Evaluating management accounting change according to the institutional theory approach

A case study of a Brazilian bank

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Abstract

Purpose – The objective of this case study is to evaluate the change process, under the old institutional economics (OIE) approach, that had occurred within the management-accounting system of Brazilian bank. The present study examines the efficacy of the change process in management accounting, from the perspective of system users, seven years after its beginning.

Design/methodology/approach – The research is based on a case study. The study presents a literature review of institutional theory and a case study of Banco do Brasil – a large Brazilian bank that has implemented profound changes in its management-accounting system.

Findings – The results indicate that new concepts have been effectively institutionalised and converted into new values, habits, and routines inside the organisation. The study provides new insights into management-accounting change.

Research limitations/implications – A single case study does not allow the results to be generalised to other organisations.

Originality/value – The study offers a conceptual structure and operational guidelines to evaluate institutionalisation of management-accounting change processes. The main contribution of this study is to offer new operational insights on management- accounting institutionalisation using the conceptual framework proposed by Burns and Scapens.

Keywords Management accounting, Organizational theory, Change management, Banks, Brazil

Paper type Case study

1. Introduction

The current social and business environments induce companies to implement profound changes in their business-management models, their management instruments, and their methods of management accounting. However, despite the existence of factors that encourage modernisation of management accounting, few modifications have actually occurred. Various authors have warned about this problem of "inertia" in management accounting, and have drawn attention to the fact that accounting research has had little effect on business practice. Institutional theory can be of assistance in analysing this problem. Since the late 1980s, various studies have directly or indirectly discussed this theme – including Otley (1985), Choudhury (1986), Hopwood (1987), Johnson and Kaplan (1987), Edwards and Emmanuel (1990), Cohen and Paquette (1991), Bright *et al.* (1992), Emore and Ness (1991), Green and Amenkhienan (1992), Ask and Ax (1992), Drury *et al.* (1993), Scapens and Roberts (1993), Scapens (1994), Drury and Tayles (1995), Covaleski *et al.* (1996), Evans and Ashworth (1996), Libby and Waterhouse (1996),

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Granlund and Lukka (1998), Burns (2000), Burns and Scapens (2000), Granlund (2001), Baines and Langfield-Smith (2003) and Guerreiro *et al.* (2004a,b).

Scapens (1994), Burns (2000) and Burns and Scapens (2000) have all noted that theoretical knowledge in the field of management accounting is strongly influenced by what might be called the "neoclassical theory of the firm", and have expressed the opinion that this theory is inadequate in explaining the development of management-accounting systems. The perspective of "institutional theory" is an alternative framework for explaining the phenomenon of "inertia" in management accounting. This theory, which considers management accounting to be an institution within the company, rejects the premises of neoclassical theory that have previously directed the normative approach to management accounting. Institutional theory perceives management accounting to be a routine constituted by established habits that make sense to a certain group of people. This routine is widely taken for granted.

The present study investigates the efficacy of change in organisational management-accounting systems using the premises of one branch of institutional theory – old institutional economics (OIE). According to this perspective, new concepts are successfully integrated into a system when they become "institutionalised" – that is, when they are converted into new values, habits, and routines inside the organisation (Oliver, 1997).

The study adopts a case-study methodology utilising a Brazilian bank, Banco do Brasil. This bank was chosen as the study object because:

- Banco do Brasil occupies an important position within the Brazilian economy;
- the present authors were afforded an opportunity to obtain pertinent information;
- this bank has undergone a profound change process, including a profound change in management-accounting practices; and
- the organisation has defined routines and practices that are supported by documentation.

After this introduction, this paper presents the theoretical framework adopted in this study – including a discussion of the basic aspects of institutional theory and management accounting from an institutional focus. The paper then proceeds to research methodology, the presentation of the case study, and discussion of the findings in the light of the theoretical framework. The paper concludes with some final considerations.

2. Theoretical framework

2.1 Institutional theory

Burns and Scapens (2000) have observed that the social sciences have taken an increasing interest in institutional theory, and that the accounting literature reflects this interest in at least two ways:

(1) new institutional sociology (NIS); and

(2) old institutional economics (OIE).

According to Burns (2000), analytical studies of changes in management-accounting routines are founded on OIE – which is a heterogeneous body of theory. Authors who can be considered within the paradigm of OIE include Karl Marx and Vilfredo Pareto.

Others include various empiricists who were influenced by Darwinist biology and who were affiliated with the German school in the last quarter of the nineteenth century – such as Gustav Schmoller, Adolph Wagner, and Wilhelm Roscher (Santos, 2003). Given the difficulty of defining an "institutionalist author" with any precision, Santos (2003) decided to restrict the term to those authors about whom there is a relative consensus – such as Thorstein Veblen, Gunnar Myrdal, Charles Lindblom, and Douglass C. North.

Fonseca and Machado da Silva (2002) have observed that, according to the institutional approach, individual behaviour is modelled by standards that are originally created and shared in interactions, but which later become incorporated in the form of objective standards and rules about the most efficient way of functioning. From the perspective of OIE, the institution becomes the main object of analysis. According to this view, rational and optimising behaviour no longer proceeds from individual decision-makers (as posited by neoclassical theory). Scapens (1994) emphasised the institutional approach and rejected the postulates of neoclassical theory as being appropriate to understanding management-accounting practices.

It is therefore important to conceptualise the institution; however, no simple and widely accepted definition of an "institution" exists. Burns and Scapens (2000, p. 8) defined an institution on the basis of Barley and Tolbert's (1997) work – "presuppositions that are shared and taken for granted, which identify categories of human agents and their appropriate activities and relations". Scapens (1994) noted that, in the context of the OIE, the first definition of institution was established by Veblen in 1919 – "a habit of thought common to the generality of men". According to Burns (2000), the idea of an institution that has been most frequently applied in OIE came from Hamilton (1932), who considered an institution to be a way of thinking or acting by something that prevails and continues, which is inserted into the habits of a group or the customs of a people. This definition emphasises the social and cultural character of an institution, and the importance of habitual behaviour. In this context, Rowsell and Berry (1993) utilised certain concepts of Selznick (1957), who defined an institution as a natural product of social needs and pressures. The institution is a social system that gives meaning to the integrated aspirations of a group of people. Selznick (1957) contrasted an institution with an administrative organisation – describing the latter as a rational instrument defined to carry out a job.

The notions of "habits" and "institutions" are connected through the concept of "routine". A "habit" is a predisposition or tendency to become involved in previously adopted or acquired forms of action. However, the existence of habits does not exclude the possibility of intentional individual behaviour; indeed, habits can be modified. In contrast to such habits, which are located in the personal sphere, "routines" involve a group of people (Oliver, 1997). Routines are formalised and institutionalised behaviours that are guided by rules. Such routines are reinforced by the process of repeating actions to comply with rules. Routines represent forms of thinking and acting that a group of individuals takes for granted.

Rules and routines provide an "organisational memory" and constitute the basis for the evolution of organisational behaviour. According to Scapens (1994), they are the organisational equivalents of genes in the biological process and, in this sense, evolution is not the creation of optimal behaviour, but merely the reproduction and possible adaptation of behaviours over time. Oliver (1997) has emphasised that, from the institutional perspective, companies operate within a social structure of standards, values, and presuppositions about appropriate or acceptable behaviour. The institutional viewpoint thus suggests that motives for human behaviour go beyond economic optimisation to involve justification and social obligation.

In the present study, the concept of institutionalisation is clearly important. Oliver (1997) has noted that institutional activities tend to be long-lasting, socially accepted, resistant to change, and not directly dependent on rewards or monitoring of their permanence. In the context of management accounting, Scapens (1994) has observed that, over time, management accounting can constitute a structure that reflects a particular organisation's way of thinking and acting – which is taken for granted and detached from its specific historical circumstances. It thus becomes an unquestioned way of doing things.

Figure 1 shows the most relevant concepts of the institutional dimension – habits, routines, and institutions. All institutions demonstrate, to a greater or lesser degree, certain features:

- *Assumed nature*. Institutions are structured on the basis of take-for-granted habits and routines.
- *Stability*. Although some institutions have a short life and others a longer one, all institutions prevail during a certain period, during which stability exists.
- *A collective nature*. Institutions realise forms of thinking and acting that are held in common by a group of persons.

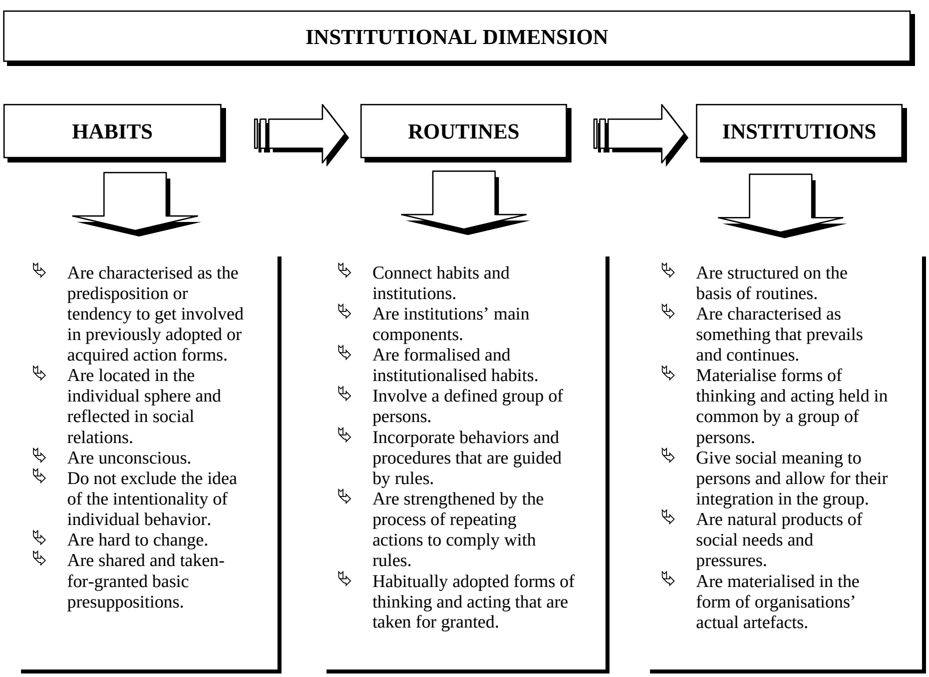

Figure 1.
Institutional dimension

- *Provision of meaning to behaviour*. Institutions provide individuals and groups within the organisation with an opportunity to find meaning in their daily activities.
- *Standards of behaviour*. Institutions are the natural products of social needs and pressures, and define the standards of behaviour expected from a specific social group.
- *Artefacts and rules*. The institutions are realised in the form of organisation's actual artefacts and normative rules.

2.2 Management accounting as an institution

According to Scapens (1994), the ideas incorporated in institutional theory (especially in OIE) are more appropriate than the neoclassical model for understanding some aspects of management accounting. Although the institutional approach is not the only approach (nor even the best approach) for understanding all aspects of management accounting, it does present a valid structure for understanding an important characteristic of management-accounting practices – that they represent institutionalised routines.

In fact, management accounting can incorporate and be shaped by the main features of an institution as presented in the previous section:

- assumed nature;
- stability;
- a collective nature;
- provision of meaning to behaviour;
- standards of behaviour; and
- artefacts and rules.

Burns and Scapens (2000) have thus used the concepts of "habits", "routines", and "institutions" to describe how accounting practices can turn into routines, and how, over time, they become incorporated into an organisation's presuppositions and beliefs. These presuppositions and beliefs are deeply embedded in the social group; indeed people do not even consider questioning them. Accounting practices and routines can be characterised as "institutionalised" when they become so widely accepted in the organisation that they are taken for granted as forms of management control. Although accounting does not necessarily become entirely routine and institutionalised in these circumstances, there is significant potential for this to happen.

A management-accounting system is an important routine (or set of routines) aiming to support managers' decisions and to provide organisational accountability. Management accounting establishes a fundamental structure whereby economic events are measured and presented to the organisational members who are responsible for various decision-making processes. Management accounting thus supports the planning process – when alternative courses of action are evaluated, choices are made, and budgets are elaborated. Management accounting is also involved in the operational process – when actual events are identified, measured, and registered. Within this informational framework, reports are produced regularly and routinely through clearly specified rules and habitual procedures. Organisational performance is reported and evaluated, both internally and externally, according to rules and accepted conventions. In this context, management accounting strongly influences the course of managers' actions (resource allocation, operational decisions, price decisions, and so on) and induces the production of the desired outcomes of the organisation. Economic events do not speak for themselves; rather, people see organisational activities in accordance with the established logic of accounting measurement, information, and evaluation.

Management accounting thus provides an institutional basis for decision-making and for structuring the formation of beliefs and expectations of the different groups of people inside organisation. It provides social coherence in organisational behaviour, and provides individuals and groups inside the organisations with a “structure of meaning” for their daily activities. When accounting practices become institutionalised routines, the members of an organisation accept their roles in the organisational process of corporate decision-making. Apart from providing a means of representing performance, accounting rules and procedures also play an important role in defining the rights held by groups of individuals (owners, founders, managers, workers, and so on). Management accounting thus gives direction to business activities, and it can be used as a conflict mediator inside an organisation.

Figure 1 shows a group of elements that show the real essence of institutions:

- they are structured on the basis of taken-for-granted habits and routines;
- they are stable; that is, they prevail and continue;
- they realise forms of thinking and acting that are held in common by a group of persons;
- they give social meaning to persons and allow for their integration in the group;
- they are the natural products of social needs and pressures, and define standards of behaviour; and
- they are realised in the form of organisations’ actual artefacts and rules.

These elements will be utilised in later sections of this study.

2.3 Management accounting institutionalisation

Barley and Tolbert (1997) produced a general model of institutionalisation by integrating two conceptual frameworks: institutional theory and theory of structuration. The work of Giddens (1976, 1979, 1984) seems to have been an important source of inspiration for Barley and Tolbert’s (1997) model, in which the concepts of “institutional realm” and “realm of action” are emphasised. Barley and Tolbert (1997), in a sense, transformed the static Giddens (1976) model to dynamic model of social structuration in which the ideas of institution and action interact in a temporal dimension – thus modifying the scripts of the actors through the processes of encoding, enacting, replicating (or revising), externalising, and objectifying.

Burns and Scapens (2000) modified the initial model of Barley and Tolbert (1997) by incorporating two fundamental concepts of OIE – routines and habits – with the aim of conceptualising management-accounting change. In this context, the idea of “script”, which had been prominent in Barley and Tolbert’s (1997) model, gave way to the concepts of ”routines” and ”rules” in Burns and Scapens (2000) model (Figure 2). The model also converted the processes of Barley and Tolbert (1997) into new processes: “encoding”, “enacting”, “reproduction”, and “institutionalisation”.

The dynamics of the model show the links between the institutional realm and the realm of action. As can be seen in Figure 2, the institutional realm encodes institutional

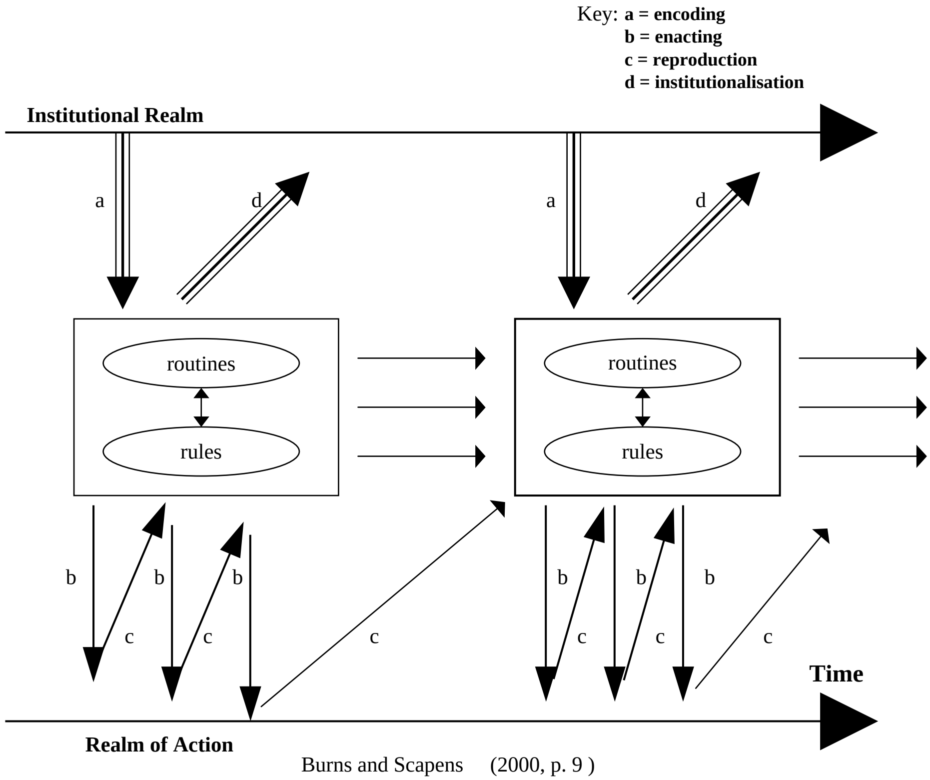

Figure 2. The process of institutionalisation

Source: Burns and Scapens (2000)

principles in rules and routines. Subsequently, the actions and interactions of the actors in the realm of action enact these rules and routines. The repetitive behaviour of actors reproduces these rules and routines until, finally, they become institutionalised as new elements of the institutional realm.

Referring to their model, Burns and Scapens (2000, p. 9) observed: "... it should be emphasized that this framework is not intended to provide operational constructs for empirical research and hypothesis testing". Rather, the main objective of their model was to provide a framework to describe and explain analytical concepts that could be used for interpretative case studies on management-accounting change.

Soin *et al.* (2002) subsequently used the Burns and Scapens' (2000) model in their research, which used a case-study approach to interpret the role of management accounting in organisational change in a UK-based multinational bank. This bank had implemented activity-based costing (ABC) in its clearing department, and the study focused on three dichotomies:

(1) formal change versus informal change;

(2) revolutionary change versus evolutionary change; and

(3) regressive change versus progressive change.

The institutional model proposed by Burns and Scapens (2000) for the conceptualisation of management-accounting change, together with the theoretical reflections presented above, provide the framework for the following case study of the institutionalisation of management-accounting change.

3. Case study

3.1 Objective and methodology

The objective of this case study was to evaluate the change process that had occurred within the management-accounting system of Banco do Brasil. These changes involved the incorporation of concepts that were quite different from those that had previously been used in the organisation.

The present study examined the efficacy of the change process in management accounting, from the perspective of system users, seven years after its beginning. The research was divided into analytical subunits (Yin, 1993):

- an examination of how the need for changes emerged in the organisation;
- an analysis of the characteristics of the implemented change process; and
- an analysis of the efficacy of the process.

Marginson (2004) mentions that it is recognised that the ability to collect data from several sources is the major strength of the case study, not least because it allows for triangulation. Triangulation is seen as a way to enhancing construct validity or as a way of testing evidences. Data were obtained through:

- interviews;
- document analysis; and
- a survey of a group of commercial managers in the bank.

Interviews often constitute a very effective means of collecting data when the qualitative researcher seeks to better understand organisational and group processes (Bédard and Gendron, 2004). Marginson (2004) says interviewing is obviously on means of collecting data in case study research and this author quotes Yin (1993) who states the interview is the cornerstone of case study research.

The interviews, which focused on the history of the bank's management-accounting changes, were conducted with persons who had actively participated in the process. The professionals from the bank were interviewed with two main goals. The first one was to obtain general information about the implantation process of management accounting in the bank. Through the interviews, the authors surveyed historical circumstances, how the bank's management model was understood before and after the change, and how management instruments and measurement concepts were used in the old and in the new system. The second goal was to capture opinions of former and current professionals of controllership area about the difficulties that were met and the extent to which the new model was accepted in the organization.

Two groups of people were interviewed. The first consisted of seven executives who had constituted the initial team that carried out the change project in the controllership area (and its corresponding management tools). At the time of the present study, these executives no longer worked in the controllership area; two of them were now working in another area of the bank, and the other five occupied senior positions in other

Brazilian organisations. The second group consisted of eight executives who had previously been involved in the process of implementing the model; three of these were still working in the bank, whereas the other five were no longer with the organisation. In all, 15 managers were thus interviewed. The average time of each interview was two hours, and the semi-structured interviews were driven by open-ended questions, according to the questionnaire presented below:

(1) *Block 1.* Management model and management instruments before the change process:
  - Which were the main characteristics of Banco do Brasil's business model and management model before the implantation of controllership area?
  - Which bank area was responsible for management accounting before the implantation of controllership?
  - Which main management accounting instruments were used and how did these instruments support the bank's management process?
  - Which were the structural characteristics and the main measurement concepts used in these instruments?

(2) *Block 2.* The change process:
  - Which were the main reasons that made the bank decide to implant controllership?
  - Was the implantation of controllership an isolated fact or part of a broader change process in the bank?
  - Which were the main characteristics of the change process?
  - Which were the characteristics of the implanted controllership area in terms of mission, functions, responsibilities and management instruments?

(3) *Block 3.* Management accounting after the change process:
  - Which new management accounting instruments were implemented and what existing instruments were remodeled by the project team?
  - Which were the main concepts used by the instruments that existed before the implementation of controllership?
  - Which conceptual base guided the development/remodeling of the instruments?
  - What made the bank choose these concepts?
  - Which were the main strategies adopted by controllership to actually implant the new concepts?

These interviews were supplemented by telephone and e-mail communications to eliminate any doubts that arose in the course of the study, and to organise the collected material.

The interviews with the bank professionals were not tape-recorded. This can be considered a weak point in the study methodology. However, interview notes and copies of e-mails sent by the interviewees were filed. Hayes and Mattimoe (2004) mention that the decision to tape or not to tape the interviews is influenced by a number of key determinants and both strategies of capturing interview data – taping interview or through manual recording of data – can be effective in the craft of qualitative research, suggesting that there is no "best way" to tackle the task of data collection. Miles and Huberman (1994) emphasises the procedure of getting feedback from informants. The most relevant data, findings and conclusions of this study were checked-out with key informants.

The study used copies of certain private documents (presented below), together with public documents made available by the bank through its institutional publications. The documents thus included:

- reports of organisational changes implemented in the bank;
- a manual of the initial project in the controllership area (statement of mission, functions, philosophy, responsibilities);
- a manual of the system covering the conceptual model of the new management-accounting system;
- reports of the effect of the system on profitability (actual and budgeted) in various categories (product, client, and branches); and
- material regarding training in the concepts and procedures of the management-accounting system.

As interviews only involved controllership professionals, the authors applied a questionnaire to a group of commercial managers in order to obtain a broader view on the acceptance level of new management accounting system concepts and indicators. The questionnaire sent to commercial managers is in conforming to the idea of linking qualitative and quantitative data aiming to enable confirmation or corroboration of the data got through interviews with the professionals of controllership area. Miles and Huberman (1994, p. 253) state that:

> In qualitative research, numbers tend to get ignored. After all, the hallmark of qualitative research is that it goes beyond *how much* there is of something to tell us about its essential *qualities*. However, a lot of counting goes on in the background when judgments of qualities are being made.

The survey, which was conducted among commercial managers, obtained evidence about the efficacy of the change process in the commercial area of the bank. Commercial managers were chosen because they represented the greatest proportion of management-accounting system users and because they were responsible for producing the majority of the bank's profit. The research involved 20 state superintendents, who were responsible for choosing five regional superintendents who, in turn, chose three branch managers under their supervision. All of these persons received the questionnaire. This resulted in a potential group of 300 respondents; of these, 82 provided answers.

The survey questionnaire, presented in Table I, was divided in two parts. The first aimed to obtain the commercial managers' perceptions of the use of performance indicators in their units. They were asked to indicate "I agree" or "I disagree" with respect to the following indicators:

- results (return on equity, efficiency rate, coverage rate, risk-exposure level, deviations, volumes, and contribution margin);
- clients (client satisfaction, client binding);
- employees (organisational climate, learning and knowledge); and
- processes (including operational factors).

Table I.
Questionnaire on manager's perceptions of the use and adequacy of performance indicator in their units

Part 1 – mark your agreement or disagreement with the use of the following performance indicators in your unit

Groups	Indicators	Definitions	I agree	I disagree
1.1 Results	1.1.1 Return on equity	Net income on net worth	☐	☐
	1.1.2 Efficiency rate	Administrative expenses on gross margin	☐	☐
	1.1.3 Coverage rate	Fees and commissions revenues on administrative expenses	☐	☐
	1.1.4 Risk exposure level	Bad debt on financial assets	☐	☐
	1.1.5 Results – deviations	Realized results compared with budgeted results	☐	☐
	1.1.6 Volumes – deviations	Realized volumes compared with budgeted volumes	☐	☐
	1.1.7 Contribution margin	Direct costs of products and services subtracted from revenues	☐	☐
1.2 Clients	1.2.1 Client satisfaction	Customer satisfaction level	☐	☐
	1.2.2 Client binding	Capability of maintenance of customers for a long time	☐	☐
1.3 Employees	1.3.1 Organisational climate	Employees satisfaction level	☐	☐
	1.3.2 Learning and knowledge	Level of knowledge needed to do a particular job	☐	☐
1.4 Processes	1.4.1 Processes	Quality level of particular processes	☐	☐
	1.4.2 Operational factors	Achievement of standards and compliance	☐	☐

(continued)

Table I.

Part 2 – mark your agreement level with the following statements					
Statement	I fully agree	I agree	Indifferent	I disagree	I fully disagree
2.1 The plans are translated into performance indicators	☐	☐	☐	☐	☐
2.2 The indicators are consistent with the area plans	☐	☐	☐	☐	☐
2.3 The indicators are taken into account in commercial actions	☐	☐	☐	☐	☐
2.4 The indicators affect the employees' variable remuneration	☐	☐	☐	☐	☐
2.5 The decisions are based on performance indicators	☐	☐	☐	☐	☐
2.6 The indicators reflect the economic result of the actions in this area	☐	☐	☐	☐	☐
2.7 The indicators are references when constructing new parameters in planning	☐	☐	☐	☐	☐

The second part of the questionnaire aimed to obtain the commercial managers' perceptions of the adequacy of indicators for management of their units. They were asked to respond to certain statements on a five-point Likert-type scale as follows: "I fully agree", "I agree", "Indifferent", "I disagree", "I fully disagree". The following statements were presented:

- "the plans are translated into performance indicators";
- "the indicators are consistent with the area plans";
- "the indicators are taken into account in commercial actions";
- "the indicators affect the employees' variable remuneration";
- "the decisions are based on performance indicators";
- "the indicators reflect the economic result of the actions in this area"; and
- "the indicators are a reference when constructing new parameters in planning".

3.2 Background to the study

Banco do Brasil is a government-owned financial institution. In 1994 the federal government of Brazil implemented a plan that aimed at economic stabilisation. The introduction of this plan drastically changed the Brazilian economic situation, especially in the banking sector. In response to the new environment that resulted from the implementation of this government plan for control of inflation (Plano Real), Banco do Brasil began a restructuring process in 1995. Despite reducing its personnel by 13,388 employees, the bank still recorded a loss of US$4.3 billion in that year – equivalent to about 120 per cent of its net equity.

In 1996, despite measures to decrease its credit exposure, the bank recorded a record loss of US$7.3 billion (representing about 136 per cent of its net equity). In 1997, the bank adopted further measures to contain debts and increase revenues, as well as implementing measures to improve its administrative and operational structure – resulting in a profit of approximately US$514 million.

In 1999, further organisational adjustments were implemented in the bank's structure. These were undertaken to comply with new government regulations with respect to internal-control systems. A control board was created to coordinate the activities of accounting, controllership, and internal controls. In 2001, the bank continued its modernisation process by dividing its structure into four business pillars: wholesalers, retailers, government, and third-party resources. In 2003, the bank's net profit was approximately US$799 million (Table II).

Table II. Banco do Brasil indicators 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Clients (million)	6.1	6.3	7.9	11.2	12.8	13.4	13.8	15.0	17.0
Service points					7,186	7,531	8,503	9,041	9,712
Terminals	2,571	4,095	6,922	12,456	24,545	30,149	32,267	32,946	34,679
Employees (thousand)	94.7	85.3	76.4	72.3	69.4	78.2	78.1	88.3	90.5
Result (US$ million)	−4,321	−7,315	514	720	471	498	466	574	799

Source: Banco do Brasil

3.3 Characteristics of the former management-accounting model

Between 1993 and 1995, facing the need to reduce costs and decrease losses, the bank's board of directors promoted a set of actions to improve results. These included:

- staff restructuring;
- client reassessment;
- a survey of requirements for technological updating;
- necessary capital structuring to support assets; and
- risk management.

However, there was no clearly structured management process supported by adequate information; nor was there any one area designated as being responsible for management control.

Financial accounting was the main instrument to be used to evaluate the bank's global performance – even though managers were already aware of its inadequacies for such management purposes as evaluating the bank's business units, products, and clients. The bank had two systems to determine results for management purposes: one determined the results of branches and products, whereas the other verified client results. These two systems did not use the same measuring concepts.

In determining the results for branches, absorption costing was used – allocating administrative department expenses to the agencies. When verifying internal results, departments were considered as cost centres; once their costs had been determined, these were transferred to the branch on the basis of the existing number of staff members.

Product results were measured on the basis of their respective contribution margins, deducting the costs of automatic transactions. The transaction costs were distributed to the products through various allocation criteria and considered when calculating the products' contribution margin.

Client results were verified by calculating two contribution margins – using different amounts of costs, called "Cost 1" and "Cost 2". The contribution margin according to Cost 1 corresponded to the sum of net revenues from products used by clients, deducting only the variable (financial and non-financial) costs of these products. The contribution margin was then determined in accordance with Cost 2, deducting (in addition to the costs that had already been taken into account when calculating the margin for Cost 1) the costs characterised as "client costs". These costs were allocated to clients on the basis of service times, processing time, and other drivers. Corporate administration costs were not allocated to clients, but to the branches with which clients were affiliated, in accordance with allocation criteria.

The system in place at that time was not capable of adequately measuring the performance of the new units that had been created through the implementation of the new organisational model. The costing system that had been adopted transferred costs from administrative units to products, and then onto commercial units (branches). In other words, the costs were transferred from those who controlled them to those who did not have the slightest capacity to control them. This clearly revealed the system's inadequacy for accountability purposes. Accountability would thus become one of the pillars in the bank's new approach to performance evaluation.

In terms of product-result determination, the allocation criteria that had seemed to make sense were revealed to be inadequate for the bank's new operational reality. The figures did not seem to express the new operational reality adequately. Similarly, the client-result determination suffered from a "double-conceptual identity" – in that two conceptually different measures ("Cost 1" and "Cost 2") were used for one and the same indicator. The bank did not know which of the two reflected the proper cost of products with respect to clients. This led to a questioning of the need for two different criteria for determining the same client cost.

The management-accounting system that was in place at that time was therefore under-used by managers; indeed, when making decisions, they often disregarded the information that they received.

3.4 Controllership and the new management-accounting model

After the crises in 1995 and 1996, the bank adopted a management process that identified responsibilities and insisted on convergence to results. The bank professionalised its personnel and invested in long-term program training. All members of the executive board were replaced, and new executives were nominated. These new executives decided to restructure the entity.

In 1996, a controllership organisational unit was created with a mission to "guarantee the creation of the best possible economic result" (Banco do Brasil, 1997). In pursuit of this objective, the controllership unit promoted the economic integration of business units and provided advice to the executive board and to the board of directors on corporate economic decision-making. In addition, the unit was responsible for evaluating and controlling the conglomerate's economic performance as a whole. This included the development and implementation of management instruments, such as the budget and management accounting. According to the executives who were interviewed for the present study, these instruments aimed to:

- provide managers with information about the costs and profitability of products, clients, segments, and projects;
- encourage efficient practices;
- supply reliable management information at appropriate times;
- make responsible areas aware of undesirable risks for the conglomerate;
- ensure that the result-determination model adequately reflected the quality of managers' decisions; and
- evaluate economic performance.

In view of these expectations, the controllership team faced a clear need for changes in the management-accounting system.

The bank decided to develop a new management-accounting model, incorporating adjustments in the information system to integrate it into all stages of the management process (planning, execution, and control). Such a process of planning, execution, and control is not new in the management-accounting literature (MacDonald, 1939), but the bank did not, before the implementation of the new model, follow a structured process; nor was the existing process integrated with management-information systems. The adoption of strategic planning created a need to transform strategic guidelines into operational plans that could be translated into budgets. Consequently, the bank reviewed the model and established a new performance-evaluation model in an attempt to align the units' managerial practices with the bank's strategic and operational planning.

The bank's management process was structured in three main steps:

(1) strategic and operational planning – which consisted of establishing guidelines, objectives, and targets to lead the company to its desired economic situation;
(2) execution – which involved concrete actions to implement strategic planning;
(3) control – which compared what was planned with the actual results, with a view to identifying possible deviations and implementing corrective actions.

In 1997, the first budget for a bank unit was elaborated, and changes in the management-accounting system were implemented. The purpose was to address the new information demands that would be required for evaluating and controlling the performance of units, and for analysing the bank's product and client results. It was intended that this new model should address the bank's needs for:

- determining the results of units, products, and clients;
- undertaking the budget process;
- evaluating economic performance;
- providing the necessary conceptual uniformity to integrate the bank's various areas; and
- achieving the best possible results for the bank as a whole.

The new management-accounting model was guided by the conceptual structure of result-based management (Catelli, 2001) – in which the economic result is the main company performance indicator. The new measuring model adopted by the bank was directed by the concepts of controllability and contribution to profit – with the aim of guaranteeing the allocation of revenues and costs to the responsible managers. The integration of the process (of planning, execution, and control) with the management-information system enabled the provision of budgeted and actual information about the objects of measurement and control. The interviews and documentary analysis, as described in the methodology section (see 3.1, above) indicated that the main information and performance evaluation indicators created by the system were as follows:

- *Direct costing.* Only variable costs (such as financial costs, and inter-bank tariffs and credit risk) were attributed to products. Fixed costs (such as rent, wages, and depreciation) would no longer be part of product costs – because they were incurred independently of selling the product. Furthermore, cost allocation among units was abolished; rather, they were distributed to the responsible units.
- *Contribution margin.* This was calculated as the difference between the product's revenue and variable costs – thus indicating its contribution to the coverage of fixed costs (and, therefore, to the unit's result). The profitability analysis of a product, client, or market segment was based on this contribution margin, without allocating fixed costs.

- *Transfer price*. This was taken to correspond to the remuneration for the transfer of a product, service, or resource from one unit to another. Market prices were adopted as a reference for determining transfer prices. The application of this concept was aimed at determining the result of each unit as an independent company, without passing inefficiencies from one area to another.
- *Responsibility areas*. All units were identified as "responsibility areas", such that their respective managers could be evaluated in accordance with the effects of their decisions (considering the variables they could control). For this purpose, only direct revenues and costs that could be accurately identified with the unit would be attributed to it, thus justifying the elimination of cost allocations among units.
- *Profit centres*. Branches were treated as units that accumulated revenues and costs under their responsibility – as a way of determining their contribution to the bank's global result.
- *Central funding*. This was a charge-and-remuneration system for transfer of financial resources between bank units. Branches were to be remunerated according to the resources they obtained and to be charged for the financial resources they used – based on the bank's opportunity cost.

The controllership area formalised the new procedures, routines, and reports through internal circular letters that would later be included in the bank's official manuals. The area also became involved in the dissemination process of these new concepts – by elaborating and distributing didactical material with the support of other units (such as human resources and business development) that were involved in the professionalisation of the bank's staff. Furthermore, lectures and management training courses were organised.

Functional performance assessment became one of the most important indicators (with a 60 per cent weight). Other indicators included client satisfaction, internal processes, learning, and knowledge. At first, the managers questioned this policy – because absolute values were taken into account, without any planned basis for comparison. Later, the managers' economic performance evaluation became based on the budget – taking note of variances from budgeted results to actual results. The interviewed people were of one accord in noting that the bank had adopted a policy whereby there should be no targets outside the budget.

The new concepts in the bank's management-accounting system were quite different from the old, and the changes can therefore be described as "revolutionary". Table III shows management-accounting concepts and artefacts before and after the changes. This table was prepared with the support of documentary analysis and information obtained through interviews.

The data presented in Table III show the profound changes that occurred in the tools of management accounting. These changes encompassed all levels in the organisation. They began at the most general level – including the management model and the management process that were to shape the management-accounting system and the management-control philosophy. The changes also reached down to the most specific levels – including the units of evaluation and the measurement concepts.

Table III. Management-accounting concepts and artefacts before and after the changes

Concepts and artefacts	Before the changes	After the changes
Management model	Undefined focus	Focus on economic result and controllability
Management process	No clearly defined structure	Structured in clearly defined phases (strategic planning, operational planning, execution and control)
Management accounting system	Based on traditional financial accounting concepts	Based on economic measuring concepts
	Various systems not integrated with the management process	Systems integrated with the management process (simulation, budget, realised and performance evaluation)
	Lack of conceptual uniformity	Conceptual uniformity
Management control	Inexistence of a responsible area	Controllership is responsible
	Budgets were not used as a unit management instrument	Budgets are used as a unit management instrument
	Focus on costs incurred in terms of units, products and clients	Focus on identifiable costs and on the planned and realised contribution margin (units, products and clients)
Manager performance evaluation	Based on physical indicators (volumes, rates) and costs	Based on result indicators, clients, employees and processes
	Past performance was used as an assessment parameter	Planned performance is used as an assessment parameter
Unit evaluation	The units were cost centres	The units are result centres
	Transference prices based on historical costs	Transference prices based on market prices
	Non-use of the financial resource central	Adoption of the financial resource central, based on the bank's opportunity cost
	Fixed department costs were transferred to the units based on allocation criteria	Fixed costs are identified with the responsible departments
	Based on past performances	Based on the comparison between budgeted and realised economic performance
Product evaluation	Used the absorption costing method	Used of the direct costing method
	The product margin incorporated fixed costs	The contribution margin only incorporates direct costs
Client evaluation	Existence of different criteria (cost 1 and cost 2) for determining client costs	One single criterion, based on the contribution margin
	Use of fixed cost allocation to clients	Client evaluation based on the generated contribution margin

3.5 Perceptions of commercial managers

The data reported below were collected from the 82 responses to the questionnaire sent to the bank's commercial managers (as described above). The questionnaire was divided into two parts.

3.5.1 The use and importance of performance indicators. The first part of the questionnaire aimed to capture the managers' opinions about the performance indicators used for their units. The managers received a list of the performance indicators used by the bank – covering results, clients, employees, and processes. They were asked to mark their agreement or disagreement with the use of these indicators in their units. Their answers are shown in Table IV.

Result indicators. In general, a large majority of the bank's commercial managers perceived the result indicators as being relevant. These indicators were calculated on the basis of new concepts that had been implemented in management accounting to measure product, client, and unit results.

All of the managers (100 per cent) agreed with the use of the "contribution margin" and "efficiency rate" in their units. The "contribution margin" was routine information in product and client analysis reports that were sent to the units every month. Each unit's final result was presented deductively. The calculation began with the product's contribution margin, and then deducted the results of internal transfers and the unit's fixed costs; this provided the final result. The "efficiency rate" was then calculated by dividing the unit's expenses by its revenues.

The "result deviation" and "volume deviation" indicators were also perceived as relevant – with 98 per cent of the commercial managers being in agreement with their use. These indicators arose from a comparison of planned and realised performance, in accordance with the unit's budgets.

A large majority (89 per cent) of the managers reported that they used the "return on equity" indicator. However, in accordance with the new management-accounting model, the units were characterised as "result centres" and not as "investment centres". Thus, this indicator might not have been compatible with the management model adopted by the bank – which does not delegate investment decisions to the units.

The managers also agreed with the use of the "risk exposure" (66 per cent) and "coverage rate" (56 per cent) indicators in their respective units. According to the

Group	Indicators	I agree (per cent)	I disagree (per cent)
Results	Return on equity	89	11
	Efficiency rate	100	0
	Coverage rate	56	44
	Risk exposure level	66	34
	Results – deviations	98	2
	Volumes – deviations	98	2
	Contribution margin	100	0
Clients	Client satisfaction	100	0
	Client binding	98	2
Employees	Organisational climate	98	2
	Learning and knowledge	91	9
Processes	Processes	98	2
	Operational factors	98	2

Table IV.
Commercial managers' perceptions of the use of performance indicators in their units

bank's new management model, the branches were charged only with losses resulting from credit risks. Other kinds of risk (market, separations, operational, and so on) were centrally managed. One possible explanation for the low usage level of the "coverage rate" might be that it expressed exactly the opposite of the "efficiency rate" – which is the most commonly used rate in bank management.

Client indicators. All commercial managers in this study agreed that "client satisfaction" was important for their units. This indicator was measured through market research (for external clients) and employee surveys (for internal clients), if the areas had other organisational areas as their clients. Although 98 per cent agreed with the use of "client binding", the indicator had only recently been implemented.

Employee indicators. These indicators expressed the employees' satisfaction with the organisational climate, general work conditions, commitment level, and so on. Almost all of the research participants (98 per cent) agreed that they were important. In addition, 91 per cent of the managers agreed with the use of learning and knowledge indicators in their respective units.

Process indicators. Almost all managers (98 per cent) agreed that process indicators were important for managing their units. The perception that bank processes are slow and pass through different intermediaries might have influenced the managers' opinions on the importance of this indicator for their unit.

Importance of performance indicators. When asked about their general opinion on the importance of these indicators for managing the units for which they were responsible, 91 per cent of the managers indicated that they "fully agreed", whereas 9 per cent affirmed that they "agreed". None indicated disagreement or indifference.

3.5.2 Indicators' adequacy for the management process. The second part of the questionnaire aimed to capture the managers' perception of the indicators' adequacy with respect to the unit-management process. The participants were asked to mark their agreement (using a Likert-type scale) with statements about the adequacy of the management process for their units. The statements and the managers' responses are shown in Table V.

As shown in Table V, a large majority (82 per cent) of the bank's commercial managers agreed that plans were translated into performance indicators. They affirmed even more strongly (89 per cent) that these indicators were consistent with the area plans. These results indicate that the managers believed in the importance of these indicators as a means of expressing what the bank expected in terms of planning their respective future performance levels.

With respect to the use of these indicators in the execution phase, 97 per cent of the managers considered them in their decisions and commercial actions. In addition, 70 per cent agreed (and 30 per cent disagreed) with the statement about the use of these indicators as a reference for a new planning process.

A significant proportion (87 per cent) of managers believed that the indicators reflected the economic result of the actions accomplished in their areas. This result suggests that the management model adopted by the bank is consistent with the indicators used for evaluating its managers.

However, there was no agreement on the indicators' effect on the employees' variable remuneration. The same proportion of participants (42 per cent) agreed as disagreed with the statement that these indicators were taken into account when determining the employees' remuneration. However, the proportion of managers who

Table V.
Commercial managers' perceptions of adequacy of indicators for management of their units

Statement	I fully agree (per cent)	I agree (per cent)	Indifferent (per cent)	I disagree (per cent)	I fully disagree (per cent)
The plans are translated into performance indicators	9	73		18	
The indicators are consistent with the area plans	7	82		11	
The indicators are taken into account in commercial actions	11	86		3	
The indicators affect the employees' variable remuneration	2	40	17	30	11
The decisions are based on performance indicators	11	86		3	
The indicators reflect the economic result of the actions in this area	5	82		13	
The indicators are a reference when constructing new parameters in planning	9	61		30	

"fully disagreed" (11 per cent) was greater than those who "fully agreed" (2 per cent). The other 17 per cent were indifferent.

3.6 Case discussion

3.6.1 Main factors that motivated the bank's management-accounting change. Burns and Scapens (2000), mention that specific changes in management accounting could be quite revolutionary involving radical change to existing routines and fundamentally challenging the prevailing institutions. Nevertheless, the change process will be influenced, to some extent, by the existing routines and institutions, and as such the process is still path-dependent. Such revolutionary change is likely to be possible only as a result of a major external change. However, the response to such major events is likely to be determined largely by the current context of the organization, including its routines and institutions.

The data suggest that the changes occurred on the basis of the following factors:

- a more competitive business environment from the 1990s onwards;
- a decrease in inflation rates in the Brazilian economy after the implementation of the government's plan; and
- Banco do Brasil's significant losses in 1995 and 1996.

In view of the scenario at the time, the bank's administration implemented a profound organisational change process. The management-accounting instruments in use at that time were demonstrably unsuitable for the bank's new management model.

3.6.2 Change efficacy from an institutional theory approach. The analysis of the management-accounting change process from the perspective of institutional theory considered three basic procedures:

(1) establishing the institutional parameters by identifying evidence that new routines and rules had been converted into institutions;

(2) obtaining data from the study that are directly related to the parameters defined in the previous procedure; and

(3) carrying out the final analysis of institutionalisation of management accounting by comparing the data obtained from the study with the defined institutional parameters.

Each of these steps is discussed below.

Institutional parameters. Burns and Scapens (2000, p. 5) stated that: "… by institutionalized, we mean that management accounting can, over time, come to underpin the "taken-for-granted" ways of thinking and doing in a particular organization". According to institutional theory, institutionalisation occurs when habits and routines of management accounting are converted into institutions. The main characteristics of institutions were shown in Figure 1 and were specified in Section 2.2 of this study. Management accounting can thus be said to be institutionalised when:

- it has been structured on the basis of habits and routines that are taken for granted;
- it can be characterised as something that is stable, and which prevails and continues;

- it realises forms of thinking and acting that are held in common by a group of persons;
- it gives social meaning to persons and allows for their integration in the group;
- It is a natural product of social needs and pressures and defines standards of behaviour; and
- It is realised in the form of an organisation's actual artefacts and rules.

These elements can be inserted in the institutional framework proposed by Burns and Scapens (2000), as shown in Figure 2, and this can be used to analyse the data obtained from the study – aiming to obtain evidence of the institutionalisation of Banco do Brasil' management accounting.

Data from the study. As presented in Section 3.1, the data used for the analysis of the process of institutionalisation were obtained through:

- interviews with the professionals who had participated of the management-accounting changing process;
- documentary analysis (the results of which are summarised in Table III); and
- a survey of a group of commercial managers in the bank, as shown in Table IV and Table V.

All these data were presented in the previous sections.

Analysis of institutionalisation. Soin *et al.* (2002) have suggested that the first step in applying Burns and Scapens' (2000) framework (as shown in Figure 2) is an analysis of the institutional realm with an identification of the initial set of existing routines and rules that characterise management control. Burns and Scapens (2000) observed that institutions always exist before any attempt by the actors to introduce change, and the pre-existing state will thus affect the processes of change. The prevailing institutional principles and the set of routines and rules related to management accounting of Banco do Brasil can be inferred through an analysis of the concepts and artefacts before changes (as presented in Table III).

When an intentional change is initiated, it is guided by a set of idealised principles that are in the minds of the actors who are involved in the changes. The target of the actors is to institutionalise these principles by concretising new routines and rules inside the organisation. In this case study the actors who started the process of change were the executive board of the bank and the project team. The new principles were:

- optimisation of economic performance of the organisation;
- improvement in managers' operational and economic performance;
- improvement in managers' accountability; and
- improvement in organisational control.

Table IV shows the concepts and artefacts after the changes that reflect those idealised principles. The institutionalisation analysis of management accounting of the bank follows the four processes proposed by Burns and Scapens (2000), as shown in Figure 2.

First process: encoding (arrow a). This process entails the encoding of the idealised institutional principles into routines and rules. The encoding process is driven by the design of a set of desired principles, concepts, and artefacts, but it is shaped by the existing routines and rules. The management-accounting change at Banco do Brasil was an intended and conscious change. The new desired institutional principles were clearly defined by the executive board of the bank, and the team of project designed the new routines driven by these principles. Mr Antonio Luiz Rios da Silva was the manager responsible for implanting the controllership area and the new management accounting model in the bank. He headed the bank's controllership area since its beginning and under his command this area became a part of the bank's board. Mr Silva, currently chief executive officer of a large international company in Brazil, observes:

> . . . when the controllership area was created, professionals of the project team worked intensely to conceptualise information together with the managers. Once the concepts and model had been approved, work concentrated on communication, involving central areas, regional offices and branches, so that we can affirm that the managers agree and understand the concepts based on which information is structured and their areas are evaluated.

Institutional theory says that an institution is a natural product of social needs and pressures and defines standards of behaviour. In this context, the management-accounting system, as an institution, did result from the needs and pressures of the context. This institution was designed, introduced (and maintained) to comply with the definitions of the bank's result-oriented management model. The main contingent factor motivating management-accounting change was the bank's large losses (as presented in Table II), which caused negative net equity in 1995 and 1996. The profound negative social impact of the losses among managers facilitated the acceptance and introduction of the principles that guided the new management accounting – especially a profit orientation.

An important element of institutional pressure is related to hierarchical position and the mission of the controllership area. It can be observed that this area, which was (and still is) responsible for management accounting achieved "social recognition", supporting operational managers in their task of profit optimisation. This area, initially created as a management department, was legitimised in the organisation when it was effectively transformed into a control board.

Another element of the changes that put pressure on the managers was the impact of performance indicators on variable remuneration. However, only 42 per cent of managers agreed that these indicators affected variable remuneration. In this context, it is interesting to note Oliver's (1977) observation that institutionalised activities are actions that tend to be long-lasting, socially accepted, resistant to change and not directly dependent on rewards or monitoring of their permanence.

Institutional theory says that an institution is structured on the basis of taken-for-granted habits and routines. The management-accounting system was encoded on the basis of a set of routines involving new measurement concepts, as can be seen in Table III – involving different performance indicators, a new philosophy of performance, and a new performance-evaluation system.

Second process: enacting (arrow b). This process involves the actors enacting the routines and rules that encode the desired institutional principles. This process of enactment might involve conscious choice, but will more usually result from reflexive monitoring and the application of tacit knowledge about how things are done. The enactment of routines and rules can be subject to resistance – especially if the new routines and rules challenge existing meanings and values, and if actors have sufficient power to intervene in this process.

The process of management accounting change had produced different outcomes in the:

- business areas;
- central areas; and
- board of the bank (Board of Directors, Executive Board and Business Committee).

The members of executive board of the bank were involved in supporting the management accounting change. In the business areas there was weak resistance and the new model was fully accepted, after the process of diffusion and training on concepts. In the central service areas there was active resistance against main concepts of the idealised system. According to Ms. Ione Costa, who still works as a manager in the controllership area:

> . . . in my opinion, the managers did put up resistance against the use of the model implanted by controllership area, and this resistance was stronger in the central areas. Consequently, we did not succeed in implanting result measurement in all central areas. There were practical difficulties to determine the price of internal services from the central areas, leading to strong pressure to look for alternatives, outside the initial model, for measuring economic performance and controlling fixed costs.

The strong resistance against the new model observed among central service area managers prevented the fully introduction of the original set of planned routines in these areas. Similarly, to the omega case (Burns and Scapens, 2000) the conflict had its origins in the contradictions between the new accounting systems and the existing habits and routines. The resistance can be viewed in terms of the individual managers' reluctance in conforming to the new form of performance measurement and due to the difficulties in operating the transference price concept for services provided for business areas. The transference price and profit centre concepts, the cornerstones of the new management accounting system, were not implemented in these areas and they are still considered as cost centres and not as profit centres as originally aimed.

Following the routines of the old management accounting system, the budget was not detailed per responsibility area and, central management costs were distributed to agencies and clients. Thus, central area managers used to accept the old system very well. This system was biased toward the central areas managers, firstly, because they were not controlled and, secondly, because there was no accountability, and their inefficiencies were hidden by the distribution of their costs to agencies and clients.

According to Mr Adalberto Gangoni, former member of the initial project team, the greatest resistance against the adoption of a result-based model for performance assessment occurred in central areas:

> The central service areas did not have a culture of result accountability. Historically, the costs of these areas were passed on to the business units. Agencies, in turn, were much more receptive to the economic result-based control model, mainly because they no longer received cost allocations from central management areas and because their performance started to be measured by the business' contribution as compared to budget.

These managers' resistance against the new model was motivated by two main reasons. The first reason is that these areas started to be measured in such a way that their economic performance became transparent to the organization. Budget control of costs was established per area, cost allocations to agencies were eliminated and the concept of transference prices of services based on market parameters was introduced. The second reason for their resistance was due to the bank managers' operational difficulty to establish transference prices for the services delivered by central areas. This difficulty created such a conflict that the concept of transference price – present in the initial management accounting model – and implanted in all of the bank's business areas, did not succeed in the central service areas.

In business areas the accounting routines were enacted, and thereby reproduced in their day-to-day use by the bank commercial managers, being disassociated from their historical origins and were seen as "the way of doing things". The old system, from the perspective of business area managers, did not offer strong resistance for the changing process, because it had not been fully accepted by a large majority of them. Their main complaint about the old system was the lack of control on the results of their units and client portfolios. The old system adopted the routine of distributing the fixed cost of central management areas to agencies and clients. During the crises of 1995 and 1996, business area managers faced delicate position to explain performance to the extent that all agencies and client portfolios presented negative results as measured by the old system.

In this case study, the process of enacting the routines and rules of new management accounting model was powered by the efforts of training and diffusion. It was observed that the controllership area was very active in training the managers in the concepts and indicators of the new management accounting. According to Mr Octávio Freire, formerly active in the bank's controllership area and currently controllership manager at a technology service company, says:

> . . . from my experience during the time (three years) I worked in controllership area at the bank, at first, there were certain difficulties. To cope with the situation, besides various courses and seminars, the controllership area set up a management accounting course that used business game methodology.

Institutional theory says that an institution gives social meaning to persons and allows for their integration in the group. The study reveals that the management-accounting practice offered "social meaning" to the bank's commercial managers and facilitated their integration in the group. According to the new model, the managers have been evaluated through objectives and goals established on the basis of their contribution to the bank's result as a whole, and their performance are shared with other group members.

Data in Table V show that 87 per cent of the commercial managers agreed that the indicators reflect the economic result of commercial actions. Fonseca and Machado da Silva (2002) observed that, in the institutional approach, individual behaviour is modelled by standards that are created and shared in interaction, incorporated in the form of objective standards and rules, and then accepted as legitimised conceptions of the most efficient way of functioning. According to statements obtained in interviews, the commercial managers of the bank believe that they have been recognised in the organisation mainly because they are considered "profit centres" (rather than "cost centres", as was usually the case in the past) and because they have been actively participating in the planning process of the bank. The managers are aware of their contribution to the company's global profit, and they fully agree with the methodology of their performance evaluation – that is, planned economic contribution against actual economic contribution. The data presented in Table V show that the indicator "contribution margin" was absolutely accepted (100 per cent agreement) by commercial managers. In this regard, Ms. Maria Paula Aranha, former member of the initial project team, mentions that:

> ...some time after the implantation, various commercial managers sent us highly positive feedback, stating that this was one of the best decisions the bank administration had made. The new management instrument added objectiveness to the follow-up of achieved results and to performance assessment.

Institutional theory says that an institution can be characterised as something stable that prevails and continues. The study reveals that the management-accounting system was still being used by commercial managers seven years after its implementation. Barley and Tolbert (1997, p. 96) observed that "... institutions that have a relatively short history or that have not yet gained widespread acceptance are more vulnerable to challenge and less apt to influence actions". As shown in Table V, 97 per cent of managers considered the management indicators in the actions and decisions they took in their areas. The system has therefore continued over time, and is actually used in the bank's commercial management.

Third process: reproduction (arrow c). This process takes place as repeated behaviour leads to a reproduction of the routines. Burns and Scapens (2000) observed that this reproduction can involve conscious and/or unconscious change. Conscious choice is likely to occur only if the actors are able to assemble the resources and rationales necessary to question the existing rules and routines. Soin *et al.* (2002, p. 255) observed that:

> ... one key question in evaluating the changes revolves around the issue of reproduction. Do the changes become really incorporated into new routines and rules or are they simply "one-shot" interventions?

Institutional theory says that an institution realises forms of thinking and acting that are held in common by a group of persons. Ms. Solange Garcia, who worked in the bank's controllership area and is currently active in academic affairs, mentions that meetings of performance assessment are deeply institutionalised at the bank. Periodical presentations of management results, based on information of management accounting, to the Board of Directors and to the Executive Board are considered by managers as one of the most important organisation rituals.

The survey revealed that, in general, the management-accounting system of Banco do Brasil realised similar ways of thinking and acting, and that these are held in common by the bank's commercial managers. This case study shows that the routines of management accounting are actually used and it realises forms of thinking and acting that are held in common by commercial managers of the bank. As shown in Table V, 97 per cent of the commercial managers agreed that their decisions were based on the performance indicators generated by the system. The same proportion (97 per cent) agreed with the indicators being taken into consideration in commercial actions. It can thus be observed that, at both the individual managerial level and at the group commercial level, management accounting was fully accepted on the basis of its indicators. The data of Table IV show the use (98 per cent agree) of the indicators "results – deviations" and "volumes – deviations", thus indicating the tendency of the managers to act according to the rules of the game. The people interviewed emphasised the role of management accounting in driving performance through budgetary targets, aiming to optimise the global profit of the bank.

The statements of the professionals who were interviewed show that, during the years since the initial project, the management-accounting system of the bank has been adjusted to support the requirements of managers and the needs of corporate control. According to the data from the interviews, the management-accounting system became the main informational instrument of corporate governance of the bank, and the controller has played an important role among his peers. Mr Silva, the former controller, mentions that the area employs more than 200 people and plays a decisive role in all relevant economic decisions at the bank:

> We can affirm that managers (ranging from agency managers to executive board members) are actually using controllership information because the management systems they currently have at their disposal are based on the concepts that were included when the area was implanted. There is total integration between planning, budget and performance assessment indicators used for areas and managers.

The encoding routines and rules of management accounting that have been designed for central areas of the bank were not fully accepted and were not enacted and reproduced as originally planned in central areas. Some important concepts as profit centre and transference prices were not implemented in the central areas of the bank. Mr Silva observes that the controllership area replicated the retail agency evaluation model to corporate agencies and central units. This fact produced disagreement and resistance because these units had historically used a different management model and concepts. Despite the resistance in accepting some important concepts, as transference price and profit centres, others concepts were introduced (budget control and accountability for the unit direct costs) and its reproduction changed in some form the former habits of central areas.

Fourth process: institutionalisation (arrow d). According to Mr Luis Luz – who worked at the bank's controllership area and is currently chief executive officer of a large insurance company – controllership activities can be divided in three levels. The first level is characterised by information production for long term non-routine decision making. Level two is marked by information for strategic and operational guidance (agencies and business unit) and the third level is the field of controls and information for immediate use, such as client profitability and budget control. These types of information guide daily decision making in all organisational spheres, including the bank's Board of Directors. "I can easily affirm that, nowadays, the bank really uses this information for any decision making that involves these issues."

The institutionalisation of rules and routines that have been reproduced through the behaviour of the individual actors involves disassociation of patterns of behaviour from their particular historical circumstances. Ms. Costa mentions that, in spite of the initial difficulties, the controllership area introduced and consolidated various concepts which are now part of the standards and rules that guide the organisation. One example she mentions are the responsibilities attributed to the Business Committee, a board that deliberates on company business, whose decisions are formally supported by the REN system, which calculates the contribution margin of clients and company products. Another example mentioned by Ms. Costa refers to the employees' participation in company results. Their bonus depends on the achievement of performance levels established in a work agreement. Although the work agreement consists of five perspectives, only two of which use measurements created by controllership, the company considers the controllership area as responsible for the implantation of this process.

According to the data obtained from the interviews, the former management-accounting systems was completely deactivated, thus avoiding repetition of the former programmatic habits and facilitating the construction of desired new ones.

Institutional theory says institution is realised in the form of organisations' actual artefacts and rules. According to Mr Freire, one strong reason for using the system (budget, business unit results and client profitability) was the normative aspect, that is, the orientation for using information on client profitability (REN system) in business analyses by the Business Committee. Another important point is the evaluation of account and client relationship by business managers based on information about client profitability.

The study revealed that management accounting was realised as concrete artefacts of the bank, involving simulation system, budget system, and result-determination system (products, clients, organisational units). These routines corresponded to formalised habits and incorporated desired behaviours and procedures guided by rules, especially in the evaluation of the bank's managers, organisational units, products, and clients. Other types of artefacts that gave form to Banco do Brasil's management accounting were the procedural manuals, the meetings of planning process, the performance-evaluation system, the committee of investments, and the committee of new products. According to Mr Silva, in general, controllership is still fully accepted and respected in the organization, due to the transparency and reliability in producing information and supporting decisions.

Scapens and Roberts (1993) noted that rules and routines are related, but different – that is, management-accounting practices and usage might not replicate the systems described in procedural manuals. The data presented here reveal that the new concepts have been translated into organisational rules and routines, and that these have been realised not only in the form of procedural manuals, but also in software of corporate information systems. The data presented in Table IV show the commercial managers' acceptance of these indicators – indicating that the new concepts have already been consolidated at the bank, and are now accepted without question.

In summary, this case analysis reveals that, seven years after its inception, the management-accounting change process at Banco do Brasil can be said to have become institutionalised – according to the premises of institutional theory.

The most important factors in this institutionalisation of management accounting at the bank appear to have been:

- the creation of the controllership area;
- compatibility between overall strategy (the mission and strategic guidelines of the bank) and the bank's new management model;
- the formalisation of new routines into rules (as incorporated into procedural manuals);

- the incorporation of new management-accounting concepts into the bank's corporate-information systems;
- the deactivation of former management-accounting systems;
- the association between performance indicators and the managers' performance evaluation (exerting an effect on variable remuneration); and
- the dissemination of new management-accounting concepts through folders, lectures and training.

4. Conclusion

The objective of this study was to assess management-accounting changes under the OIE approach. According to this branch of institutional theory, the institutionalisation process occurs when habits are turned into routines that are widely accepted in the organisation. The research at Banco do Brasil demonstrates at first that institutionalisation does not fit with dichotomy. Institutionalisation is a matter of intensity and is very difficult to have for sure that a new routine has or has not institutionalised in the whole organisation. The degree of acceptance of new routines can vary according to different groups inside the organisation. In this case study it was possible to analyse the institutionalisation process of management accounting considering three different players:

(1) members of bank's board;

(2) the managers of business areas; and

(3) managers of central service areas.

The results of the applied methodology reveal that the bank's management accounting went through a high level of institutionalisation inside the group of members of the bank's board and inside the group of managers of business areas. The results of the study indicate that new management-accounting concepts have been effectively institutionalised and converted into new values, habits, and routines inside these areas of the bank. The results of the study reveal that the bank's management accounting went through a low to moderate level of institutionalisation inside the group of managers of central service areas. The routines and rules of management accounting that have been designed for central areas of the bank were not fully accepted and were not introduced as originally planned in central service areas of organisation. Some important concepts as profit centre and transference prices were not carried out in these areas of the bank. Despite the resistance in accepting these concepts, other concepts, as presented in the initial management accounting model, were introduced (budgetary control and cost accountability) in line with the set of idealised principles that were in the mind of the members of bank board and the project team. Considering the Banco do Brasil as a whole, it can be concluded that, in general the new management accounting went through a high level of institutionalisation.

It should be noted that a single case study does not allow the results to be generalised to other organisations. In spite of this methodological limitation, the study offers a conceptual structure and operational guidelines to evaluate institutionalisation of management-accounting change processes. The main contribution of this study is to offer new operational insights on management accounting institutionalisation using the conceptual framework proposed by Burns and Scapens (2000). From a practical perspective, the understanding of this phenomenon can contribute to the effective introduction of new management concepts and instruments in the business environment.

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