

# INFORMATION REQUIREMENTS FOR CUSTOMER RELATIONSHIP MANAGEMENT: A CASE STUDY IN A NEW ZEALAND BANK

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## Abstract

*Customer Relationship Management is gaining importance as a business strategy. It seeks to select, cultivate and manage the most profitable customer relationships with a view to increasing long-term profitability, through understanding customers' needs. This requires organisations to understand the information requirements of CRM implementation. Most published work to date focuses on management information requirements. Little published research has examined front-end sales agents' information needs and yet they are arguably the most important group of users, with direct interaction with customers. This paper seeks to close the knowledge gap by surveying a group of branch and call centre sales agents within a bank to identify their information needs.*

*Keywords: Customer Relationship Management, Banking, Information Needs, Sales Force*

## **1 INTRODUCTION**

Customer Relationship Management (CRM) is a relatively new marketing concept that requires complex information technology solutions rivalling those of Enterprise Resource Planning (ERP) systems. Central to the CRM concept is the idea that businesses should select, cultivate and manage the most profitable customer relationships with a view to increasing long-term profitability (CRMguru.com, 2001; Ling & Yen, 2001). Achieving this goal requires a company to understand its customer base at both the macro and micro levels. At the macro level, customer knowledge is needed for making strategic decisions and to focus marketing efforts. At the micro level, customer information is needed to deliver personalised products and services to individual customer in order to develop customer loyalty and trust.

To achieve these objectives, most CRM solutions include:

- data warehouses for storing customer data,
- analytical tools for better understanding and segmenting customer bases,
- data mining tools for discovering previously unknown customer knowledge, and
- marketing and campaign management tools for automating more focused marketing efforts.

Most reported studies on CRM information requirements address issues from a management perspective, that is, they identify the type of data required in setting business strategy or marketing campaign management (CRMguru.com 2001, Giltner & Ciolli 2000, Meltzer 2002, Stone, 2001). A recently identified need from practice is a front-end solution that delivers individual customer information to sales staff, preferably within one mouse click (Rountree, 2002). This presupposes an understanding of the information needs of field sales force. We found no research that examined information needs of front line sales staff, yet the ability of sales staff to deliver quality service to customers impacts customers' perceptions of the organisation.

In this paper we present a study that identifies the set of information used by sales staff in managing one-to-one customer relationships within a retail bank. Sales staff includes both branch staff and call centre staff. The study uses a two-stage survey methodology, resulting in a list of information requirements rated in importance by sales staff. We then examine the rated list to determine if branch sales staff and call centre sales staff use the same or different information. We further consider whether either or both use - or would use - the information generated from a commonly used CRM application in the finance industry.

## **2 CUSTOMER RELATIONSHIP MANAGEMENT**

Customer Relationship Management is defined in many ways. Some definitions focus narrowly on one aspect, such as the sales process focus of Koh and Chan (2002):

“CRM can be defined as the process of predicting customer behaviour and selecting actions to influence that behaviour to benefit the company, usually leveraging on information technology and database-related tools.”(Koh & Chan 2002).

Other definitions cast a broader net, such as that of CRMguru.com (2001):

“CRM is a business strategy to select and manage the most valuable customer relationships. CRM requires a customer-centric business philosophy and culture to support effective marketing, sales, and service processes. CRM applications can enable effective customer relationship management, provided that an enterprise has the right leadership, strategy, and culture.” (CRMguru.com, 2001).

CRM, in both its narrow and broader definition, gained acceptance in the 1990s as a consequence of increased competition in many industries, advances in technology, and rising customer expectations

(Paas & Kuijlen 2001). Today, firms must often compete against not only traditional industry players but also against new entrants to their industry. For example, banks continue to provide most of the on-call deposit and chequing services but face new competition from insurance and retail companies offering home lending, credit card and other high profit margin financial services.

At the same time, technological advances have enabled businesses to provide more and improved products and services, optimise delivery processes, and shorten product development life cycles. Empowered by greater access to information via the Internet, customers have become less tolerant of high prices and low quality in products and services. They enjoy unprecedented choices, gaining the upper hand in the business-to-customer relationship.

The realisation that customers are the source of income and the need to find a new sustainable growth strategy has led businesses to refocus on customers. Information technology, particularly Internet and call centre technology enable personalisation, user identification, and relationship marketing at the customer level possible. As Levitt proposed in 1983, the creation and maintenance of stronger, deeper relationships between businesses and between business and customer will benefit both sides. Today's technology makes relationship management at customer level feasible - hence the rise of CRM.

For the purpose of this paper, CRM is defined as a business strategy that

“... comprises a set of processes and enabling systems supporting a business strategies to build long term, profitable relationships with specific customers. The key objective of CRM is to enhance customer value through a better understanding of individual needs and preferences” (Ling & Yen, 2001).

In other words, it proposes that businesses seek to understand their customers' requirements, and formulate and provide them value-added solutions that are mutually beneficial. This is achieved by using efficient and cost effective business processes and technology that aim to maximise customer satisfaction with a view to returning profitable businesses. CRM recognizes that not all customers are of equal value but that there are opportunities to enhance value. Firms may target under-value customers through cross selling or up-selling to improve their value. Alternately they may “fire” unprofitable customers and concentrate resources on profitable customers.

## 2.1 Customer Value, Lifetime Value and Profitability

Customer value, customer lifetime value and customer profitability are common measures used to understand customers from a financial perspective. Though the terms differ, the underlying concept of the measurements is similar. The calculation normally involves adding all the revenue from products and services a customer purchased in a fixed period and subtracting the costs of supplying them to arrive at net revenue of the customer. This provides a simple historic customer value or customer profitability calculation for a fixed period. A company may use propensity modelling to arrive at the net present value of probable future revenues. Such modelling will include frequency of purchases and the channels used by a customer. The information is useful in deciding the type of relationship a customer has with firm and the potential ways of advancing the relationship (Day 2000).

Day (2000) analysed customer-firm relationships based on the types of value exchange processes between firm and customer. He described three varieties of relationship a firm could have with its customer:

1. **Transactional exchanges** – where the customer and supplier focus only on the timely exchange of standard products at competitive prices. Both parties view the exchange as a zero-sum game where one side wins at the other's expense and so everything rides on the negotiation of terms and conditions. This is often a short-lived one-off relationship.
2. **Value-adding exchanges** – where the focus of the firm shifts from getting customers to keeping customers. The firm pursues this objective by developing a deep understanding of their needs and

changing requirements, then tailoring their offerings to these needs as closely as possible, and giving continuing incentives for the customer to concentrate most of their purchases with them.

3. **Collaborative exchanges** – where firms maintain close information, social and process linkages and mutual commitments made in expectation of long run benefits with customers. This type of relationship is often found between business and business, for example firms in customised, high technology industries such as semiconductor and test equipment manufacturing.

Knowing customer value and being able to pinpoint profitable customers is just the beginning of CRM. To build customer relationships firms need business strategies and practices that enable them to nurture the relationship beyond its simple dollar value. With increasing numbers of relationships, employees are often assigned several or many relationships to manage, locally, across the nation, or around the globe. Management of these relationships, particularly locally but increasingly globally, is often the task of employees at the bottom of the organizational hierarchy. Job satisfaction becomes important as customer satisfaction bears a direct relationship with front-end employees' satisfaction (Schneider 1980).

Employees' satisfaction comes from two sources: management who support them and processes and technology that empower them. Technology can integrate operational and informational functions to provide both the necessary relationship knowledge and the means to service the relationship (Ling & Yen, 2001).

## 2.2 Information Technology for CRM

Writers on CRM have taken differing views as to which technologies comprise a CRM solution. For example, Goodhue, Wixom and Watson (2002) take a broad and inclusive view including "operational CRM" (applications used in data capture and touch point coordination) and "analytical CRM" (applications used in analysing data, reporting, and modelling).

By contrast, Shoemaker (2001) describes CRM, ERP and KM as co-ordinated but separate technologies, restricting the definition of CRM applications to those which facilitate interactions between customers and the firm, that is, 'operational CRM' in Goodhue et al's definition. In this paper, we are concerned primarily with CRM applications, which facilitate sales staff interactions with customers (operational CRM), but also have an interest in understanding potential value to sales staff of information available from analytic applications.

## 2.3 Customer Data and Information

Business operations require product, transactional, and customer data. In CRM, however, the focus is on customer data, for customer data is central to creating customer profiles. Ling & Yen (2001) describe five important areas of customer data:

1. **Contact information:** postal and email addresses, fax and telephone numbers,
2. **Household Information:** family relationships, household income, and other associations,
3. **Group Information:** population segments a customer belongs to based on interest, profession and other factors,
4. **Account Information:** customer purchasing, interaction and service history. In the financial services industry, this information includes account history, account conduct, account balances, credit limit and any information pertaining to customer account, and
5. **Analytical or Customer Profitability Information:** Customer credit score and propensity to buy.

For the banking industry, we would add profitability and lifetime value to the analytical information.

Given the breadth and depth of available information not all information can be, nor perhaps should it be, delivered to front end sales staff. Consideration of privacy laws and relevance of information are important. Would a customer be comfortable with, and agree to, the sharing of personal information

among the man of front-end sales staff? Would providing customer profitability information to front end sales staff encourage them to discriminate higher value customers from lower value customer? Is the information relevant? These concerns should be carefully thought through in designing an information deployment system. The objective is to disseminate the right information through the right channel to the right person at the right time, not to delivery all information (Ling & Yen, 2001).

The focus should be on the information that sales staff believe they need. Since they are the largest group interacting with customers, empowering them with the right customer information is important. Yet there have been few published works reporting information requirements solicited from experienced sales staff. The purpose of this paper is to fill this gap by surveying a group of front-end sales agents of a bank, both in branches and the call centre, for their information requirements in managing customer relationships.

The research questions are:

What information is required by sales staff in managing one-to-one customer relationships? and  
Which information resulting from analytical CRM application do field sales agents desire?

The field sales force here means branch sale people (commonly known as bank consultants in the financial services industry) and call centre staff (known as services and sales staff). Both user groups have direct customer contact and often have no choice in selecting customers or are unable to predict who the next customer will be.

### **3 BACKGROUND TO THE STUDY**

#### **3.1 New Zealand Retail Banking**

The case study is undertaken in a major New Zealand bank. New Zealand has a small population of around four million with around 2.6 million of working age and an annual growth rate of under 0.8% for 1996-2001, rising to 1.5% in 2002. The small population base and low growth rate means few new customers, so a bank strategy relying on customer acquisition is not sustainable. In such circumstances, customer retention gains increased importance.

In addition, New Zealand has one of the world's most deregulated financial sectors, dating back to the reforms of the late 1980's. Deregulation created intense competition leading to heavy investment in technology to provide a diverse range of products and services, a lower cost-to-income-ratio, and improved quality and efficiency of management and services. New Zealand led the world in new delivery channels such as automatic teller machines (ATMs), electronic funds transfer at the point of sale (EFTPOS), telephone banking, and internet banking (Wright, 2002).

The country now has five major banks providing similar products and services at a similar price. Non-financial institutions have entered the market on selected high profit margin products such as credit cards and hire purchase, and independent mortgage brokers have intensified competition in the lending sector. Consequently, banks either lose their customers to other banks or accept lower interest rates, putting pressure on profit margins. Customer retention has become an important issue for banks.

#### **3.2 CRM Strategy in Banking**

Bank customers are frequently segmented into groups based on the number of products used and balances held. Customers with a low number of products and low balances may be treated as if they had what Day (2000) terms a 'transactional exchange relationship'. Here the focus is on providing cost effective services. Customers holding many products and high potential balances may fall into the 'value-adding' or 'collaborative' relationship categories.

Transactional exchange relationships may be transformed into value adding relationships when customers take up staff recommendations for additional products such as investment or higher interest savings accounts perhaps with automatic funds transfer to optimise interest. From the bank's perspective, the account becomes value-adding because the number of products and services used by the customer increases and fees earned by the Bank also increase. In addition, the increased portfolio of products decreases the probability of the customer defecting to other competitors.

In the case study bank, which we will call 'Bank N,' the many single-proprietor businesses and farmers are treated as collaborative relationships. These clients share their financial information and plans with the bank and the bank provides financial solutions tailored specifically for them including solutions to meet seasonal cash flow fluctuations and hedging of interest or foreign exchange rates. Specialist managers with specific industry knowledge and good interpersonal skills maintain close relationships with these clients; they visit clients on their premises to strengthen the relationship and to gather information to assist the bank in developing better solutions by better anticipating client's future requirements.

However, the majority of the banks' customers are transactional exchange or value-adding relationships. This large group of customers most often approach the bank through branches or call centres (sometimes referred to as customer contact centres). To manage these relationships, branch and call centre staff must be armed with both bank product<sup>1</sup> information and customer information.

### 3.3 CRM at Bank N

Bank N customers are serviced through four main channels: ATMs, bank tellers, banking consultants and the contact centre. The ATMs can perform quite complex transactions but customers tend to use them for simple transactions. They are used mainly for simple transactions such as cash withdrawals or deposits, balance queries, and fund transfers between personal accounts. This channel is available twenty-four hours a day, seven days a week. It benefits both customers and the bank, being a convenience to customer while reducing the workload for branches, especially for tellers and banking consultants.

Tellers provide all the services offered by ATMs plus customer account maintenance such as change of name or addresses, set up of automatic payment, and changes of Personal Identification Number (PIN) on credit cards and ATM access card. Customers seeking advice on financial products or specialised services such as loans are referred to a banking consultant. From the bank's perspective, the primary function of a banking consultant is to sell bank services and products. Banking consultants typically come to know many of their customers well, and become proactive in suggesting financial services to meet customers' circumstances and changing needs.

Sales and services representatives, service customer through a call centre that is available twenty-four hours a day, seven days a week. They provide most of the services a teller can provide, with the exception of deposits and withdrawals. They also provide part of what banking consultants provide, selling financial services and products, such as credit cards and overdraft facilities, but only at lower dollar values. In addition, they reply to customer e-mails.

At the time of the research, the Bank N did not have a dedicated CRM solution. The application in use was designed for maintenance personnel to perform task such as opening accounts and renewing lending. However, it also provided customer information used by sales staff. The architecture consisted of a CRM module linked to product and workflow modules. The product module held information about customer accounts and balances and was updated by the payment module. Sales

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<sup>1</sup> Although banks earn income from providing services, they use the term 'product' to denote packages of services sold to customers, e.g., a chequing account, a savings account, a credit card, or a mortgage.

staff used the product module to investigate the current state of a customer's accounts and their transaction history. They used the workflow module for scheduling tasks such as follow up calls.

## **4 METHOD**

The research uses a survey-based case study in which end-users are approached to determine their information requirements. This is a common method of eliciting information requirements in information systems research (Browne & Rogich, 2001; Vessey & Conger, 1994; Watson & Frolick, 1993). The time frame of the research was around three months but required data collection from many sales agents. Therefore, survey research using self-administered questionnaires was used.

### **4.1 Sample and population**

A major New Zealand bank, Bank N, participated in the study. Bank N provides both retail and wholesale banking services and has a strong presence in the rural, small business, and personal banking sectors. Within the retail banking sector it has around 1.5 million customers, who are serviced through branches, call centres, Internet banking, ATMs, EFTPOS, and a mobile sales force. The Bank has around 4,500 employees, with 780 employed in its 160 branches and 430 employed in two call centres.

For the purpose of this study, the population of interest can be divided into two groups:

- Bank Consultants, who work in branches with face-to-face customer contact, and
- Services and Sales Representatives who work in the call centres with telephone contact.

### **4.2 Instrumentation and Procedure**

The research was conducted in two stages. The main objective of stage one was to generate a list of information required by Bank Consultants and Services and Sales Representatives. A secondary objective of stage one was to detect what analytical information currently available in marketing/management CRM application would be used by sales agents if it were made available to them. The objective of stage two was to collect importance ratings for the information requirements identified in stage one.

#### *4.2.1 Stage 1, Eliciting Information Requirements*

A three-part questionnaire was designed for the first survey. In part one, respondents were asked to list the ten most common tasks they performed in their dealings with customers. This section was designed to focus the respondents on their role as Bank Consultants or Services and Sales Representatives. In part two, they were asked to list the information they used in their dealings with customers. This section was designed to capture the information that first came to their mind. Part three contained a list of information items compiled from Bank N's existing front-end system and proprietary applications used in analysing the customer base. This section served two objectives: first to probe for further information required in managing customer relationships, and second to test if respondents would select analytical information, such as customer contribution and profitability score and, if so, which they would select. Not all analytical information available in the bank is currently made available to front-end sales staff.

For stage one, seven Bank Consultants and seven Services and Sales Representatives were selected. Those selected were the highest sales performers in each job category in the previous three months as shown in bank performance reports. In selecting the 'best', it was assumed that higher sales performers would be better at selecting and using information to understand customers' needs.

Questionnaires were mailed to selected staff with a covering letter explaining the purpose of the research. Two reminder e-mails were sent to all selected staff at the end of week one and week two to increase the response rate, and responses were cut off after three weeks when analysis began. Participation was voluntary and no incentives were used.

#### 4.2.2 *Stage 2, Rating Information Requirements*

A two-part questionnaire was designed for the second survey. Part one contained a cleaned list of information requirements from the first questionnaire. By 'cleaned' we mean that duplicated items were removed and, where necessary, standard bank terminology was substituted for some terms. Respondents were asked to rate the resulting 65 information items on a 7-point Likert scale anchored by polar adjectives of "not at all important" to "very important". In Part two of the survey we collected respondent data including, occupational role, sales experience, perceived computer skill level, qualifications, and demographic factors. This information was used for classifying respondents into like groups for the purpose of analysis.

For stage two, 30 Bank Consultants and 30 Services and Sales Representatives were selected. All respondents were based in the greater Wellington region. A stratified sample based on branch size was used for Bank Consultants with random sampling used for Services and Sales Representatives. Questionnaires were mailed to selected staff along with a covering letter explaining the research. As in stage one, two reminder emails were sent and a 3-week cut-off was applied. Participation was again voluntary and no incentives were used.

#### 4.3 Data Analysis

Given the exploratory nature of the study and the small sample size, only descriptive statistics were calculated pending future research. Stage one was an item identification task and no analysis was conducted beyond identification and clarification. In stage two, the average importance ratings of 65 identified items were calculated for the entire sample, for each respondent group (Bank Consultants and Services and Sales Representatives), and by selected demographic characteristics (e.g., experience level). The outcome was lists of information items ordered by importance ratings overall and for selected demographic groupings.

## 5 RESULTS

### 5.1 Stage one – Identification of Information Items

Eight of the 14 questionnaires in stage one were returned. Management informed us that most of the non-responses were due to individuals being on leave close to Christmas. Respondents included four Bank Consultants and four Services and Sales Representatives, most of whom (5 respondents) had 1-2 years experience, with one having 3-5 years experience and two having over 5 years.

Seventy-eight information items were identified including 63 that were listed in the prompt sheet. Fifteen items not in the prompt sheet were included (Table 1). Most of these new items were identified by Bank Consultants with over five years experience, the exceptions being items 13-15 (bank policy, product information, and promotion information) which were identified by the less experienced Services and Sales Representatives and Bank Consultants (1-2 years experience).

1	Account conduct	9	Insurance Details
2	Account history	10	Reason for banking with current bank
3	Account number	11	Total amount of fees paid
4	Customer future finance plan/need	12	Type of fees paid
5	Customer status/type		
6	Customer's statement of position	13	Bank policy and procedural information
7	Facilities with Other Bank	14	Bank product information
8	Family members	15	Bank promotion information

Table 1: *New Items*

### 5.2 Stage Two – Importance Rating of Information Items

Forty-three of the 60 questionnaires were returned within the three-week deadline giving a response rate of 72%. Twenty-two were from Bank Consultants and 21 from Services and Sales Representatives. The profile of respondents is summarized in Table 2. More females (70%) than males (30%) responded to the survey with ratios approximately equivalent across Bank Consultants and Services and Sales Representatives. Compared to Bank Consultants, Services and Sales Representative had a slightly younger age profile and were less experienced, with almost half being employed in their current role for less than 12 months.

		<b>Total</b>	<b>BCs</b>	<b>SSRs</b>
<b>Gender .....</b>	Female	29	15	14
	Male	13	7	6
<b>Age .....</b>	21-25	21	9	12
	26-35	11	5	6
	36-45	5	3	2
	>45	5	5	0
<b>Experience in</b>	< 1 year	15	5	10
<b>Current role</b>	1-2 years	9	5	4
	3-5 years	10	5	5
	> 5 years	9	7	2
<b>Computer</b>	Weak	2	2	0
<b>Skills .....</b>	Satisfactory	17	9	8
	Skilled	23	11	12
Total = 42, one respondent failed to complete respondent data				

Table 2: *Respondent Profile*

### 5.3 Ratings overall

Importance ratings were collected for 65 information items. For the purposes of stage two analyses, a rating of 1-3 on the 7-point scale was considered unimportant, 3.1-5.0 neutral, and 5.1-7 important.

Overall, 44 of the 65 items had an average rating of important. The 24 most important of these covered basic customer information (e.g., *first, last and preferred name*), contact information (e.g., *preferred contact method*), and customer account information (e.g., *type of accounts held, total balance of deposit accounts, total balance of current accounts, and maximum credit card limit*). The item with the highest rating was *first name*, followed by *account history, bank product information, preferred name, total amount of fees paid, account conduct, and last name*. Interestingly, *type of fees paid* and *total amount of fees paid* featured high on the list. This may reflect awareness on the part of sales agents of the bank's need for high-value customers. Alternately, it may reflect a common customer query following the recent introduction of a new, low fee government sponsored bank.

Seven items had average ratings of unimportant. These items were: *percentile ranking of customer in terms of profit contribution, number of dependants, spouse occupation, marital status, education level, spouse age, and e-mail address*. The first item is generated by using analytical CRM and can be classified as customer profitability information.

One objective of the research was to find which analytical CRM information was considered important by sales staff. The result showed that most analytical items such as *customer contribution by loan, customer contribution by deposits, and customer contribution by other services*, received only neutral ratings. Other analytical information such as *retention score, propensity to buy* and *profitability score* received even lower, unimportant, ratings. A Bank N manager suggested that perhaps the terms were not familiar to most sales agent in the branches and call centre and, therefore, they were rated low.

Despite the efforts of Bank N in developing a product range for young children and senior citizens, items such as number of dependants, which could be helpful in extending the sales into a customer household, were not considered important.

Most of the information items listed in the survey are currently available to sales agents in Bank N's front-end application. The exceptions are shown in Table 3. Customer profitability information (items 5--13) are generated by analytical CRM applications within the bank and the remainder are collected by sales agents during customer interviews, for example, loan application interviews.

Mean Rating		Mean Rating	
1. Annual income	5.86	8. Customer contribution –other services	5.02
2. Customer's future finance needs	5.74	9. Prospective customer	5.02
3. Customer's Statement of position	5.49	10. Retention Score	4.45
4. Relationship with other bank	5.26	11. Propensity to buy	4.44
5. Customer contribution by loan	5.16	12. Profitability Score	4.00
6. Customer contribution by deposits	5.09	13. Percentile ranking of customer in	3.95
7. Customer gross contribution	5.05	terms of profit contribution	

Table 3: Information not available in Bank N's front-end system

Items 1 to 8 are important in making lending decisions involving large dollar values, such as home loans. These are high profit margin products, so we might expect this information to be given a high importance rating. However, they received neutral or marginally important ratings. This may be due to a number of factors such as the fact that each channel (branches and call centres) is used in

promoting different product ranges, and different roles and responsibility may be affecting the rating. The independent analysis of Bank Consultant and Services and Sales Representative ratings might shed some light on this.

#### 5.4 Differences between Bank Consultants and Service and Sales Representatives

The top 20 information items of both Bank Consultants and Services and Sales Representatives is shown in Table 4. In general, the Services and Sales Representative respondents rated items lower than Bank Consultant respondents. For Services and Sales Representatives only two items were rated above 6 compared to 11 in the Bank Consultants' list. Six of the top 10 items were common across both groups, but four differed.

Bank Consultant's top 20 rated items		Services and Sales Representative's top 20 rated items	
Items	Mean Rating	Items	Mean Rating
<i>Account History</i>	6.41	<i>First name</i>	6.33
<i>First name</i>	6.41	<i>Bank Product information</i>	6.14
<i>Preferred name</i>	6.32	<i>Account History</i>	5.95
<i>Account Conduct</i>	6.27	<i>Total amount of fees paid</i>	5.95
Last name	6.27	Type of Fees paid	5.86
<i>Total amount of fees paid</i>	6.18	<i>Preferred name</i>	5.86
<i>Bank Product information</i>	6.09	Credit Rating	5.81
Total amount borrowed	6.05	Total balance of deposits accounts	5.80
Total amount deposited	6.00	Type of account held	5.76
Prospective customer	6.00	<i>Account Conduct</i>	5.76
Customer's Statement of position	6.00	Last name	5.71
Overdraft Limit	5.95	Prospective customer	5.71
Bank Policy and Procedural information	5.91	Current customer	5.71
Customer's future finance plan/need	5.91	Maximum credit card limit	5.67
Preferred contact method	5.86	Preferred contact method	5.62
Current customer	5.82	Most frequently use services	5.60
Preferred Channel	5.81	Bank Policy and Procedural information	5.57
Credit Rating	5.77	Customer's future finance plan/need	5.57
Total balance of current accounts	5.77	Overdraft Limit	5.52
Total number of loan accounts	5.77	Home phone number	5.48

Table 4: Top 20 items for bank consultants and sales and services representatives

The differences between the two groups may be attributable to differences in customer contact media and differences in, the degree of complexity of products commonly sold through each channel. For example, branch Bank Consultant's usually interact with customers face-to-face and deal primarily with complex, high risk or long term financial solutions such as home borrowing decisions. By

contrast, call centres were created as a low-cost option to divert workload from the high-cost branches. Services and Sales Representatives provide more routine value-adding services such as bill payment, account query, and low-risk lending facilities. The differing roles and incentive schemes is a bank strategy decision.

### 5.5 Experience in the Current Role

More experienced respondents rated more items as important compared to the less experienced (Figure 1). This pattern was consistent across both the Bank Consultants and the Services and Sales Representatives.

Results showed differences in desired or useful information items across experience levels. For Bank Consultants, no information item was found in the top 10 items for all experience levels, and each experience level has at least two items not included in the top 10 items of any other experience levels. Differences are likely due, in part, to the differing knowledge gained through experience. But they quite likely also reflect different responsibilities assigned to experienced and inexperienced sales agents. For Bank Consultants, it is common practice to assign less-experienced consultants to post-sales administrative services, whereas senior consultants are responsible for sales.

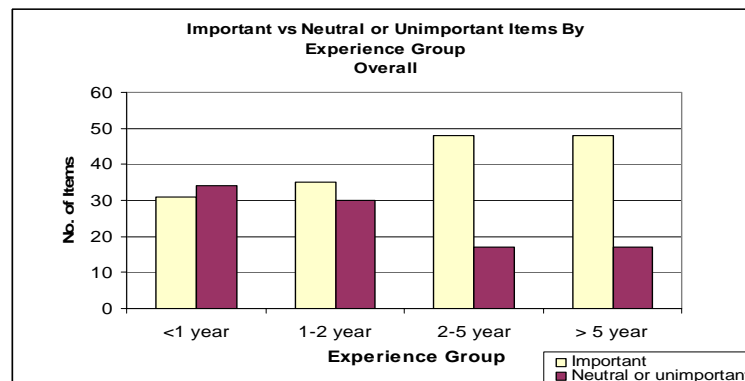


Figure 1: Overall number of importance vs. neutral or unimportant items by experience group

Among the Services and Sales Representatives, the least experienced agents (less than 12 months) had markedly different information requirements to those with more experience - six of their top 10 information requirements were not found among the top 10 of any other experience level. Differences for the most experienced agents (greater than five years) are explained by the fact that these two agents were both team leaders having different responsibilities compared to the others.

## 6 CONCLUSION

The primary objective of this research was to explore the information requirements of front-end sales agents by surveying branch and call centre sales representatives of a bank. Surveys were designed to generate a list of information used by them and gather an importance rating for each piece of information. The results showed that while a majority of the information required or considered important by sales agents is available to them through the system, some important information such as customer statement of position and customer future finance plans and needs are not available. This information has to be gathered by sales agents through customer contact.

Because customers' financial circumstances and life-style change, maintaining customer data is a continuous exercise. The challenge for banks is to develop and manage a proactive customer contact

plan incorporating both a data capture procedure and an information sharing mechanism to deliver the knowledge to sales agents across all channels.

This study found that there are differences in information requirements between branches and call centre sales agents. The difference may be due to the differences in their role, responsibilities, and the medium through which they interact with customers. In many instances, differences in roles and responsibilities are part of the bank's channel utilisation strategy. For example, branch sales agents may be responsible for the sale of high dollar value products because customers are seen to prefer a face-to-face channel in purchasing riskier or more complex financial products. Call centre sales staff deal with more day-to-day transactional or informational issues. These product role differences result in different information needs between branch and call centre staff.

Experience is another differentiator in sales agents information requirements. Experienced sales agents use a wider range of information and focus on information important for sales of specified products. It is possible that the differing requirements of experienced staff are due to the different role assigned to them by the bank. This study did not examine the differential roles of experienced vs. newer staff, but this is the subject of ongoing work with the target bank. Ongoing research is also aimed at comparing information importance ratings by successful vs. less successful agents. The findings should be useful both in training and in the design of information systems to focus sales agents on the most important information.

An aspect of the current research concerned the use of analytical information by sales agents. It was found that most experienced sales agents considered customer contribution (a customer profitability measure) to be important. How they use or would use this information and the potential impact on customer relationships needs to be understood before providing it to all sales agents. There is potential for it to be used as a discriminating factor, which could have adverse impacts on customer relationships. We found some analytic information that we expected to be important was not rated as such by sales agents, for example, *propensity score* and *retention score*. Since this information is not currently available to staff in Bank N, it may be that agents were not familiar with its meaning and potential use, suggesting a need for clearer explanations in research and more education in practice.

## References

- Browne, G. J., & Rogich, M. B. (2001). An empirical investigation of user requirements elicitation: Comparing the effectiveness of prompting techniques. *Journal of Management Information Systems*, 17(4), 223-249.
- CRMguru.com. (2001). The customer relationship management primer: What you need to know to get started. *CRMguru.com*. Retrieved 01-02-2002, from <http://www.crm-forum.com>
- Day, G. S. (2000). Managing market relationships. *Journal of the Academy of Marketing Science*, 28(1), 24-30.
- Giltner, R., & Ciolli, R. (2000). Re-think customer segmentation for CRM results. *Journal of Bank Cost & Management Accounting*, 13(2), 3-19.
- Goodhue, D. L., Wixom, B. H., & Watson, H. J. (2002). Realizing business benefits through CRM: Hitting the right target in the right way. *MIS Quarterly Executive*, 1(2), 79-94.
- Meta Group (2001). *Integration: Critical issues for implementation of CRM solutions*: META Group.
- Hutt, L. (2000). Customer relationship management: The profitability challenge. *Journal of Bank Cost & Management Accounting*, 13(1), 50-59.
- Koh, H. C., & Chan, K. L. (2002). Data mining and customer relationship marketing in the banking industry. *Singapore Management Review*, 24(2), 1-27.
- Ling, R., & Yen, D. C. (2001). Customer relationship management: An analysis framework and implementation strategies. *Journal of Computer Information Systems*, 41(3), 17.
- Marlin, S., McEachern, C., & O'Donnell, A. (2001, November). Cross selling starts with the CRM system. *Insurance and Technology*, 26, A8-A10.

- Meltzer, M. (2002). *Segment your customers based on profitability*. Retrieved 01-02-2002 from <http://www.crm-forum.com>
- Paas, L., & Kuijlen, T. (2001). Towards a general definition of customer relationship management. *Journal of Database Marketing*, 9(1), 51-60.
- Rountree, D. (2002). *CRM the hard way*. Retrieved 20-05-2002 from <http://www.electronicbanker.com/btn/articles/btnmay02-1.shtml>
- Schneider, B. (1980). The service organization: Climate is crucial. *Organizational Dynamics*, 9(2), 52-65.
- Shoemaker, M. E. (2001). A framework for examining IT-enabled market relationships. *Journal of Personal Selling & Sales Management*, 11(2), 117-185.
- Stone, M. (2001). Analysis requirements. In M. Stone & B. Foss (Eds), *Successful customer relationship marketing: New thinking, new strategies, new tools for getting closer to your customer* (pp. 103-118): Kogan Page.
- Vessey, I., & Conger, S. A. (1994). Requirements specification: Learning object, process and data methodologies. *Communications of The ACM*, 37(5), 102-113.
- Watson, H. J., & Frolick, M. N. (1993). Determining information requirements for an EIS. *MIS Quarterly*, 17(3), 255-269.
- Wright, A. (2002). Technology as an enabler of the global branding of retail financial services. *Journal of International Marketing*, 10(2), 83-98.