Segmentation Based on Customer Profitability –
Retrospective Analysis of Retail Bank Customer Bases

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Abstract

Segmentation continues to be an important marketing concept also in a relationship marketing context. Relationship marketing is, however, more interested in enhancing the existing customer relationships and this generates a need for a better understanding of the existing customer base. The paper argues that "retrospective" or historical analysis that facilitates the calculation of customer relationship profitability, form an excellent starting point for segmentation of customer bases. Such segmentation is shown to be a strong analytical instrument as a basis for formulating, marketing strategies. By using empirical data collected from two extensive case studies of retail banks in the Nordic countries the paper illustrates different ways of segmenting customer bases.

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Segmentation in a Relationship Marketing Context

Market segmentation is one of the comer stones of the marketing management approach to marketing. The starting point in this approach is the identification of the relevant market (Guiltinan and Paul 1991) that the company is serving and the partitioning of the market into groups of customers (segments) with similar needs and/or characteristics who are likely to exhibit similar purchase behavior (Weinstein 1994),

To oversimplify somewhat one can conclude that the sequential logic used in most marketing management text books is the following: identify your target segment; describe the characteristics of the segment members; determine their needs as to the product that you are selling, adapt the marketing mix components according to the segment's needs, sell the products, get increased product profitability and thus increased profitability of the firm.

There are, however, considerable problems with this line of reasoning. The core of the criticism stems from the fact that it is increasingly difficult to build marketing activities on the notion of a market. The "markets" are fragmenting rapidly and we are moving towards a time when the only relevant segment is the individual customer. Taking a genuinely customer oriented view on marketing changes many of the fundamental marketing assumptions and thus marketing in itself changes.

The marketing mix approach to marketing has been characterized by Möller (1992) as a function "trying to solve the following problem: how to, develop an “optimal” marketing mix consisting of the Produce, Place, Price and Promotion solutions for competing for the preferences of a chosen target segment of consumers..." (ibid., p 1).

According to Möller', the marketing management approach is based on an assumption that consumer markets comprise "multiple independent actors, that are predominantly passive, mainly responding to the marketing mix signals of firms providing competitive alternatives. In brief, atomistic markets, singular independent transactions, and stimulus-response relationships" (ibid. p 2).

Obviously this is not a description of the marketing environment of today. Information technology has made it possible for customers to be very active indeed in all pans of the production process and thus

customers are not passive recipients of the outcome of the production process but rather active co-producers. The buying decisions are not made independently and they are not singular occurrences but rather the transactions happen in relationships between provider and consume.

Grönroos (1990) suggests a relationship definition of marketing:

> Marketing is to establish, maintain, and enhance (usually but not necessarily long-term) relationships with customers and other partners, at a profit, so that the objectives of the parties involved are met. This is achieved by a mutual exchange and fulfillment of promises (ibid., p 138).

The task of relationship marketing can thus be derided into two parts: (1) establishing or creating customer relationships and (2) maintaining, enhancing or cultivating customer relationships. This division has a major significance both on the theory and the practice of segmentation.

There will obviously be a need for the traditional approaches to market segmentation when it comes to the task of identifying prospective customers and establishing relationships with them. We will not, in this paper, discuss this part of the segmentation need. Our focus will be on the segmentation needs of the existing customers, i.e. of the provider's customer base.

Segmenting Customer Bases

There are two distinct segmentation needs in maintaining and enhancing customer relationships. First there is a need to determine the state of the existing customer base in terms of the degree of homogeneity over a number of variables describing both the documented patronage behavior and background data about the customers. This type of analysis can be labeled "retrospective" as it is based on historical data. The retrospective analysis is more of a strategic tool as it makes decisions regarding product and price positioning and discrimination possible. It also allows for systematic evaluation of the state of the customer base in terms of possible risks and possibilities within the customer base.

The second type of analysis can be labeled "prospective" as it deals with the provider's ability to further enhance existing customer relationships. The prospective analysis is operative or tactical to its nature as the key issue is to find ways to enhance a particular relationship or a group of relationships. They are oriented towards creating practical solutions as how to approach customers, how to communicate with them, and how to influence their behavior. These solutions are transitory, they are used basically for a "campaign" of different activities. The campaign can be divided into three stages: selection of customer to work with, cultivation, i.e., actual interventions in order to enhance the selected customer relationships, and evaluation of results.

We will in this paper discuss only segmentation based on retrospective customer base analysis. The need for segmenting the customer base is a function of the differences between customers in terms of preferences, sales volume, transaction intensity, and customer profitability. We argue that the key attribute to be used in order to determine the need for segmenting the customer bases is the distribution of profitability within the customer base. Storbacka (1994) has developed an index for measuring the distribution of profitability in a customer base: the Storbachoff Index. The Storbachoff Index is actually a measure of the studied customer base's deviation from an "ideal" customer base. When the Storbachoff Index is zero the profitability is equally distributed (i.e., all customers are equally profitable) and all customers are profitable! As soon as, the index is greater than zero the profitability is unequally distributed.

The index can be used in order to follow the development of a certain customer base over time, and it can also be used to grade customer bases within the same provider. In organizations where customers are affiliated administratively to branch offices, geographical areas etc., the index may be used in order to make comparative studies of the customer bases in each branch office or area. The index will give information on the sensitivity of the profitability of the customer bases and thus on the risk involved in the management of the customer relationships in the particular part of the organization.

In cases where the index is closer to 1, the need for a differentiated strategy is apparent. A high index indicates that the provider is very dependent on a limited number of customers. The proportion of profitable customers obviously varies among providers. Cooper and Kaplan (I991) suggest that, in certain industrial markets, 20% of the customer relationships stand for 225% of the total customer base profitability. Storbacka (1994) showed similar dispersion patterns in a retail banking context.

Several ways of segmenting the customer base are evidently possible. Based on the literature (Storbacka 1994, Shapiro et al. 1987, Bellis-Jones 1989, and Howell and Soucy 1990), we can find four basic ways to segment customer bases: (1) segmentation based on combining relationship revenue and relationship cost, (2) segmentation based on relationship volume, (3) segmentation based on customer relationship profitability, (4) segmentation based on combining relationship volume and customer relationship profitability.

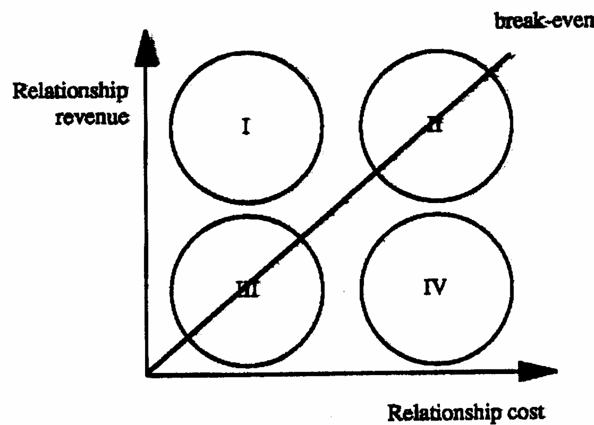
In the following sections we will discuss these ways to segment customer bases and illustrate the practical application in the case banks. The interesting finding in these applications is that the different segmentation solutions emphasize different aspects of the customer bases and different profitability drivers. Thus, the choice of segmentation solution strongly influences the design of the strategic development of the bank.

Segmentation Based on Relationship Revenue and Relationship Cost.

By using relationship revenue (RR) and relationship cost (RC) we can create a simple two dimensional grid (see also Shapiro et al. 1987) into which customers can be positioned. In Figure 1 we offer one possible solution on how to group customers.

Customers can be grouped into four clusters of customers: Group I consist of *profitable customers, with high RR and small RC.* Based on our understanding of the structure of RR and RC we can expect these customers to be passive customers with fairly big relationship volume and limited transaction behavior. The customers in this quadrant are probably customers towards whom the bank needs to adopt a defensive strategy. The basic aim of the defensive marketing strategy would be to reduce customer exiting and switching.

Figure 1. Grouping customers according to RC and RR.



Group II consists *of customers with high RR and high* RC. This group includes both profitable and unprofitable customers. The customers are probably active, with high relationship volume and many interactions with the bank. Their frequent contact with the bank presents many possibilities to affect their behavior- most of the tools described in the earlier chapters would be applicable. As their RC is high, at the same time they represent a major potential: by changing the behavior of the unprofitable customers, the customer base profitability can be greatly improved!

Group III consists of *customer with low RR and small RC.* This group, too, includes both profitable and. unprofitable customers, but as their RR is limited, they do not represent the same kind of profitability potential as the customers in group II. The bank would need to know the possibilities for increasing the

customers' patronage concentration., For those customers who do nor represent a major potential by becoming full customers, the only solution is to decrease the demand for interactions and simultaneously increase relationship fee revenue.

Group IV consists of *unprofitable customers, with low RR and high RC.* These customers are probably not partial customers; more likely the customers in this group are low net worth customers who are still active. The proportion of younger customers in this group might be expected to be high.

The grouping of customers presented above is static and therefore requires an additional analysis in which customers are followed over time so that migration patterns can be identified (Shapiro et al. 1987). Migration patterns are important when it comes to following both profitable and unprofitable customers. In analyzing migration, the interest should focus on the turnover of customers, i.e., the defection rate (Reichheld and Sasser 1990), the migration of unprofitable/profitable customers, and the degree of migration. The more migration there is in the customer base, the more sensitive customer base profitability is likely to be.

Volume Based Segmentation

The simplest and the most popular way to segment bank customers is volume-based segmentation. The basic idea is to use some sort of volume indicator (deposit volume, loan volume, a combination of both, or some other volume indicator) to generate groups. Most commercial banks have employed volume-based segmentation at least in order to find target groups for "private banking" activities. The volume indicators have usually been customer holdings in the bank in the form of deposits and investment activities. These customers are usually in literature (Donnelly et al. 1985) related to as "high net worth" customers.

Developing a differentiated strategy based on relationship volume may be a good solution as it is obvious that the banks ability to help the customer to produce value for her/himself is evaluated using totally different criteria among high volume customers compared to low volume customers. High volume customers could be expected to be much more interested in how the bank helps the customer to manage her/his assets whereas the low volume customer is, probably more interested m the payment brokering services of the bank.

Profitability Based Segmentation

The third possible way to segment the customer base is to base the grouping directly on customer relationship profitability. There are two basic approaches to do this: to base the grouping on relative

profitability (relative to the total customer base) or to group customers based on their absolute profitability.

Grouping customers according to their relative profitability in practice means that the customers are grouped based on the their importance for the profitability of the total customer base. The customer base may thus be grouped in for instance four groups. Group A consists of the 20% most profitable customers, group B consists of the next 30%, group C of the next 30%, and group D of the 20% that are the most unprofitable.

Based on the segmentation, we can determine that group A consists of the customers that the bank has to defend against other competitors, the basic idea being to increase relationship strength. Customers in group D are obviously customers that have to be evaluated against the possibilities to dramatically improve their profitability. Groups B and C are groups with which the basic idea has to be to influence both an increase of relationship revenue and a decrease in relationship cost.

Creating segments based on the customers' absolute profitability is the second alternative. The number of segments is of course a question of judgment. Experience shows that it may be practical not to use regular intervals but to choose smaller intervals close to zero line.

Segmentation Based on Relationship Volume and Relationship Profitability

The fourth way to segment customer bases is to combine volume-based segmentation and profitability based segmentation. Analyzing literature we found similar ideas expressed by Bellis-Jones (1989) and Howell and Soucy (1990). Bellis-Jones proposes a grouping of customers into what he calls a decision grid analysis (DGA). The dimensions used in this grid are business volume (measured as sales volume) and CRP (measured as contribution, i.e. as percentage of sales). The customers are grouped into flour groups: high volume/positive contribution (winners); high volume/low or negative contribution (problems); low volume/positive contribution (potential); and low volume/low or negative contribution (losers).

In Figure 2 we have depicted four different groups of customers that can be identified based on combining relationship volume (RV) and customer relationship profitability (CRP).

The groups can be characterized as follows: Group I consists of *low volume, unprofitable customers.* Customers in this group are unprofitable because of their unfavorable transaction behavior in combination with their low volumes. The only way to - in the short term - improve the profitability of the customers that have concentrated all their RV in the bank under investigation and still are unprofitable is to concentrate development efforts on their transaction behavior; to change the behavior and/or price of the

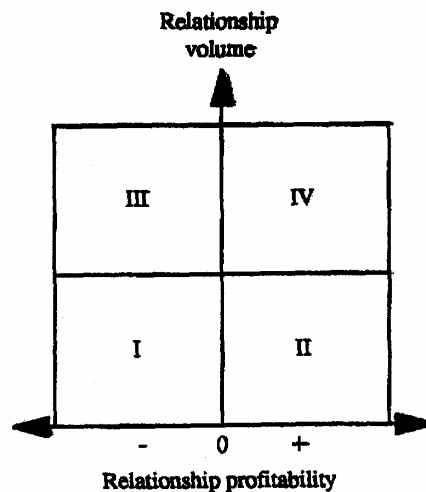
transactions that create the problem in order to get more relationship fee revenue.

Group II consists of *low volume, profitable customers.* Most of these customers are doubtless "passive" customers, i.e., customers with limited transaction behaviors. This can be a. result of one of two things: they use the bank under investigation as their second or third bank and thus generate their transactions in the bank where they have their salary account, or they have a very limited need for transactions.

Group III consists of *high volume, unprofitable customers.* These are the "dogs" of the customer base. Customers in this group may be unprofitable either because of unfavorable pricing or because of excessive usage of low or unpriced transactions. Thus the strategies towards this group may have to vary significantly based on the reasons for the poor performance of the customers in the group. As the customers in this group are high volume customers, there may be a notable profit potential in managing to influence the factors decreasing the performance of the customers.

Group IV consists of *high volume, profitable customers.* These are the "cash cow" customers of the bank. Most of these customers are among the first quartile in the profitability and thus the bank is very dependent of this group. Defections in this group may seriously damage the profitability of the total customer base. A key question is whether to settle for the present levels of profitability or to seek to improve the situation by increasing volumes, improving pricing, and/or changing buying behavior.

Figure 2. **Grouping customers according to RV and CRP.**



Empirical Analysis in Retail Banking

Empirical data has been gathered from two retail banks, in the Nordic countries. The banks will be referred to as "Bank A" and "Bank B". To place the case banks in a larger context, we can use a classification by Abraham and Lierman (1991). They use two dimensions to classify banks: geographical and functional. On the geographical dimension, both banks are national banks, and Bank B can be regarded as being regional and local. Functionally both banks are universal banks. According to Revell (1991) the concept "universal bank" is commonly used to characterize large banks that carry out corporate, wholesale and retail banking, investment banking, and securities businesses. Many large banks have established (close links to) insurance companies, something which also is true for both banks.

Being universal banks, both case banks provide all types of banking services to private persons. This in practice means that their customers do not need other banks in order to get bank services (many customers of course choose to have several bank relationships for other reasons). Both banks are, in their nature, established large actors in their respective markets- both belong to the top five banks as measured in total assets. This of course means that their customer bases are large - both have more than a million consumers as their customers. Both banks have a high level of accessibility, serving customers through a number of different channels: branch networks, ATM networks, card operations, and telephone based distribution channels.

Data about the banks has been generated in a long term clinical (Normann 1977 and Schein 1987) research process (described elaborately in Storbacka 1994) in which the key aim was to calculate relationship profitability of individual customers. The collected data is very rich and contains both qualitative and quantitative data elements (see also Appendix 1). There are three different types of quantitative data: management information system (MIS) data, market research (MR) data, and archival data. The MIS data is based on the extensive analysis of internal accounting data, the aim being to generate data about the customer relationship which enables profitability calculation. As the MIS data is based on the accounting systems in the banks, the data is cross-sectional and covers the information available for one fiscal year in both banks. The data from Bank A covers the year 1992 and the data from Bank B relates to 1991.

Volume-based segmentation

In both case banks we generated some volume segments in order to analyze their suitability from the banks' perspective. As the results were very similar in both banks and as the result is used only in order to illustrate the usefulness of volume-based segmentation, we have chosen to present only the results of

Bank A. The results are displayed in Table A.

Relationship volume (RV) is in this case defined as the sum of the customer' s yearly average deposit and loan balances. When analyzing the content of the table we first have to start by concluding that the groups, are not based on regular intervals but rather on some sort of convenience intervals. Thus we can see that the customers are distributed fairly equally over the groups - except for the high volume groups. It is interesting to note that customers with a RV less than 10,000 represent almost 50% of the customers and contribute less than 4% of the total RV in the customer base. The same customer groups are all (as groups) unprofitable.

Hence, a volume-based segmentation should be based on improving CRP in these groups.

Table A Results of volume-based segmentation in Bank A

RV groups	Share of CB		Share of TRV		Share of T		Share of TCRP	
	Group	CUM	Group	CUM	Group	CUM	Group	CUM
0-999	15.51	15.51	.14	.14	9.29	9.29	-13.13	-13.13
1.000-2.499	11.71	27.22	.51	.65	7.44	16.73	-8.14	-21.27
2.500-4.999	9.71	36.93	.94	1.59	6.87	23.60	-5.70	-26.97
5.000-9.999	11.05	47.98	2,13	3.72	8.75	32.35	-4-.09	-31.06
10.000-24.999	16.98	64.96	7,44	11.16	16.14	48.49	3.20	-27.86
25.000-49.999	13.19	78.15	12.56	23.72	15.62	64. 11	17.28	-10.58
50.000-99.999	10.89	89.04	20.39	44.11	15.87	79.98	36.14	25.56
100.000-249.999	9.15	98.19	37.44	81.55	16.69	96.67	53.32	78.88
250.000-499.999	1.59	99.78	13.60	95.15	3.04	99.71	15.26	94.14
>500.000	.22	100.00	4.85	100.00	.29	100.00	5.86	100.00

Note: All figures are percent of the total figures for the customer base. CB = customer base; RV = relationship volume; TRV = total relationship volume of the customer base; T = total transactions of the customer base; TCRP = total customer relationship profitability of customer base; CUM = cumulative.

It is also interesting to note that the customers with RV between 50.000 and 250.000 represent about 20% of the customer base and stand for approximately 90% of total customer base profitability. Hence, these groups can be argued to be the most important ones. This does not, however, indicate that the customers in these groups as individuals are the most important ones. An average customer, in the highest RV group, contributes more than 25 times the profitability of an average customer in the group 25.000-49.999, more than eight times the profitability of an average customer in the group 50.000-99.999, about five times the profitability of an average customer in the group 100.000-249.999, and about threefold the profitability of an average customer in the group 250.000-499.999. The average profitability of customers in the small volume groups that are unprofitable is just a few hundred negative. As almost 50% of all customers, are in these groups, and as it is not possible to increase volume-based revenue (without increasing volume) it could indicate that just a small increase in the average fee-based revenue could have a

major impact on the total profitability of the customer base.

As a conclusion, we note that even the simplest way of segmenting customer bases provides powerful insights in the configuration of customer relationships and creates a foundation for strategic development of products and pricing mechanisms. In all Nordic markets we can identify banks that seem to, have employed volume based segmentation and developed offerings based on the analysis. The offerings are usually equipped with access barriers, which require certain volumes from the customer in order to provide the customer access to the benefits built into the offerings (for instance the customer has to have a certain deposit volume in order to qualify).

Profitability based segmentation

In Table B we have displayed the results of a grouping of the customer base in Bank A based on absolute profitability. The figures show decisively the big differences in profitability. It also indicates that what drives profitability is RV. The small group of customers (1,41% of the customer base) with mom than 10.000 in profitability bring 12% of the total RV and almost 50% of profitability. The approximately 12% of customers that contribute more than 2.500 bring 43% of total RV and. 140% of the customer base's profitability. Additionally, we can conclude that the approximately 1% of customers that have a negative profitability of more than 5.000 erode the profitability of the customer base with 25% of the customer base's total profitability. We can also note that approximately 47% of the customers bring between -500 and. +500 in profitability. These customers stand for only 13% of total RV.

Table B Segmentation based on absolute profitability in Bank A

CRM groups	Share of CB		Share of TRV		Share of TT		Share of TCRP	
	Group	CUM	Group	CUM	Group	CUM	Group	CUM
< (I0.000)	.33	.33	2.46	2.46	.68	.68	-14.88	-14.88
(5.000)-(9.999)	.79	1.12	3.43	5.89	1.69	2.37	-10.81	-25.61
(2.500)-(4.999)	1.99	3.11	4.63	10.52	4.48	6.85	-13.39	-39.00
(1.000)-(2.499)	8.15	11.26	6.86	17.38	18.00	24.85	-24.11	-63.11
(500)-(999)	11.63	22.89	3.88	21.26	17.15	42.00	-16.07	-79.18
(100)-(499)	23.84	46.73	4.49	25.75	16.26	58.26	-13.20	-92.38
0-(100)	6..81	53.54	1.48	27.23	2.76	61.02	-.68	-93.06
0-99	5.08	58.62	1.53	28.76	2.44	63.46	.46	-92.60
100-499	11.07	69.69	5.62	34.38	6.88	70.34	6.00	-86.60
500-999	7.56	77.25	6.54	40.92	6.31	76.65	10.81	-75.79
1.000-2.499	11.09	88.34	15.86	56.78	10.67	87.32	35.62	-40.17
2.500-4.999	6.79	95.13	17.10	73.88	7.05	94.37	46.86	6.69
5.000-9999	3.46	98.59	14.16	88.04	3.87	98.24	46. 79	53.48
>10.000	1.41	100.00	11.96	100.00	1.76	100.00	46.52	100.00

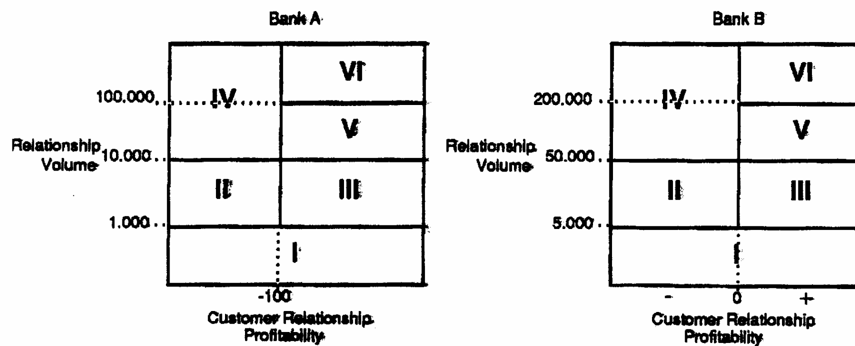
Note: All figures are percentages of the total figures for the customer base. CB = customer base; TRV = total relationship volume of the customer base; TT = total transactions of the customer base; TCRP = total customer relationship profitability of the customer base; CUM = cumulative.

Analyzing the distribution of transactions shows that negative profitability is transaction driven. The 22% of customers that have a negative profitability between -500 and -5.000 stand for 40% of all (registered) transactions.

Segmentation based on relationship volume and customer relationship profitability

Both Bank B and Bank A chose as their final segmentation solution a segmentation based on RV and CRP. The solutions were based on an analysis of the profitability dispersion (see for instance Storbacka and Luukinen 1994), Based on the analysis it was shown that profitability does not unambiguously explain profitability. The profitability dispersion increases as a function of RV. It was therefore felt to be important to choose a segmentation solution that reflects the dispersion of the profitability of high volume customers.

Based on the analysis of relationship profitability dispersion both banks engaged in segmenting their customer bases using RV and CRP as criteria. The groups basically follow the dispersion pattern. Both banks derived a solution with 6 segments. The difference between the solutions are based on the slightly varied definition of the segments. The solutions are illustrated in Figure 4.



Note: The size of the areas in the picture does not correspond to the importance of the segments measured in any dimension. The figures are only illustrations of the definition of the segments. Local currencies.

The segmentation solutions differ as to the definition of the groups both on the RV dimension and the CRP dimension. In Bank A it was felt that the calculations were inaccurate and therefore the profitability "zero-point" was moved to-100. The groups were defined based on an analysis of the share of customers, RV, and profitability in the groups.

It is interesting to compare this solution with the previous ones. Based on this depiction it is obvious that RV alone does not explain profitability as there obviously are high volume groups (group IV) that are unprofitable. The groups are compared using some key indicators in Table D.

Analysis of the figures for Bank A in the table show that 48% of the customers are in groups I, II, and III, and that these groups together stand for only 4% of the customer base's total RV. Group VI consists of only 8% of the customers and these customers stand for 42% of volume and 111% of CRP. We can also see that the 14% of customers found in group IV stand for 47% of the total LV, only 5% of total DV and 29%, of the total amount of transactions. Based on this we can draw some conclusions as to the reasons for this group's poor profitability. Only 6% of the customers in this group are over 60 years old and thus we can conclude that a key reason is that there are loans that are tied to an unfavorable base rate and thus at the time of analysis performed poorly.

Table D Segmentation based on RV and CRP in Bank A and Bank B

	Group I		Group II		Group III		Group IV		Group V		Group VI	
Share of	A	B	A	B	A	B	A	B	A	B	A	B
customers	16	*16*	18	*32*	14	*14*	14	*6*	30	*26*	8	*6*
TRV	0	*1*	2	*10*	2	*7*	24	*11*	30	*39*	42	*33*
TDV	0	*n.a.*	2	*n.a.*	3	*n.a.*	5	*n.a.*	42	*n.a.*	47	*n.a.*
TLV	0	*n.a.*	1	*n.a.*	0	*n.a.*	47	*n.a.*	15	*n.a.*	36	*n.a.*
TT	12	*13*	19	*36*	3	*10*	29	*11*	24	*23*	13	*6*
TCRP	-21	*-32*	-22	*-68*	3	*19*	-63	*-26*	93	*108*	111	*9.5*
customers > 60 yrs	20	*13*	25	*36*	33	*10*	6	*11*	47	*23*	35	*31*

Note: All figures in percent of the total figures for the customer base. All numbers rounded to the closest whole number. A = Bank A; B = Bank B; n.a. = not available; TRV = total relationship volume of the customer base; TDV = total deposit volume of the customer base; TLV = total loan volume of the customer base; TT = total transactions of the customer base; TCRP = total customer relationship profitability of customer base.

A similar analysis of Bank B shows that the 6% of customers that belong to group VI stand for 95% of the total profitability. We can also conclude that the 6% of customers, belonging to group IV stand for I1% of the total amount of transactions- something, which may explain the reasons for their profitability. In Bank B, 62% of the customers are in groups I, II, and III, and these groups together stand for 18% of the customer base's total RV.

Assessing Customer Base Segmentation Solutions

An important aspect in assessing the segmentation solution is to compare the solutions against a set of appraisal criteria. These criteria are, however, dependent on the principal aim of the segmentation solution. The aim can range from a purely descriptive aim of creating better understanding of the situation in the customer base to a highly normative aim of generating actions in order to influence the profitability of different segments of the customer base. As shown earlier, the aim of this paper was to segment customer bases based on retrospective customer base analysis. This type of segmentation usually aims at controlling the differences in profitability in order to control the subsidizing effects in a customer base. The segmentation solutions that aim at subsidizing control are basically permanent in their nature. By permanent, we mean that they are permanent enough to form the basis for the development of market strategies over a number of years. The market strategies may contain new products, new pricing concepts and other measures to influence customer behavior in such a way that the Stobachoff index is decreased. The segmentation is used in order to focus the development of relationships in such a way that the profitability of the most profitable segments is preserved.

The subsidizing control segmentation solutions can all be evaluated against a common set of appraisal criteria. The already mentioned criterion was that the solution should be permanent enough to render possible the development, implementation and evaluation of a new market strategy. The solution should also be unambiguous so that customers can be placed only in one segment at a time. This facilitates longitudinal analysis of customer relationships.

The third criteria - which actually is self evident- is that belonging to a group should be pertinent to a specific buying behavior. Hence, the fact that a customer belongs to a certain group already communicates something about the configuration of the customer relationship.

The final criteria deals with the implementation of the market strategy developed based on a retrospective customer base analysis. It is important in the implementation stage to provide employees with a simple orientation to the foundation of the new strategies. This is especially important as almost all strategies include the introduction of new service charges - something which creates a lot of conflicts in the front line (customers complain to front line personnel). In order to be able to create credible arguments against the complaints, front line personnel need to understand the logic behind the introduced strategy.

In Table G, we have evaluated the above-described subsidizing control segmentation solutions. The evaluations are all subjective but give an indication about which solution is good measured against all above described criteria.

Table G. Assessment of segmentation solutions

	Segmentation solutions based on retrospective customer base analysis			
	Relationship revenue and cost	Relationship volume	Customer relationship profitability	Relationship volume & relationship profitability
Permanent	++	+	++++	+++
Unambiguous	++++	++++	++++	++++
Reflection of buying behavior	++++	++	+	+++
Easy to communicate	+	++	+++	++

Note: + limited fulfillment, ++ partial fulfillment, +++ good fulfillment, ++++ excellent fulfillment.