branch closings, call centers also resulted in a net increase in costs. PC banking has proved to be no different.

In a study of seven North American retail banks, Hitt and Frei (1999) found that PC banking customers are unusually valuable when compared to regular customers with similar demographics. In fact, PC banking customers consistently carry higher product balances, use more products and are as much as 200% more profitable than a regular banking customer (i.e., non-PC banking users). However, it appears that most of these differences are due to pre-existing characteristics of the customers that choose PC banking -- there is little evidence that the use of PC banking made existing customers more valuable. Moreover, only about 20% of all PC banking customers are new to the bank when they adopt the PC channel; these customers do not appear to be unusually profitable. Overall, this suggests that the primary value of PC banking is in identifying and retaining a small group of highly profitable customers; cost savings, customer acquisition, cross-sell or customer profitability improvement appear to contribute little incremental value.

The implication of these findings for PC banking is that banks need to narrow the scope of anticipated benefits generated from the PC channel and design the processes of the PC banking service channel to accommodate their strategic goals. For example, if the real value is in *retaining* a good customer group rather than attracting new customers, then banks should seriously consider not investing in state-of-the-art PC banking functionality. That is, the capital might be more effectively invested in building better product options that further enhance the value of the bank to the customer and the value of the customer relationship to the bank.

## Interaction Between Channels

The previous section discussed the management of each individual delivery channel as if they are separate and distinct. In reality, customers are rarely channel-specific; rather, they use a wide variety of distribution channels when interacting with the bank. In their analysis of the 1995 Survey of Consumer Finances conducted by the U.S. Federal Reserve Bank, Kennickell and Kwast (1997) point out that only 15.1% of households used only one distribution channel (branch, phone, electronic transfers, ATM cards, electronic payments, etc.), whereas 24.2% used two channels, 25.0% used three channels, and 35.7% used four or more methods to interact with their bank (see Figure 1).



**Figure 1. Percentage of U.S. Households Using Various Number of Delivery Channels<sup>3</sup>**

Thus, it is imperative for banks to manage the interactions between distribution channels just as rigorously as they manage each channel in isolation. We now switch from independent consideration of the three service channels to consideration of their interactions. Our underlying theory is that the points of interactions between service channels and processes have generally been overlooked, and that processes dedicated to these interaction are of critical importance,

<sup>3</sup> From Table 2 in Kennickell and Kwast (1997).

often more so than the independent service channel processes themselves. It is in the unanticipated consequences of how changes in one channel effect another that is at the heart of this issue. Below we will provide examples of when this occurred and describe how having the appropriate processes in place can avoid these difficulties in the future.

### **3.1 The Branch and Call Center**

When optimizing the branch, banks need to also understand the capabilities of the call center and have in place adequate processes for customers to use one or both channels. When customers interact with more than one channel, special care needs to be given to the customer service delivery processes that facilitate this interaction. Within the firm, different organizational units may manage this interaction. To the customer, these channels are perceived as part of a single institution.

Frei, Harker, and Hunter (1998) describe a case study of a large North American commercial bank where the implementation of a major redesign of the retail delivery system was tracked (called National Bank as a pseudonym). The bank under investigation was confronted by an increasingly competitive environment and wanted to improve the cost-efficiency of its far-flung retail delivery system, comprising hundreds of branches, while simultaneously transforming these branches and other channels into retail stores focused more directly on the sale of financial products and services.

The redesign at National Bank was initially focused around very basic business process reengineering in the branches. Over a period of decades, a large number of administrative functions had accumulated in the branch systems, so that branch managers and service representatives spent a considerable amount of time on these activities rather than in contact with

customers. Further, most of the time spent with customers was centered on simple, transaction-oriented activities and basic servicing of accounts rather than on activities that were thought to be likely to lead to sales opportunities. The initial goal of the redesign was to streamline branch processes and shift the routine servicing of accounts to the call center in order to free up the branch employees for sales. To take one simple example, incoming telephone calls from customers were to be re-routed so that the phones in the branch did not ring. Rather, customers calling National and dialing the same number they always had used to contact the branch would now find their calls routed to a central call center.

The innovation required a redesign of the physical layout of the branches, encouraging more customers to use automatic teller machines and telephones for routine transactions. Customers entering the redesigned branch, therefore, were to be greeted by an ATM, an available telephone, and a dedicated bank employee ready to instruct them in the use of these technologies. The customer would be directed toward a teller or a service representative only with customer's persistence or when a bank employee deemed such personal attention clearly necessary (e.g., when a customer needs to access a safe deposit box or to meet with a sales representative about the purchase of a product or service).

These technological innovations, along with the redirection of customers to alternative delivery channels, were intended to realize efficiencies. As an example of the expected efficiencies, early projections, which were quickly revealed to be overly optimistic, envisioned a 65% decrease in the number of tellers required in the branch system. Over time, it was hoped that many customers would cease to rely on the branch and its employees for routine transactions and services. The reengineering was also expected to transform service employees into sales personnel, by allowing them to concentrate their efforts on activities that had potentially higher

added value such as customized transactions and the provision of financial advice coupled with sales efforts.

A clear requirement for effective innovation at National Bank, then, was the participation of the customers in the new service processes. In its design, National Bank elected not to pursue some of the more notorious routes favored by other banks (such as charging fees to see tellers), but to lead customers somewhat more gently, by making customer relations a key feature of the redesigned retail bank. The redesign created a customer relations manager in each branch, and it was to be the responsibility of this employee to ensure that each retail customer that entered the branch was guided to a service employee, or alternatively, a technological interface, in order to receive the appropriate level of service.

The redesign also required a large degree of innovation in two further areas: the information system and the telephone call center. The information system was to enable the relocation and standardization of a large number of routine types of account transactions (address changes, for example). Further, information systems were to be improved to give National Bank employees a fuller picture of each customer's financial position and potential. This more complete picture of the customer's portfolio was thought to enhance sales efforts, enabling service representatives to suggest an optimal fit between customers and services, and to refer the customers to areas in the bank with particular expertise in a product as that became necessary.

The centrality of the telephone call center in this redesign raised a new set of challenges. In the sophistication of its telephone banking system, National Bank had lagged behind a number of its competitors. Yet through the redesign, it hoped to make telephone banking, and, eventually, PC or home-banking, cornerstones of its delivery system. Implicitly, branch redesign, therefore, also required the construction of new call centers, staffing them as the

customers began to be directed toward them, and developing an organizational structure that went beyond the scope of traditional call center and could manage the relationship between the call centers and the branches.

With this redesign, the National Bank call center pilot was implemented in two small local markets. Most of the literally hundreds of administrative and servicing processes were removed from the branch. Telephones no longer rang in the branches. The financial specialists were freed to concentrate on sales activities, and found themselves with time available to pursue sales opportunities prospectively rather than simply reacting to walk-in traffic. Most customers responded to the innovation positively, quickly migrating to the new technologies with few problems. The active roles played by the customer-relations managers, many of whom were former branch managers, helped this migration along. However, while most customers migrated quickly, and the new processes that were accompanied by supportive technology worked effectively, turning the retail bank branch into a sales-focused financial store proved more difficult. Branch employees found it difficult to move from the idea of reacting to the sales opportunities that routine servicing occasionally provided, to the more pro-active sales role that the redesign called for. Further, some of the streamlining designed to supplement or improve employee-customer interaction replaced these interactions; this resulted in missed sales opportunities and fewer chances for bank representatives to assess and attempt to meet customers' needs.

When attempting to migrate a subset of customer transactions from one channel to another it is imperative to understand in detail how customers interact with the bank for each class of transactions. For example, National Bank took great care to understand how customers interacted with the bank for routine service transactions and thus successfully built processes that

facilitated the switch from one channel (the branch) to another (ATM and call center). However, they understood in less detail the way in which customers interacted with the bank for sales transactions and thus experienced a noticeable drop in sales as a result of their migration strategy.

### **3.2 PC Banking and the Call Center**

Just as the relationship between the branch and call center was implicated in the bank's attempt to optimize the branch, optimizing the PC channel implicates the capabilities of the call center. Banks need to understand the interactions between these two channels and adequate processes for customer to use one or both channels have to be in place. Virtually all of the service aspects of the PC channel are handled by the call center, including answering requests that are made electronically, by phone, or far less likely, by mail. However as we demonstrate below, the particular service requirements for the PC channel seem to be at odds with how the call center has traditionally been optimized.

For example, when a customer sends an email to the bank, this email is typically handled by the call center. What would have taken a couple of minutes as a verbal transaction on the phone, however, now requires several times as much labor. This new mode of customer interaction requires the email to be directed to the appropriate person (all too often by printing out the email and putting it in the inbox of an employee), the response carefully crafted, the response then forwarded to a manager to check for regulatory implications, and then the response is sent to the customer. Thus, the strength of the phone center at handling routine questions and service requests does not translate seamlessly to supporting a new channel: the processes by which these channels need to be as carefully planned as the existing call center service processes.

In addition, when introducing the PC channel, banks now face a similar set of service issues that the software industry faces: they have to decide how to deal with hardware related questions about customer's PCs and modems. On the one hand, it is very expensive to train and retain technically-savvy CSR's, but on the other hand, the bank is trying to encourage use of this lower cost channel and thus, wants to make it as easy for the customer to use as possible. The same service-delivery issues hold when thinking about interactions between PC banking and the branch. If a PC banking customer goes into the branch to ask a question about PC banking, it is an expensive proposition on the bank's side to make sure that the appropriate training and technology to meet these customer needs is in place in every single branch. To provide PC banking support at the branch level would further increase the costs associated with the branch. However, to not provide PC banking support at *every* customer contact point could potentially discourage customer migration.

In the end, banks do not really have the option of not providing the PC banking channel at this point due to its inherent competitive necessity. Given this, and the large up-front costs associated with PC banking, planning and implementation of this new channel has to be considered most carefully, down to the precise objectives and detailed descriptions of how the customer will interact with the channel.

### **3.0 Recommendations to Managers of Financial Service Organizations**

Based on the summary of the various distribution channels in banking, the following issues must be addressed if the industry is to continue to prosper in the future:

- Process consistency within and across service channels is paramount in customer service delivery processes. Resist the temptation to make investments to be best in class in a single type of process and rather make investments that will improve a set of processes to a consistent level. Also, process consistency is significantly affected by human resource policies and technology functionality that are complementary and that are aligned with the overall goals of the organization.
- Research shows that focusing on sales at the expense of service can actually reduce sales. When shifting from a pure-service to a sales-and-service culture, it is important not to place too much emphasis on sales at the expense of service, as this can result in a reduction in sales indirectly and retention of new customers over time, through a lack of attention to service.
- The VRU must be seen as a customer service delivery process and needs to be treated as such, replete with consideration of customer interface and careful design of the appropriate steps and functionality to enhance this interface so that the VRU can offset the call volume directed to CSRs.
- The PC is a channel with a value proposition of retention and cross-sell, rather than acquisition and cost savings. It is important to design those service processes PC banking delivers to take advantage of this value proposition.
- The lessons of PC banking and the need to integrate the new channels seamlessly into the existing methods of interacting with the customer become even more important in the movement toward Internet banking. As all of the previous changes in the industry have

demonstrated, the Internet will not replace the other channels of interaction with the customer, just like VCRs did not replace the experience of going to the movies. Rather, the Internet will enable entirely new services to be offered, as well as increasing the sheer volume of interaction with the customer, if done right. The need to take a holistic approach to channel/ process management will only increase as we move toward electronic banking.

The deeper issue for banks lies in the question of who is responsible for ensuring process consistency. Most banks are organized along lines of business (retail, credit card, mortgage, etc.). However, customers cut across all of these business units. Who makes sure that the customer experience is seamless?

Frei, Harker and Hunter (1997), in summarizing their various analyses of retail banking efficiency, paint a picture of what makes an effective bank. The good news (or bad news, depending on your perspective), is that there is simply no “silver bullet”, no one set of management practices, capital investments and strategies that lead to success. Rather, it appears that the “Devil” is truly in the details. The alignment of technology, HRM, and capital investments with appropriate delivery processes appears to be the key to efficiency in this industry.

To achieve this alignment, banks need to invest in a cadre of “organizational architects” that are capable of integrating these varied pieces together to form a coherent structure. In fact, several leading financial services firms have realized the need for such talents and are investing heavily in senior managers from outside the industry (most notably, from manufacturing enterprises) to drive this alignment of technology, HRM, and strategy. The challenge, therefore, is not to undertake any one set of practices but rather, to develop senior management talent that

is capable of this alignment of practices.

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