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Design decisions in the front office - back office issue

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9 Verification of the Mechanism

We verified the mechanism we unraveled in the previous chapter in a new case. According to Miles and Huberman (1994) and Yin (2003), replicating the findings in a different context can provide strong support for the theory, even though further replications are not performed. Therefore, we conducted a sixth case study. Our main aim was to improve the external validity of the mechanism by checking whether it occurred in a bank that was not part of the empirical study. To rule out potential effects from the cooperative banking group, we sampled a competing bank. In this section we report the design and results of this case study. Section 9.1 addresses the sampling decisions, data collection methods and analysis procedure. In section 9.2 we present the main case findings. After analyzing the case evidence by means of pattern matching in section 9.3, we end this chapter with concluding section 9.4.

9.1 Case design

The main research question to be answered in this case study was the following: *can the mechanism we unraveled on the basis of the five case studies be found in another bank as well?* The principles or patterns we tried to verify were the following:

1. the basic structure of the mechanism, i.e. given choices and trade-offs;
2. the contents of the trade-offs in the three design decisions;
3. the way in which choices are made;
4. the fact that trade-offs can be overcome;
5. the coherence between the design decisions.

The mechanism as displayed in figure 8.4 and described in section 8.5 was taken as the main point of reference.

Sampling case and processes

The cooperative banking group we sampled from for the main empirical study was one of the three largest banks in the Netherlands. For this case study, we sampled from another of the three largest banks, thus a competitor of the cooperative banking group. We concentrated on one of the labels of this bank. For this label, the banking organization was represented throughout the country by approximately 250 branches, yet they did not have

Table 9.1: Overview of target respondents, interviews and documents			
	Introductory interview	Follow-up interview	Company documents
Mass consumer products	<ul style="list-style-type: none"> ▪ 2 process designers ▪ 1 consumer advisor 	N/a	Process description
Mortgages	<ul style="list-style-type: none"> ▪ 2 process designers 	<ul style="list-style-type: none"> ▪ 2 process designers 	Process description
Company loans	<ul style="list-style-type: none"> ▪ 2 process designers 	<ul style="list-style-type: none"> ▪ 2 process designers 	Process description
	Total number of interviews 6		

local autonomy and did not make their own design decisions. Therefore, we situated the case study at the bank’s head office, where the design decisions were made. We refer to this bank as bank V (V for verification).

Like in the other case studies, we sampled processes within this bank. Particularly for the verification procedure it was important to concentrate on concrete processes, rather than process design in general, as we expected it would be hard for respondents to talk about the mechanism underlying their design decisions directly. Furthermore, without concrete processes it would be fairly easy for them to fall into generalized statements. Yet, a sufficient level of detail is required in order to verify the patterns and the mechanism. We concentrated on the same three service delivery processes as we did in the other case studies: the processes for providing mass consumer products (through a face-to-face channel), mortgages and company loans. Although this did not provide the opportunity to study the mechanism in different processes, it ensured we studied processes that were common for the bank and most likely had received sufficient design attention.

Data collection methods

This case study took place during April and May 2004. In order to collect the required data, we relied on two sources of evidence: interviews with employees responsible for process design and company documents, see table 9.1. With regard to the interviews, we talked to “process designers” at the head office of the bank. The process designers were part of an internal consultancy department that engaged in several projects to achieve efficient and effective service delivery at the branches of the bank. The process designers had areas of special interest, such as “payments & savings”, “mortgages” and “loans”. We included two process designers for each process in this case study and interviewed them simultaneously to benefit from their mutual interactions and supplementing, as we anticipated that neither one would hold all the information we needed.

We conducted two semi-structured interviews for each service delivery process. The interviews lasted approximately 1.5 hours. In the first interview we concentrated on obtaining a description of the service delivery process, mainly in terms of the three design decisions, recent and upcoming changes in the process and the design considerations. In

Table 9.2: Overview of interview topics	
Introductory interviews	Follow-up interviews
<ul style="list-style-type: none"> ▪ Overview of process steps and design decisions ▪ Arguments for design ▪ Recent and upcoming changes in process ▪ Company and competitive priorities for process 	<ul style="list-style-type: none"> ▪ Given choices and other limitations to the design space ▪ Arguments for each design decision

the follow-up interviews we concentrated on the verification of the mechanism. We asked the respondents about the forces that were limiting their design space, such as organizational factors, regulations or technology, and invited them to provide arguments for each side of the trade-offs in the mechanism (applied to “their” service delivery process). This is summarized in table 9.2.

For the process for providing mass consumer products, we encountered a process designer that was fairly new to the job and a consultant that had worked on the development of a new information system, but not the process as a whole. Therefore, we omitted the follow-up interview and talked to a consumer advisor in one of the branches instead to obtain a complete picture of the process.

With regard to the company documents, we collected process descriptions for each of the three processes. In general, these were flowcharts indicating the process steps and actors for each step. They also specified for which activities which information systems were used. Additional company information was obtained from the bank’s website and annual reports.

Data analysis

As we were able to focus our data collection to a great extent in order to collect all information that was required to verify the mechanism, we did not have to engage in extensive data reduction strategies. It was enough to work out the interviews and read them over a couple of times. To facilitate the drawing of conclusions, we developed a few data displays. Just as we did in the other case studies, we described the processes and the design decisions in words and graphically in a flowchart. The analytic strategy we employed for the actual drawing of conclusions is one of pattern matching (see e.g. Yin, 2003). Taking the mechanism we unraveled from the five case studies as the point of reference, we investigate to what extent the patterns we observed in this case match the predicted patterns. In this way, we can verify the original mechanism and add to its external validity.

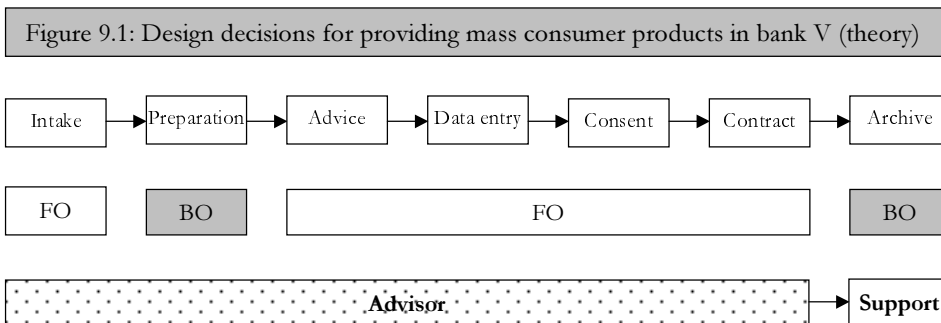
9.2 Case findings

In this section we present the main case study findings. We describe each of the three service delivery processes we investigated in this bank, as well as the bank’s strategic

priorities. For each of three processes, and probably the bank as a whole, increasing sales was the most important company priority. New customers had to be attracted and existing customers should purchase more products and services. With regard to bank V's competitive priorities, it positioned itself as a bank delivering high quality and personal service. It explicitly did not compete on price or speed. For mortgages, the importance of reliability, as in keeping your promises, was emphasized. For company loans, highly competent and professional employees were also important. Moreover, bank V made a clear distinction between the sales part of a process and the administrative part. In general, the front end (i.e. the branches) should increase revenues, while the back ends (shared service centers or back office departments) were designed for operational excellence and reducing costs.

9.2.1 Providing mass consumer products

The process for providing mass consumer products in bank V was remarkably similar to the processes in the other banks. Recently, an information system was developed that enabled the delivery of mass consumer products through mainly front office activities that were carried out by consumer advisors. This is illustrated in figure 9.1. The main reasons for this design were removing administrative activities from the branches to increase their sales focus, reducing the number of systems and paper forms in use by the branches, increasing the speed of service delivery and improving the quality of information through entering data in the system only once while the customer is watching. Before the new information system was in use, the branches had to work with different systems for different products and several activities were conducted by a centralized back office department. This entailed that customer data had to be entered a number of times, which was inefficient and led to many mistakes. In addition, customers had to wait at least one week before they could use their new products or services. The new information system would significantly improve this situation.



Organizational arrangements: consumer advisors and support employees form different (functional) groups.

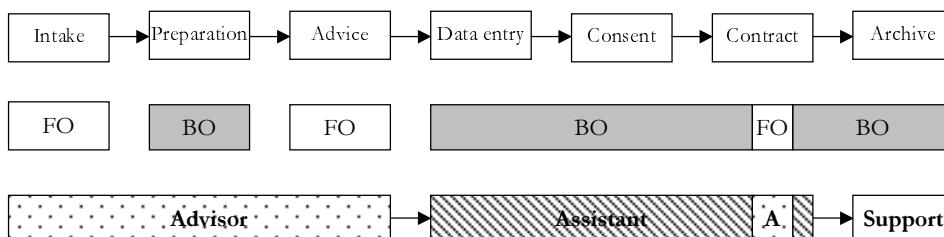
However, we found that this design did not work out as such in practice. The way mass consumer products were delivered in practice is shown in figure 9.2. The main reason why the consumer advisors deviated from the designed process had to do with the information technology. As there were not enough computers available in the rooms where the consumer advisors met with customers, they could not use the new information system in the customer's presence. To solve this problem, the advisors would take notes during the sales meeting and hand these over to an assistant who entered the data in the information system as a back office activity, arranged consent and printed the contract. The assistants would then bring the contract to the consumer advisor who was still in the room with the customer, so that the customer could sign the contract. Next, the assistants finalized the sales transaction in the information system (again back office) and handed the contract over to a support department for closing and archiving the file. This way of working preserved the potential for cross-selling and instant service delivery, although it was quite inefficient. If sufficient computers become available, the process can be carried out as designed and achieve higher efficiency levels.

In summary, the process designers reported the following design considerations for the process as designed:

- Front office activities to establish a customer's identity.
- Front office activities to increase the speed and efficiency of the process, supported by an information system.
- Avoiding follow-up work to free commercial employees for sales tasks.
- Coupled process (partly) based on the definition of front office and back office activities.
- Coupled process to increase speed of service delivery.
- Functional group of support employees to realize economies of scale.

Reviewing the design decisions for this process and the underlying considerations, we can conclude they are captured by our mechanism.

Figure 9.2: Design decisions for providing mass consumer products in bank V (practice)



Organizational arrangements: consumer advisors and assistants form market groups; support employees form a different (functional) group.

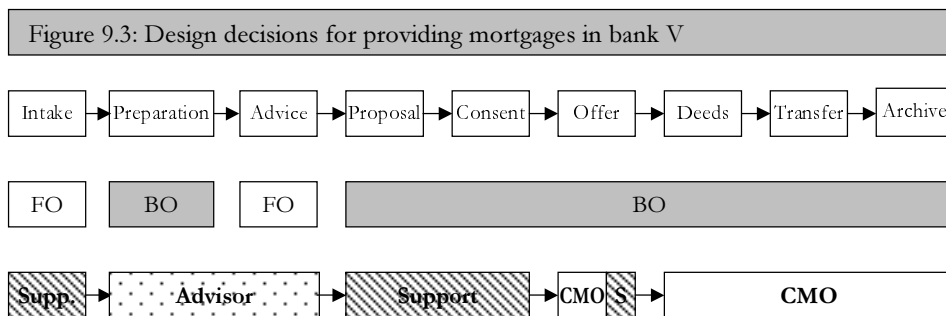
9.2.2 Providing mortgages

The process for providing mortgages in bank V consisted of roughly the same process steps as in the other banks. It is displayed in figure 9.3. The main differences with the other banks in this study are related to the fact that mortgage advisors were supported by assistants and made “house calls” instead of meeting with customers at the branch.

Furthermore, bank V had made a strict separation between commercial and administrative activities and dictated that the administrative activities had to be carried out by a centralized back office department. The bank established five of these centralized back office departments in the country, each dealing with the work from a number of branches. To emphasize the role of these organizations in the mortgage supply chain, they were called “Commercial Mid Offices” (CMOs). The terms back office or shared service center were reserved for the departments that took care of the maintenance activities related to current mortgages. The CMOs can be compared to the central Mortgage Support Center (MSC) of the cooperative banking group, although there was only one MSC and there were five CMOs. The main reason for having five CMOs was to reduce the (perceived) distance between the branches and the CMOs.

Another difference regards the tasks of the CMOs. Whereas in the cooperative banking group the MSC only took care of the deeds and transfer of funds, in bank V the CMOs also made the offers for the mortgages. Making offers was considered an administrative activity and hence belonged to the CMOs. Yet, this decision entailed sending files back and forth and so significantly increased the delivery time for mortgage offers. Customers of bank V had to wait two weeks for an offer. To compare, in the cooperative banking group offers were generally sent to customers within two or three working days. Likewise, the process from accepted offers until the transfer of funds took two weeks in bank V, whereas the MSC of the cooperative banking group required five working days.

Figure 9.3 shows that the process contained a small number of front office activities, i.e. the intake and meeting with customers. The other activities were back office activities for efficiency reasons. With regard to the decoupling decisions, the mortgage advisors were



Organizational arrangements: commercial support employees and mortgage advisors form functional groups, yet work together one-on-one; the employees of a CMO form a functional group.

freed from administrative activities and follow-up work to concentrate on their sales tasks. They were supposed to be out of the office as much as possible. Their assistants dealt with phone calls from customers, scheduled meetings and calculated mortgage proposals based on the notes of a mortgage advisor. The mortgage advisors could not calculate mortgage proposal during the meetings with customers, because they met with customers outside the branch and did not have printing facilities at their disposal. Moreover, the information system was not suitable for making calculations in the customer's presence. Thus, the mortgage advisors took notes and handed the work over to their assistants. The assistants also arranged consent for the mortgages. Advisors were not allowed to do this, because of the regulations on separation of duties. As we mentioned before, making offers was considered an administrative activity. The assistant sent the application form electronically to the CMO. At the CMO, the application was printed and the data were entered in the information system in use by the CMO. The CMO employees produced the offer and sent it by regular mail to the assistants. The assistants performed a check on the offer and gave it to the advisor in order to be signed by the customer. When the offer was signed and the assistant had ensured the customer had provided all required documents, the work was handed over to the CMO for the preparation of deeds and the final transfer of funds. The employees of a CMO obviously formed a functional group, compared to the employees in the branches of bank V, to realize economies of scale. However, although at a branch the mortgage advisors and their assistants worked closely together, they were allocated to functional groups. The branches made clear distinctions between "internal" people and "external" people, to promote cross-fertilization (for the commercial people) and continuity of service delivery and uniformity (for the support employees).

In order to provide a mortgage, several information systems had to be employed. Most systems were approximately fifteen years old. The assistants used one system to calculate mortgage proposals and another system to file a request for a mortgage offer with the CMO. In their turn, the CMO employees used one system for making offers until transferring funds and had to enter the mortgage details in another system to keep track of current mortgages as part of the maintenance process. This caused a need to enter customer data four times. Emphasizing the strict distinction between administrative and sales activities and the front end and back end of a process, bank V has deliberately decided not to develop information systems that span the whole supply chain. Therefore, there will always be at least two information systems.

For the provision of mortgages, the process designers reported the following design considerations:

- Front office activities to exchange information with customers, all others back office.
- Decoupling to comply with regulations on the separation of duties.
- Decoupling to free sales capacity, i.e. the mortgage advisors.

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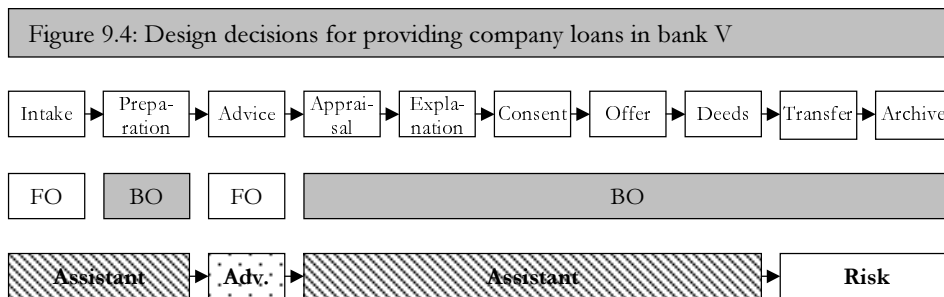
- Decoupling to benefit from different types of employees. The respondents reported there is a large difference between “hunters” and “shepherds”.
- Decoupling to enable centralization of activities.
- Decoupling hurts the speed of service delivery.
- Functional groups to create economies of scale, to facilitate cross-fertilization, to establish uniformity and improve continuity of service delivery, depending on the nature of the work involved.

Like the previous process, this one also seems to match our mechanism. All considerations are covered by the mechanism and the process designers did not reveal argumentation that was not yet part of the mechanism.

9.2.3 Providing company loans

The process for providing company loans in bank V can be described as in figure 9.4. Compared to the other banks in this study, the business advisors were even more freed from administrative work in order to concentrate on sales. The business advisors were hired on the basis of their commercial skills and were supposed to spend their time on meeting with customers, handing over work and acquisition. In order to accomplish this, they were supported by assistants. The assistants took care of the largest part of the process. They prepared the meetings, constructed loans based on the input from the business advisor and arranged consent. They also produced the offers and deeds required. The information system in use significantly relieved the work of the assistants, because it contained several fixed formats and automatically generated offers and deeds. Thus, this did not cause them additional work. The final part of the process remained with the risk management department that performed final checks and transferred the funds.

The advisors and assistants worked together in sales teams. These teams also consisted of office workers that could take over work from the assistants. These organizational arrangements did not apply to the business advisors for small and medium sized enterprises. Here, the advisors and assistants were grouped in functional groups to increase



Organizational arrangements: business advisors and assistants form sales teams with office workers; risk management is a separate (functional) department.

the speed of service delivery, as workloads could be shared more easily. In addition, the business advisors benefited from cross-fertilization. For larger and more complex clients, sales teams were considered essential.

The process designers for the process for providing company loans reported the following design considerations:

- Front office activities to exchange information with customers, all others back office.
- Decoupling to comply with regulations on the separation of duties.
- Decoupling to benefit from different types of employees that have different skills. The respondents argued that business advisors often have commercial skills, but not necessarily analytical skills.
- Market groups to facilitate workflow coordination.
- Functional groups to improve the continuity of service delivery (and speed) by sharing workloads and facilitate cross-fertilization.

Reviewing these design considerations, we conclude that they are represented in the mechanism we unraveled on the basis of the five case studies. The mechanism provides sufficient explanations for the design decisions.

9.3 Case analysis

From the process descriptions above we already concluded the design considerations we came across in bank V were captured by the mechanism as we unraveled it. Thus, this does not cause a need for adjustments and adds to the plausibility of the mechanism. In this section, we match the patterns more precisely. We focus on the basic structure of the mechanism, the contents of the trade-offs, the way in which choices are made, the fact that trade-offs can be overcome and the coherence between the design decisions.

First, we look at the pattern of given choices, followed by trade-offs. Bank V was confronted with the same given choices as the other banks, i.e. regulations on establishing a customer's identity and separation of duties. This is not surprising, as these are national regulations applying to every financial service provider. Bank V did not reveal additional given choices. Yet, the process designers reported a few other limitations. They for example reported that their design space was limited by the bank's separation between commercial and administrative activities. Particularly for the provision of mortgages, the order to allocate non-contact activities to a central department included a large limitation. The process designers argued that they would rather allocate the production of mortgage offers to the assistants at the branches than to the CMO. Yet, the bank had decided that every activity that did not require customer contact and *could* be performed centrally, *had* to be performed centrally. In addition, information technology turned out to be a constraint. For example, the current information systems did not facilitate the calculation of mortgage

proposals in the customer's presence. Yet, information technology enabled the design of the process for providing mass consumer products, provided sufficient hardware is available. It also enabled the relatively large amount of tasks for assistants to the business advisors, without the risk of over-qualification.

Secondly, we conclude that the remaining design space matches the pattern of trade-offs. The process designers reported the same arguments for choosing front office activities or back office activities, coupling or decoupling, functional groups or market groups as we derived from the five other banks. They did not put forward considerations that were not yet captured by the mechanism. The fact that they did not report all considerations in the mechanism is no reason to remove particular considerations. The mechanism is the cumulative result of five cases and none of these cases showed all considerations. Therefore, this case does not give rise to making amendments or additions to the contents of the trade-offs. In fact, they seem to be fairly comprehensive for the domain of financial services.

Third, the design decisions in bank V correspond with the mechanism with regard to the way in which the bank made choices on the trade-offs. Also in bank V, back office activities were the default design option. Front office activities were defined under the same circumstances as displayed in the mechanism. The decoupling decisions were based on a combination of the previous design decision, "suggestions" following from service characteristics and the match with strategic priorities. Finally, for organizational arrangements functional groups appeared to be the default setting for a number of reasons, while market groups were established to facilitate the handovers of work in decoupled processes for customized products. Hence, the way in which bank V made design decisions is similar to the way the other banks made design choices. We also conclude that, like in the other banks, the competitive priorities of bank V did not seem to play a dominant role in the design considerations. Instead, the key influencing variables were the distinction between sales and administration because of employee skills and the order to allocate administrative activities to central departments or organizations.

Fourth, the pattern of trade-offs that could be overcome also holds in this case. Like the other banks, bank V did not seem to suffer severely from negative effects following from choosing one end of a trade-off. Bank V designed a process for providing mass consumer products that mainly contained front office activities, yet remained efficient through the use of an information system and the elimination of follow-up work. In the process for providing company loans, the assistants could take care of a relatively large amount of activities, without the risk of over-qualification, thanks to the information system. The mortgage advisors and assistants could be grouped in functional groups to promote cross-fertilization and improve continuity of service delivery, while the workflow coordination was achieved through second-order arrangements: each assistant essentially took care of

the work from one advisor. Yet, we should make an exception for the decoupling in the process for providing mortgages. The fact that the mortgage offers were produced at the CMOs rather than at the branches by the assistants created economies of scale, but largely at the expense of the speed of the process. We already explained this choice was enforced by the bank's policy.

Fifth, we compare the pattern related to the coherence between the design decisions in bank V with the predicted pattern. We conclude that there is a match. Also in bank V, the design decisions were separate design decisions, but together formed a coherent front office – back office configuration. Compared to the other banks, bank V adhered a bit more to the distinction between contact and non-contact activities. Although all banks differentiated between commercial and administrative activities, in bank V non-contact activities were regularly designated as administration, whereas in the other banks commercial activities could also include non-contact tasks. Thus, in bank V decoupling administrative activities from commercial activities came closer to decoupling back office activities from front office activities. Nevertheless, the design was based on commercial versus administrative, not contact versus non-contact.

Having compared these five patterns as they occurred in bank V and were part of the mechanism we unraveled from the five case studies in the cooperative banking group, we conclude that the patterns match. Although bank V made some different choices, the underlying design considerations were captured by the mechanism.

9.4 Conclusions

The case evidence and the analysis in which we compared the patterns in bank V with the predicted patterns provide much support for our mechanism. We could confirm all patterns and did not come across new design considerations that were not yet captured by our mechanism. Yet, such overwhelming support triggers the question how it is possible that an entirely different bank provides such similar findings. We can formulate a number of reasons. First, we already developed the mechanism based on five very different banks within the cooperative banking group. They were basically distributed for maximum variation. This ensured our mechanism would cover a great deal of breadth in the domain of financial service providers and would not be limited to the cooperative banking group. Second, we came across several differences between bank V and the other banks, although they were not related to the mechanism underlying the design of front office – back office configurations. They were, for example, a less developed central system of process descriptions, relatively old information systems for providing mortgages, a very effective information system for providing company loans, mortgage advisors that made house calls and business advisors that were merely deployed as relationship managers. Third, both

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bank V and the other banks adhered to some common trends in the domain of financial services, such as instant service delivery for mass consumer products and freeing sales capacity in order to increase sales. Thus, we conclude that bank V shows that the mechanism as displayed in figure 8.4 can be found in other banks as well. As we sampled a competing bank, this significantly contributes to the external validity of the mechanism.