TECHNIQUES AND INSTRUMENTS OF QUALITY MANAGEMENT USED BY THE COMMERCIAL BANKS WORLDWIDE

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Rezumat

Analizând importanța măsurării şi raportării managementului calității sistemului bancar din România, această lucrare pune în evidență principalele tehnici şi instrumente utilizate de bănci, divizate în trei mari categorii, în funcție de complexitatea şi scopul utilizării lor: primare, secundare şi terțiare. Tehnicile şi instrumentele terțiare sunt cele mai specializate; acestea susțin tehnicile şi instrumentele primare şi secundare atunci când nu se poate obține informația dorită şi rezultatul aşteptat.

Abstract

Analyzing the importance of the measurement and the reporting of the quality management in the Romanian banking system, this study puts into limelight the principals techniques and instruments used by the banks, divided in three big categories depending to the complexity and propose of their utilization: primary, secondary and tertiary. The tertiary techniques and instruments are the most specialized; they support the primary and secondary techniques and instruments when they can not obtain the desired information or the expected result.

Key words: techniques, instruments, quality, bank, graphics, diagrams, statistics, brainstorming, benchmark, clients, claims, data collection

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According to the complexity and purpose of utilization there are three categories of techniques and instruments used by the banks: primary, secondary and tertiary. The tertiary techniques and instruments are the most specialised; they support the primary and secondary techniques and instruments when they can not obtain the desired information or the expected result.

Primary techniques and instruments

The best known primary techniques and instruments used by the banks are the brainstorming, the data collection card, the graphical representations, the matrix of critical examination, the cause-effect diagram and Pareto's diagram.

Brainstorming is the instrument used by the banks to identify a number as large as possible of ideas in a quite short period of time. The brainstorming meetings are usually attended by a group of people, a team, which determines the possible causes of a problem and identifies the possible solutions to solve it.

The data collection card is used to collect the data required to define and analyse the real causes of a possible problem and to evaluate the efficacy of the solution to be applied. The data collection card is a matrix table where data is input. The banks use this instrument for the purpose of data processing. It can be used to solve customer claims. For instance, a bank received a rather large number of claims regarding the impossibility to draw cash because of the unavailability of the ATM from various locations. To solve this unpleasant problem for the clients, the bank organised a task force which collaborated at the regional level and produced a data collection card with the following elements:

- effect: impossibility to draw cash from ATM;
- coded area of location for each ATM with problems;
- date and hour when the effect was observed, for each ATM;
- coded cause (WT = too long waiting time; CA = client account not updated due to various reasons; SC = shortage of cash in the ATM; UI = unavailable information – inert IT system; OO = ATM out of order – no communication; CNA = card not accepted due to various reasons).

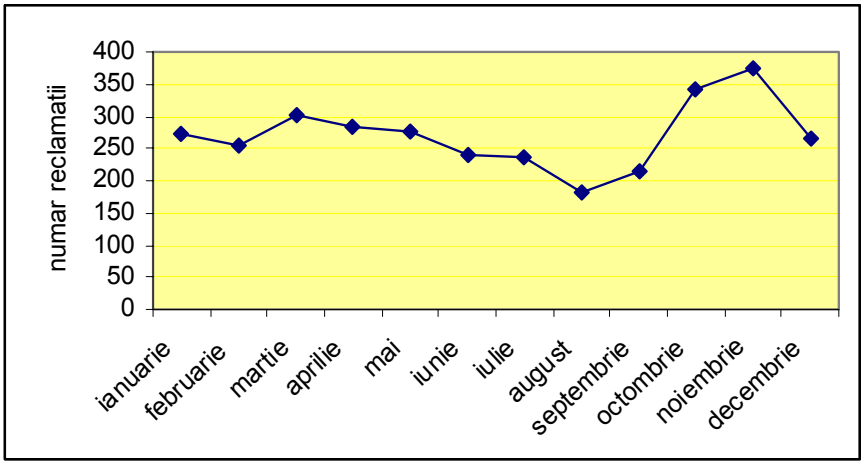
All collected cards are analysed by the task force and the information are transmitted to the quality department of the bank. This department together with the card department identify the real causes of the problems raised by the clients and on this basis corrective measures are taken to solve the incident (timely updating of the IT information, timely supply of cash, so the interval between the no-cash alert and a fresh supply of cash is small, possibility of accepting more card types etc).

The graphical representations allow a better communication of a message than other forms of data presentation («a picture is worth more than a thousands words»). The graph expresses an idea in a simpler way and highlights what is important to remember. The graphical representations are of several types: lines, pie, bars and columns.

a) The lines graph is used by the quality department of the bank to show the evolution of a quality indicator over a period (for instance the evolution of the number of claims received between January 2007 – December 2007, as shown in Figure 1)

Fig.1

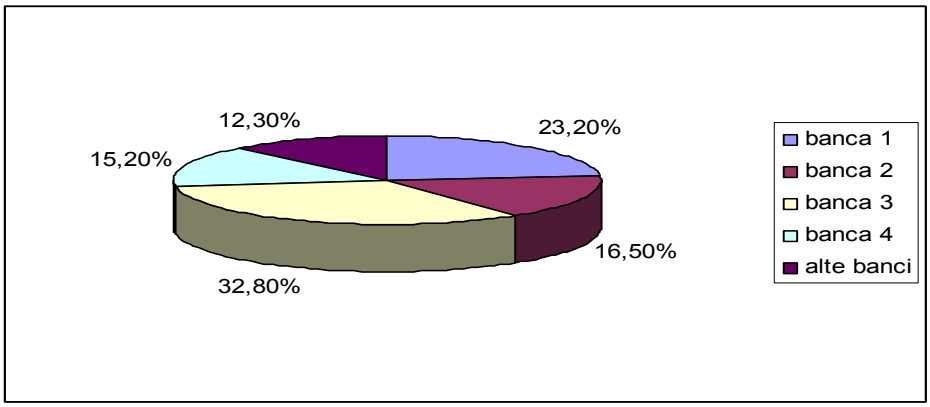
Evolution of the number of claims received between January 2007 – December (example)



b) The bank staff uses pie graphs (Figure 2) to show the degree of customer satisfaction for the clients having accounts in several banks.

Fig. 2

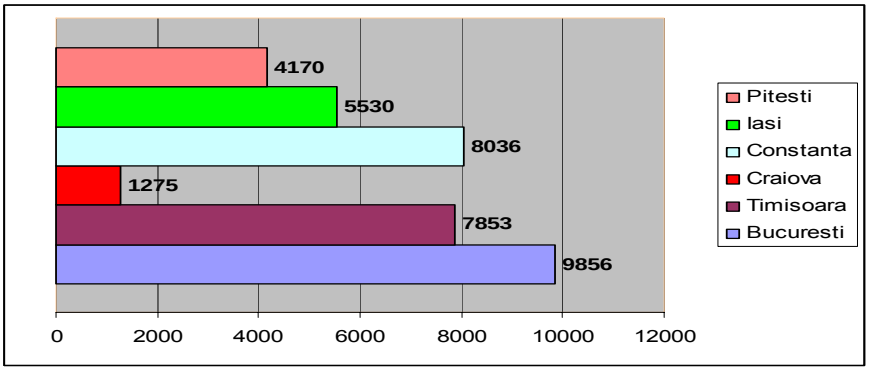
Degree of customer satisfaction for the clients having accounts in several banks (example)



c) The bar graphs is used most times to show how a certain indicator is accomplished by the branches of a bank from various regions and their classification according to the value of the particular indicator. For instance, Fig. 3 shows the graphical representation of the indicator “number of cards not delivered to the clients” for a set period (one month) for the branches (Bucureşti, Iaşi, Constanța, Craiova, Timişoara and Iaşi) of a bank from Romania.

Fig. 3

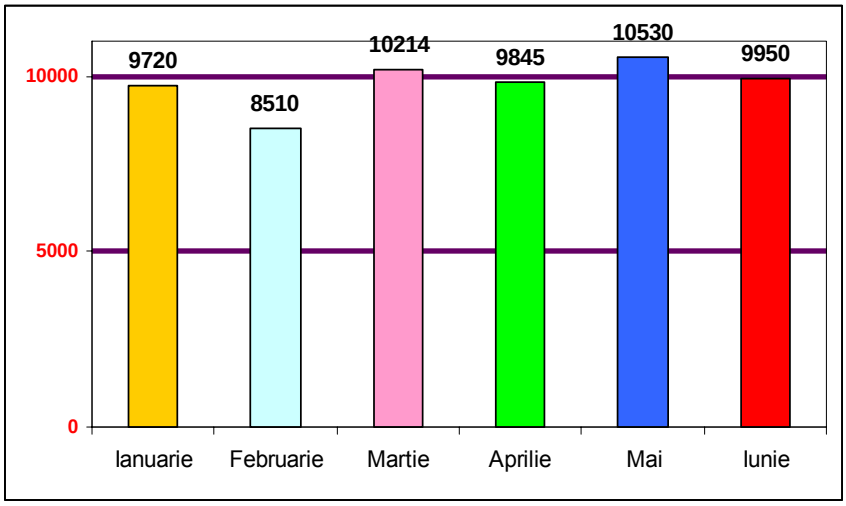
Number of cards not delivered to the clients held by some branches (example)



d) Usually, the column graph is used to show the evolution of certain indicators. For instance, the First National Bank of Chicago proposed as performance indicator, "an error at 10,000 processed documents" and as minimal acceptable value, "an error at 5,000 processed documents". The bank has 5 branches throughout the United States territory. The graph shown in Fig. 4 shows the values reached at the level of the entire activity for a period of 6 calendar months.

Fig. 4

Proportion of errors for 10,000 processed documents at the level of the entire activity for a period of 6 months (example)



The matrix of critical examination allows the identification of alternatives and the selection of the best solutions among the several available solutions. An example of usage of this instrument in banking is launching a service of business counselling (which will meet client expectations) for all the categories of clients of that particular bank. Table 1 shows an example of a matrix of critical examination.

Table 1

Matrix of critical examination to efficientize the counselling activity (example)

Current approach	Arguments	Alternative approaches	Optimal solution
Specialty counselling	There are clients who lack the expertise and competency in certain areas, but they want or must act in those areas	Improvement of activity from several points of view, all according to client requirements and expectations	1. more competent counsellors 2. shorter time of reply 3. low fees 4. aggressive promotion campaign
Personalized service delivery, by modules, according to client requirements for their areas of interest	The method was initially considered to be the best and most adequate at that moment	Detailed presentation and explanation of the offer of services; effort to convince the client on the services sit needs to accomplish the proposed goals	1. employ more competent counsellors or proper training of the current counsellors 2. higher speed of reply 3. lower costs 4. personalized offer
Periodically, in parallel with the emergence of various opportunities	The clients realize they need specialty counselling only when the opportunity appears	Permanent	Permanent
At the clients headquarters or at the bank	According to customer's wish	Exhibitions, fairs, conferences	Where the partners agree
Senior counsellors	Best experience in the field	Foreign counsellors	Senior counsellors assisted by junior counsellors

The cause-effect diagram, also known as the "Ishikawa diagram" by the name of the Japanese researcher who invented it. This instrument allows visualising the assembly of possible causes of an effect. This is done by showing all data in a single diagram, which

allows determining the correlations existing between a particular effect and its causes. This diagram is used to solve quality problems when the effect has been determined and we want to know the possible causes.

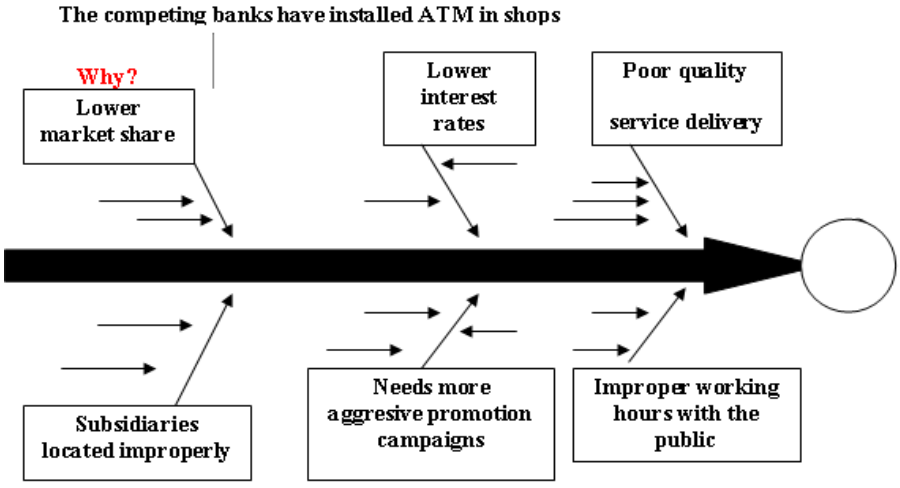
The cause-effect diagram – the "Ishikawa diagram" – is used by banks, particularly when there are several possible causes of an undesired effect and proper measures have to be taken to remove its causes.

Such an example is the use of this instrument by a British bank. It proposed to launch a new current account with special facilities, to gain a certain market segment. However, for quite a long period after the product was launched, the bank noticed that the proposed goal was not accomplished (this is the undesired effect). In consequence, a task force was set up identify the causes of the undesired effect and to propose measures enabling to accomplish the initial goal. The task force identified some of the main possible causes and fed them into the cause-effect diagram.

Noteworthy is that for a deeper analysis, the proposed diagram can rely on other Ishikawa diagrams for each category if causes. Figure 5 shows such a diagram.

Fig. 5

Use of Ishikawa diagram to identify the reasons why the expected results failed to be achieved for a new banking service (example)



Pareto's diagram is the main instrument to visualise in a simple manner the results of a given subject (for instance, the range of reasons determining the clients of a bank to migrate to another bank). This diagram applies the principle "80% of the effects are due to 20% of the causes" or "80% of a problem's causes require 20% of all the effort required solving the problem, and 20% of the causes require 80% of all the effort required to solve the problem". Pareto's diagram is a graph with columns plotted on two perpendicular axes: the horizontal axis showing the elements of the considered subject (requirements, for instance) and the vertical axis shows the data for each element.

The banks use this instrument in many situations, for instance to evaluate customer claims. The Quality Department on a French bank used Pareto's diagram to visualize the data on customer claims. Thus, 80% of the received claims were caused by: the long period of waiting at the desk; logistics; payment system and delays in performing operations.

Using Pareto's diagram, the bank can determine the elements which the customers use to perceive the quality of a service and the importance of these elements for the client. Staring from these observations the bank sets the measures required to improve the quality of services and to meet customer requirements and expectations.

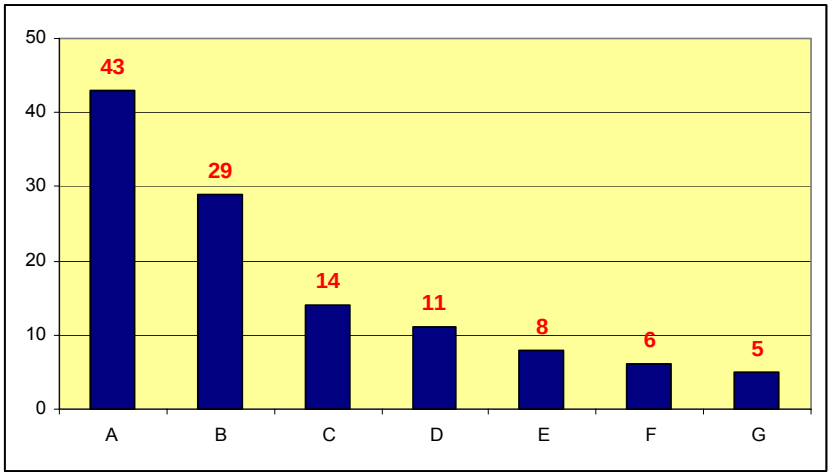
Another reason to use this instrument is to determine the weight of the various causes of a problem. The study conducted by a French bank has shown that many claims concerned that fact they are waiting too long at the desk of some bank branches.

The most important aspect was that the problem is defined on the basis of the collected data. Analysing these data, it resulted that the claims referred only to services supplied to natural persons clients and only two of the bank's branches have been mentioned by the clients. Subsequently, the Quality Department team found out that the concerned branches were the only within that bank which didn't have the software required to manage the accounts of natural persons clients, all the work being performed manually. Figure 6 shows an

example of Pareto's diagram used to make a hierarchy of the reasons for the customer claims.

Fig. 6

Use of Pareto's diagram to make a hierarchy of the reasons for the customer claims according to their frequency (example)



Legend:
A: time waiting at the desk
B: logistic
C: payment system
D: delay in performing the operations
E: client reception and staff clothing
F: fees contesting
G: other reasons

Secondary techniques and instruments

In the category of the secondary techniques and instruments used by the banks to implement the Total Quality Management are included the bivalent logic, Gantt's diagram and the flow diagram.

The **bivalent logic** allows structuring the elements of a problem to be solved using the statements "true" and "not true". The main advantage of this instrument is that it allows a double identification and knowledge of the facts: "what the problem is" and "what the

problem is not". Such an approach of the problem (Table 2) facilitates the elimination of subjective opinions.

Table 2

Use of bivalent logic instruments in a bank (example)

PROBLEM: client dissatisfaction to the quality of services in bank branches		
	IS	IS NOT
WHAT?	Waiting at the desk	Desk clerks
WHO?	Customers with current accounts	Customers legal persons
WHERE?	Branches X and Y, mainly	Headquartersand brancy Z
WHEN?	Friday between 15:00 - 18:00	Monday, Tuesday and Thursday
HOW?	Claims received at the bank headquarters	Information from branches
WHY?	Outdated system for account administration	New system for account administration

Gantt's diagram (shown in Fig.7) allows the sequential programming of the activities required to accomplish a project with the purpose to detect rapidly the risk of delaying. The following stages are required to construct Gantt's diagram:

- defining the activities required to implement the project;
- evaluation of each activity's duration;
- ordering the activities in a logical sequence;
- charting the sequence of activities with horizontal bars (starting and finishing moment of each activity).

Gantt's diagram allows visualising the relation between the activities foreseen in the protocol; of project implementation displaying at the same time the stages to go through to this purpose. It also facilitates to notice the data when modifications have been operated in the progress of the activities, compared to the initial programming. The banks use this instrument to display the activities of a project and for its timely planning: implementing a quality management system; negotiating an important agreement for the

bank. This diagram allows, by visualising the involved activities, to determine the total duration and the margins of time available for each individual action. Thus, the progress of the whole operation and of the individual actions can be planned. Interventions can be done when the danger of not meeting the deadlines appears. Figure 7 shows the use of Gantt's diagram by a bank when negotiating an agreement.

Fig. 7

Use of Gantt's diagram by a bank when negotiating an agreement (example)

ACTIONS	WEEK									COMMENTS
	5	6	7	8	9	10	11	12	13	
Establish the negotiation team										
Documentation on the problem										
Receipt and analysis of the agreement										
Identification of the things to negotiate										
Elaboraton and approval of the negotiation mandate										
Negotiation										The negotiation mandate must be approved by the top management before negot

										iation s
Inform the management on the results of negotiation										
Prepare the finalization and signing the agreement										

The flow diagram allows visualising the progress of an activity, of the required actions, of the key decisions and of the obtained results. This secondary instrument, variant of the diagram of the decisions of action, is recommended when we have to determine a decision-making process which varies function of several criteria. The flow diagram is a network of conventional symbols joined by arrows.

An example of using this tool by the banks is the analysis of the documents which a client brings in support of his request for a loan. According to the internal norms of the bank, the process of document analysis takes a certain time, follows properly set stages and ends by approving or not the loan. The final decision is communicated to the client in a preset time interval from the receipt and registration of the loan application. The bank informs the client on the outcome also showing the costs of a loan (instalment, interest, fees and penalties for non-payment). It is very important both for the bank and for the client to have a relation based on transparency and mutual trust.

Within the process of selling a banking product (lending loans), the quality of information and the explanations (proper counselling) are important. A proper progress through the stages of lending a loan will increase the quality of servicing the clients.

The process of document analysis may have three outcomes:

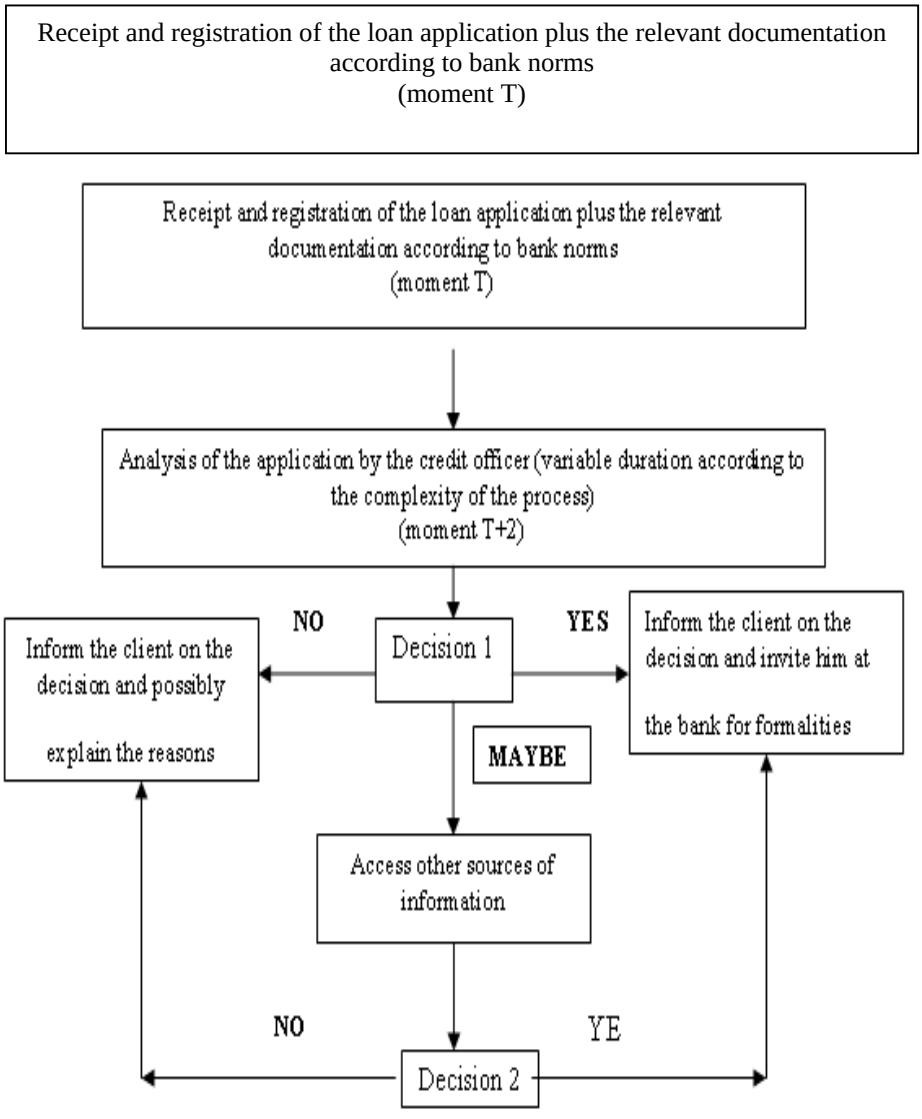
- final bank decision – lend the loan: the client is invited at the bank to conclude the credit contract by signing it by both sides (the contract is accompanied by all clauses regarding lending, reimbursement schedule, interest rates and fees);
- final bank decision – deny the loan: the client is accordingly and he is explained the reasons for this decision;
- if he bank requires additional information before making a decision (client history from the Central of payment incidents, additional collaterals) it either uses other sources of information, ar requires the client to bring the additional information (the bank will make the final decision only after having all required information).

Most times the clients applying for loans want the loan in the same day and if possibly without any documentation. This is possible only if the procedure for the specific loan stipulates this term and if the applicant meets the required conditions. Generally, the banks use electronic application forms which include all data required for a decision.

The use of the flow diagram offers the banks a lot of advantages such as the clear definition of the actions to be taken and the stages of the process, in a given sequence, consideration of preventive actions, facilitating a proper training of the staff, setting the start and ending moments of the process, setting the time interval required to run the whole process, setting the duration of the intermediary stages, determination of the “narrow places”. Fig. 8 shows such a diagram used by the banks when lending loans.

Fig. 8

Use of the flow diagram to show the process of lending a loan
(example)



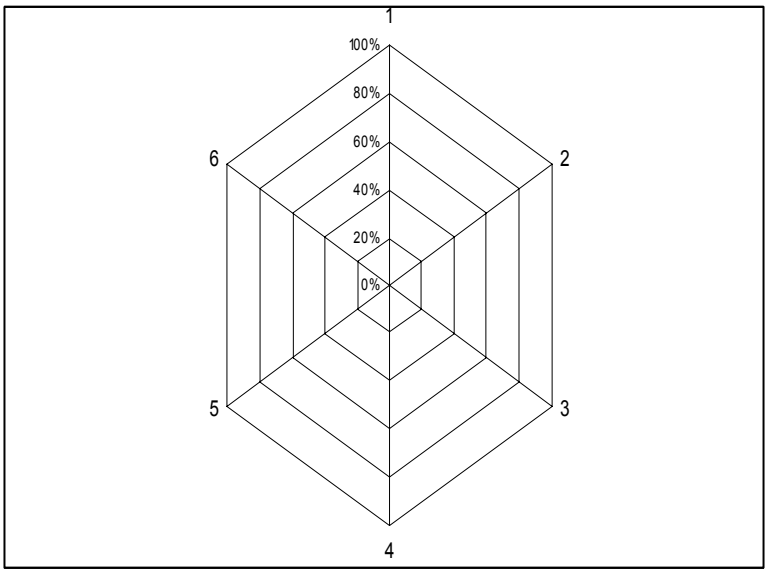
Tertiary techniques and instruments

Among the tertiary instruments of quality management the banks use the polar diagram and benchmarking.

The polar diagram allows visualising within a single diagram all the characteristics defining, for instance, a given product, service or process, showing how the parameters are controlled and the possible problems. This procedure allows monitoring the evolution of the parameters in time and identifies the differences between the compared products, services or processes. The diagram is like a circle whose radiuses correspond to the characteristics considered. The larger the polygon area, the better is the control of the assembly of parameters. The banks use this instrument, for instance, to show client opinion on the services quality (Fig. 9).

Fig. 9

Use of the polar diagram to show client opinion on bank services quality



Legend:
1: client knowledge
2: phone answer
3: availability and goodwill of the staff

4: accurate execution of client instructions
5: working hours with the public
6: information on tariffs and fees
7: professionalism of the employees
8: waiting time at the desk

The considered characteristics are client knowledge, answering by phone, the availability and goodwill of the employees, accurate execution of client instructions, working hours with the public, information on tariffs and fees, the professionalism of the employees and the waiting time before the desk. Te required data is, usually, collected during focus-groups with the clients. The process also uses brainstorming meetings on services quality. Using the data of the polar diagram one can compare the performance in time for each axis, determining the dynamics of these performances. A plan of action can be designed to amend the parameters considered as improper; these parameters will be monitored again after a period (one year, for instance) to evaluate the effect of the actions that have been taken.

The banks use **benchmarking** ("a standard based on which something can be measured or evaluated", Webster's Dictionary) to compare the own processes and services with hose of the competitor banks. It facilitates the identification of purposes (for instance set the priorities of action) to increase the competitive advantage of that particular bank. Benchmarking is the permanent process of evaluating products, services and practices in a bank, compared to the competing banks. According to K.J.Zink, "benchmarking is the research of the best processes, procedures or results which are relevant to achieve the enterprise objectives. The purpose is, therefore, to learn from these processes, procedures and results and to use the acquired knowledge to improve own performance".

If the bank is part of an international financial group, it can use the **internal benchmarking**. This involves the analysis of the supplied activities, processes, products and services with those of another bank from the same financial group, with which this bank is in competition. This type of benchmarking has the advantage that the required data can be acquired easier than when using an external

referential, allowing the identification of fast solutions for improvement.

The banks also use the **comparative benchmarking** which requires the comparison of the processes, products or services supplied by a bank with those of a competitor. The acquisition of information is many times impeded by the lack of will to cooperate displayed by the banks.

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