DOCTORAL THESIS

Title  THE ROLE OF CONTINGENCY FACTORS IN THE IMPLEMENTATION STAGES OF STRATEGIC PERFORMANCE MANAGEMENT SYSTEMS: EVIDENCE FROM ITALIAN BANKS

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The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
A mia zia Caterina e ai miei zii Andrea, Giuseppe e Pietro perché mi hanno insegnato che non c’è solo un modo per guardare il cielo.

Francesca
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<tr>
<td>ABI</td>
<td>Associazione Bancaria Italiana (Italian Banking association)</td>
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<tr>
<td>ABC</td>
<td>Activity Based Costing</td>
</tr>
<tr>
<td>ABCM</td>
<td>Activity Based Costing Management</td>
</tr>
<tr>
<td>ABM</td>
<td>Activity Based Management</td>
</tr>
<tr>
<td>AM</td>
<td>Activity Management</td>
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<td>ANT</td>
<td>Actor Network Theory</td>
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<tr>
<td>BSC</td>
<td>Balanced Scorecard</td>
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<tr>
<td>CAR</td>
<td>Capital Adequacy Risk</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CFO</td>
<td>Chief Financial Officer</td>
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<tr>
<td>CPMS</td>
<td>Consistent Performance Measurement System</td>
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<tr>
<td>CRO</td>
<td>Chief Risk Officer</td>
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<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>DCF</td>
<td>Discounted Cash Flow</td>
</tr>
<tr>
<td>ERM</td>
<td>Enterprise Risk Management</td>
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<tr>
<td>ERP</td>
<td>Enterprise Risk Performance</td>
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<tr>
<td>EVA™</td>
<td>Economic Value Added</td>
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<tr>
<td>FIA</td>
<td>Financial Intermediation activities</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>HR</td>
<td>Human Resources</td>
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<tr>
<td>IPMS</td>
<td>Integrated Performance Measurement System</td>
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<tr>
<td>IS</td>
<td>Information System</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicators</td>
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<td>MACS</td>
<td>Management Accounting Control Systems</td>
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<td>MAS</td>
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<td>MCS</td>
<td>Management Control Systems</td>
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<td>MIFID</td>
<td>Markets in Financial Instruments Directive</td>
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<td>MRP</td>
<td>Material Requirement Planning (systems)</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Mergers &amp; Acquisitions</td>
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<tr>
<td>NIS</td>
<td>New Institutional Sociology</td>
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<td>PMS</td>
<td>Performance Measurement Systems</td>
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<td>PMQ</td>
<td>Performance Measurement Questionnaire</td>
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<tr>
<td>PSD</td>
<td>Payment Services Directive</td>
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<tr>
<td>ROA</td>
<td>Return On Assets</td>
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<tr>
<td>ROE</td>
<td>Return On Equity</td>
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<tr>
<td>RORAC</td>
<td>Return On Risk-Adjusted Capital</td>
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<tr>
<td>SMART</td>
<td>Strategic Measurement Analysis and Report Technique</td>
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<td>SME</td>
<td>Small Medium Enterprises</td>
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<tr>
<td>SPMS</td>
<td>Strategic Performance Management Systems</td>
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Chapter 1 Introduction

The importance of Management Accounting and Control Systems (MACS) for an efficient and effective management information supplied in an organization has increased over the last decade (Kaplan and Norton, 1996). In order for the organization to be able to handle the continuous increase in information (Shapiro and Varian, 1999) and to be successful in turbulent environments (Lobo et al. 2000) organizations need efficient MACS. At the same time, the roles of change management have become more visible (Senge, 1994). Implementing a new MACS is often a major change for an organization. It therefore stands to reason that managerial behavior, organization influences and technological weight should also play a prominent role during the implementation and use of such a system (Holloway et al. 1995 and Simons 2000). This dissertation investigates the role of managerial behavior, organization influences and technological weight in the implementation and use of MACS, and more specifically of Strategic Performance Measurement Systems (SPMS).

Before starting the Ph.D I worked some years (2003-2005) as a junior controller in an Italian IT consumer electronics wholesaler quoted at the Milan Stock Exchange where I was responsible for the development and implementation of MACS. I was engaged first in the development of an activity-based costing system (ABC) that was actually implemented and later in a balanced scorecard project (BSC) that never reached the adoption stage. There I was able to observe firsthand how important the role of contingency factors (at that time I ignored the existence of the contingency theory stream of research) could be. During those projects I decided to take a closer, more scientific look at those factors I was seeing and that I considered determinant in the implementation of ABC and BSC and after a conversation I had with the controller of the organization (my boss) at which I had helped to implement those MACS I realized that all those factors needed to be delved for ameliorating the implementation process of control systems.
1.1. Introduction to the study

This research was triggered by an interest in understanding the role of contingency factors in
the implementation process of MACS, and more specifically on the implementation process of
SPMS.

SPMS are widely used in organizations. For instance Fernandes et al. (2006) claim that around
60% of the Fortune 1000 companies of U.S. have either adopted or are familiar with the
concept of SPMS. Nevertheless, organizations report difficulties in their implementation (Innes
and Mitchell 1995, Malmi 1997, Chenhall 2004). In fact, a research conducted by Lewy (in
Pforsich 2005) highlights that the overall failure rate of SPMS implementation is around 70
percent, considering as instances of failure both firms that have implemented a SPMS without
any benefit and firms that have used it in a discontinuing way. Why is this the case? Which
factors determine whether firms succeed or fail when implementing SPMS?

The aim of this research is to offer an insight into the development and implementation of
SPMS in an attempt to delve into the processes of management control and to link them to the
contextual factors occurring inside organization. The central theme of the thesis refers to the
associations between SPMS implementation stages and contingency factors. It tries to answer
to the following question: is there an association between contingency factors and SPMS
implementation stages? In trying to answer to that question I have built a theoretical model
developing and matching findings by Rogers (1983) concerning the process of change,
Anderson (1995), Gosselin (1995) and Krumwiede (1998) about the implementation model of
ABC and finally Otley (1980) and incorporating as well insights from contingency theory
(Chenhall, 2003).

The thesis is anchored on four points that delimitate my examination of the relationships
between SPMS implementation stages and contingency factors.

First, I develop an implementation model based on the conceptual differences between the
meanings of adoption and implementation as developed by Gosselin (1995) and on the
Krumwiede’s implementation pattern. The model used in the thesis comprises six stages: a)
implementation not considered, b) implementation considered, c) implementation considered
but rejected, d) adopted, e) adopted then refuse and f) implemented.
Second, following the literature review I concentrate my efforts on 7 specific contextual variables covering behavioral, organizational and technological areas, namely: management disposition to change, management involvement (both of them behavioral factors), clarity of objectives, financial target based compensation systems, internal communication, organizational size (the four of them being organizational factors) and difficulties in selecting KPIs (technological variable).

Third, I focus my attention on Italy, deeming the relevance of the national culture factor, as suggested by Tucker et al. (1996) Ahrens (1996) and Bourguignon et al. (2003): they point out as the design and interpretation of MACS reflects the shared values belonging to the national culture of personnel and to the historic corporate culture (e.g. Parsons 1949, Hofstede 1980, 1997, Triandis 1989, 1995).

Fourth, I choose to investigate the Italian banking sector since it was (and it is) subject of many structural changes, due to modifications occurred in its external environment in the past two decades (and currently), for instance the liberalization of capital flows, the introduction of new regulations at national and international level, the process of concentration of the market and the current global financial crisis. To this purpose, many authors (e.g. Amat 1989, 1991a, 1991b, Birchall, et al. 1996, Flamholtz 1996, Gosselin 1997, Moores and Yuen 2001, Carretta and Gibilaro 2005) (as banking industry) evidence the extent to which organizations tend to apply formal MACS such as SPMS to deal with this environment.

The themes of the thesis are tested by means of a combination of survey research and case-based research. Results of the survey and of the case-study evidence the extent to which management involvement, clarity of objectives, internal communication and financial target based compensation systems are associated to SPMS implementation stages.

I developed the research along six stages: first, I performed a literature review; second, I formulated research questions. This was followed by a theoretical development and the formulation of hypotheses; next, I performed the survey research and analyzed results, Fifth, I conducted the case study and analyzed results; and sixth, I concluded and derived further investigation lines. Figure 1.1 gives a graphic representation of the research approach of the thesis.
1. **Perform literature review:** during the literature study, I examined the features and the developments of MACS, as well as many models concerning their implementation in the organization as well as I established the importance of contingency factors for information system change and I chose SPMS as the object of my study.

2. **Formulate research questions, theoretical development and formulate hypotheses:** basing on statements and assumptions found in the literature, I drafted some hypotheses about relationships among contingency factors (i.e. management disposition to change, management involvement, clarity of organization’s objectives, financial target based compensation schemes, internal communication, organizational size and difficulties in selecting KPI) and SPMS implementation stages (composed of six
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stages: thesis comprises six stages: a) implementation not considered, b) implementation considered, c) implementation considered but rejected, d) adopted, e) adopted then refuse and f) implemented.

3. **Perform survey research**: I focused my attention on Italian banks and I chose the survey study method to test the research hypotheses. The survey was executed between April and July 2010 for a response rate of 32.8 percent.

4. **Analyze survey results and test hypotheses**: I analyzed the results of the survey and tested the research hypotheses. The analysis revealed the extent to which management involvement and financial target based compensation schemes present strong positive associations with SPMS implementation stages; also clarity of objectives, internal communication and organizational size, but at lower degree, leading me to gain insights on the importance of these factors regarding the implementation processes and the attainment of higher levels of SPMS change. In contrast, for management disposition to change and difficulties in selecting KPI the survey analysis highlighted the absence of any association between those factors and stages.

5. **Conduct case study and analyze results**: I performed a case study at Carige Bank, a medium-large size Italian bank, from February 2010 to September 2011 by interviews and archival company data as sources of information. The results show that the degree of involvement and disposition to change of management tends to increase along the implementation process, as well as the extent of internal communication, clarity of the company’s objectives and the use of financial target based compensation schemes. Some managers claimed that difficulties in selecting KPI decreased reaching the full implementation.

6. **Conclusion**: I provided concluding remarks, limitations and suggestions for further research.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
Chapter 2. The Role of Contingency Factors on Strategic Performance Measurement Systems (SPMS) Implementation: a literature review

The purpose of this first chapter is to provide a literature review of previous research which is relevant for the study of processes of implementation of Strategic Performance Measurement Systems (hereafter SPMS) and the contingency factors that affect such processes.

The chapter is structured as follows. The first section introduces Management Accounting and Control Systems (hereafter MACS), providing an overview of alternative definitions of MACS and briefly outlining the most relevant research frameworks in the field. Section 2.2 deals with a specific subset of MACS, i.e. SPMS, which are the object of interest in this thesis. In this section, SPMS are located within MACS, they are defined and analyzed, and some of the most popular specific SPMS models (e.g. Performance Prisms, Performance Pyramids, Balanced Scorecards) are subsequently reviewed.

There is a limited body of literature on the implementation processes of SPMS, which are the object of this thesis. For this reason, Section 2.3 first takes a broad-scope view and examines prior literature on implementation processes of management innovations, and then focuses in particular on MACS innovations as well as on management accounting change (be it referred to SPMS or other forms of MACS). After defining MACS innovation and MACS change, I briefly review some of the diverse research perspectives (e.g. institutionalist approaches, contingency approaches) that have been proposed on these topics. This thesis is grounded on contingency frameworks, and therefore special attention is paid in this section to studies from a contingency perspective that have modeled the different stages of implementation processes of management and MACS innovation.

In keeping with this broad-scope view, Section 4 examines the prior contingency literature that has analyzed the contingent factors that appear to influence the characteristics of MACS in general and which, therefore, might be expected to influence MACS (including SPMS)
implementation processes. Finally, Section 2.5 examines the gaps that are present in previous literature regarding implementation processes of SPMS, and on the basis of which I am going to develop the research questions of this thesis and Section 2.6 concludes the second chapter.

2.1 Management accounting control systems

I would start highlighting that there are several alternative definitions of MACS. Given many definitions, I will discuss alternatives that have been supported and what are the definitions I will take as references. In this section I’m going to define next the concepts of accounting, management accounting and MACS and its different perspectives.

2.1.1 Definition of Management accounting control systems (MACS)

As many authors (e.g. Chenhall 2007) claim, the terms “management accounting”, “management accounting systems”, “management control systems”, “organizational controls” and “management accounting and control systems”, have been defined in different ways and sometimes used interchangeably. The diversity of definitions can be organized in two main streams: 1) one that looks at control as one particular function within the several functions of accounting systems, and 2) one that defines management accounting as a specific set of tools within the larger set of procedures and processes that comprise the “package” of Management Control Systems (Otley 1980).

As far as the first stream is concerned, accounting has been defined as “the process of identifying, measuring and communicating information to permit informed judgments and decisions by users of the information” (Drury 2008 p.5). Accounting as a whole is traditionally subdivided in two branches: financial accounting and management accounting. Financial accounting is concerned with the provision of true, fair and objective information about the overall organization to external parties outside the organization. In contrast, management accounting is concerned with the provision of information to people within the organization to help them make better decisions and improve the efficiency and effectiveness of existing operations (Drury 2008 p.7). In this line, Horngren and Sundem (2007) have defined management accounting as “the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information that assists executives in fulfilling organizational objectives...a formal mechanism for gathering and communicating data for the ends of aiding and coordinating collective decisions in light of the overall goals or objectives of an organization” (Horngren and Sundem 1990, p. 4).
Within this first stream, it has been emphasized that management accounting serves two primary functions: a decision-facilitating function and a decision-control or goal-congruence function (Baiman and Sivaramakrishnan 1991, Milgrom and Roberts 1992, Zimmerman 2005). The decision-facilitating function involves using management accounting information for purposes of attention-directing, planning and coordination. The decision control or goal-congruence function involves the use of management accounting information for purposes of setting precise expectations, performance evaluation and compensation (Baiman 1990, Lambert 2001, 2007). The fact that management accounting is being used for both decision-making and decision-control purposes may give rise to potential trade-offs that may need to be addressed by managers (Zimmerman 2005). In summary, according to this first stream, control is conceptualized as one among the several functions of management accounting.

In contrast, a second stream defines management accounting from a more systemic perspective (and hence, Management Accounting Systems, MAS), and conceptualizes MAS as a subset of management tools within the broader realm of management control systems (MCS). Under this stream, MCS is a broader term that encompasses Management Accounting Systems (MAS), but also includes other control mechanisms such as personnel or clan controls. As understood in this stream, MCS or organizational control refers to the process of influencing the behavior of people as members of a formal organization (Flamholtz et al. 1985) and it is composed of a diverse set of practices intended to gain congruence between the organization’s strategic and other goals and the organizational actors’ goals and activities. In accordance with this view, for example, Bisbe and Otley (2004), following Otley and Berry (1994), have defined the term MCS as “the procedures and processes that managers and other organizational participants use in order to help ensure the achievement of their goals and the goals of their organizations. Furthermore, according to this view, MCS encompass formal control systems as well as informal personnel and social controls (Chiapello 1996, Otley 1980, Ouchi 1977)”. In this broader sense, MCS refer to all devices used by organizations to manage, motivate, monitor, measure and sanction the actions of managers and employees (see next section for further details on formal vs. informal control systems).

In accordance with this view, management accounting refers to a collection of information-based measurement practices such as budgeting, product costing, project management or performance measurement. MAS refer to the systematic use of management accounting to achieve some goal. Therefore, MAS refer to a specific subset of formal MCS which encompass a collection of information-based feedback and measurement systems (Simons 1995). According to Chenhall (2003) the definition of MAS has evolved over the years from one focused on the provision of exclusively financially quantifiable information to assist managerial decision making and control to one that embraces a much broader scope of information (including
external information related to markets, customers, competitors, non-financial information related to production process). In summary, according to this second stream MCS is a broad term that refers to the package of procedures, processes and practices intended to gain congruence between the organization goals and the organizational actors’ goals. MCS encompasses MAS, but also includes other formal and informal control mechanisms.

While the two streams indicated above propose two different approaches to MAS and MCS, both provide interesting insights into a complex organizational reality. Moreover, within each of the streams, MAS and MCS are often used interchangeably (Chenhall 2007). Recent research (e.g. Macintosh 1995, Hartmann and Vaassen 2003, Kattan et al. 2007, Lehtonen 2007) has started referring to Management Accounting Control Systems or Management Accounting and Control Systems (MACS) as an integrative way to sort out the terminological confusion. This is the approach I am going to adopt in this thesis. As defined in this thesis MACS refer to the procedures and processes that managers and other organizational participants use in order to help ensure the achievement of their goals and the goals of their organizations (Otley and Berry 1994).

2.1.2. Formal control systems

MACS encompass both formal and informal control systems. Formal control systems are constituted by explicit, information-based sets of structures, routines, procedures and processes purposefully designed by the firm in order to influence the behavior of individuals, groups and organizations and in order to help managers ensure that their organization’s strategies and plans are carried out or, if conditions warrant, that are modified (Giglioni and Bedeian 1974, Hopwood 1974, Ouchi 1977, Maciarello and Kirby, 1994, Fisher 1995, Simons, 1995a, Chiapello 1996, Merchant, 1998, Bisbe and Otley, 2004, Langfield-Smith 2007, Sandino 2007). Formal controls are the more visible and objective items components of a control system and, thus, are usually considered the easiest controls to research. Formal controls may include output or result controls (outcome-based) which provide ex-post feedback include administrative controls (standard operating procedures); personnel controls (e.g. value-internalizing activities such as recruitment or training programs); behavior controls (formal rules and procedures) which provide ex-ante feedforward control (Langfield-Smith 2007).

Typical formal control systems include budgets, standard operating policies and procedures, incentives and rewards, operations reports, organizational structure and design, transfer pricing systems, project control systems and performance measurement systems. Examples of specific contemporary innovations in formal MACS include SPMS (such as PMQ, Performance

In addition to formal control systems, control may be exerted through informal control systems. These are implicit processes that are not consciously designed by the firm, and which often derive from, or are an artifact of, organizational culture. These include the *unwritten* policies and practices, social norms and beliefs shared by the members of the organization (Langfield-Smith, 2007). Informal control systems often derive from relationships among peers and leadership styles (Giglioni and Bedeian 1974, Hopwood 1974, Ouchi 1977, Fisher 1995, Chiapello 1996, Merchant and Van der Stede, 2007). In his classical study, Hopwood (1974) distinguishes two different types of informal controls operating simultaneously: a) social controls, and b) self controls. Social controls include, for example, the influence of a charismatic leadership, the fostering of an adequate organizational climate or the socialization that arises *spontaneously out* the everyday social interaction among members. Self controls are informal mechanisms that people exert over their own behavior through compliance or identification between the organizational goals and one’s own set of value and desires.

Informal control systems are significant aspects of MACS and the effectiveness of formal control may be dependent of the extent and effectiveness of informal controls that are also in place (Otley 1980, Flamholtz 1983, Langfield-Smith 2007). For this reason, a large number of organizations use a mixture of formal and informal control mechanisms simultaneously or place different emphases among the alternatives in order for the overall control system to better fit the particular organization reality (Ouchi 1977, 1979, Otley and Berry 1980, Merchant 1985, Maciarello a Kirbi 1994, Otley 1994, Chenhall and Morris 1995, Milgrom and Roberts 1995, Flanholtz 1996, Abernethy and Brownell 1997, Merchant 1997, Langfield-Smith 2007).

Formal and informal control systems can act as potential substitutes or complements for the purpose of achieving organizational control. According to Otley (1980, 1999) and others (e.g. Flamholtz et al. 1985, Dent 1990, Fisher 1998, Chenhall 2003), this interaction between formal and informal control mechanisms has been defined as “control package” where different elements are added by different people at different times (Otley, 1980).

Zooming into the realm of formal control systems, Simons (1995) identifies three categories of formal control mechanisms, depending on their design attributes: 1) beliefs systems, 2) boundaries systems and 3) feedback and measurement systems. Beliefs systems are explicit set of organizational definitions that define the basic values, purpose and direction of the
organization. Boundaries systems are sets of rules, indication and proscriptions that delineate the acceptable domain of activity. Feedback and measurement systems are data base systems that capture information on either inputs or output in order to both monitor past action and detect future options. SPMS, the object of interest in this thesis, are examples of feedback and measurement systems (See figure 2.1).

Within feedback and measurement systems, Simons (1995) identifies two styles-of-use of: a diagnostic and an interactive use (and hence, “diagnostic control system” and “interactive control system”). Diagnostic control systems are used to monitor organizational outcomes and correct deviations from preset standards of performance. They are cybernetic in their nature and according to Simons (1990, 1991, 1995, 2000), diagnostic control bears many similarities
to traditional management control as originally defined by Anthony (1965). The three features that distinguish the diagnostic control system are: the ability to measure outputs of process, the existence of predetermined standards against which actual results can be compared and the ability to correct deviation from standard. Controls did ex post by management in order to monitor actual results compared to the planned objectives constitute the results controls. In contrast, interactive control systems are formal systems that managers use to involve themselves regularly in the constantly changing of strategic information and in the decision activities of subordinates (Simons 1990, 1991, 1995, 2000). According to Simons, these controls are used to focus the attention of management and other employees on areas of strategic uncertainty and to establish a dialogue concerning these areas (Daft et al. 1988, Simons 1995). It implies that managers pay frequent and regular attention to interactive MACS and get personally involved in them (Simons 1995).

In summary, this thesis is focused on SPMS, which are a specific instance of formal MACS and, in particular, a specific instance of feedback and measurement systems. SPMS can be used diagnostically or interactively. I describe in further detail SPMS in Section 1.2.

2.1.3. MACS research frameworks

Traditional research on management accounting and control has been largely based on the functionalist paradigm that emphasizes a rational and technological point of view. In the last decades, and following the seminal studies by Hopwood (1974, 1978), different streams of research have developed alternative approaches to address the call for analysis of the integration between MACS, organizations (Bhimani and Pigott 1992, Scapens and Roberts 1993, Carmona et al. 1997, Wickramasinghe and Alawattage 2007) and society (Amat, Carmona and Robert 1994, Carmona et al 1998, Wickramasinghe and Alawattage 2007), and to focus on the mutual influences between MACS and its wider socio-cultural context (Araujo 2003, Wickramasinghe and Alawattage 2007).

As a result, contemporary MACS research is characterized by diversity: MACS research frameworks are several and are lined up into different paradigms that include, among other perspectives, agency theory, contingency theory, labor process perspective, institutional theory, interpretivist perspectives, Foucaultian perspectives and actor network theory.

As it is shown in figure 2, in the first level, MACS research can be splitted in two branches: positivist functionalist (traditional approaches) and alternative approaches (Baxter and Chua 2003).
The main difference between the traditional and the alternative MACS research approaches is that for the former, organizational systems consist of concrete and empirical phenomena that are independent from managers and employees meanings whereas for the latter, there are many different rationalities of MACS practice, and MACS practice is enacted and given meaning in a variety of ways which are socially embedded (Baxter and Chua 2003).

Within the positivist functionalist approach, a pioneer stream to be mentioned because of its influence is the cybernetic framework. The Cybernetic approach conceives a MACS as a system of organizational information seeking and gathering, accountability and feedback designed to ensure that the enterprise adapts to changes in its substantive environment and that the work behaviour of its employees is measured by reference to a set of operational sub-goals (which conform to overall objectives) so that the discrepancy between the two can be reconciled and corrected (Anthony 1965, Flamholtz 1979, Lawler 1976, Lowe 1971). Within positivist-functionalistic approaches, the two paradigms that are prevalent in the current mainstreams of research are agency and contingency theory (figure 2.2).
According to agency theory, firms are constituted by explicit or implicit contracts between owner (i.e. the principal) and managers and employees (i.e. the agents) in which both parties behave in a rational utilitarian fashion motivated solely by self-interest. In this context, the owner delegates decision making authority to the manager (agent) who performs services on behalf of the owner (Lambert 2001, Baker and Datar 1989, Baiman 1982, 1990). Agency theory frames the analysis in terms of constrained maximization problems and is used in management accounting research to address the interrelationships between incentive problems and the design and structure of information, MACS and compensation systems (Lambert, 2007)

The contingency paradigm emphasizes the extent to which contingent factors (such as technology, organizational structure and size, strategy, culture and environment) affect the design and functioning of the organizations. As far as MACS are concerned, contingency theory establishes that MACS are influenced by (and influence) the context where the company operates. It focuses on the fit between contingent factors and attributes of design and use of MACS as well as on the implications of this fit for performance (Otley 1980, Chenhall 2003, 2007) (see 2.3.2. for more on contingency approaches)

The right side of Figure 2.2 illustrates some of the alternative non-functionalist approaches to MACS research. These approaches seek to locate MACS within their social and organizational context, stressing holism, dynamic socio-economic and historical contexts, the centrality of power and conflict and a broader set of constituencies than managers and capital markets (Cooper and Hopper 2007). Studies in these streams are characterized by their interdisciplinary nature, drawing largely on theories and frameworks grounded on sociology, political science and history.

Within the alternative non-functionalist branch, several perspectives can be distinguished. With no aim of being exhaustive, these include the following: labor process perspectives, institutional theory, interpretive perspectives, Foucauldian perspectives, Actor-Network Theory, among others.

Labor process theorists take a radical structuralist paradigm and argue that any organization exists in a state of dynamic tension; with two basic opposing forces or principles are locked in a dialectic contradiction. Following this point of view, accounting and management control are tools that permit few managers and executives (a small minority) to rule and command on the rest of employees (a big majority) using their power (Macintosh 1995). These perspectives deny that MACS are a neutral tool serving the general interests of efficiency and emphasize its role in legitimizing partisan interests, in contributing to the control and domination of labor,
and in reinforcing the dominant mode of production. The authors belong to this framework point out the managerial interest in using MACS to treat workers as commodities and pressure them for even more productivity. According to this framework, MACS are a way to legitimate exploiting, alienation and deskilling work force (Macintosh 1995). The reinvigoration of labor process theory in MACS research can be traced back to Braverman (1998) and is present in recent studies such as Bourguignon, (2004) on how the use of SPMS in France and the US reflects different ideologies of control and histories of capitalist development, and Cooper and Ezzamel (2006) on how Balanced Scorecard proposals typically adopt a shareholder perspective that denies multiple stakeholders.

In contrast to labor-process theories, other contemporary alternative approaches to MACS research take a non-structuralist approach, in the sense that they do not assume that organizational systems such as MACS consist of concrete, empirical phenomena which exist independently of managers and employees (Macinstosh 1995).

Hence, Institutional theory, which emerged from a critique of the neoclassical economic perspective, provides an alternative framework that focuses on socially-generated rules as an explanation of collective behavior. Management accounting and control research based on institutional theory aims to better understand the behavior of managers who use MACS within an organization, and it assumes that management accounting practices and managers behaviors are influenced by complex routines and institutions. MACS are then regarded as a social and institutional practice which reflects social relations (Scapens 1994, DiMaggio and Powell 1991, Burns and Scapens 2000, Scapens and Jazayeri 2003, Quattrone and Hopper 2005). Institutional theory-based MACS research has been particularly interested in issues of signification, domination and legitimation (Araujo 2003) (sharing the views of structuration theory, Giddens 1986) and in issues regarding management accounting change. Given the relevance of these reflections on management accounting change regarding the purpose of this thesis, I will discuss in further detail institutionalist approaches to management accounting change in Section 1.3.5

Another stream of non-structuralist research on MACS is the interpretive paradigm. The interpretive paradigm affirms that each organizational participant interprets the situation that he/she is living on the basis of his/her personal meanings. As far as MACS are concerned, both managers and employees socially construct and transform the meaning of accounting and control systems into reality on the basis of their personal reflections and interactions. As consequence, MACS are the product of the subjective experience of those who are involved in the use of such systems. In this context, MACS are an “inter-subjective meaning system competing with others for recognition and priority” (Hopper et al. 1987, cited in
Wickramasinghe and Alawattage 2007 p. 441). Examples of this stream of research are the papers by Tomk "

Finally, two alternative approaches that have arised significant interest in recent MACS research are the Foucauldian approach and the Actor-Network Theory or Latourian approach. The Foucauldian perspective aims to explore social realities such as MACS through understanding changing local circumstances and their local meanings. Foucauldian approaches to MACS have situated management accounting in its particular wider political and social context, considering it as a historical process by which people are made calculable and governable by owners, and highlighting its role in the regulation of human behavior and as a source of disciplinary practice. Reflecting the influence of the seminal work of Foucault (1972, 1977), a number of studies have examined management accounting history (Miller and O´Leary 1987) and MACS as a disciplinary practice (Hopper and Macinstosh, 1993, McKinlay and Wilson, 2006).

Actor Network Theory (ANT) derives from Latour (1987, 1991, 1999) and his followers (Law and Hassard 1999). In its application to MACS, ANT is interested in understanding how MACS information are constructed to accommodate and persuade diverse interests of disparate groups of participants within organizations (Baxter and Chua 2003). They see MCS as a technology of control which is subject to actors’ roles through networks. The actors can be classified in two different types: human and non human. In the former category belongs, e.g. managers, accountants and in the latter non human, such as computer systems, software packages, idea of performance measures. Together, these categories build relationships influencing each other through intermediaries and creating a network (Wickramasinghe and Alawattage 2007). Instances of MACS studies grounded on ANT are Chua (1995) on the construction of accounting information in hospitals and Jones and Dugdale (2002) on the introduction of ABC systems.

2.1.4 Conclusions

The basic concept of control system does not have a clear definition (Chenhall 2003, Neely et al 2005, Kanthi Herath 2007, Wickramasinghe and Alawattage 2007). Several articles have been devoted solely to defining it (e.g. Giglioni and Bedeian, 1974, Green and Welsh, 1988, Armstrong and Baron 1998, Chenhall 2003, Kanthi Herath 2007) and according to Neely et al.
(2005) this is explicable because authors have tended to focus on different aspects and functions of MACS design.

This diversity of definitions can be organized in two main streams: one that looks at control as one particular function within the several functions of accounting systems, and another that defines management accounting as a specific set of tools within the larger set of procedures and processes that comprise the “package” of MACS (Otley 1980). In this thesis I adopt this second stream

The second stream sees MACS as a broad term that refers to the package of procedures, processes and practices intended to gain congruence between the organization goals and the organizational actor’s goals. MACS encompass MAS, but also include informal control mechanisms such as personal, social or clan controls. Formal control systems are characterized by explicit techniques and process consciously designed by the firm in order to control organizational behavioral of other individuals, groups and organizations. On the contrary, informal control systems are processes that are not consciously designed by the firm, these include unwritten policies and practices, social norms and believes shared by the members of the organization (Giglioni and Bedeian 1974, Hopwood 1974, Ouchi 1977, Chiapello 1996, Langfield-Smith 2007, Sandino 2007).

Considering the existing plethora of definitions, I therefore accept the definition of MACS as the procedures and processes that managers and other organizational participants use in order to help ensure the achievement of their goals and the goals of their organizations (Otley and Berry 1994), which encompasses formal control systems as well as informal personal and social controls (Chiapello 1996, Otley 1980, Ouchi 1977).

This definition shows as organizations use a mixture of formal and informal control mechanisms simultaneously, selecting, among the alternatives, the control system that better fits the particular organization reality (Ouchi 1977, 1979, Otley and Berry 1980, Mechant 1985, Maciarello and Kirbi 1994, Otley 1994, Chenhall and Morris 1995, Milgrom and Roberts 1995, Flanholtz 1996, Abernethy and Brownell 1997, Merchant 1997, Langfield-Smith 2007). According to Otley (1980, 1999) and others (e.g. Flamholtz et al. 1985, Dent 1990, Fisher 1998, Chenhall 2003, Brown 2006), this interaction between formal and informal control mechanisms can be defined as a “control package” where different elements are added by different people at different times.

In the last decades different streams of research have developed approaches to address the call for analysis of the integration between MACS, organizations (Bhimani and Pigott 1992, Scapens and Roberts 1993, Carmona et al 1997, Wickramasinghe and Alawattage 2007) and
2.2 Strategic Performance Measurement Systems (SPMS)

This thesis is focused on SPMS, which are a specific instance of formal MACS and, in particular, a specific instance of feedback and measurement systems. In this section I am going to describe in detail SPMS, which are the central topic of the thesis. In the first sub-section, I am going to start analyzing the general framework about SPMS. In 2.2.2 I briefly describe some specific models of SPMS, in particular PMQ (Dixon et al 1990), Performance Pyramids (McNair et al 1990, Lynch and Cross 1991), BSC (Kaplan and Norton 1992, 1996, 2001, 2004), CPMS (Douwe et al. 1996), IPMS (Bititci et al. 1997) and Performance Prisms (Neely et al. 2001). Finally, conclusions are discussed.

2.2.1. Definition of SPMS

Financial measures are often criticized for being inadequate in guiding strategic planning decisions because they are lagged indicators that report on the outcomes of past actions, providing incomplete assessments of behavior and performance and promoting actions that sacrifice long-term value creation for short-term performance (Johnson and Kaplan 1987, Kaplan and Norton 2001). Managers may strive for short-term financial result at the expense of other areas such as research and development, thus sacrificing long-run success. Practitioners and academics have stressed the importance to rely more on non-financial measures of performance (e.g. Johnson and Kaplan 1987). In order to address these criticisms, over the last two decades, PMS and SPMS have started to be implemented.

PMS are set of metrics (both financial and non-financial) that are able to support the decision-making process of an organization by gathering, elaborating and analyzing quantified information about its performance (Gregory and Platts 1995, Neely et al. 1995, Buxton and Ward 1998, Suwignjo et al. 2000, Garengo et al 2005, Neely et al. 2005, Neely 2007, Gimbert
et al. 2010). This set of metrics can be used the organization in quantifying both the efficiency and effectiveness of its actions (Neely et al. 1995).

SPMS are a specific subset of PMS (Gimbert et al. 2010). Ittner et al. (2003, page 717) define SPMS as a management tool that “considers measurement diversity as supplementing traditional financial measures with a diverse mix of non-financial measures that are expected to capture key strategic performance dimensions that are not accurately reflected in short term accounting measures”. Several authors (Neely et al. 1995, Kaplan and Norton 1996, Malina and Selto 2001, Malmi 2001, Frigo and Litman 2002, Ittner et al. 2003, Chenhall 2005, Henry 2006, Hall 2008, Gimbert et al. 2010) argue that strategic performance measurement systems are management tools that establish a relationship between multidimensional performance measures and organizational strategy by a series of hypothesized cause-and-effect relationships. According to Chenhall (2005), SPMS are characterized by:

A) a broad array of measures (financial and non financial) that links long term strategy with operations and activities across the value chain;
B) the presence of cause/ effect linkages between operation and long term strategy and goals;


2.2.2 Specific SPMS models

In this section I will introduce five of the most popular generic SPMS models developed in the last 20 years according to Fai Pun and White (2005) and Garengo et. al (2005): PMQ (Dixon et al 1990), Performance Pyramid (McNair et al 1990, Lynch and Cross 1991), BSC (Kaplan and

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1 Several alternative labels have been proposed by different authors. Hall (2008) labels SPMS as "comprehensive performance management system" and Chenhall (2005) labels SPMS as "integrative performance management system". The same concept is sometimes expressed as merely "performance management system", such as by Garengo at al. (2005), Fai Pun and White (2005).

2 See Garengo et al. (2005) for an example of a review of SPMS applied in small and medium firms.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

Norton 1992, 1996, 2001, 2004, 2006), IPMS (Bititci et al.1997) and Performance Prism (Neely et al. 2001). Figure 2.3 depicts these SPMS in the broader framework of MACS.

Figure 2.3 The context of SPMS

These specific systems have been selected because they fulfill the characteristics enumerated by Chenhall (2005) and mentioned above, even though each specific system
has distinctive features that emphasize peculiar aspects. A common theme in these systems is the attempt to tie performance metrics more closely to firm’s strategy and long term vision. The main characteristics of these selected systems are next described.

The PMQ, also known as Performance Measurement Questionnaire, has been developed by Dixon et al. (1990). It is a performance measurement procedure which consists of three stages. In the first, general data are collected. In the second, the respondent (i.e. senior managers, front line personnel) is asked to identify those areas of improvement that are of long-term importance to the firm. In the third, the respondent is asked to compare and contrast what is currently most important for the firm with what the measurement system emphasizes. When data are collected four types of analysis are possible. The first is alignment analysis in which the extent of match between the firm’s strategies, actions and measure is assessed. The second is congruence analysis, which provides details on the extent to which the strategies, actions and measures are mutually supportive. The third is consensus analysis, in which the data are analyzed according to the management position. And the last one is the confusion analysis, in which the range of response is examined.

The SMART also known as Performance Pyramid has been developed by McNair et al. (1990) and Lynch and Cross (1991) has the structure of a pyramid built on four levels linked by strategy using a top-down process. The goal is to design a MSC with performance indicators to define and sustain success. On the top lays the corporate mission that assigns a corporate assignment to each business unit and allocates resources to support them. At the second level objectives for each business units are defined in market and financial terms. At the third level lay business operating systems, the business units objectives are defined in terms of customer satisfaction, flexibility and productivity. At the fourth level the departments and work centers are identified in operational terms by quality, delivery, process time and cost. Figure 2.4 shows the SMART Performance Pyramid.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

The BSC has been developed by Kaplan and Norton (1992, 1996, 2001, 2004). In its early inception, the BSC was built as a measurement tool where measures were clustered into groups (usually four) representing the firm stakeholders and called “perspectives”: financial, customer, internal business process and learning and growth. Financial perspective is related to profitability, measured for example using some classical economic indicators such as return-on-capital-employed, return-on-investment. Customer perspective is intended to measure the company’s performance from the customer’s point of view. Examples of indicators are: customer satisfaction, customer retention. Internal Process perspective refers with the processes that create and deliver the customer value proposition. Examples of indicators are: percentage of sales of new products, new product introduction versus competitors. Learning and growth perspective is focus on employees. Number of suggestions per employee and employee satisfaction are some examples of learning and growth metrics.

The figure 2.5 shows the BSC structure.
In recent years, new generations of BSC have introduced the strategy maps (Kaplan and Norton 2001) diagrams that describe how an organization creates value by connecting strategic objectives in explicit cause-and-effect relationships (or causal linkages) in the BSC perspectives in order to achieve high-end goals. In Kaplan and Norton’s typical formulation of a strategic map, learning and growth are the drivers of internal business processes, which are in turn the drivers of customer satisfaction, which is the driver of financial results which create value for shareholders.

Norreklit (2003) claims that it is not a cause and effect relationship, but it is a circular reasoning because there is interdependence among the perspectives since in order to be able to invest a company needs satisfactory financial results.
On the basis of the introduction of causal links that highlight the eventual priority of value creation for shareholders, some authors have claimed that BSC with strategic maps fail to provide a balanced picture of the satisfaction of the different stakeholders and furthermore fails to mention relevant stakeholders such as alliance partners, intermediaries, local communities, regulators, or pressure groups (Norreklit 2003).

Bititci et al. (1997, page 52) define the Integrated Performance Measurement System (IPMS) as "the information system which enables the performance management process to function effectively and efficiently". This model underlines two qualities of a SPMS, integrity and deployment. Integrity is the quality of a SPMS to promote the cohesion of various area of business, while deployment refers to deployment of business objectives and policies throughout four levels where the higher level becomes a stakeholder of the lower level.

This model is based on four levels that are: Corporate, Business Units, Business Process and Activities. Per each level five key factors are considered: Stakeholders, Control Criteria, External Measures, Improvement Objectives and Internal Measures. Business units, business processes and activities are classified according to complexity and uncertainty of the business environment and this categorization makes it possible to define the most appropriate type of performance measures, which are classified in external, internal, capability and learning measures (Garengo et al 2005).

The Performance Prism is a multidimensional management tool developed by Neely et al. (2001) focused on five interrelated facets inside the company, with the aim to answer to some specific questions for each area of analysis:

a) **stakeholder satisfaction**: i.e. who are the key stakeholders and what do they want and need?

b) **strategies**: i.e. what strategy do we have to put in place in order to satisfy our stakeholders?

c) **process**: i.e. what critical process do we need if we are to execute our strategy?

d) **capabilities**: i.e. what capabilities do we need in order to operate and enhance these processes?

e) **stakeholders contribution**: i.e. "which contribution do we need from our stakeholders in order to operate and enhance these processes?"

The Performance Prism framework is particularly focused, on stakeholders. The first facet of the Prism regards their satisfaction, it analyzes all the parties that can have a substantial impact on the performance and success of an organization.
The fifth facet regards stakeholder contribution recognizing the fact that not only organizations have to deliver value to their stakeholders, but also that organizations enter into a relationship with their stakeholders and this is the critical and unique feature of the Performance Prism (Neely et al. 2001).

2.2.3 Conclusion

Financial measures are often criticized for being inadequate or insufficient in guiding strategic planning decisions because they are lagged indicators that report on the outcomes of past actions, providing incomplete assessments of behavior and performance (Kaplan and Norton 1992). Thus, some authors have recommended the implementation of SPMS, and some firms have actually engaged in such implementation in the last two decades.


De Toni et al. (1997), Olve et al. (1999), Epstein and Birchard (2000), Norreklit (2000), Ittner and Larcker (2003) argue that the effectiveness of SPMS depends on the extent to which they form a coherent PMS that enables strategy and operations to be integrated and harmonized. Neely et al. (1995, 2005) point out as performance measure should derive from strategy, but this does not always appear to happen in the real world; one possible explication is because the cause and effect linkages that characterize SPMS are very complex and difficult to analyze (see Malmi 2001, Norreklit 2003 and Merchant and Otley 2007 applied to the BSC and its strategy maps) and/or because performance is affected by a large number of factors and it is difficult to quantify their actual impact on financial results and incremental changes (Suwignjo et al. 2000, Hynes 1998, Appiah-Adu and Singh 1998, Fai Pun and White 2005, Garengo et al. 2005, Merchant and Otley 2007).
2.3 The implementation process of SPMS

Since the topic of my thesis regards the contingent factors that may affect the implementation process of SPMS, in this section I am going to review previous research that has analyzed the implementation processes of management innovations from different perspectives. First, I am going to introduce factors and process research and their view on contingency approach in MACS implementation. Later, since the implementation of a new management system involves change processes, I am going to introduce the Institutionalist framework as an alternative framework to examine the process of change in management accounting.

2.3.1 MACS innovation

Based in Daft (1982), Damanpour and Evan (1984), Zaltman et al. (1973), Damanpour (1991) provides a broad definition of innovation as the "adoption of an internally generated or purchased device, system, policy, program, process, product or services that is new to the adopting organization" (page 556).

Damanpour (1991) distinguishes two types of innovation: administrative and technological. Administrative and technological innovations imply potentially different decision-making processes (Daft 1978), and together they represent changes introduced in a wide range of activities in an organizations. Administrative innovations concern with changes in goals, strategies, control systems and in general are directly related to the organization’s management (Knight 1967, Kimberly and Evanisko 1981, Damanpur and Evan 1984, Damanpur 1991, Gosselin 2007).


According to Gosselin (1997, 2007) MACS innovation refers to the adoption and implementation of an idea or behavior regarding MACS that is new to the organization. Innovativeness is influenced by the propensity of the organization to innovate and its capability to implement innovations.

Ax and Bjornenak (2005) claim that an innovation can be described as the successful introduction into a given social system of ideas that are considered to be new (Bradford 1977) and in particular they show the emblematic case of Tableaux-de-board and BSC as instances of administrative innovation.
In this stream, Abernethy and Bouwens (2005) point out that, MACS being not static in nature (Sulaiman and Mitchell 2005), innovations can be conceptualized as either new systems (e.g. ABC, BSC) or the redesign of an existing system (e.g. integrated and comprehensive performance measurement system, production control system).

Companies implement a MACS innovation for different reasons: in response to the interaction of a wide range of variables (Innes and Mitchell 1990), because it provides quality information for decision makers (Ittner and Larcker 2002, Kaplan 1994, Shank and Govindarajan 1993, Simons, 2000), because it is expected to help managers to understand when their programs are succeeding or failing, because it encourages managers to take initiatives and be accountable and clarifies the process for the expectations and requirement of policy makers (Jimenez-Zarco et al. 2006) or because of rationalization and legitimation purposes (Wickramasinghe and Alawattage, 2007).

The study of adoption and implementation of administrative innovations has been categorized in three main streams (Kwon and Zmud 1987, Cooper and Zmud 1990):

- **Factors research.** It attempts to identify static forces which lead to successful implementation. It focuses upon a variety of individual, organizational and technological forces which are important to the effectiveness of the innovation implementation.

- **Process research.** It focuses on the dynamics of implementation, examining the extent to which success negotiating the stages of implementation is influenced by both contextual and process factors. Some studies that use process approaches have explained the implementation of administrative innovations by studying the interrelationships between process stages and specific factors that may vary across stages. Other studies have emphasized the behavior of multiple stakeholders over time and examine social change activities during the stages of adoption and implementation.

- **Political research.** It recognizes that the vested interests of stakeholders affect implementation efforts and that successful implementation depends upon recognizing and managing this diversity.

In this section 2.3 I will review the prior research on MACS innovation under each of these three streams. Out of this review, and in particular out of the review of the factors and process streams of research, I will engage in an in-depth analysis of a) the factors identified in the literature that can be expected to influence implementation of MACS innovations (sections

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4 See footnotes 1 and 3 in Malmi (1997) for further explications regarding factor, process and political research.
2.3.2 and 2.3.3), and b) the stages of MACS innovation that have been identified in the literature (section 2.5)

### 2.3.2. Factors research on MACS innovation: contingency perspectives

By factors research, I refer to the literature on MACS innovation that attempts to identify static forces which lead to successful implementation of MACS innovations. Factors research focuses upon the variety of individual, organizational, technological, environmental and task factors which are important to the effectiveness of the innovation implementation, even though it does not refer to the dynamic aspects of the implementation of the MACS innovation across a series of sequential stages.

Factors research is often grounded on contingency perspectives. The contingency approach can be traced back to early studies by Burns and Stalker (1961), Perrow (1970), Thompson (1967), Lawrence and Lorsch (1967) Galbraith (1973) which focused on the impact of environment and technology on organizational structure. Contingency perspectives in management accounting emphasize how there is no a universally appropriate accounting system that can be applied equally in all organizations and in all circumstances. Rather, this approach suggests as the peculiar features of an appropriate accounting system depend upon the specific circumstances in which organizations find themselves (Otley 1980). The successful design and implementation of a MCS depends on contingent factors such as organizational structure and size (Ouchi 1977, Bruns and Whaterhouse 1975, Chenhall 2003, 2007), environment, strategy, technology or culture (Chenhall 2003, 2007). Contingency approaches claim that the appropriateness of different MACS depends on the setting of the business or better, by the context where the company operates. These frameworks are hence situated between a universalistic approach and a situation-specific approach (Figure 2.6).\(^5\)

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\(^5\) According to Fisher (1995), the three basic approaches to study the effect of control systems on outcomes (such as performance) are the situation-specific, universalistic and contingency approaches. The first approach claims that the factors affecting each control system decision are unique so general rules and models cannot be applied. As consequence, generalizations are not possible and control systems must be carefully and uniquely aligned with other organizational factors. The rational of the universalistic approach is that optimal control system design holds, in some degree, in all settings and firms. This approach lays at the opposite of the situation specific one. The situation specific model is similar to the contingency approach, but the number of possible combination of contingent factors is much larger. According to Fisher (1995), given the empirical evidence of contingency relationships, the universalistic view does not appear to be a valid description of control systems.
Contingency research on MACS tries to explain the appropriateness of MACS by examining the attributes of design and use of the MACS that better fit the contextual factors within which the organization operates. Firms that reach a fit or congruence between MACS and the contingent factors are then more effective (Otley 1980, Goold and Campbell 1987, Duncan and Moores 1989, Dent 1990, Chapman 1997).

Appendix 1 summarizes extant studies that have taken a factors perspective to analyze to what extent contingent factors influence the implementation of MACS innovation at organizational level (with no reference to the evolution of the implementation across stages). For each study the appendix indicates the research method, the MACS under study, the independent variables (specifying with an asterisk those factors that were found to be statistically significant) and the dependent variables. Factors that have been found statically significant in surveys or metric analysis are marked with an asterisk (*). Variables reported in this appendix follow authors’ usage in designating “what the study is about”. In consequence, some authors emphasize the theoretical construct more, while others emphasize the measured variable more.

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**Figure 2.6** Basic approach to study the effect of MACS on outcomes

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6 Luft and Shields (2007) in their theoretical maps use a similar approach.

7 Constructs are used to refer to theoretical variable, while measures are used to refer to operational variables (Kerlinger 1986)
Appendix 2 delves into the content of appendix 1 classifying the independent variables in behavioral, organizational, technological, task characteristics and environmental classes. This kind of taxonomy in broad factors has its origin in Anderson (1995), but it was designed on the Rogers’ (1983) model of organizational change and innovation where manager's consideration of an innovation is motivated or constrained by some factors, specifically circumstances in the firm’s external and internal environments and by characteristics of the individual. Kwon and Zmud (1987) complete this vision claiming that IT implementation is a function of five factors: the individuals involved, the organization’s structure, the task, the technology employed and the external environment. A well established classification of factor comes by Anderson (1995) and Anderson and Young (1999) who label these groups as individual characteristics, organizational factors, task characteristics, technological factors, and external environment. Other authors (e.g. Foster and Swenson 1997, Innes and Mitchell1995) do not group factors under those classes, while some researcher uses different classifications. For example, Chenhall (2004)\(^8\) claims that for ease of exposition, the term “behavioral” is used to cover both implementation factors that focus on individuals, and factors that may more accurately be described as organizational.

In order to bypass this problem while maintaining a homogeneous point of view in the analysis, I start from the initial classification of Anderson and Young (1999, grouping the variables as follows:

- **Individual characteristics** are related to procedures and processes that deal with people issues (Chenhall 2004) e.g. education, disposed to change, individual background, informal support, individual attitudes, and more in general, people interrelationships issue.

- **Organizational factors** are related to the impact that structures and systems have on activities within organizations, e.g. firm size, formalization, training investments, centralization.

- **Task characteristics** are related to factors which address the work to which the innovation is applied (Kallunki and Silvola 2008) e.g. worker autonomy and responsibility, uncertainty or lack of goal clarity of the task.

- **Technological factors** are related to practical knowledge of applying the conceptual design of a management innovation within an organizational context (Liu and Pan 2007). Cavalluzzo and Ittner (2004) define technological issues as the ability of an existing information system to provide required data and appropriate measures; e.g. complexity for users, information quality, compatibility with existing systems.

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\(^8\) Chenhall (2004), footnote page 21
• **External environment factors** are related to the demands on the organization by external forces (Krumwiede 1998), e.g. heterogeneity of demand, competition, environmental uncertainty.

### 2.3.3 Process research on MACS innovation: a dynamic view on contingent factors

*Process research* on MACS innovation focuses on the dynamics of implementation of MACS innovation, establishing a differentiation between stages of implementation and then examining the extent to which success negotiating the stages of implementation is influenced by both contextual (internal and external) and process factors. Appendix 3 reviews the extant accounting studies that have used process approaches to explain the implementation of MACS innovations by studying the interrelationships between process stages and specific factors that may vary across stages.

There is evidence in the literature that these characteristics may produce diverse effects in and across the different implementation stages (Anderson 1995, Gosselin 1997, Krumwiede 1998, Cooper and Zmud 1990, De Waal 2003). Although a stage can be necessary in order to attain the following stage, factors affecting the first stage may actually have the opposite effect upon the subsequent one (Tornatzky and Klein 1982, Krumwiede 1998). To this purpose McGowan (1998) highlights that the impact of management innovation implementation varies across implementation sites, due for example to variation on the nature of the procedure undertaken.

For each study, appendix 3 summarizes the research method, the MACS under study, the independent variables and the stages of the implementation model captured by the dependent variable. Factors that have been found statically significant in surveys or metric analysis are marked with an asterisk (*). Variables reported in appendix 3 follow authors’ usage in designating “what the study is about.” In consequence, some authors emphasize the theoretical construct, while others emphasize the measured variable. Appendix 4 reports, at the organizational level, all the significant dependent variables found in the literature grouping according to the classification of factors in five groups (i.e. individual, organizational, task characteristics, technology, and environmental) as proposed by Anderson (1995) and Anderson and Young’s (1999).

### 2.3.4 Summary of findings from factors and process research

Analyzing previous sections it appears that two different periods of analysis emerge in management accounting research implementation, coinciding with the transaction from a technological to a behavioral perspective (Shields 1995).
In a first period many authors (e.g. Cooper 1990, Morrow and Connelly 1994, Krumwiede 1998) put their attention on technological factors, treating the introduction of management innovation as a technological innovation and not as an administrative innovation.

In a second period, Shields (1995) notes that attending only to the technological aspects of management innovations is not sufficient to achieve a better understanding of the successful implementation of ABC systems. Hence, behavioral factors become more important (e.g. Anderson 1995, Shields 1995, Foster and Swenson 1997, Malmi 1997, McGowan and Klammer 1997, Krumwiede 1998, Anderson and Young 1999, De Waal 2003) considering that the successful adoption of MACS depends, for instance, on the acceptance and use of such systems by users, on the involvement and commitment of management in during the implementation process and other non-technological variables (e.g. Schultz and Slevin 1975, Leonard-Barton 1988, Anderson 1995, De Waal 2003).

Anderson and Young (1989) and Shields (1995) highlight the extent to which attending only the technological aspects to the implementation process of management accounting control systems is not sufficient to explain properly this complex process. Rather, behavioral and organizational factors, used in concert, may be a powerful and coherent package to indicate individuals that the innovation information is important to their own and their firm’s success.

The analysis of the literature highlights that non-technological factor such as the ones studied by Shields (1995) (e.g. top management support, consensus on objectives, adequacy of resources, linkage to performance evaluation and compensation and training) can have a centrality in many studies on ABC implementation being considered as “basic factors” in subsequent research (e.g. Krumwiede 1998, Foster and Swenson 1997, McGowan and Klammer 1997, Anderson and Young 1999, Chenhall 2004, Liu and Pan 2007).

As derived from the appendixes 1 and 2, contingency variables that have been examined in factors and process research literature on MACS can be summarized as follows:

- **Individual factors**: disposition to change, production process knowledge, management involvement, job tenure, culture, informal support, managers’ understanding of MACS

- **Organizational factors**: functional differentiation, centralization, formalization, formal support, management support, internal communications, extrinsic reward system, training (in design, use and implementation), internal communication, administrative intensity, number of current primary applications, average years of primary applications, clarity of the objectives, objectives understood, competitive strategy link,
non-accounting ownership, stand alone system, relationships/cooperation across departments, organizational size (measured in different ways, e.g. number of employees, revenue), perceived importance of the plant to the company, organizational culture, life cycle stage, stock market listing, venture capital investors, benefits arising from implementation, industry.

- **Technological factors:** complexity for users, compatibility with existing systems/integration with other IT, relative improvements over existing system, relevance to managers' decisions and compatibility with decision strategy, canned and custom software, information (accuracy, accessibility, reliability, quality, understanding, timeliness), control over related procedures, ability to accomplish task quickly, support in critical aspect, increase job productivity, job performance increase, decision usefulness, quality decision, degree of total quality management implementation, linkage to Quality Initiative, difficulties in selecting and weighing KPI, difficulties in design and maintaining IS and software.

- **Task characteristics:** worker autonomy, worker responsibility, resource adequacy, availability of software, product complexity, task significance.

- **Environmental factors:** Heterogeneity of demands, competition, environmental uncertainty, external communication, team cohesion, union support.

Also as derived from the appendixes 1 and 2 variables that have been found to be statistically significant include:

- **Individual factors:** Disposition to change, role involvement, culture, professionalism, commitment

- **Organizational factors:** functional differentiation, centralization, formalization, vertical differentiation, formal support, management support, internal communications, extrinsic reward system, training investment, specialization, administrative intensity, number of current primary applications, average years of primary applications, consensus of objectives, non-accounting ownership, clearly of objectives, relationships/cooperation across departments, organizational size, organizational culture, life cycle stage, benefits arising from implementation, industry, presence of CRO and big 4 auditors in the organization
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

• **Technological factors:** compatibility with existing systems/integration with other IT, relative improvements over existing system, information (accuracy, reliability, quality, timeliness), control over related procedures, ability to accomplish task quickly, support in critical aspect, more work accomplish than under the old system, effectiveness on the job, decision usefulness, quality decision, waste decision, innovation, degree of total quality management implementation, linkage to Quality Initiative

• **Task characteristics:** variety, resource adequacy, product complexity, task significance

• **Environmental factors:** heterogeneity of demands, external communication (external consultants), conflict resolution, team cohesion, trade union support

Then, according to the literature review, the factors that appear to be the most crucial in the implementation process can be summarized as follows:

• **Individual factors:** disposition to change, culture, commitment

• **Organizational factors:** top management support, internal communication, extrinsic reward system, training, number of current primary application, consensus on objectives, non accounting ownership, organizational size

• **Technical factors:** information accuracy, information quality, usefulness of decision, waste reduction, linkage to quality initiative

• **Task characteristics:** resource adequacy

• **Environmental factors:**

2.4 Political research on MACS innovation: the Institutionalist approach

Political research on MACS innovation is often grounded on institutionalist, radical or critical perspectives and it recognizes that the vested interests of stakeholders affect the efforts of implementation of MACS innovation and that successful implementation depends upon recognizing and managing this diversity.

According to this perspective, “accounting innovation diffuses because it translates the changing and transitory interests of various groups of actors who are looking for to maintain their position and influence within organization and society”. This vision is based on a hidden

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9 I have considered as most crucial those factors found statistically significant at least in two of the reviewed studies.
struggle power, using accounting innovations to manipulate the reality and serving the particular interests of the actors (Alcouffe et al. 2008, page 2).


Old Institutional theory-based MACS research has been particularly interested in understanding the process through which MACS emerge and change through time (Scapens 1984, Amhed and Scapens 1991, Amhed 1992, Scapens 1994, Bogt and Helden 2000, Burns and Scapens 2000, Wickramasinghe and Alawattage 2007). Within this stream, Scott (1995) argues that there is no universal definition of institution, Burns and Scapens (2000) cite Hamilton (1932, page 84) and provide the following definition: "a way of thought or action of some prevalence, which is embedded in the habits of a group or the customs of a people". Institutions can be regarded as imposing form and social coherence upon human activity. Di Maggio and Powell (1991, page 51) define institutions as "the explication of the collective behavior, an aggregation of individual actions that generates socially-generated rules where habits and customs are very important". Veblen (1994, page 67) defines institutions in a similar way "settled habits of thought common to the generality of men". Wickramasinghe and Alawattage (2007, 47) describe institutions as the "socio-political and cultural practices which produce legitimacy (meanings and rules) for the conduct of organizations and the existence of management account therein". I want to conclude this list of definition with Bogt and Helden (2000, page 270), they claim that "institutions shape and give coherence to human actions. However an institution develops when a particular human action become habitual....so it is the outcome of human actions".

This process of duality has been drown on Giddens' (1984) structuration theory regarding the relationship between the actions of knowledgeable human actors and the structuring of social systems. For Giddens there are systems and structures. Systems comprise discernibly similar social practices which are reproduced across time and space through human actions, structures bind social practices into systems (Roberts and Scapens 1985, Machintosh and Scapens 1990, Burns and Scapens 2000).

Scapens (1994) identifies three properties of institutions. First, they are formed by habitual behavior of people that can be independent to the simple economic reasoning. Second, economic behavior cannot be reduced just to economical term, but it comprises a social
dimension, the institutions. Third, economic behavior is not in a static equilibrium, but rather can be constructed thought the dynamics of institutions and this helps to understand changes in MACS (Wickramasinghe and Alawattage 2007).

The new institutionalism is based on new institutional sociology (NIS), it tries to link external factors to internal processes (Scott and Meyer 1994, Selzenick 1996, Bhimani 2007 and Hussain and Hoque (2002) point out as the new institutionalism is focused on both exogenous and endogenous factors. Institutions in this framework have been defined as socio-political and cultural practices which produce legitimacy (meanings and rules) for the conduct of organizations and the existence of management accounting therein (Wickramasinghe and Alawattage 2007). The institutions emerge from the institutional environment (e.g. cultural, legal, professional) and according to and Berger and Luckman (1967), Weber (1968), Meyer and Rowan (1977) and Scott (2001) the basic elements of institutions are: normative, regulative and cognitive-cultural (Wickramasinghe and Alawattage 2007).

The normative elements create rules that prescribe goals and means that must be followed by members of the organization. For example, a SPMS model provides rules that prescribes goals and means for measuring and implementing such system; then managers believe that these systems can provide effective solutions to their problems, consequently, this social belief legitimizes the existence of such SPMS. The regulative element emphasizes rules, regulations and prescribes sanctions, for instance if the Government of a Country requests to adhere to determined rules for regulating industries, affecting performance measurement and management. The cognitive-cultural element constructs common beliefs that are hidden logic of human nature. For example, when an organization, in order to improve its financial performance, just imitates the major players in the market. As Malmi (2001) notices, under such circumstances the MACS of the firm becomes fad, fashion and not appropriate (Wickramasinghe and Alawattage 2007), but under certain environmental uncertainty conditions mimesis can be considered as a valid alternative (Selznick 1996).

The new institutionalism uses a social institution level, while the old institutionalism is more focused on an organizational level of analysis. Scapens (2000) points out as the new institutionalism is oriented to a static vision of institutions, while the old institutionalism is more focused on the active role of institutions, explaining as the process of moving from one equilibrium state to another determines the process of change. Institutions influence different aspects of MACS, but at the same time they influence each other (Bhimani 2007).
2.4.1 Management accounting change

The Institutionalist approach is a framework that has been often used for conceptualizing the management accounting change process (e.g. Burns and Scapens 2000, Burns and Vaivio 2001, Scapens and Jazayeri 2003, Quattrone and Hopper 2005, Tsamenyi 2006). Starting from the end of eighties, its practices have been adopted to provide an understanding of accounting choices and behaviors because of its focus is on both exogenous and endogenous factors and because it can reflect social relations.

The Institutionalist approach requires a good understanding of the current context of the organization, especially its routines and its institutions and it can be examined by exploring how human interactions operate. This involves much more than knowledge of formal systems, it requires an understanding of the habits of organizational members (Abernethy and Chua 1996, Brignall and Modell 2000, Burns and Scapens 2000, Collier 2001, Covaleski and Dirsmith 1988, Dambrin et al. 2007, Di Maggio and Powell 1991, Granlund and Lukka 1998, Modell 2001, Hussain and Hoque 2002). Organizational change is a process of changing believes and behaviors of individuals and the knowledge of its three fundamental elements is important, these elements are rules, routines, and actions.

Rules can be defined as “the formally recognized way in which things should be done” (Burns and Scapens 2000 page 6), and they are necessary to coordinate and give coherence to the actions of groups of individuals. By repeating the same rules, individual behaviors become programmatic and tacit knowledge increases. Formal accounting procedures are an example of important rules of an organization. Similarly, routines can be defined as “the way in which things are actually done” (Burns and Scapens 2000 page 6). They can change at any time as a result of modifications in the organization and in its environment. People normally develop routines from their actions. The actions come from institutions, and in turn, actions develop institutions. Along this process of duality, before actions become permanent institutions, people develop routines and the starting point to do that is to follow rules (Wickramasinghe and Alawattage 2007).

Burns and Vaivio (2001) notice that management accounting change is rarely a consensual, neutral activity, that power is involved, that interests coincide but also collide and alliances take shape. A change in the accounting and control systems can potentially modify the distribution of power in the organization creating, for example, contestations, or more in general resistance (e.g. Hopwood 1983, 1986, Markus and Pfeffer 1983, Knights and Collinson

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10 Connections with changes and NIS are really strong
1987, Scapens and Roberts 1993, Malmi 1997). Those barriers to change may be caused from the defensive routines that individuals trigger to protect themselves from experiencing embarrassment and threat from new ideas, therefore management accounting implementation techniques (e.g. Argyris 1990, Argyris and Kaplan 1994) and this situation could create some problems since the successful implementation depends on acceptance of the systems by the users (Leonard-Barton 1988). As Anderson (1991) suggests, the conclusion may be that a bias for change must be accompanied by a willingness to persuade others of the merit of change. The concept of change can be pondered along a fundamental dimension: when change has a shattering impact within the organization it is a disruptive, revolutionary phenomenon, by contrast, when its effect is incremental it is evolutionary (Burns and Vaivio 2001).

The patterns by which change develops can be interpreted according to two different views that follow two opposite logics: managed and formal change versus unmanaged and informal change (Burns and Vaivio 2001). According to the first view, change becomes something that has been predetermined and designed by organizational authors; it is actively steered towards an objective, away from potential obstacles. In the second view changes are not planned and formal, rather are subject to random influences (informal elements). Changes pressure are incidental and gradually and can happen by unexpected crisis that can redefine the routine system inside the organization. (Burns and Vaivio 2001). According to this second view, change in management accounting is not a conscious, planned, regulated and rationally executed part of reality. Organizations are subject to random influences and change takes them unprepared.

Nelson (1995) propones a different model of change, claiming that management accounting change requires a good understanding of organization’s management accounting practices and in particular the process of desired change that takes place over time. This process of change comprises random elements, systematic mechanisms and inertial forces which provide continuity over time. He affirms that the process of change happens by a combination of random, systematic and inertial forces which together create the context out of which new practice emerge.

Concluding, in a new-institutionalist framework, the development and change process of management accounting practices is studied as part of unified social system where economical, political and social factors (human interactions) surrounding the development and functioning of MACS.
2.4.2 Conclusions

The study of adoption and implementation on administrative innovations has been categorized in three main streams that I have adapted in order to organize the literature on implementation of MACS innovations:

- **Factors research.** Grounded on contingency approaches, it attempts to identify static forces which lead to successful implementation of MACS innovations. It focuses upon a variety of individual, organizational and technological forces which are important to the effectiveness of the innovation implementation, even though it does not refer to the dynamic aspects of the implementation of the MACS innovation across a series of sequential stages.

- **Process research.** It focuses on the dynamics of implementation of MACS innovation, examining the extent to which success negotiating the stages of implementation is influenced by both contextual (internal and external) and process factors.

- **Political research.** Often grounded on institutionalist, radical or critical perspectives, it recognizes that the vested interests of stakeholders affect the efforts of implementation of MACS innovation and that successful implementation depends upon recognizing and managing this diversity.

2.5 A review of models of stages of implementation

In this section, I am going to circumscribe my literature review to process-based studies in order to examine the most relevant models that have been proposed in order to characterize the different stages of implementation processes. This review summarizes and discusses the enumeration of implementation stages reported in column 5 of appendix 3.

I am going to start considering the model of Cooper and Zmud (1990), a general pattern valid to every management innovation. Next in this section, I am going to analyze different specific models of implementation for management accounting innovations, The models described in the management accounting literature refer primarily to ABC (i.e. Krumwiede 1998) and to BSC (i.e. Chen et al. 2006 and Fernandes et al. 2006). I selected only these four models out of the list of models reported in appendix 3 because some of the studies used a model proposed
in a prior study, so there was nothing new there (for instance Anderson, 1995 uses the segmentation model developed by Cooper and Zmud, 1990).

Noticeably, none of the studies which I am going to review here provides an explicit definition of implementation stage. In spite of this, Anderson (1995) claims that the implementation process is composed of sequential stages, and I am going to define the implementation stage as a specific identifiable position in a continuum in an implementation process, where according to Burns and Scapens (2000, pag 17, note 14) the term continuity “should not be interpreted as a static state, but rather the continuity of ongoing, cumulative process over time”.

According to McGoowan and Klammer (1997) the implementation studies may be addressed following two levels of analysis: an organizational approach and an individual approach. The first approach, called macro-level, emphasizes the user as a group or subsystem of the organization and putting importance in planning and developing to achieve organization’s objectives (for instance Malmi 1997 and De Waal 2003); while, the second, called micro-level, traces the innovation process from the user’s awareness of a need or opportunity for change to the incorporation of the innovation in the user’s behavioral repertoire (Beyer and Trice1978, Nord and Tucker 1987, Tornatzky and Fleicher 1990) for example the investigations of Anderson 1995, Krumwiede 1998, Chen et al. 2006, Fernandes et al. 2006 follow the micro level approach). In management accounting research most of the studies adopts this last level, then in this thesis I am going to do the same following the micro-level approach.

2.5.1. Cooper and Zmud (1990)

Cooper and Zmud (1990) develop the implementation model of Kwon and Zmud (1987) examining the influence of contingency factors (e.g. accuracy of data, task variety) on stages. Even if their investigation refers to MRP it has significantly influenced the study of accounting and MACS innovations (e.g. Anderson 1995, Krumwiede 1998).

Cooper and Zmud’s model is composed of six stages: initiation, adoption, adaptation, acceptance, routinization and infusion. During the initiation stage the firm receives pressures to change from either organizational need, technological innovation or both (stage Cooper and Zmud 1, cz1). In the adoption process rational and political negotiations ensue to implement the information technology (IT) application (stage cz2); while in the adaptation stage the IT application is already developed, installed and maintained. Organization procedures are revised and tailored-made for firm’s needs (stage cz3).
During *acceptance* the organizational members are induced to use IT application (stage cz4), while within *routinization*, the usage of IT applications is encouraged as a normal activity (stage cz5) and in the last stage, *infusion*, the organizational effectiveness is obtained by using the IT application in a more comprehensive and integrated manner to support higher level aspects of organizational work (stage cz6) (figure 2.7).

![Cooper and Zmud's (1990) implementation model of IT](image)

Figure 2.7 Cooper and Zmud’s (1990) implementation model of IT
2.5.2 Krumwiede (1998)

Krumwiede (1998) investigates how organizational and technological factors affect the implementation stages of ABC. He expands the former segmentation model of Cooper and Zmud (1990) developing a new pattern in order to capture other specific aspects of the implementation determinants.

Krumwiede’s model is composed of ten implementation stages. During the first stage the implementation process of ABC has not been seriously considered (stage k1); in the following, the ABC is being considered, but it has not been approved (stage k2). Or at the same time the firm has considered the implementation, rejecting this option (stage k3).

In the fourth stage the implementation has been approved (stage k4) while in the following step data is collected to analyze activities and cost drivers (stage k5) even though after ABC information is not yet used outside of the accounting department for making decisions (stage k6).

In the seventh stage the ABC is initially implemented, even though it is subsequently abandoned (stage k7). Alternatively, ABC may be accepted and occasionally used by non accounting upper management or departments for making decisions, but it is still considered a project (stage k8).

Only in the ninth stage the ABC is routinized and commonly used by non accounting managers and departments for taking decisions being considered as an usual part of the IT system (stage k9). Finally, in the last stage of the pattern the implementation process is successfully attained and the ABC becomes an integrated system and it is used extensively in everyday activities (stage k10) as depicted in figure 2.8.
Krumwiede (1998) extends the implementation model as developed by Cooper and Zmud (1990) emphasizing some nuances and expanding the number of stages (ten instead of six).

Hence, Krumwiede decomposes the first stage of the Cooper and Zmud’s implementation model, “iniziation” (cz1) into 3 stages “not considered”, “considering” and “considered then rejected” (respectively k1, k2 and k3), maintaining similar k4 and cz2. Proceeding, Krumwiede decomposes the third stage of the Cooper and Zmud’s model, “adaptation” (cz3) in two three steps, “analysis”, “getting acceptance” and “implemented then abandoned” (respectively k5, k6, k7).
The other stages are similar in the two models. Cooper and Zmud’s fourth stage “acceptance” (cz4) is equivalent to “acceptance” (k8) (the name of the steps is exactly the same for the the two models), the fifth stage “routinization” (cz5) is transformed by Krumwiede into “routine system” (k9) and finally, the last stage of the Cooper and Zmud’s pattern “infusion” (cz6) becomes “integrated system” (k10) as depicted by table 2.1.

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<td>3</td>
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<td>Approved for</td>
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<td>3  Adaptation</td>
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<td>Analysis</td>
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<td></td>
<td>7</td>
<td>Implemented then</td>
</tr>
<tr>
<td></td>
<td></td>
<td>abandoned</td>
</tr>
<tr>
<td>4  Acceptance</td>
<td>8</td>
<td>Acceptance</td>
</tr>
<tr>
<td>5  Routinization</td>
<td>9</td>
<td>Routine system</td>
</tr>
<tr>
<td>6  Infusion</td>
<td>10</td>
<td>Integrated system</td>
</tr>
</tbody>
</table>

Table 2.1 Cooper and Zmud (1990) and Krumwiede (1998) - a comparison

2.5.3 Chen et al. (2006)

Chen et al. (2006) examine the factors that influence the implementation of one specific type of SPMS (i.e. the BSC) and investigate whether those factors vary across the implementation stages.
They divide the implementation process into 25 stages, strongly grounded in the BSC and grouped into four macro-stages: non-considered, considering, considered than rejected and approved for the implementation.

In the first stage, non-considered, the BSC has not been seriously valued, while in the second step considering (cdl 2), the BSC is being considered and implementation is possible, but implementation has not been approved, in stage 3 considered than rejected (satge cdl 3), the BSC is being considered but was later rejected. Stage 4, approved for implementation (stage cdl 4) reflects the progression from the project and design stages to the implementation. It is composed on 22 stages: develop objectives for BSC (stage cdl 4.1), determine the appropriate organizational unit (stage cdl 4.2), gain executive sponsorship (stage cdl 4.3), build BSC team (stage cdl 4.4), formulate a project plan (stage cdl 4.5), develop a communication plan (stage cdl 4.6), gather and distribute background (stage cdl 4.7), develop or confirm mission, values, vision and strategies (stage cdl 4.8), conduct executive interviews (stage cdl 4.9), develop objective and measures, (stage cdl 4.10) develop cause-and-effect linkages, (stage cdl 4.11), establish targets for measures, (stage cdl 4.12), develop the ongoing BSC implementation plan, (stage cdl 4.13), complete de BSC implementation plan (cdl 4.14), implement then abandon BSC, (stage cdl 4.15), communicate with employees and start employee training, (stage cdl 4.16), build consensus around strategies objectives at the employee level, (stage cdl 4.17), cascade BSC at all levels of the company, (stage cdl 4.18), assist the development of personal BSC to align with company’s strategies, (stage cdl 4.19), link BSC to budgets, (stage cdl 4.20), link BSC to performance measurement system, (stage cdl 4.21), continually update BSC (stage cdl 4.22).

The segmentation model developed by Chen et al. (2006) is appealing at the first sight because of its granularity, however, the use of this pattern become impractical for empirical purposes for the very same reason (for instance the risk of too low sample size per stage and difficulties interpreting data). Table 2.2 depicts the Chen et al.’s (2006) implementation model.
Chen et al. (2006)

<table>
<thead>
<tr>
<th>Cdl 1</th>
<th>Not considered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cdl 2</td>
<td>Considering</td>
</tr>
<tr>
<td>Cdl 3</td>
<td>Considered that rejected</td>
</tr>
<tr>
<td>Cdl 4</td>
<td>Approved for implementation</td>
</tr>
</tbody>
</table>

- Cdl 4.1 Develop objectives for BSC
- Cdl 4.2 Determine the appropriate organizational unit
- Cdl 4.3 Gain executive sponsorship
- Cdl 4.4 Build BSC team
- Cdl 4.5 Formulate a project plan
- Cdl 4.6 Develop a communication plan
- Cdl 4.7 Gather and distribute background
- Cdl 4.8 Develop or confirm mission, values, vision ans strategies
- Cdl 4.9 Conduct executive interviews
- Cdl 4.10 Develop objectives and measures
- Cdl 4.11 Develop cause-and-effect linkages
- Cdl 4.12 Establish target for measures
- Cdl 4.13 Develop the ongoing BSC implementation plan
- Cdl 4.14 Complete the BSC implementation plan
- Cdl 4.15 Implement than abandon BSC
- Cdl 4.16 Communicate with employee training
- Cdl 4.17 Build consensus around strategies objectives at the employees level
- Cdl 4.18 Cascade BSC at all levels of the company
- Cdl 4.19 Assist the development of personal BSC to align with company’s strategy
- Cdl 4.20 Link BSC to budgets
- Cdl 4.21 Link BSC to performance measurement systems
- Cdl 4.22 Continually update BSC

Table 2.2 Chen et al. (2006) The implementation model of the BSC
2.5.4 Fernandes et al. (2006)

Fernandes et al. (2006) develop an implementation model for BSC focusing on strategic directions. Their implementation model is based on 8 stages: project initiation, strategy clarification, strategy analysis, KPI analysis, measurement analysis, strategy initiation, implementation plan and formal review. The stages are designed to be modular, yet sequential so an organization can choose to start at different levels and proceed at varying paces depending on its readiness, needs and requirements.

During the first stage, “project initiation” (frw1) a team of management is responsible of the design and plan of the BSC implementation. Communication is crucial to gain the trust and confidence of employees and management.

In the second and third stages, respectively “strategy clarification” (frw2) and “strategy analysis” (frw3), the organization defines its mission and vision identifying and prioritizing strategic objectives. During the fourth and the fifth steps, respectively “KPI analysis” (frw4) and “measurement analysis” (frw5) concern KPI. In the first stage the company selects the BSC’s KPI, while in the second the selected KPI are measured and monitored.

Later, in stage six “strategy initiation” (frw6) the organization develops detailed analysis of the BSC deriving a plan for attaining the company’s targets coming from former phases. Stage seven, the “implementation plan”(frw7) is jointed when management is satisfied of analysis conducted and agrees to start the implementation of BSC. Finally, the last step of the model refers to the “formal review” (stage frw8) where every part of this process is revised both internally (as a part of the internal audit process) and externally (by consultants) (figure 2.9).
2.5.5 Model stages of implementation: a comparison

This section compares the implementation models proposed by Cooper and Zmud (1990), Krumwiede (1998), Chen et al. (2006) and Fernandes et al. (2006) highlighting the correspondences of stages among the four models. The four studies show a first phase of project initiation, followed by a main phase of adoption, and a concluding phase of implementation.
The models of Krumwiede (1998), Chen et al. (2006) and Fernandes et al. (2006) put emphasis to the post-adoption stage (corresponding to "adaptation" in Cooper and Zmud's model). Krumwiede decomposes this phases in 2 stages (K5 Analysis and K6 Getting acceptance), Fernandes et al. (2006) in 6 (Frw2 Strategy clarification, Frw3 Strategy analysis, Frw4 KPI analysis, Frw5 Measurement analysis, Frw6 Strategy initiation, Frw7 Implementation plan) and Chen et al. (2006) in 17 steps: develop objectives for BSC (cdk 4.1), determine the appropriate organizational unit (cdl 4.2), gain executive sponsorship (cdl 4.3), build BSC team (cdl 4.4), formulate a project plan (cdl 4.5), develop a communication plan (cdl 4.6), gather and distribute background (cdl 4.7), develop or confirm mission, values, vision and strategies (cdl 4.8), conduct executive interviews (cdl 4.9), develop objective and measures, (cdl 4.10) develop cause-and-effect linkages, (cdl 4.11), establish targets for measures, (cdl 4.12), develop the ongoing BSC implementation plan, (cdl 4.13), complete de BSC implementation plan (4.14), implement then abandon BSC, (cdl 4.15), communicate with employees and start employee training, (cdl 4.16), build consensus around strategies objectives at the employee level, (cdl 4.17).

Cooper and Zmud’s (1989) and Fernandes et al. (2006) neglect the case of rejection or abandon of the implementation procedures. Conversely, Krumwiede (1998) dedicates space to these options as consequence of the high level of implementation failures reported in the literature and Chen et al. (2006) offer two stages to refusal and abandon of the BSC, a first at the beginning of the process (Cdl 3 Considered that rejected), when the implementation of the BSC is just a project and the second step after the adoption (Cdl 4.15 implemented that abandoned).

Table 2.3 depicts and compares the progression of stages along the implementation process taking as starting point for the comparison the model of Cooper and Zmud (1989) since this model, being composed of only 6 stages, makes it easier any comparison to the other models. The boxes colored in blue (from light to obscure blue) indicate, for each stage of Cooper and Zmud’s (1989) model, the corresponding stage or group of stages in the models of Krumwiede (1998), Chen et al. (2006), Fernandes et al. (2006).

For instance, in box 1 (lighter blue) the stage Cz1 initiation, in the Cooper and Zmud’s (1990) model corresponds in the pattern of Krumwiede (1998) to stages K1 not considered, K2 considered and K3 considered then rejected; while in the segmentation model proposed by Chen et al. (2006) Cz1 corresponds to Cdl1 not considered, Cdl2 considering and Cdl3 considered that rejected while in Fernandes et al. (2006) cz1, initiation, corresponds to frw1 project initiation. The same applies to box 2 where the stage Cz2, adoption, corresponds to K4 approved for implementation.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

---|---|---|---

**Box 1**

<table>
<thead>
<tr>
<th>Cz1 Initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1 Not considered</td>
</tr>
<tr>
<td>K2 Considered</td>
</tr>
<tr>
<td>K3 Considered than rejected</td>
</tr>
<tr>
<td>Cdl1 Not considered</td>
</tr>
<tr>
<td>Cdl2 Considering</td>
</tr>
<tr>
<td>Cdl3 Considered than rejected</td>
</tr>
<tr>
<td>Frw1 Project initiation</td>
</tr>
</tbody>
</table>

**Box 2**

<table>
<thead>
<tr>
<th>Cz2 Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>K4 Approved for implementation</td>
</tr>
<tr>
<td>none</td>
</tr>
<tr>
<td>none</td>
</tr>
</tbody>
</table>

**Box 3**

<table>
<thead>
<tr>
<th>Cz3 Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td>K5 Analysis</td>
</tr>
<tr>
<td>Cdl4.1 Develop objectives for BSC</td>
</tr>
<tr>
<td>Cdl4.2 Determine the appropriate organizational unit</td>
</tr>
<tr>
<td>Cdl4.3 Gain executive sponsorship</td>
</tr>
<tr>
<td>Cdl4.4 Build BSC team</td>
</tr>
<tr>
<td>Cdl4.5 Formulate a project plan</td>
</tr>
<tr>
<td>Cdl4.6 Develop a communication plan</td>
</tr>
<tr>
<td>Cdl4.7 Gather and distribute background</td>
</tr>
<tr>
<td>Cdl4.8 Develop and confirm mission, values, visions and strategies</td>
</tr>
<tr>
<td>Cdl4.9 Conduct executive interviews</td>
</tr>
<tr>
<td>Cdl4.10 Develop objectives and measures</td>
</tr>
<tr>
<td>Frw2 Strategy clarification</td>
</tr>
<tr>
<td>Frw3 Strategy analysis</td>
</tr>
<tr>
<td>Frw4 KPI analysis</td>
</tr>
<tr>
<td>Frw5 Measurement analysis</td>
</tr>
<tr>
<td>Frw6 Strategy initiation</td>
</tr>
<tr>
<td>Frw7 Implementation plan</td>
</tr>
</tbody>
</table>

Table 2.3 continues below
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cz3 Adaptation</td>
<td></td>
<td>Cdl4.11 Develop cause-and-effect linkages</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cdl4.12 Establish targets for measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cdl4.13 Develop the ongoing BSC implementation plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cdl4.14 Complete the BSC implementation plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cdl4.15 Implement and abandon BSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cdl4.16 Communicate with employee training</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cdl4.17 Build consensus around strategies objectives at the employees level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>K6 Getting acceptance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>K7 Implemented and abandoned</td>
<td></td>
<td></td>
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</tbody>
</table>

**Box 4**

<table>
<thead>
<tr>
<th>Cz4 Acceptance</th>
<th>K8 Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cdl4.18 Cascade BSC at all levels of the company</td>
</tr>
<tr>
<td></td>
<td>Cdl4.19 Assist the development of personal BSC to align with company’s strategy</td>
</tr>
<tr>
<td></td>
<td>Cdl4.20 Link BSC to budgets</td>
</tr>
</tbody>
</table>

*Table 2.3 continues below*
The purpose of this first chapter was to provide a literature review of previous research, relevant for the study of processes of implementation of SPMS and the factors that can affect such processes.

Considering the plethora of definitions of MACS exiting, I have decided to adopt the definition of MACS “the procedures and processes that managers and other organizational participants use in order to help ensure the achievement of their goals and the goals of their organizations (Otley and Berry, 1994), and it encompasses formal control systems as well as informal personal and social controls (Chiapello, 1996; Otley, 1980; Ouchi, 1977)” (Bisbe and Otley, 2004, 709)

SPMS are a subset of MACS designed to present different financial and non-financial measures covering different perspectives which, in combination, provide a way of translating long term strategy into a coherent set of performance measures linked by potential cause and effect

The contingency approach is the analytical framework in which this thesis is inserted. Contingency approaches suggest that the appropriateness of a given management accounting control system depends upon the specific contingency circumstances in which organizations find themselves (Otley 1980). Assuming the final goal of the firm is obtaining a good performance, the most effective solution should be an appropriate fitting between the contextual contingent variables and the design characteristics of the MACS considering that certain combination are more effective than others.

While the literature review has examined the contributions from factors, process and political research to a better understanding of the implementation of MACS innovations in general and of the implementation of SPMS in particular, this thesis pivots primarily on the insights provided by process research. In accordance with this stream of research, the most significant variables that influence the implementation of MACS across stages can be summarized as follows, confirming the centrality of Shields’ (1995) findings:

- **Individual factors:** disposition to change, culture, commitment
- **Organizational factors:** top management support, internal communication, extrinsic reward system, training, number of current primary application, consensus on objectives, non-accounting ownership, organizational size
- **Technological factors:** information accuracy, information quality, usefulness of decision, waste reduction, linkage to quality initiative
- **Task characteristics:** resource adequacy
- **Environmental factors:**

The studies that have investigated stages of implementation of MACS suggest however that there is evidence indicating that the factors that are more relevant vary across different specific MACS (for example, ABC compared to other systems) and that their influence across stages is also different for the different specific MACS under consideration.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

Chapter 3 Formulation of research questions, theoretical development and formulation of hypotheses

The foregoing chapter 2 offered a review of the extant literature referring to the relationships between contingent variables and implementation models for MACS innovations. Building up deductive developments from the literature review, chapter 3 aims to generate theory that can be subsequently tested. The chapter starts by identifying under-researched topics and gaps in literature and by evoking the generic research questions. Next, sections 3.2; 3.3 and 3.4 develop them and set them in forth in terms of specific testable research propositions that will be subsequently tested.

3.1 Motivations of the study and gaps in prior investigations and research questions

In recent years MACS practices have attracted growing attention in practical and theoretical spheres. Management interest can be gauged from the high levels of attendance at the large number of industrial conferences on the subject. Academic interest is manifest through the considerable number of papers on the topic but this interest is not new. In the late 1970s and 1980s, authors expressed a general dissatisfaction with traditional backward looking accounting based performance measurement systems, identifying their shortcomings and arguing for change. In the late 1980s and early 1990s, this dissatisfaction led to the development of "balanced" or "multi-dimensional" performance measurement frameworks. These new frameworks placed emphasis on nonfinancial, external and future looking performance measures. They were then quickly followed by the development of management processes specifically designed to give practicing managers the tools to develop or redesign their performance measurement system. The result has been the publication of alternative balanced performance measurement frameworks and suggested management processes for the design of performance measurement systems.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

Then, even though many investigations provide the guidelines for the adoption and implementation for MACS the failure rate is high. Fernandes et al. (2006)\(^\text{11}\) report that around 60% of the Fortune 1000 companies of U.S. have either adopted or are familiar with the concept of SPMS nevertheless organizations report difficulties in implementing (Innes and Mitchell 1995, Malmi 1997, Chenhall 2004). According to a research conducted by Lewy (in Pforsich 2005) the overall failure rate of BSC implementation is 70% considering firms that have implemented a SPMS without any benefits and firms that have used it in a discontinuing way. Then why PMS, and moreover SPMS, seem so difficult to implement? Contingency theory suggests that there are several contextual factors that can affect the process of change inside the organization, but which is their relationship on each stage of the implementation model?

The paradox of many guidelines and high failure rates of SPMS can be associated to the fact that research on the implementation process of MACS has given strong emphasis to studies on ABC, while focus on SPMS is still scarce. The literature review has shown that prior investigations are mainly focused on contingency factors across the ABC implementation, while little attention has been given yet to SPMS implementation. While Chenhall (2004, p 39) suggests that the results of his study concerning ABC could be generalizable to other accounting innovations\(^\text{12}\), other studies indicate that SPMS possess specific characteristics and that therefore generalizability between MACS cannot be taken for granted (Maiga and Jacobs 2003). For instance, ABC is an innovation aimed toward an increased in the accuracy of cost measures while SPMS is more oriented to strategy definition and to the interaction among multiple stakeholders, suggesting that factors affecting the implementation may differ according to the MACS design (Maiga and Jacobs 2003). The specificities of SPMS surface in many aspects which, in the setting of contingency theory, point out to gaps in the literature and to the emergence of research questions. The claimed specificities of SPMS are reflected in a number of areas:

- Spencer and Spencer (1993) show that a positive disposition of management to change is crucial for the implementation and use of SPMS because these systems enhance continuous change and their efficiency provides information that triggers a reaction to changes helping the organization to adapt itself to transformations. Nevertheless, Innes and Mitchel (1995) analyzing the implementation process of ABC in 251 American firms

\(^{11}\) Some essays report contrasting rates (e.g. www.2gc.co.uk, www.thepalladiumgroup.com), hence I am unable to determine whether these estimates rates are were developed subjectively or based on underlying performance characteristics.

\(^{12}\) See Chenhall (2004) page 18 and 22 for definitions of SPMS and BSC and page 27 for the definition of ABC
notice that disposition to change, although evident in some companies, does not represent a significant factor across the process of change.

- Meekings (1995) argues that management involvement in implementation processes occurs by increasing inspirations and motivations leading to a general sense of satisfaction, McGowan and Klammer (1997) investigating in the setting of ABC confirm and add that during the evolution of this process managers increase their involvement in shaping the innovation. Nevertheless Hankinson and Lloyd (1995) prove that practices that need high-involvement of management and employees can represent "competence destroying" change making difficult the implementation of new monitoring systems; furthermore, they add that it also has as a negative impact on company’s performances discouraging to continue with change efforts beyond the initial stages.

- Shields (1995) notes that the clarity of the objectives for management is a necessary prerequisite for implementing ABC. In spite of that, some authors are skeptical about the capabilities of goal clarity of firms, questioning the ability of organizations to agree on a strategy in such clear terms that it would enable to implement SPMS (Epstein and Manzoni 1997), while other investigators do not consider this factors as relevant for their researches (e.g. Foster and Swenson 1997, Anderson and Young 1999).

- Prior investigations on financial target based compensation systems highlight at least two main opposite effects of those type of compensation schemes and the implementation of management change. Some authors e.g. Kaplan and Norton (1996), but also Shields (1995), Foster and Swenson (1997) fervently sustained as financial target based compensation schemes have a crucial role in a process of change, highlighting their positive impact on MACS implementation since they directly affect their welfare. Even so, Banker et al. (2004) highlight that there may be little or no linkages and there may be even incongruence between MACS implementation and financial target based compensation systems leading management to sabotage the process of change.

- Kitchen and Daly (2002) and Bouwens and Albernethy (2000) claim that internal communication is a way of avoiding the uncertainty that a process of change can promote. Norreklit (2000) adds that information interdependence among departments are essential for the effective functioning of BCS since internal communication spreads the corporate strategy inside the organization driving information across departments (Kaplan and Norton 1996). Nevertheless, when the elements of MACS are not well designed and effectively communicated within an organization internal communication
appears to worsen the implementation process being as important cause of organizational failures (Umashev and Willet 2008).

- Research on size-innovation issues has yielded mixed results. Gosselin (1997) finds no statistically significant relationship between organizational size and the decision to adopt ABM and ABC. Similarly, Libby and Watherhouse (1996) find no relationship between size and the number of management accounting changes. However, Blau and McKinley (1979) and Tolbert and Zucker (1983) find a positive relationship between these factors, and Zaltman et al. (1973) argue that the organizations more formalized are those better equipped to implement MACS.

- The implementation model of BSC, as developed by Kaplan and Norton (1996b) and regained by Niven (2002), starts by clarifying and translating the vision in strategy transforming them into tangible objectives, while in the second step, managers need determining those specific measures that better attain and link organization goals (in the remaining steps of BSC implementation, managers set targets and budgets and afterwards they receive feedbacks on strategies of the organization by evaluating performance concerning the scorecard measures), but they solely define a mix of leading and lagging indicators, without focusing on the eventual troubles met in their selection. Nevertheless, investigations on human cognitive difficulties (e.g. (Miller 1956, Baddeley 1994) emphasize limits in capabilities in managing and organizing KPI (e.g. Lipe and Salterio 2000, 2002) indicating the presence of some difficulties in selecting indicators across the implementation process of SPMS that affect the beginner stages of the model that is when the organization needs to identify and measure appropriate performance metrics.

Whether these claimed specificities of SPMS hold or not is still largely unresolved. This thesis analyzes aims to contribute to this debate by analyzing the implementation of SPMS in the particular context of the Italian banking sector. To the best of my knowledge, no investigation on this issue has been previously carried out in this particular setting. The banking sector is currently being affected by a financial and economic global crisis which causes volatility, uncertainty and strict controls by national and international surveillance institutes (for instance Bank of Italy and the European Central bank). Moreover, in analyzing the international literature (academic and not) I have found that most of the studies on implementation stages
in managerial accounting have been carried out on U.S. private and public companies, whereas little emphasis has been put on Italian MACS features\textsuperscript{13}.

Then, this study focuses on two specific themes: the patterns of implementation of SPMS and the contingency factors surrounding them. Prior literature provides some proposed patterns (e.g. Anderson 1995, Krumwiede 1998) that theoretically support the implementation model that I am going to develop. The second theme refers to the role of contextual factors across implementation stages. Some specific factors such as management disposition to change, manager involvement, clarity of the objectives, compensation schemes, organization’s size and difficulties in selecting KPI have been proposed in prior literature as relevant factors that influence the advance through the implementation stages of MACS. However, since little attention has been paid yet to the relevance of these factors in the stages of implementation of SPMS in particular, I detect here a gap that deserves further investigation.

Thus, the aim of this thesis is to provide the basis for a more complete study of the SPMS implementation. Using the Italian banking sector as a research site, I aim to provide new insights on the influence of behavioral, organizational and technological factors on the implementation stages of SPMS so that they contribute effectively in everyday activities and to address company decisions. Consequently, my line of research focuses into the behavioral, organizational and technological aspects of SPMS implementation by addressing the following research questions:

- Is there an association between behavioral factors and SPMS implementation stages?
- Is there an association between organizational factors and SPMS implementation stages?
- Is there an association between technological factors and SPMS implementation stages?

### 3.2 The SPMS implementation model

This section aims to provide insights concerning the description of the first variable of interest, that is the stages of implementation of SPMS. The segmentation model that I am going to

\textsuperscript{13} To this purpose I would like to acknowledge and signalize the existence of some studies concerning Italian banks and control systems (e.g. Di Antonio 2002, Di Antonio 2008, Mulinari 2008). However, these studies do not focus on the implementation stages of SPMS.
develop is based on three main guiding ideas derived from prior literature: a) the conceptual difference between the meaning of adoption and implementation as argued by Gosselin (1997); b) the relevance of the seminal model designed by Cooper and Zmud (1990) afterwards developed by Krumwiede (1998); and c) the convenience of having a parsimonious segmentation that does not create a very high number of stages which most likely would be unmanageable in terms of survey design and delivery, impractical unless sample size was extremely high and hard to interpret.

Many times the literature (academic and not) has defined adoption and implementation as synonymous using them interchangeably. Nevertheless, Gosselin (1997) argues that adoption is the first stage of a segmentation model and it is characterized by a high level of uncertainty that pushes the firm to find innovations and support, while implementation is the following step characterized by the actual introduction of the innovation within the firm, the valuation of its impact and its use as an everyday practice.

The second assumption concerns the implementation model depicted by Krumwiede (1998) that develops and expands a model of six stages initially depicted by Cooper and Zmud (1990). The model of Krumwiede counts ten separate phases which turn the adoption stage around: not considered, considering, considered then rejected, approved for implementation, analysis, getting acceptance, implemented then abandoned, acceptance, routine system and integrated system.

Hence, considering the two previous guiding ideas, the implementation model that I am going to depict is built on the conceptual differences between the meaning of adoption and implementation developed by Gosselin and on the Krumwiede’s model. However, and based on the third guiding idea about parsimony, I opted for reducing Krumwiede’s model to six stages that scope from the level where the implementation is not considered to the stage of full implementation as follows: 1) implementation not considered, 2) implementation considered, 3) implementation considered but later rejected, 4) adopted, 5) adopted then refused and 6) finally implemented. Table 3.1 depicts the implementation pattern I am going to use in this thesis.

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14 Cooper and Zmud (1990) developed one of the earlier implementation models for IS; this model was implied by academics as base for further studies on MACS, e.g. Anderson (1995), Krumwiede (1998), Liu and Pan (2007).

15 The model developed by Krumwiede is composed of ten stages, however the bank involved in the pilot test highlighted that this number of stages was excessive, confirming the convenience of a more parsimonious model in order to stimulate the participation to the survey.

16 Anderson (1995) notices that firms (here a bank) may lie somewhere between two stages or even reside in more than one stage simultaneously, however, for the present investigation I need a stage classification.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

I grounded these 6 stages aiming to be consistent to the description of stages gave by Krumwiede (1998). As showed in table 3.1, in my model stages 1, 2, 3 and 5 reflect faithfully the contents of stage 1, 2, 3 and 7 of Krumwiede’s (1998) segmentation pattern, while steps 4 and 6 summarize, coherently to the contents of the stages the levels 4, 5, 6, 8, 9 and 10.

<table>
<thead>
<tr>
<th>Krumwiede’s (1998) segmentation model</th>
<th>Thesis segmentation model</th>
<th>Stage description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Not considered</td>
<td>1. Implementation not considered</td>
<td>SPMS has not been seriously considered</td>
</tr>
<tr>
<td>2. Considering</td>
<td>2. Implementation considered</td>
<td>SPMS is being considered and implementation is possible, but it has not been approved</td>
</tr>
<tr>
<td>3 Considered than rejected</td>
<td>3. Implementation considered but later rejected</td>
<td>SPMS has been considered (not implemented) but it was later rejected</td>
</tr>
<tr>
<td>4 Approved for the implementation</td>
<td>4. Adopted</td>
<td>SPMS is used, but only occasionally</td>
</tr>
<tr>
<td>5 Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Getting acceptance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Implemented then abandoned</td>
<td>5. Adopted then refused</td>
<td>SPMS was adopted and analysis performed, but it was not functional to company goal and later rejected</td>
</tr>
<tr>
<td>8 Acceptance</td>
<td>6. Implemented</td>
<td>SPMS is used extensively in everyday activity and supporting the decision process. It is regularly updated and benefits of its use are detected.</td>
</tr>
<tr>
<td>9 Routine system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Integrated system</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1 The implementation model of SPMS

3.3 Contingency factors

This section aims to provide insights concerning the description of the factors which I am going to analyze in this thesis. Bobbitt and Ford (1980) argue that both external (for instance
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

volatility) and internal (for instance degree of involvement) environment factors influence the decision making process and the organizational change, but I need to delimitate my the area of investigation to a manageable number of variables. Then in my investigation I will take into consideration only the internal environment, following the example of the majority of the authors presented in the sections of chapter 2 dedicated to process and factors researches (e.g. for factors research, Damanpour 1991, Innes and Mitchell 1995, Shields 1995, Foster and Swenson 1997, Malmi 1997, McGowan and Klammer 1997, McGowan 1998, Anderson and Young 1999, Anderson et al. 2002, Chenhall 2004, while for process research Cooper and Zmud 1990, Anderson 1995, Gosselin 1997, Krumwiede 1998, Baird et al. 2004, Beasely et al. 2005, Chen et al. 2006, Fernandes et al. 2006, Liu and Pan 2007). I will gather the selected factors according to their belonging to behavioral, organizational or technological groups, according to Anderson and Young’s classification (1998).

Various studies investigate the influence of contingency factors on MACS, highlighting the extent to which organizational and technological factors have a predominant influence in the implementation varying their degree of importance across its stages as illustrated in the literature review (chapter 2). Some of those factors (for example management commitment and non accounting ownership) have been traditionally found in many investigations on MACS in general, while some others (for instance product complexity, degree of potential for cost distortion, waste reduction) refer especially to specific systems such as ABC. Moreover, previous investigation tended to focus mainly on organizational and technological factors (e.g. Shields 1995) omitting behavioral factors usually because most studies were inclined to consider only the rational aspects of measurement. Nevertheless, this represents a limitation, since many of the barriers to unlocking the potential of performance measurement have an emotional or political nature and involve managing politics and perceptions (Meekings 1995). Recent research has paid increased attention to these behavioral factors.

Thus, starting from the results of the literature review presented in chapter 2, the research gaps and the suggestions of the Research Centre of the Associazione Bancaria Italiana\textsuperscript{17} (ABI, Italian Banking Association\textsuperscript{18}) that offered its help for the survey (as highlighted in chapter 4) I

\textsuperscript{17} The ABI demonstrates a specific interest in investigating in those factors because of the importance of those topics for their research projects.

\textsuperscript{18} The Italian Banking Association - ABI - is a voluntary non-profit organization. Its purpose is to represent, defend and promote the interests of its member banks and financial intermediaries. It works, in this framework, for the development of the awareness in society and within the banking and financial system of the social and behavioral values that follow from entrepreneurial principles and from the formation of open and competitive markets. Specifically, ABI undertakes initiatives for the orderly, stable and efficient growth of the banking and financial system, in a competitive outlook consistent with Italian and European Union laws.
am going to investigate on the following factors describing their peculiarities in the SPMS implementation process:

- **Behavioral factors**: 1) management disposition toward change, 2) management involvement
- **Organizational factors**: 3) clarity of objectives, 4) financial target based compensations schemes, 5) internal communication, 6) organization size
- **Technological factors**: 7) difficulties in selecting KPI

### 3.3.1 Behavioral factors:

#### 3.3.1.1 Management disposition toward change

The management attitude toward change describes the degree of support along a process of organizational change (Argyris 1990, Argyris and Kaplan 1994) representing the ability to management to adapt to new circumstances for instance in working in new situations and with new people; then disposition to change is based on understanding and valuing different and opposing viewpoints, adjusting the chosen approach in case of changing circumstances, and revising or accepting changes within the organization or within activities (Spencer and Spencer, 1993; Armstrong and Baron, 1998). A positive disposition of management is crucial for the implementation of MACS because these systems enhance continuous change and their efficiency provides information that triggers a reaction to changes helping the organization to adapt itself to transformations. It requires that managers are open to differing viewpoints and consequently able to make fast and timely adjustments. This competence is especially relevant in the planning and control stages of the MACS implementation, in which the organization’s current situation is closely examined and adaptations are made.

Meekings (1995) ascertains as resistance to the implementation is inevitable for any MACS and more widely for any process of change and in any context. Management attitude toward change can transform itself in resistance to change for several reasons; for instance if management are unaware or non convinced of the potential benefits of the new management tool, or because they have unpleasant experiences in the past or if they have some doubts on their ability to make the switch sensing some degree of personal risk (e.g. Meekings 1995, Malmi 1997); also because managers do not want to feel controlled or think that the performance management system is not effective, sensible, or ethical and finally for fear of negative effects in the organization stability like job tension, conflict, frustration. In addition, managers constantly question the
relevance of the administrative management innovation and also question its design and functioning (Zairi 1996); for instance managers may also state that the KPI are not accurate in representing their activities, that targets have been set in the wrong way, or that measuring nonfinancial indicators does not lead to increased profitability or growth. In addition, selecting relevant and valid approaches that are also culturally and politically acceptable in the organization can be highly problematic (cultural mismatch) and according to this Schiemann and Lingle (1999) speak of cultural barriers, where organizations approach performance measurement based on tradition and the accepted way of doing things (with no consideration for the actual need of control of the firm). These traditions or embedded cultural norms are formidable barriers to change and can cause many negative feelings. Kitchen and Daly (2002) explain that those factors originated by organizational change for many managers and employees can mean “moving away from the established routine and systems toward an uncertain future fraught with negative and potentially positive outcomes” (page 51).

Meekings (1995) analyzes the implementation process of PMS in public companies, evidences the extent to which if an organization starts its implementation by a radical change is more probable that people may respond with an elevate degree of resistance, while, if the same company opts for a progressive implementation the resistance of its personnel can persist, but at a lower degree, both in public and in private organizations. In spite of that, also the stage of the implementation attained is a main issue. Exploring ABC in a case study based on a Finnish-based organization, Malmi (1997) investigates the origins and features of resistance to change of individuals across its implementation process. He points out that the first stages of the process are characterized by an high degree of resistance that decreases in reaching the full implementation stage.

Then, positive attitude to change of management should be a prerequisite for the implementation of control systems (e.g. Anderson 1995, Niven 2002). Nevertheless, Innes and Mitchel (1995), in analyzing the implementation process of ABC in 251 American firms, conclude that disposition to change, although evident in some companies, does not represent a significant factor across the process of change.

Most of the past investigations concentrate the study of disposition/resistance to change in the setting of ABC and only marginally in that of SPMS, then the study of the relationship between disposition to change and SPMS is still largely unknown. In the first hypothesis I suppose that the general argument about a positive relationship between disposition to change and stages of implementation of MACS also applies to SPMS. Therefore, I expect a positive association between management disposition to
change and SPMS implementation stages and I state the first hypothesis as (figure 3.1):

**H1:** *management disposition toward change is positively correlated to SPMS implementation stages.*

![Figure 3.1 Theoretical model for H1](image)

### 3.3.1.2. Management involvement

In the change process a strong involvement of managers can motivate personnel to modify firm’s practices and activities with the awareness that the profitability will follow only in the medium-long term. During the evolution of this process people have the opportunity to create results, rather than simply react to circumstances and those who have to live with changes become directly involved in shaping them then management involvement represent their presence and participation across the implementation process (McGowan and Klammer 1997). One of the most effective ways of encouraging others in participating to the process of change is by convincing management at every level in the organization to believe in the process increasing their inspirations and motivations and leading to a general sense of satisfaction (Meekings 1995). Hankinson and Lloyd (1995) show as the involvement of managers in this process is crucial for almost three reasons. First, management can focus resources (e.g. money and time), goals and strategy in the implementation that they deem worthwhile, denying resources for innovation that they do not support and where they are not involved. Second, management can motivate the employees who try to sabotage the innovation that they want to succeed. Three, managers know very well the relevance of administrative innovations in the development of organizational goal and strategies.
However, Pil and Mac Duffie (1996) notice that in innovation and organizational change (as ABC and SPMS) those practices that need high-involvement of management and employees can represent “competence destroying” change making difficult the implementation of new monitoring systems, furthermore it has as second effect a negative impact on company’s performance in the short term, thus, both of these reasons companies may be discouraged from making changes or from continuing with change efforts beyond the initial stages. Furthermore, gain involvement to a new direction is not an easy task; Kitchen (1997) suggests that change is pervasive when managers and employees are an integral part of the change process, but they can only work effectively if they can participate in the organization.

Then, since Meekings 1995 (on PMS) found that the management participation in the implementation process occurs by increasing inspirations and motivations leading to a general sense of satisfaction, since during the evolution of this process managers increase their involvement in shaping the innovation and since they have the opportunities to directly see the results linked to its use (McGowan and Klammer 1997, on ABC) I expect that management involvement is positively associated with SPMS implementation stages as depicted in the following hypothesis 2 and in figure 3.2:

**H2: management involvement to change is positively correlated to SPMS implementation stages.**

3.3.2 Organizational factors: clarity of the objectives, financial target based compensation schemes, internal communication, organization size
3.3.2.1 Clarity of company’s objectives

According to Kaplan and Norton (1992) the use of BSC minimizes the amount of information that managers must review, making performance objectives explicit and widely visible inside the organization. To this purpose Shields (1995) notes that during the implementation process of a managerial tool the clarity of the objectives of the management control systems is necessary to guarantee that information is produced efficiently and it is effectively used in every day practices. Furthermore, the reason that makes this factors so crucial across the process of change is its capability in supporting the preparedness to accept and work with innovation of management and employees. Then, the clarity of objective is necessary to ensure that management innovations are produced, effectively used and developed in everyday activities for decision making purposes.

Umashev and Willet (2008), supporting Shields (1995), affirm that, in the setting of SPMS implementation process, the clarity of the objectives acquires a crucial role since vague and confusing communications prompt individuals to apply individuals or groups norms imperatives, and since when everyone agrees on a particular objective, their resources and efforts are aligned so that they do not work at cross purposes. In spite of that, clarity of objectives is influenced by several contingency variables, for instance the selection and communication of metrics implied in the change process of MSCS. Indeed, multiple performances measures (leading and lagging indicators) and multiple performance goals may lead to ambiguity, causing confusion and consequentially threats during the implementation process as notices by Shields and Young (1989, 1994) and Krumwiede (1998). On the other hand, the clear definition of metrics and strategies makes the implementation of SPMS better understood by managers enabling the building of consensus around strategic objectives and sending the message that the employees will be measured for undertaking task that the organization believes will drive to attained the planning result (Cameron 2002).

Also, some authors are skeptical about the capabilities of goal clarity of firms. Epstein and Manzoni (1997) question the ability of organizations to agree on a strategy in such clear terms that it would enable to implement SPMS; Abrahanson (1991) points out that many organizations have “unclear goals and high uncertainty” (and consequently they behave imitating the other firms, for example competitors). Moreover, some researchers in presenting their investigations based on the implementation of MACS (most of them based on ABC) do not pay any attention to the clarity of the company’s
objectives, considering this factor not so relevant for their researches (e.g. Foster and Swenson 1997, Anderson and Young 1999, Anderson et al. 2002).

Then, those prior statements let me suppose that clarity of the objectives within the organization could be used as a crucial mean for attaining a higher level of SPMS implementation, leading me to presume the existence of a positive relation between the clarity of objectives and the implementation stages. Figure 3.3 shows the theoretical model for clarity of objective and implementation stages (hypothesis 3).

**H3: clarity of company’s objectives is positively correlated to SPMS implementation stages.**

![Figure 3.3 Theoretical model for H3](image)

### 3.3.2.2. Financial target based compensation schemes

Emphasized by the current global financial crisis, financial target based compensation schemes is now a subject of many debates at national and international level. In the US and EU this topic has generated many rules to brake the amount of financial compensation received by managers, moreover because of their attitude to be designed on the short-term results. To this purpose, Italy has received several European recommendations and, even more strictly, many regulations from Bank of Italy (e.g. M. Draghi’s speech of May 10 2010 in Naples).

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19 To this purpose see R. Bocciarelli, “Bonus, cartellino giallo dalla UE all’Italia” Il Sole 24 Ore, May 20 2011

20 For instance, in Italy the CEO of Intesa San Paolo (one the main Italian banks), C. Passera, received in 2010 a bonus of 1,5 million of euro.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

The linkage of compensation to targets is extremely variable and customizable. Reward systems are frequently classified in two broad categories: intrinsic and extrinsic systems. Intrinsic rewards are defined as those that are internal to the job such as responsibility, achievement and fulfillment. Conversely, extrinsic rewards are external to the job and include financial compensation. Niven (2002) claims the extent to which intrinsic rewards may produce a sense of pride, while extrinsic rewards hold the possibility of sharpening the focus on what must be done in order to succeed. Extrinsic motivation, and consequently extrinsic rewards, may work in the short-term "their long-term viability is very limited since they fail to satisfy basic human needs such as fulfillment and meaning" (Niven 2002, page 242)

From a research conducted by the ABI in 201021 emerges that compensation systems in Italy are mainly based on monetary schemes (usually computed on the basis of financial measures) and for this reason I am going to select and concentrate on this kind of compensation systems22.

The effects of incentive compensation schemes are topics largely discussed in the academic and business literature because of their relevance within the successful process of change within an organization. Some authors e.g. Kaplan and Norton (1996), but also Shields (1995), Foster and Swenson (1997) and Umashev and Willet (2008) fervently sustained as incentive compensation schemes have a crucial role in a process of change, highlighting their positive impact on MACS implementation because of the influence of rewards on willingness, involvement and commitment of management and employees, especially if the planned goals are attractive and achievable and to great extent if rewards are based on the attainment of nonfinancial targets23 (Webb 2004).

The importance of reward systems is natural because employees and management pay attention to those things that affect their welfare and the welfare for most of them is the resulting of compensation systems used that derives from the implementation process of change. Newsom (1990) argues that the increased motivation described in

21 F. Orlando “Osservatorio executive compensation e corporate governante”, conference presentation, Rome, May 10 2010

22 Niven (2002, page 242) suggests that extrinsic rewards can impede intrinsic motivation.

23 Consistent with the SPMS concept, theoretical work on performance evaluation using multiple signals in the agency settings indicates that financial measures alone may not provide the most efficient means to motivate managers to act in the manner desired by the firm’s owners (Feltham and Xie 1994). In theory, the bonus contract should include any performance measure that provides incremental information about desired managerial actions in order to efficiently motivate management (Holmstrom 1979 and Banker and Datar 1989).
expectancy theories is contingent on three factors: criteria in differencing good and bad performance; credibility of management’s promises and consistency, that is the distribution of incentives among individuals with no favoritisms.

Even so, for most companies there are little or no linkages between implementation changes and rewards systems or also there is little congruency between MACS measures and organizational compensations systems (Banker et al. 2004). For instance, if managers and employees believe that an administrative innovation is detrimental to their performance evaluations and future compensation, they may try to sabotage the implementation. Furthermore, when there is no link between MACS and performance evaluation and compensation, most employees and managers could be totally indifferent to the process of change.

Prior studies in reward systems and implementation models have found a positive relation between these two variables, e.g. Anderson (1995) in a setting of ABC and Kaplan and Norton (1996) in the framework of BSC; even so, there are researches that warn on the danger relate to the use of financial target based compensation schemes (e.g. Newsom 1990 and Webb 2004).

Those prior statements let me suppose that financial target based compensation schemes could be used as a crucial mean for attaining higher level of SPMS implementation, leading me to presume the existence of a positive relation between them and it leads to the following hypothesis (figure 3.4):

**H4: financial target based compensation schemes are positively correlated to SPMS implementation stages.**

![Figure 3.4 Theoretical model for H4](image-url)
3.3.2.3 Internal communication

Internal communication represents the ability to interact effectively with and convey information to other people. This factor comprehends the use of a range of communication methods, such as oral, written, graphical, and nonverbal communication (Spencer and Spencer 1993, Goedmakers et al. 1994). Bushman et al. (1995) and Van Venn-Dirks (2010) describe internal communication as a vertical and horizontal structure of information within an organization where interdependencies may result from relations existing, for instance between higher level management and employees at the same organizational level or across business units. Managers behave in a communicative manner if they: (1) are able to listen objectively and reproduce the content of a message in their own words; (2) use different forms and styles of communication; (3) speak effectively to individuals and groups of people; and (4) express their needs, wishes, opinions, and expectations to other people while taking people’s feelings into consideration (Spencer and Spencer 1993). Internal communication is driven and measured by many integration mechanisms, such as the number and the frequency of committee meetings (Damanpour 1991), the participative manner adopted by employees in data gathering, the active involvement of dedicated professionals who have helped to diffuse monitoring systems concepts effectively across the organization (Liu and Pan 1997) suggesting the crucial role of this factor into the process of MACS implementation.

Kitchen and Daly (2002) claim that communication is a way of avoiding the uncertainty that a process of change management can promote, while Bouwens and Albernethy (2000) link internal communication to the functioning, development and implementation process of administrative innovations. Norreklit (2000) adds that information interdependence among departments are essential for the effective functioning of BCS since internal communication spreads the corporate strategy inside the organization driving the required information across departments (Kaplan and Norton 1996) and Bouwens and Albernethy (2000) link internal communication to the implementation process pointing out the presence of a positive association between these two variables. Nevertheless, when the elements of MACS are not well designed and effectively communicated within an organization internal communication appears to worsen the implementation process being as important cause of organizational failures (Umashev and Willet 2008). Burnes (1992) adds as understanding and promote a changing environment in the organization is never as easy task, frequently management under-communicate and not by a small amount. For most organizations change is pervasive
and employees can only work effectively if they can participate in the organization and they can only participate if they are fully informed (Kitchen 1997).

Prior studies leave out the effect of internal communication for SPMS preferring to focus on ABC or more in general on MACS, but, in the current period of high volatility that affect Italian banks I consider necessary to pay attention on this factor and, starting from prior assumptions I may infer that effective communication may be important across the implementation process of SPMS since in the initial stages managers need to discuss the action plans with various groups of people, and communicate the strategy, objectives and actions to employees; while when they reach the full implementation internal communication provides regular intermediate feedback on results to employees.

Then, previous assumptions lead me to the expectation that internal communication and implementation degree are positively associated as stated in the following hypothesis 5 represented in figure 3.5:

**H5: internal communication is positively correlated to SPMS implementation stages.**

![Figure 3.5 Theoretical model for H5](image)

### 3.3.2.4 Organization size

Kimberly (1976), Merchant (1981) and Gooding and Wagner (1985) highlight the primary role of the size and the structure of the organization within the design of management control systems steaming from the general view that larger firms are generally more complex (Blau 1970, Merchant 1981), and require more formalized, decentralized, specialized, and integrated systems (Mintzberg 1979, Lawrence and Lorsch 1967). Shields (1995) corroborates this statement arguing the extent to which larger firms may have greater access to resources and managerial experiences needed
to implement more complex systems and Hicks (1997) suggests that smaller companies often avoid to implement innovation not for a lack of resources, but for a perceived lack of resources.

Nevertheless, research on size-innovation issues has yielded mixed results. Gosselin (1997) finds no statistically significant relationship between organizational size and the decision to adopt ABM and ABC. Similarly, Libby and Watherhouse (1996) find no relationship between size and the number of management accounting changes. However, Blau and McKinley (1979) and Tolbert and Zucker (1983) find a positive relationship between size and innovation.

In formulating my research hypotheses I am going to deem findings of Damanpour (1991) highlighting that size and administrative innovations systems are linked by a positive relation in organizational innovations, those of Zaltman et al. (1973) who argue that the organizations more formalized are those better equipped to implement a MACS innovation and finally findings of investigations of Moores and Chenhall (1994) for MAS, all these investigations concern several instances of administrative innovations and I would like to test their assumptions, but in the context of SPMS and basing on those findings I expect that a positive relation exists between size and SPMS implementation stages as formalized in H6 (see figure 3.6):

**H6: Organization size is positively correlated to SPMS implementation stages**

![Figure 3.6 Theoretical model for H6](image)

### 3.3.3 Technological factors: difficulties in selecting KPI

#### 3.3.3.1 Difficulties in selecting KPI

The implementation model of BSC, as developed by Kaplan and Norton (1996b) and regained by Niven (2002), starts by clarifying and translating the vision in strategy transforming them into tangible objectives, while in the second step, managers need
determining those specific measures that better attain and link organization goals (in the remaining steps of BSC implementation, managers set targets and budgets and afterwards they receive feedbacks on the strategies of the organization by evaluating performance relative to the scorecard measures), but they solely define a mix of leading and lagging indicators coherently to the organization strategy, without focusing on eventual troubles in their selection.

A flourishing stream of investigations analyzes features of KPI and problems connected to their managing within the organization, due primarily to cognitive limitations in processing information (Baddeley, 1994; Shanteau, 1988), cognitive difficulties in making evaluation judgments and limits of the working memory to manipulate and simultaneously organize large volume of data (for instance, Lipe and Salterio 2002 suggest that the KPI plugged within a BSC need to be limited to approximately 20 metrics) Miller (1956) and Baddeley (1994). As consequence, Lipe and Salterio (2000) argue that when firms use both common measures (i.e. measures common across multiple units) and unique measures24 (i.e. measures unique to particular units) for their business units, evaluators ignore the unique measures paining attention solely to common metrics. Also, Lipe and Salterio (2002), Ferdandes et al. (2006) and Cardinaels and Van Veen-Dirks (2010) point out that the quality of indicators and the interpretations of their meaning is influenced by many factors, for instance the way that data are presented25 and organized within scorecards (many organizations provide guidelines for presenting collected data) or if measures are selected homogeneously over departments.

Other difficulties may derive from other factors, for instance: first, employees carry out many tasks that are difficult to accurately evaluate using objectives and quantifiable performance metrics; second, emphasis can be placed on subjective, qualitative

24 Prior research indicates that SPMS should include within each perspective a more diverse set of common and unique measures (Chenhall 2005, Malina and Selto 2001, Nanni, Dixon and Vollman, 1992, Neely et al. 1995, Hall 2008). Generic measures provide generic information which “tend to be core outcome measures, which reflect the common goals of many strategies, as well as similar structures across industries and companies” (Kaplan and Norton 1996, page 149), for instance employee skills, new product or service introductions, customer satisfaction, market share, revenues, operating expenses, and profitability. (e.g. Lipe and Salterio 2002, Bryant et al. 2004, Hall 2008). In contrast, unique measures “are tailored to the firm’s competitive strategy and assist the manager in guiding the firm in accordance with its overall strategy and mission” (Bryant et al. 2004, page 108), for instance revenues from different lines of business

25 When multiple measures within a BSC category are selected and presented homogeneously, managers’ evaluation judgments are reliably different from evaluations made using these same measures without the BSC format. This may be caused by evaluators’ bias in assimilating and processing all the measures related to SPMS (Lipe and Salterio 2002, Cardinaels and Van Veen-Dirks 2010).
judgments when evaluating performance than on quantitative performance metrics (e.g. Prendergast 1999); third, for evaluators can be hard to develop measurable outcomes, consistent to strategic objectives, to attribute results to a particular function or to observe results in a given year (Cavalluzzo and Ittner 2004); fourth, evaluators may meet difficulties in measuring many dimensions.

In the setting of performance management innovation implementation the literature indicates that a significant impediment in implementing MACS comes from the beginner stages when the organization needs to identify and measure appropriate performance metrics; Meeking (1995 page 8) notices that “since visible indicators should, by definition, be directly derived from overall organizational objectives, there is bound to be uncertainty in defining measures” then, leading to difficult choices in selecting KPI. Thus, contrarily to Meekings (1995), Kaplan and Norton (1992b and 2006) and Niven (2002) limit their analysis, solely defining a mix of leading and lagging indicators coherent to organization strategy, but delving eventual troubles in their selection. Nevertheless, investigations on human cognitive difficulties (e.g. (Miller 1956, Baddeley 1994) and on how to manage and organize KPI (e.g. Lipe and Salterio 2000, 2002), are focused on difficulties in selecting indicators across the implementation process of MACS and SPMS.

Consequently, prior assumptions related to problems in developing performance metrics appear to be a significant impediment to the starting stages of SPMS implementation process, leading me to expect the existence of a negative association between difficulties in selecting KPI across the implementation stages of SPMS, as showed in the seventh hypothesis (figure 3.7):

\[ \text{H7: difficulties in selecting KPI are negatively correlated to SPMS implementation stages.} \]

Figure 3.7 Theoretical model for H7
3.4 Summary

Prior investigations suggest that contingency factors have relevant influences along the implementation process of MACS. However, there are still ambiguities and contradictions regarding the implications of specific contingent factors and the implementation process of SPMS in particular.

By linking the theory of implementation stage models (Cooper and Zmud 1990, Krumwiede 1998) and the theory of contingency factors (Chenhall 2003 developing the seminal work of Otley 1980), in this chapter I have set forth expectations about the associations among behavioral, organizational and technological factors and the implementation stages model of SPMS proposing a research model based on the diffusion of innovation theory (Rogers 1965), Hence, hypotheses 1 to 7 test the relationship between implementation stages and respectively management disposition to change, management involvement, clarity of the objectives, financial target based compensation schemes, internal communication, organizational size and difficulties in selecting KPI.

Figure 3.8 and table 3.2 depict the theoretical model and the research hypotheses that will be subject to empirical investigation in the following chapters. In chapter 4 I will describe the research methodology and the research design that I am going to undertake for testing the hypotheses and confirming/illustrating the findings. The results of the empirical analysis will be presented in Chapters 5 and 6. Finally, conclusions, limitations and further research will be summarized in Chapter 7 jointed to the conclusions from the subsequent case study analysis.
Figure 3.8 Conceptual framework of the thesis
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

<table>
<thead>
<tr>
<th>Theme</th>
<th>Hypothesis #</th>
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<tr>
<td><strong>Behavioral Factors</strong></td>
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<tr>
<td>Management Disposition to change</td>
<td>H1: &quot;management disposition toward change is positively correlated to SPMS implementation stages&quot;</td>
</tr>
<tr>
<td>Management involvement</td>
<td>H2: &quot;management involvement is positively correlated to SPMS implementation stages&quot;</td>
</tr>
<tr>
<td><strong>Organizational factors</strong></td>
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<td>Clarity of objectives</td>
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<td>Financial target based compensation schemes</td>
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<tr>
<td>Theme</td>
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<td>Organizational factors</td>
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<td>Internal communication</td>
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<td>Organizational size</td>
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<td>Technological factors</td>
<td></td>
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<tr>
<td>Difficulties in selecting KPI</td>
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Table 3.2 Research Hypotheses
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
Chapter 4  Research methodology and design

Chapter 3 generated theoretical statements about the themes of interest related to implementation through a deductive process derived from the extant literature on management control, contingency theory and models of stages of implementation. This deductive process led to the setting forth of the generic research questions and specific hypotheses.

In order to address these research questions, I have opted for an integration of both quantitative and qualitative approaches. An examination of the literature (Habermas 1971, Stephens and Cobb 1999, Di Pofi 2001) demonstrates that the combined use of quantitative and qualitative methods of analysis captures a broader view of the organization. Di Pofi (2001) disclosed the importance of a diagnostic model of organizational performance during times of great change and the importance of integrating both quantitative and qualitative information. Unexpected findings might be missed if both quantitative and qualitative methods are not used, and without such findings, misdiagnosis may result. In my study I use a combination of survey method to deal with the quantitative analysis and a case study to deal with the qualitative analysis. The survey method was used to test the formulated hypotheses and the case study was used for confirmatory purposes (Gerring 2004, Modell 2005).

Chapter 4 covers several issues related to the survey-based research methodology design. Methodology and design of the case study is covered in Chapter 6. The following section describes the survey research methodology, while unit 4.2 presents the research participants, and 4.3 illustrates the questionnaire used for the survey, the selection of the population and the sample design. In section 4.4 I show the company role of respondents and the banks size. In section 4.5 I describe the implementation stage of SPMS attained by the sampled banks. In Section 4.6 I extend the analysis to provide a description of the characteristics of the SPMS used by the sampled institutions. In Section 4.7. I provide the descriptive statistics analysis. Finally in 4.8 the summary of the chapter is presented. All this material will be the basis for subsequent hypotheses testing in Chapter 5.
4.1 Research methodology: survey approach

Prior literature has proposed different methodological alternatives to deal with data analysis. Among those, I considered the survey-based research to be potentially adequate for the purpose of this study. There were several reasons for the use of a survey for analyzing data. First, the thesis covers a field for which there are sufficient pre-existing theoretical perspectives which are relatively well-established (even though still underspecified). A second reason is that the purpose of the thesis is to examine relationships among organizational characteristics. The range of hypotheses, discussed in the previous chapter, calls for several participating organizations in order to find enough information to prove or disprove these the research questions. The third reason was that the target group of research consisted of managers who were generally very busy. It was assumed that claiming a limited amount of their time instead of an in-depth interview that could last several hours would heighten the chance of cooperation. In this way, the participation of several organizations was likely to be improved. A fourth reason was that a survey could produce a considerable amount of useful data with reasonable external validity that might be turned into general results (Strati 2000). Given the relatively well-developed but underspecified state of prior theoretical developments regarding the topics of this thesis, given the issues addressed by the testable hypotheses and given the practical considerations about empirical data gathering, I initially considered cross-sectional survey-based methods to be appropriate for this study.

4.2 Participants

Because of accessibility considerations regarding data gathering, this thesis takes the Italian banking sector as its research site. Viganò (1998) emphasizes that, even though accounting has common foundation in book-keeping, “it has developed in different countries along different paths, appealing to quite diverse theoretical approaches” suggesting that “lack of awareness of the theories underpinning accounting in specific countries leads to a failure to communicate, and makes it difficult to identify a common context for the whole discipline of accounting” (page 381). Then, following Viganò (1998) the concept of national culture is relevant in investigation. To his purpose Tucker et al. (1996) and Ahrens (1996) point out as the design and interpretation of MACS reflect the shared valued belonging to the national

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26 Even though accounting has many diverse forms today, it origins can trace a common historical basis by the double-entry bookkeeping also called 'the Italian method'. It emerged in Italy and was first promulgated in printed form by an Italian monk in medieval era, Luca Pacioli, and afterwards spread through Europe as a result of Italian influence for instance by the works of Besta (1922), Littleton (1933), Mehs (1950) (both of them in Viganò 1998).
culture of employees and to the historic corporate culture. For instance, members of Italian organizations reflect a collective culture, based on communal goals, tending to promote the importance of one’s interdependence with others emphasizing group over individual while members of US are more focused on individualistic cultures which highlight the importance of developing one’s own distinct preferences and potential (Parsons 1949, Hofstede 1980, 1997, Triandis 1989, 1995). Ferreira (2000) highlights that cultural factors can create barriers that hinder the organization from fully realizing the potential benefits of MACS.

The Italian banking sector has been subjected to structural changes, due to modifications occurred in its external environment. In the past two decades, European banking markets have been subject to structural changes, due to modifications occurred in the external environment: particularly, the liberalization of capital flows and the prospect of a common market have influenced the policy of the domestic banks. This has pushed them to search for more efficient organizational solutions, greater variety of the offered services and stronger exploitation of scale economies. The last of these phenomena has taken place especially thanks to an increasing consolidation, and has led to a fall in the number of banks.

Over the last fifteen years, a profound process of consolidation occurred in the Italian banking industry, giving rise to significant transformations. Banks have been forced to search for scale and scope economies, with the aim of increasing their efficiency. As a consequence, from 1988 to 2000 the number of commercial banks dropped from 1100 to 841. Moreover, in the decade 1990–2000 there were 356 mergers or acquisitions. At the same time, mergers and acquisitions are considered as a beneficial solution compared to the closure of inefficient banks, since their exit is expected to involve economic and social costs.

Starting from the global financial crisis of 2007 the banking sector is characterized by high degrees of external uncertainty and volatility that lead for instance to the development of new international strictly regulations and stock exchange unpredictability. Italian banks managed to cope with the “first round” of the crisis better than most of its European peers showing a high level of resilience due to the “traditional” business model applied by the domestic banking system. Many factors played an important role in ensuring

27 Tymon et.al (1998) claim that external uncertainty is composed by many actors, for instance government regulations, financial markets, competitors, customers; factors currently and dramatically present.

28 For instance, new international law were published by the Basel Committee on Banking Supervision with the aim of creating regulations for the correct determination of risks to which a banking organization is subject. The directives of Basel have encouraged banks to conduct a number of studies on the impact that new rules will have on capital adequacy, solvency risk, liquidity.
Italian banks took a relatively prudent attitude, for instance the banking supervision rules of Bank of Italy, the traditional relations and practices such as the comparatively smaller size of firms and the low debt of households\textsuperscript{29}. In spite of that, Italian banking sector is characterized by a high degree of uncertainty and volatility and they are under the pressure of the strict control of national and internal institutions, for instance the Stress Tests of Basel 3 (Oecd 2009a and Oecd 2009b).

According to Tymon et al. (1998) and Hoque (2004) volatility and environmental uncertainty (e.g. perceptions of top management\textsuperscript{30}) are some instances of factors that may play an important role both in structuring and changing MACS and in clarifying its relationships with organizational performance. Other authors (e.g. Amat 1989, 1991a, 1991b, Birchall, et al. 1996, Flamholtz 1996, Gosselin 1997, Moores and Yuen 2001, Carretta and Gibilaro 2005) highlight that in turbulent environments organizations tend to apply MACS based on formal control procedures, then basing of former assumptions I may presume that banks are making extensive use of formal MACS such as SPMS.

Then, since the presence of a current situation of global uncertainty that fosters the use of formal MACS (for instance SPMS), the presence of national and international regulations in constantly evolution (for instance Basel 3), the pressures of the controls by authorities (for instance Stress Tests) and consequently the need for banks to redesign their SPMS more oriented to strategic objectives, I suppose that this is the suitable time for studying the features and the implementation process of SPMS in Italian banks.

Bobbitt and Ford (1980) argue that both external (for instance volatility) and internal (for instance degree of involvement) environment factors influence the decision making process and the organizational change, but I need to delimitate my the area of investigation to a manageable number of variables, then in my investigation I take into consideration only the internal environment, following the example of the majority of the authors presented in the sections of chapter 2 dedicated to process and factors researches.

\textsuperscript{29} Moreover, the European Central Bank and Italian authorities provided an immediate response to ensure the banking system had sufficiently liquidity and tensions in interbank markets eased significantly in recent months (Oecd 2009a, Oecd 2009b).

\textsuperscript{30} Tymon et. al (1998) claim that perceived environmental uncertainty (PEU) refers to perceptions of top management regarding the external environment of an organization.
4.3 The questionnaire

The survey consisted of 7 pages containing 28 questions and took approximately 15 minutes to complete. The questionnaire used in this research is provided in appendixes 5 and 6 (respectively in English and in Italian versions) together with the cover letter.

The first section of the questionnaire refers to general questions such as the role of the respondent in the bank and the bank’s size (measured by the average of total assets of the last three years, as suggested by the research center of the ABI and by some managers participating to the interviews). The second section of the questionnaire concerns questions related to the implementation stage of SPMS and the features of SPMS. The third section reports questions related to the contingent variables included in the research hypotheses and therefore refers to the items used to measure internal communication (items 3.1 and 3.2), clarity of objectives about company’s goals (items 3.3 and 3.4), management disposition to change (items 3.5 and 3.6), management involvement (items 3.7 and 3.8), difficulties in selecting KPIs (items 3.9 and 3.10) and financial target based compensation schemes (items 3.11 and 3.12).

For the contingency factor variables I adapted items from extant questionnaires. Hence, for 1) management disposition to change I captured directly one item from Anderson and Young (1999) and one from Jeremias (2001). For 2) management involvement, I detained two items from Anderson and Young (1999). For 3) clarity of objectives about company’s goals, I used two items proposed by Krumwiede (1998). For 4) financial target based compensation schemes, I adopted two items based on Anderson and Young (1999) and Ittner et al. (2004). The two items related to 5) internal communication are taken from Ittner et al. (2003). For 6) organizational size, I followed the suggestions of the management of the bank that I contacted for the pilot test and the Research Center of the ABI and I inserted an item in the first section of the questionnaire about the current amount of total assets of the bank (question 2). For factor 7) difficulties in selecting KPIs, I counted on two items captured from Cavalluzzo and Ittner (2004). The contextual factors and related operational questions are given in table 4.1.

The responses to the questions reported in the third section were framed as Likert seven point scales (from 1= extremely disagree to 7=extremely agree). Item 3.13, even if is enclosed in the third section does not refer to contingency factors but to the features of the SPMS, however, since its response is framed in a Likert seven point scale I considered appropriate to add this item in section 3.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

<table>
<thead>
<tr>
<th>Contextual factors</th>
<th>Questions describing the Construct</th>
<th># Question (in the questionnaire)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Management disposition to change</td>
<td>Changes in the way we work in the bank are needed</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>I think the company needs new performance monitoring systems</td>
<td>3.6</td>
</tr>
<tr>
<td>2 Management Involvement</td>
<td>Most of the managers are capable to use the SPMS to attain bank’s objectives</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>Management was involved in determining the features of the SPMS</td>
<td>3.8</td>
</tr>
<tr>
<td>3 Clarity of the bank’s objectives</td>
<td>When the SPMS initiative began, there was consensus among managers about its specific objectives</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Connections between the business objectives and my job are clear</td>
<td>3.4</td>
</tr>
<tr>
<td>4 Financial target based compensation</td>
<td>High quality work increases my chances for a raise a bonus</td>
<td>3.11</td>
</tr>
<tr>
<td>schemes</td>
<td>High performance is recognized and rewarded</td>
<td>3.12</td>
</tr>
<tr>
<td>5 Internal communication</td>
<td>Senior management has communicated a clear plan for meeting our business goals</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>Management has planned and communicated company strategy to attain strategic objectives</td>
<td>3.2</td>
</tr>
<tr>
<td>6 Organizational size</td>
<td>What is the current amount of total assets of the bank (average last three years, in million of €)?</td>
<td>2</td>
</tr>
<tr>
<td>7 Difficulties in selecting KPI</td>
<td>It is difficult for me to distinguish between the results produced by the control systems program and the results caused by other factors</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>It is difficult for me to determine how to use performance information to set new or revise existing performance goals</td>
<td>3.10</td>
</tr>
</tbody>
</table>

Table 4.1 Contextual factors and operational questions
Prior to the development of the questionnaire, two interviews were conducted by me with the CEO and the controller of a medium size bank to gain qualitative data relating to the study’s variables. Once an initial draft of the questionnaire was developed, the questionnaire was pretested with two managers of the same bank to evaluate how clear, understandable and easy-to-complete the questionnaire was. Lately the Research Center of the ABI proposed some further change to the content of the questionnaire making it even more suitable and intelligible to managers (moreover on the concept company strategy and strategy maps, strongly limiting my initial draft of the questionnaire). Then, on the basis of these tests and suggestions, alterations were made to the order and the wording of some of the questions.

The questionnaire was sent by email to all Italian banks identified by consulting the official register of banks (“Albo dei Gruppi Bancari”) of ABI to a population of 67 banks’ headquarters between April and July 2010. The questionnaires were forwarded by the Research Center of the ABI to the contact person who distributed it among managers from his organization. To help motivate response, respondents were offered a “benchmark” report comparing their responses to the overall results. In the first round I received 18 questionnaire for a response rate of 26,8%. In addition, a second mailing of the instrument was sent to non-respondents reaching a total sample of 22 banks (for a total response rate after the two rounds of 32,8 %). I had initially expected a very high response rate (close to 100 percent), but then the unexpected financial crisis came and this event most likely affected negatively the response rate to the point that it endangered my initial research design. The global financial turbulences affected heavily Italian banks (for instance in the last two years the FTSE BANCHE ITALIA, the sectorial index for the Italian banking industry, went down of more that 65 percent), moreover, the last two years the Bank of Italy increased its controls on small size banks putting on compulsory administration 5 banks and tightly monitoring other 14 banks forcing the change of their management due to non-transparent policies and conflicts of interest. Then, this scenario heavily affected my research since the questionnaires were sent by ABI to banks and to their management.


The variables were analyzed based on the responses and on the percentage of respondents making each response and the item mean was performed to provide item responses distribution. Each response within a factor was weighted equally. Finally, the overall mean and standard deviation or each factors was determined.

4.4 Company role of respondents and banks size

Results show the extent to which the respondents to the questionnaires were those mainly involved in the financial area. Table 4.2 and chart 4.1 depict as controllers are 63,6 percent of respondents followed by risk managers (13,7) and HR responsible (4,5), while other departments’ managers involved in the survey are those of marketing, research & development and corporate social responsibility (hereafter CSR) (18,2 percent).

<table>
<thead>
<tr>
<th></th>
<th>Number of companies</th>
<th>% Over respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller</td>
<td>14</td>
<td>63,6</td>
</tr>
<tr>
<td>Risk manager</td>
<td>3</td>
<td>13,7</td>
</tr>
<tr>
<td>HR manager</td>
<td>1</td>
<td>4,5</td>
</tr>
<tr>
<td>Compliance manager</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>18,2</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.2 Role of respondents
In order to measure organizations’ size I have used the amount of total assets (table 4.3 and chart 4.2) performed as the average of the last three years (in million of euro) as suggested by the research center of ABI and by the CEO that I meet for the pilot test. Findings highlight the extent to which large and very large banks were more inclined to participate to the investigation (respectively 37,5 and 66,6 percent).

<table>
<thead>
<tr>
<th>Total assets (average last three years, million/€)</th>
<th>Total assets</th>
<th>Number of respondents</th>
<th>% Over sample</th>
<th>% Over population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5000</td>
<td>Very small</td>
<td>7</td>
<td>31,8</td>
<td>21,2</td>
</tr>
<tr>
<td>More than 5.000 until 10.000</td>
<td>Small</td>
<td>3</td>
<td>13,6</td>
<td>33,3</td>
</tr>
<tr>
<td>More than 10.000 until 50.000</td>
<td>Medium</td>
<td>6</td>
<td>27,3</td>
<td>37,5</td>
</tr>
<tr>
<td>More than 50.000</td>
<td>Large</td>
<td>6</td>
<td>27,3</td>
<td>66,6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>22</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3 Size of banks respondents  (total assets, average last three years, million/€)
4.5 Implementation: stages attained

The results obtained from the analysis of the implementation stages attained by respondents as developed according to the pattern developed by Krumweide (1998) that I have show in chapter 3 highlight that approximately 13.5 percent of banks in the sample have not yet come in contact with SPMS or else they are valuating it without undertaking any concrete steps; 13.8 percent have already introduced it completing its adoption and finally 72.7 percent are using SPMS extensively in everyday activity and for supporting the decision process. To sum up, more than 86 percent of the respondents report actually having experience in using SPMS (see table 4.4 and chart 4.3), but extrapolation of these results to the population should be done with caution since it is likely that there is a self-selection bias in the respondents sample.
### SPMS implementation process: stages attained

<table>
<thead>
<tr>
<th>Implementation stage</th>
<th>Number of respondents</th>
<th>% of respondents over sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation not considered</td>
<td>1</td>
<td>4,5</td>
</tr>
<tr>
<td>Implementation considered</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Implementation considered but rejected</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Adopted</td>
<td>3</td>
<td>13,8</td>
</tr>
<tr>
<td>Adopted then refuse</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Implemented</td>
<td>16</td>
<td>72,7</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.4  

Starting from the next sections the results of the research refer only to the 21 questionnaires which answered to the questions concerning characteristics of SPMS and role of contingency factors within the implementation process.

---

33 Starting from the next sections the results of the research refer only to the 21 questionnaires which answered to the questions concerning characteristics of SPMS and role of contingency factors within the implementation process.
To validate this result I added a further statement (by a five points Likert scale) “management make use of SPMS everyday to make company decisions” (table 4.5).

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Neutral</td>
<td>18.8</td>
</tr>
<tr>
<td>Agree</td>
<td>62.5</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>18.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.5 SPMS and use of strategy (percentage)

Results are consistent with the prior outcome showing that a high percentage of respondents has effectively implemented the SPMS.

**4.6 Characteristics of SPMS**

Although not directly related to the hypotheses, I considered of interest to take advantage of this research to gain insights into the characteristics of SPMS used by Italian banks. This examination on the structure of MACS highlights that Italian banks prefer designing and developing SPMS models similar to balanced scorecards, capturing different perspectives and combining financial and non financial measures. Said that, approximately 28 percent of respondents employ all the four traditional perspectives (financial, customer, learning and growth and internal) adding a further dimension called “risk adjusted” (68% of respondents) here they collect the measures that they need to supervise the risk’s level in order to avoid unexpected losses and in order to follow rules of vigilance imposed by national and
international institutions\textsuperscript{34}. Table 4.6 reports a summary of perspectives used within the scorecards.

<table>
<thead>
<tr>
<th>Perspectives</th>
<th>Number of respondents</th>
<th>% over respondents Yes</th>
<th>% over respondents No</th>
<th>% over respondents Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>20</td>
<td>90,9</td>
<td>-</td>
<td>9,1</td>
</tr>
<tr>
<td>Risk Adjusted</td>
<td>15</td>
<td>68,2</td>
<td>13,6</td>
<td>18,2</td>
</tr>
<tr>
<td>Customer</td>
<td>13</td>
<td>59,1</td>
<td>22,7</td>
<td>18,2</td>
</tr>
<tr>
<td>Internal</td>
<td>9</td>
<td>40,9</td>
<td>45,5</td>
<td>13,6</td>
</tr>
<tr>
<td>Learning and Growth</td>
<td>7</td>
<td>31,8</td>
<td>45,5</td>
<td>22,7</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>22,7</td>
<td>9,1</td>
<td>68,2</td>
</tr>
</tbody>
</table>

Table 4.6 Perspectives used within the scorecards

Most of respondents banks accepted to provide further information about the measures they use; results highlight as for each perspective the number of indicators varies with a range between 2 and 10 and it is mainly focused on financial metrics (61,9 percent) as table 4.7 and chart 4.4 depict.

*What is structure of the measurement system used in your company?*

<table>
<thead>
<tr>
<th>Structure of the measurement system used in your company</th>
<th>% over respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is mainly composed of financial metrics</td>
<td>61,9</td>
</tr>
<tr>
<td>It is mainly composed of non financial metrics</td>
<td>4,8</td>
</tr>
<tr>
<td>It is equally composed of both of them</td>
<td>33,3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.7 Use of financial and non financial measures within the SPMS

\textsuperscript{34} An instance are the disposition of Basel Accords 1-2 and 3 and the speech of the Governor of the Bank of Italy’s, Mario Draghi, where he highlights the need of supervision of reward systems for top management (at the AIAF - ASSIOM - ATIC Forex Conference, Naples, February 13 May 2010).
Financial perspective appears to be not only the most used, but also the most rich of measures; banks focus their efforts on results coming from ROE, ROA cost income, contribution margin and leverage. Following the focus on the financial measures risk adjusted perspective emphasizes RORAC, EVA™, capital adequacy, credit and liquidity risk ratio, solvency ratio and TIER 1 and TIER 2 capital ratio, reflecting essentially suggestions and recommendations of the Basel Accords. Inside customer dimension, banks highlight their interest in the level of satisfaction, redemption and profitability per customer; while learning and growth dimension is measured by personnel satisfaction, turnover ratios and operating costs per employee. Finally, internal perspective puts emphasis on development and on time to market of new products, for example internet banking services (e.g. for volumes and the number of transactions). Table 4.8 and figure 4.1 depict the key measures per perspective used by banks.

---

35 Some respondents reported both the name and the formula they used to perform measures, however other respondents indicated only the name of indicators making hard for me to detect how they perform those metrics.
<table>
<thead>
<tr>
<th>Perspectives</th>
<th>Key measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>ROE, ROA, cost income, contribution margin, leverage, TIER 1, TIER 2, EVA™</td>
</tr>
<tr>
<td>Risk adjusted</td>
<td>RORAC, EVA™, capital adequacy, credit and liquidity risk ratio, solvency ratio, TIER 1, TIER 2</td>
</tr>
<tr>
<td>Customer</td>
<td>satisfaction, redemption and profitability per customer</td>
</tr>
<tr>
<td>Learning and growth</td>
<td>employees satisfaction, turnover ratios, operating costs per employee</td>
</tr>
<tr>
<td>Internal</td>
<td>development and time to market of new products, volumes and number of transactions for products (e.g. volumes and number of transactions of internet banking)</td>
</tr>
</tbody>
</table>

Table 4.8 Key measures per perspective
By a comparison of the results, it emerges that banks make use of similar indicators, even if inserted in different perspectives showing, for instance the high degree of connection between financial and risk adjusted dimensions where TIER 1, TIER 2, solvency ratio, EVA™ are used interchangeably in both of them. Another instance is given by employees turnover and satisfaction belonging both to internal and learning and growth dimensions.
In order to further evaluate the extent to which banks used evolved SPMS, I checked the extent to which they explicitly included cause-effect links between strategic objectives and measures in their measurement system. To this purpose I added a further question (table 4.9 and chart 4.5)

"When using the SPMS do you pay attention to cause and effect relationships between strategic objectives and measures adopted?"

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>57,1</td>
</tr>
<tr>
<td>No</td>
<td>9,5</td>
</tr>
<tr>
<td>Partially</td>
<td>28,6</td>
</tr>
<tr>
<td>Missing</td>
<td>4,8</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.9 KPI and strategic measures

Chart 4.5 KPI and strategic measures
Table 4.9 and chart 4.5 depict the use of cause and effect relationships between strategic objectives and measures adopted and as 57,1 percent of the respondents confirm they use, 28,6 partially, while 9,5 neglect this use.

Then, following the guidelines of Chenhall (2005), I may affirm that most of the banks make use of SPMS even if, because of the limitations imposed by ABI in developing the questionnaire, I cannot value the effective quality and function of those monitoring systems.

### 4.7 Descriptive statistics analysis

As a first step of the descriptive analysis, I normalized the frequency of the distribution for each independent variable according to the values of the Likert scale. Since results show that respondents used only some values of the scale to show their level of agreement or disagreement to the statements I adjusted the initial scale and developed a new scale composed of 5 points (strongly disagree, disagree, neutral, agree and strongly agree) instead of 7 as depicted in table 4.10.

<table>
<thead>
<tr>
<th>Previous Likert scale</th>
<th>Likert scale actualized</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5,6</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 4.10  Likert scale for contingency factors

I measured Cronbach’s Alpha Coefficient for each variable, excluding organization size being composed of only one item, making unnecessary this test. For 4 of the 6 factors the result was satisfactory, being the results above the normative level of satisfactory of 0,60. This suggests
acceptable reliability of these constructs. Cronbach Alpha for management involvement and difficulties in selecting KPI is respectively 0.474 and 0.466, somewhat below the usually recommended satisfactory level of 0.6 but, since the small simple size its value is still suitable. Table 4.11 depicts Cronbach’s Alpha value for each of the factors.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s Alpha</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management disposition toward change</td>
<td>0.634</td>
<td>2</td>
</tr>
<tr>
<td>Management involvement</td>
<td>0.474</td>
<td>2</td>
</tr>
<tr>
<td>Clarity of objectives</td>
<td>0.778</td>
<td>2</td>
</tr>
<tr>
<td>Financial target based compensation schemes</td>
<td>0.931</td>
<td>2</td>
</tr>
<tr>
<td>Internal communication</td>
<td>0.798</td>
<td>2</td>
</tr>
<tr>
<td>Difficulties in selecting measures</td>
<td>0.466</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.11 Cronbach’s Alpha

Constructing the variables related to contingent factors as the average of the items loading on that variable, the resulting means, minimum, maximum and standard deviations for each contingency factor are indicated in Table 4.12, 4.13 and 4,14.

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Disposition to change</td>
<td>21</td>
<td>2.52</td>
<td>1</td>
<td>5</td>
<td>1.17</td>
</tr>
<tr>
<td>Management Involvement</td>
<td>21</td>
<td>3.9</td>
<td>1</td>
<td>5</td>
<td>1.09</td>
</tr>
<tr>
<td>Clarity of Objectives</td>
<td>21</td>
<td>2.91</td>
<td>1</td>
<td>5</td>
<td>1.04</td>
</tr>
<tr>
<td>Financial target based compensation schemes</td>
<td>21</td>
<td>3.24</td>
<td>1</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Internal Communication</td>
<td>21</td>
<td>3.71</td>
<td>1</td>
<td>5</td>
<td>1.31</td>
</tr>
<tr>
<td>Organization size</td>
<td>21</td>
<td>2.52</td>
<td>1</td>
<td>4</td>
<td>1.25</td>
</tr>
<tr>
<td>Difficulties in Selecting KPI</td>
<td>21</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>0.63</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.12 Descriptive Statistics- factors

A second step involved the descriptive of the SPMS implementation model. My initial pattern was composed of 6 stages, but data collected by questionnaires showed small or absent
frequencies for some stages (e.g. adopted then abandoned). Therefore, and on the basis of my empirical data, I developed a new model composed of 3, instead of 6, stages: SPMS not adopted, SPMS adopted and SPMS implemented as depicted in table 4.13.

<table>
<thead>
<tr>
<th>Former Pattern</th>
<th>New Pattern</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3</td>
<td>1</td>
<td>not adopted</td>
</tr>
<tr>
<td>4,5</td>
<td>2</td>
<td>Adopted</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>Implemented</td>
</tr>
</tbody>
</table>

Table 4.13 Implementation model

Table 4.14 reports mean and standard deviation of the implementation stage variable together with the frequency of each value of the ordinal variable.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.658</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not adopted</td>
<td>2</td>
<td>9.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Adopted</td>
<td>3</td>
<td>14.3</td>
<td>23.8</td>
</tr>
<tr>
<td>Implemented</td>
<td>16</td>
<td>76.2</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.14 SPMS implementation stages
4.8 Conclusion

In chapter 4, various statistical analyses were performed on the data. These included demographic information and descriptive statistical analyses for each variable.

The size of the banks respondent is mainly large (66.6%) and as declared by the sample of respondents, SPMS are widely present in these organizations. A high percentage of banks in the sample report they have adopted (13.8%) or implemented it (72.7%) SPMS. Nevertheless, extrapolating results from this sample needs caution since non-response bias is likely to be present.

Most of the respondents (62.5 percent) declare to regularly use SPMS to make company decisions and 57.1 percent pay attention to cause and effect relationships. SPMS are based on the use of multiple perspectives (around two-five), with a extensively use of financial (90.9%) and risk adjusted (68.2%) dimensions and a scarce interest for internal (40.9%) and learning and growth (31.8) perspectives, furthermore, performance monitoring systems are mainly based on financial metrics (61.9%) while non financial indicators are used moderately (4.8%), concluding, 33.3% declare to use both of them.

Some instances of the KPI used in financial perspective more frequently represented by: ROE, ROA, EVA™, cost income, contribution margin, leverage. Following the focus on the financial measures the risk adjusted perspective emphasizes return on RORAC, EVA™, capital adequacy, credit and liquidity risk ratio, solvency ratio and TIER 1 capital ratio reflecting essentially suggestions and recommendations of Basel Accords. Inside customer dimension, banks highlight their interest on satisfaction, redemption and profitability per customer; while learning and growth dimension is measured by employees satisfaction, turnover ratios and operating costs per employee. Finally, internal perspective puts emphasis on the development and on the time to market of new products as internet banking services (for instance the volumes and the number of transactions).

Respondents also declare to use a broad array of measures (financial and non financial) linking long term strategy with goals and activities across the value chain inserted in a multi-perspectives structure focused on diverse measurement components such as financial, risk adjusted, customers, internal and learning and growth perspectives. Then, following the guidelines of Chenhall (2005), I may affirm that banks make use of SPMS, even if, because of the limitations imposed by ABI in developing the questionnaire, I cannot value the effective quality and function of those measurement systems.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
Chapter 5 Results of hypotheses testing and discussion

The purpose of this fifth chapter is to test the hypothesis developed in chapter 3 reporting the results of the analysis performed according the methodology presented in this chapter. The first section highlights the statistical technique that I am going to use for the data analysis, while sections 5.2 to 5.4 examine the associations among contextual factors and SPMS implementation stages using Spearman’s correlations. Section 5.5 concludes the chapter reporting some conclusive remarks.

5.1 Hypotheses Tests

In this chapter I am going to test the hypothesis H1 to H7 presented in chapter 3. The hypotheses in this study postulate relationships between contextual (behavioral, organizational and technological) factors and implementation stages of SPMS. The review of the literature shows that tests in similar prior investigations were performed by techniques such as logistic regression, binary logit (for instance Chen et al. 2006), ordered logit (for example Beasely et a. 2005) or a combination of them (for instance Krumwiede 1998) since those techniques allow to determine if factors are stage-specific (Long 1997). Despite that, and because of the small size of the sample (22 respondent banks and 21 usable questionnaires) I was not able in this study to use multivariate statistical techniques.

Contingency factors (measured by a Likert-scale) and implementation stages are both ordinal variables and given the relatively small number of banks and considering some departures from the normality concerning the implementation stage (72.2 percent implemented SPMS), I considered a non parametric test based on correlations as more appropriate. Therefore, I opted for performing Spearman’ Rho tests to determine if management disposition toward change, management involvement, clarity of objectives, financial target based compensation

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36 Small sample size can easily contaminate final results (Raudys and Jain 1991)
schemes, internal communication, organization size and difficulties in selecting KPI are associated with the stages of the implementation model of SPMS. Furthermore, I used one-tailed tests for all of the variables since they have hypothesized signs (i.e. positive or negative). Finally, I followed the advices of Corbetta (1999) claiming that when the size of the sample is small (N<100) then p-values above 0,05 can be accepted. Therefore, in this thesis I consider significance of correlations at up to the 0,1 level (one tailed).

5.2 Behavioral factors:

5.2.1 H1: Management Disposition toward change

The management attitude toward change describes the degree of support along a process of organizational change (Argyris 1990, Argyris and Kaplan 1994) representing the ability of management to adapt to new circumstances for instance in working in new situations and with new people; then, disposition to change is based on understanding and valuing different and opposing viewpoints, adjusting the chosen approach in case of changing circumstances, and revising or accepting changes within the organization or within activities (Spencer and Spencer 1993, Armstrong and Baron 1998).

Prior researches report contradictory results, for instance Anderson (1995) and Niven (2002) show the positive relationship between management disposition to change and PMS implementation stages, while Meekings (1995) refutes the presence of this association and Innes and Mitchel (1995) sustain that management disposition to change, does not represent a significant factor across the process of change.

In H1 I have supposed the presence of a positive relationship between management disposition to change and SPMS implementation stages as stated:

H1: management disposition toward change is positively correlated to SPMS implementation stage.

37 To this purpose Corbetta (1999) highlights the presence of many disputes on the use of significance level in social sciences and recommends the work of Morrison and Henkel (1971) for a summary.
In table 5.1 I performed the Spearman’ correlation, showing the correlation coefficient ($\rho$) of management disposition toward change with respect to SPMS implementation stage; the significance level as result of the correlation test, and finally whether the hypothesis should be supported or rejected.

<table>
<thead>
<tr>
<th>Implementation stage</th>
<th>Hypothesis Description</th>
<th>$\rho$</th>
<th>Significance level</th>
<th>Supported/rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Management disposition toward change</td>
<td>-0.191</td>
<td>0.204</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (one tailed)
* Correlation is significant at the 0.05 level (one tailed)
# Correlation is significant at the 0.1 level (one tailed)

Table 5.1 Correlation management disposition toward change and SPMS implementation stage

Table 5.1 highlights that the correlation between management disposition to change and SPMS implementation stages is not significant ($p<0.1$). H1 is then rejected.

### 5.2.2 H2: Management involvement

Management involvement refers to the attitude of managers to participate to the process of SPMS implementation by design, use and monitoring. In the organizational change process a strong involvement of managers can motivate personnel to modify firm’s practices and activities with the awareness that the profitability will follow only in the medium-long term. During the evolution of this process people have the opportunity to create results, rather than simply react to circumstances and those who have to live with changes become directly involved in shaping them then management involvement represents their presence and participation across the implementation process (McGowan and Klammer 1997). Meekings 1995 and Liu and Pan 2007 link the concepts of management involvement and implementation stages (analyzing respectively general administrative innovations and ABC) claiming that the degree of participation tends to increases along to the implementation process, highlighting its relevance in the early stages of this process, Nevertheless, Pil and Mac Duffie (1996) sustain that the involvement management may have a negative effect on the implementation of innovation. To this purpose in H2 I have supposed the presence of a positive relationship between management involvement and SPMS implementation stages as stated:
H2: *management involvement* is positively correlated to SPMS implementation stages.

Similar to previous analysis I performed the Spearman’s correlation and table 5.2 shows the correlation coefficient ($\rho$) of management involvement with respect to SPMS implementation stages; the significance level as a result of the correlation and finally whether the hypothesis should be supported or rejected.

<table>
<thead>
<tr>
<th>Implementation stages</th>
<th>Hypothesis</th>
<th>Description</th>
<th>$\rho$</th>
<th>Significance level</th>
<th>Supported/rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2</td>
<td>Management involvement</td>
<td>0.731**</td>
<td>0.001</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (one tailed)
* Correlation is significant at the 0.05 level (one tailed)
# Correlation is significant at the 0.1 level (one tailed)

Table 5.2 Correlation management involvement and SPMS implementation stages

Results obtained in table 5.2 show the presence of a strong positive correlation between management involvement and SPMS implementation stages ($p<0.01$). Then, based on the result obtained, hypothesis H2 is supported.

5.3 Organizational factors

5.3.1 H3: Clarity of company’s objective

Prior research in MACS implementation highlights the positive relationship between the clarity of the company’s objectives and the MACS implementation stages. Umashev and Willet (2008 on BSC) support Shields (1995 on ABC) affirming that the clarity of the objectives acquires a crucial role since vague and confusing communications prompt individuals to apply individuals or groups norms imperatives, and since when everyone agrees on a particular objective, their resources and efforts are aligned so that they do not work at cross purposes. Nevertheless, some authors are skeptical about the capabilities of goals clarity of firms. Epstein and Manzoni (1997) question the ability of organizations to agree on a strategy in such clear terms that it would enable to implement SPMS, while other researchers do not pay any attention to the
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clarity of the company’s objectives, considering this factor not so relevant (e.g. Foster and Swenson 1997, Anderson and Young 1999, Anderson et al. 2002). To this purpose in H3 I have supposed the presence of a positive relationship between company clarity of the objectives and SPMS implementation stages as stated:

**H3: clarity of company’s objectives is positively correlated to SPMS implementation stages.**

As previously, I performed the Spearman’s correlation and table 5.3 shows the value of $\rho$ on clarity of company’s objectives with respect to SPMS implementation stages; the significance level as result of the correlation test, and finally whether the hypothesis is supported or rejected.

<table>
<thead>
<tr>
<th>Implementation stages</th>
<th>Hypothesis</th>
<th>Description</th>
<th>$\rho$</th>
<th>Significance level</th>
<th>Supported/rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3</td>
<td>Clarity of company’s objectives</td>
<td>0.35*</td>
<td>0.06</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (one tailed)**
*Correlation is significant at the 0.05 level (one tailed)
*Correlation is significant at the 0.1 level (one tailed)

Table 5.3 Correlation clarity of objectives and SPMS implementation stages

Results obtained in table 5.3 show the presence of a positive correlation ($p < 0.1$) between company clarity of objectives and SPMS implementation stages. Hence, H3 is supported.

**5.3.2 H4: Financial target based compensation schemes**

The current global financial crisis has emphasized the role of financial target based compensation schemes within banks. The literature recognizes both positive and negative effects of these kinds of reward systems. Some authors support their use sustaining that they can have positive effects in a process of change because of their capabilities to influence willingness, involvement and commitment of management (e.g. Webb 2004). Contrarily to that, other authors confute this statement showing their negative sides on MASC, for instance if the link between indicators and targets is incongruent or not clear, or more generally if managers and employees consider the planned goal as not attractive (Banker et al. 2004). To
this purpose in H4 I have supposed the presence of a positive relationship between financial target based compensation schemes and SPMS implementation stages as stated:

\[ H4: \text{Financial target based compensation schemes are positively correlated to SPMS implementation stages.} \]

As previously, I performed the Spearman’s correlation, table 5.4 shows the value of \( \rho \) on financial target based compensation schemes with respect to SPMS implementation stages; the significance level as result of the correlation test, and finally whether the hypothesis is supported or rejected.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>( \rho )</th>
<th>Significance level</th>
<th>Supported/rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4</td>
<td>Financial target based compensation schemes</td>
<td>0.621**</td>
<td>0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (one tailed)
* Correlation is significant at the 0.05 level (one tailed)
* Correlation is significant at the 0.1 level (one tailed)

Table 5.4 Correlation financial target based compensation schemes and SPMS implementation stages

The results obtained in table 5.4 show the presence of a strong correlation (\( \rho<0.01 \)), then the hypothesis 4 of positive association between both financial target based compensation schemes and SPMS implementation stages is supported.

### 5.3.3 H5: Internal communication

Internal communication represents the ability to interact effectively with convey information to other people. Kitchen and Daly (2002) claim that communication is a way of avoiding the uncertainty linked to a process innovation and change, Bouwens and Albernethy (2000) link
internal communication to the functioning, development and implementation of administrative innovations, Norreklit (2000) adds that information interdependence among departments are essential for the effective functioning of BCS. In spite of that, Umashev and Willet (2008) and Burnes (1992) doubt the real ability of organization to communicate internally effectivelly pointing out as frequently management under-communicate and not by a small amount, then affecting negatively the implementation process. To this purpose in H5 I have supposed the presence of a positive relationship between internal communication and SPMS implementation stages.

**H5: internal communication is positively correlated to SPMS implementation stages.**

As previously, I performed the Spearman’s correlation and table 5.5 shows the value of \( \rho \) on internal communication with respect to SPMS implementation stages; the significance level as result of the correlation test, and finally whether the hypothesis is supported or rejected.

<table>
<thead>
<tr>
<th>Implementation stages</th>
<th>Hypothesis</th>
<th>Description</th>
<th>( \rho )</th>
<th>Significance level</th>
<th>Supported/ rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5</td>
<td>Internal communication</td>
<td>0.316 ( ^# )</td>
<td>0.081</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0,01 level (one tailed)**

* Correlation is significant at the 0,05 level (one tailed)

\( ^# \)Correlation is significant at the 0,1 level (one tailed)

**Table 5.5 Correlation internal communication and SPMS implementation stages**

The results obtained in table 5.5 suggest the presence of a positive correlation, even if significant only at \( p < 0.1 \), between internal communication and SPMS implementation stages, hence supporting hypothesis 5.

**5.3.4 H6: Organization Size**

Kimberly (1976), Merchant (1981) and Gooding and Wagner (1985) highlight the primary role of the size and the structure of the organization within the design of MASC, afterwards confirmed by Mintzberg (1979) and Shields (1995). Nevertheless, research on size-innovation
issues has yielded mixed results. Zaltman et al. (1973), Blau and McKinley (1979) and Tolbert and Zucker (1983) argue that the organizations more formalized are those better equipped to implement MACS innovations, as successively confirmed by Moores and Chenhall (1994) for MAS. However, Gosselin (1997) finds no statistically significant relationship between organizational size and the decision to adopt ABM and ABC. Similarly, Libby and Watherhouse (1996) find no relationship between size and the number of management accounting changes. To this purpose in H6 I have supposed the presence of a positive relationship between organization size and SPMS implementation stages as stated:

**H6: Organization size is positively correlated to SPMS implementation stages.**

To test H6 I performed the Spearman’s correlation and table 5.6 shows the coefficient ($\rho$) of bank’s size with respect to SPMS implementation stages; the significance level as result of the correlation test, and finally whether the hypothesis is supported or rejected.

<table>
<thead>
<tr>
<th>Implementation stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis</td>
</tr>
<tr>
<td>H6</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (one tailed)
* Correlation is significant at the 0.05 level (one tailed)
$^*$Correlation is significant at the 0.1 level (one tailed)

Table 5.6 Correlation organization size and SPMS implementation stages

Table 5.6 shows the presence of a positive correlation between organization size and SPMS implementation stages ($p<0.1$) supporting H6.

### 5.4 Technological factors:

#### 5.4.1 H7: Difficulties in selecting KPI

SPMS link together KPI and the four areas of SPMS in a causal chain which passes through all four perspectives. Kaplan and Norton (1996b) and Niven (2002) recommend the use of those specific measures that better attain and link organization goals without focusing on eventual
troubles in their selection. Nevertheless, many authors argue that the choice of the KPI that better fit the strategic objective of the company is challenging for example because of the overreliance of financial indicators, or because measures are focused primarily on short term run or for cognitive difficulties in evaluating the results of the metrics (Lipe and Salterio 2002). To this purpose in H7 I proposed a negative association between difficulties in selecting KPI and SPMS implementation stages as stated:

H7: difficulties in selecting KPI are negatively correlated to SPMS implementation stages

Similar to the analysis for previous factors, a bivariate correlation is performed and table 5.7 shows the Spearman’s correlation factor ($\rho$) of difficulties in selecting KPIs with respect to SPMS implementation stages; the significance level as result of the correlation test, and finally whether the hypothesis is supported or rejected.

<table>
<thead>
<tr>
<th>Implementation stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis</td>
</tr>
<tr>
<td>H7</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (one tailed)
*Correlation is significant at the 0.05 level (one tailed)
-Correlation is significant at the 0.1 level (one tailed)

Table 5.7 Correlation difficulties in selecting KPI and SPMS implementation stages

Table 5.7 highlights that the correlation between difficulties in selecting KPI and SPMS implementation stages is not significant ($p<0.1$), then H7 must be rejected.

5.5 Conclusion

In chapter 5, I tested the research hypotheses stated in chapter 3 performing the Spearman’s correlation analysis for each of them. Table 5.8 indicates two strong and significant relationships, a first between management involvement and SPMS implementation stages
(p<0.01), and a second one between financial target based compensation schemes and SPMS implementation stages (p<0.01). This is consistent with the statements of H2 and H4 highlighting a positive direction of both of these variables with respect to SPMS implementation stages.

In addition to this, correlations of clarity of objectives; internal communication; and organization size with respect to SPMS implementation stages, are also significant (even though only at p<0.1) and in the expected direction (i.e. positive). This is consistent respectively with H3, H5 and H6.

In contrast, H1 concerning the association between management disposition toward change and implementation stages and H7 concerning the association between difficulties in setting KPIs and implementation stage were rejected since both were found not significant (p<0.1). To summarize, the empirical results provide support for H2, H3, H4, H5 and H6 while H1 and H7 are rejected.
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<table>
<thead>
<tr>
<th># Hypothesis</th>
<th>Factor</th>
<th>( \rho )</th>
<th>Significance Level (one tailed)</th>
<th>Supported / Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Management disposition to change</td>
<td>-0.191</td>
<td>0.204</td>
<td>rejected</td>
</tr>
<tr>
<td>H2</td>
<td>Management involvement</td>
<td>0.731**</td>
<td>0.001</td>
<td>supported</td>
</tr>
<tr>
<td>H3</td>
<td>Clarity of objectives</td>
<td>0.350*</td>
<td>0.06</td>
<td>supported</td>
</tr>
<tr>
<td>H4</td>
<td>Financial target based compensation schemes</td>
<td>0.621**</td>
<td>0.001</td>
<td>supported</td>
</tr>
<tr>
<td>H5</td>
<td>Internal communication</td>
<td>0.316*</td>
<td>0.081</td>
<td>supported</td>
</tr>
<tr>
<td>H6</td>
<td>Organization size</td>
<td>0.352*</td>
<td>0.059</td>
<td>supported</td>
</tr>
<tr>
<td>H7</td>
<td>Difficulties in selecting KPI</td>
<td>-0.061</td>
<td>0.396</td>
<td>rejected</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (one tailed)
* Correlation is significant at the 0.05 level (one tailed)
* Correlation is significant at the 0.1 level (one tailed)

Table 5.8 Correlations contingency factors and SPMS implementation stage
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Chapter 6 Case Study

The analyses of the literature illustrated in chapter 2 and the quantitative analysis performed in chapter 5 provided a description of associations between contingency factors and implementation stages of MACS. This chapter aims to provide further insights into the extent to which contextual factors may be associated to implementation stages of SPMS by means of a case study research. The case describes and analyzes the implementation of SPMS in Carige Bank.

This chapter is organized as follows. Section 6.1 lays out the method used in conducting and analyzing the data and introduces the research questions, sections 6.2 and 6.3 provide a description of Carige Bank, and sections 6.4 and 6.5 focus on the description of BSC model and strategic directions of the bank. Section 6.6 contains the results of the analysis. Finally, section 6.7 is a discussion of the results and section 6.8 deals with potential limitations.

6.1 Research questions and methodology of analysis

In this study I use a combination of survey method to deal with the quantitative analysis and a case study to deal with the qualitative analysis. The survey method was used to test the formulated hypotheses and the case study is used here for confirmatory purposes (Gerring 2004, Modell 2005).

Case studies place more emphasis on a full contextual analysis of a limited number of events or conditions and their interrelations. According to Backstrom and Hursh-Cesar (1981), the choice of research approach depends on knowing answers to several questions, one of which is whether the information already exists and data did not exist in their entirety at the same level of granularity in the organization under study; therefore, the hypothesis cannot be tested purely quantitatively. Hence the best method of inquiry was combine that research methodology with the case study.

The case study methodology has many advantages. Harrigan (1983) and Corbetta (1999) argue that the advantage of the case study method can be a meticulous attention to detail,
relevance of the business practice, and access to multiple viewpoints. Snow and Thomas (1994) suggest that field research methodologies, which involve real managers and organizations, examine strategic processes and outcomes more realistically than other methods. Emory and Cooper (1991) offer that a single, well-designed case study can provide a major challenge to a theory and provide a source of new hypotheses and constructs. Patton (2002) comments that the failure to find statistically significant differences when comparing people on some outcome measures did not mean that there were no important differences among them on those outcomes. Instead, the differences may simply have been qualitative rather than quantitative and due to “differences of quality” (p. 151).

Ahrens and Chapman (2007) claim that the qualitative field research lays in the particular way of knowing the field of research confirming the claim of Chua (1986, page 615) “[s]ocial reality is emergent, subjectively created, and objectified through human interaction”. They add that the methodological and theoretical task of qualitative research is to express the field as social and not simply describe or clarify it to the reader as if part of a given nature. Ahrens and Chapman (2007, page 299) add that “doing qualitative field studies is not simply empirical but a profoundly theoretical activity”. The definition of the field is profoundly theoretical and the practice of qualitative research implies and ongoing reflection of data and its fitting with respect to different theories contributing and developing the research question and advancing in research activities as pointed out by Corbetta (1999). Finally, Ferreira and Merchant (1992) and Yin (2003) have argued that field studies can be used from a positivistic stance for purposes of exploration, theory discovery, theory refinement, confirmation and illustration.

A case study involves the detailed examination of a single setting or a particular event, and its main concern is with detail and complexity of the case; it provides explanation of the phenomenon studied because it allows for a “thick description” (Miles and Huberman 1994). Accordingly, a case study allows to investigate a contemporary phenomenon, such as SPMS implementation, within its real-life context where boundaries between the phenomenon and the context are not clearly evident, and in which multiple sources of evidence (e.g. interviews, archival data, presentations and other) (Benbasat et al. 1987, Corbetta 1999 and Yin 2003). Moreover, case study research approach enables an understanding of the nature and complexity of the processes occurring. It allows researchers to “retain the holistic and meaningful characteristics of real-life events” (Yin 2003, page14) such as processes of change.

The literature review developed in chapter 2 showed the influence of contingency factors on implementation stages of MACS. In turn, chapter 5, based on quantitative analysis, showed the extent to which management involvement, internal communication, clarity of objectives, financial target based compensation schemes, organizational size, difficulties in selecting KP
are associated to SPMS implementation stages, while management disposition toward change and difficulties in selecting KP I are not. In the current chapter, I will use a case study for purposes of both theory refinement and confirmation. My interpretation of the case study will be informed by prior theoretical concepts as well as from the results I obtained in my quantitative analysis whereas at the same time the case study aims to result in a further specification of these concepts. So, in this chapter I take a complementary qualitative angle to address the research questions already formulated in page 70 (section 3.1).

- **Is there an association between behavioral factors and SPMS implementation stages?**

- **Is there an association between organizational factors and SPMS implementation stages?**

- **Is there an association between technological factors and SPMS implementation stages?**

### 6.2 Case study: description of Carige Bank

For this qualitative analysis I performed the case of Carige Bank (at the headquarter level) for two main reasons. First of all, Carige Bank was one of the first banks in Italy to implement the Balanced Scorecard (BSC, a specific version of SPMS) maturing almost ten years of experience with a performance management system. Secondly, Carige Bank used (and is using) a uniform development approach within the departments and within the banks acquired.

Carige Bank is a midsize regional savings bank, listed to the Milan Stock Exchange since 1994 (first bank to be quoted in the Italian Market) and actually encloses in several index (for instance FTSE All-Share Capped, FTSE Italia All-Share, FTSE Italia Mid Cap, *FTSE Italia Finanza* and *FTSE Italia Banche*) with total assets of almost €40 billion on December 31, 2010 and enjoyed strong financial success over the past ten years (figure 6.1 and 6.2).
Figure 6.1 Quantitative growth of Carige Bank since listing (source: archival Company slides)

Figure 6.2 Comparison of profits: average banks, average peer, Carige Bank 2005-2010
(source: archival company slide)
Carige Bank enjoys a strong 28% share of customer deposits in its home market of the Liguria Region, where half of its loan portfolio is concentrated. The bank has also expanded its franchise outside the Liguria Region since 2000 through organic growth and the acquisition of small local banks and branch networks, most recently through the purchase of 22 branches from another Italian bank, Banca Monte dei Paschi Siena (MPS) (figure 6.3). The mission of Carige Bank is focused on providing a wide variety of traditional banking activities including treasury services, sale of money market products to corporate customers, foreign exchange dealing, underwriting, trading and selling for debt and equity security, as well as a range of other financial services provided by specialized divisions of the bank.

Carige Bank operates both in the banking sector and marginally in the insurance business companies. As at 31 December 2010, it had 667 banking branches of which 666 were located in 13 Italian regions and 1 abroad, while the two insurance companies operated through 432 insurance outlets distributed throughout Italy. The distribution channel is made up, on the one hand, by branches and insurance outlets and, on the other hand, by a network banking advisors for private, corporate and affluent individuals and small businesses.
The organizational structure of Carige Bank is built around specialties (figure 6.4), the retail division, the planning and control area, the product section and the administration area. Furthermore, the organizational structure is completed by the compliance and internal auditing areas aimed to supervise the global results of the bank and their congruency to the disposition of national and international supervisors. The general manager is responsible for managing divisions, centers, and facilities, and it is accountable to the board of supervisors. This organizational structure is highly centralized because half of its loan portfolio is concentrated in the local market of Liguria.

Figure 6.4 Carige Bank’s structure (source: archival Company data; Press Conference, original language: English)
6.3 Site and methodology

The access to the organization was gained through personal contact and I visited the bank in the period from February 2010 to September 2011. I was sponsored by the Director of the Administration department (contacted by personal contacts, first called by phone and afterwards by a meeting for explaining the topic of my research) contacted in February 2010.

I preferred interviewing members of the management since they were understood to have the necessary information and a global vision of the BSC. I interviewed first the director of the Administration area and afterwards the director and an employee of the HR department, the director and an employee of the Research Department and by their suggestions a full professor at the local University of Economics of Genoa who contributed to develop their BSC model. The interviews lasted from 1 to 2 hours, showing the willingness of the interviewers to participate to the study.

The data presented in this study are collected from interviews, archival data, presentations to practitioners conferences and media (made by the bank’s management at the Milan Stock Exchange), articles for practitioners published in Italy, presentations prepared ad hoc for my investigation purposes and web site documents. Only some of the interviews were recorded with the agreement of the interviewed persons. Furthermore, some clarifying information was facilitated via mail and during telephone conversations. Table 6.1 lists the interviews, that I conducted and archival date (mainly composed of internal presentations) provided by the bank.

The interviews were conducted in a semi-structured fashion along the research hypotheses of the quantitative study (as developed in chapter 3). I introduced first myself and explained briefly the objective of the study. The interviewed person was then asked about his/her job position in the organization.
<table>
<thead>
<tr>
<th>Interviews</th>
<th>Number of meetings</th>
<th>Duration of each interview (average - in minutes)</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director of the Administration department (contact person)</td>
<td>1</td>
<td>60</td>
<td>--</td>
</tr>
<tr>
<td>Director of the Research &amp; Development department</td>
<td>2</td>
<td>90</td>
<td>• Internal presentation • Article published in a book</td>
</tr>
<tr>
<td>Director of the HR department</td>
<td>3</td>
<td>90</td>
<td>• Internal presentations • Ad hoc presentations prepared for my research purposes • Presentation for conferences • Bank’s Organization chart • BSC structure • BSC functioning • Web site documents</td>
</tr>
<tr>
<td>Employee of the HR department</td>
<td>1</td>
<td>120</td>
<td>• Examples of departmental scorecards</td>
</tr>
<tr>
<td>Employee of the HR department</td>
<td>1</td>
<td>90</td>
<td>• Examples of departmental scorecards</td>
</tr>
<tr>
<td>Professor at the local University of Economics (subject: banks and financial institutions)</td>
<td>1</td>
<td>60</td>
<td>• Article published in a book (the same provided by the head of the HR department)</td>
</tr>
</tbody>
</table>

Table 6.1 Interviewed and documents provided by the bank
6.4 The BCS implementation process and content

Carige Bank was one of the first banks in Italy to imply regularly a BSC\textsuperscript{38}, starting the process of planning and development in 1999 and reaching its full implementation some years later, in 2003. In a first phase a pilot study was developed in the banking and insurance networks and later on the BSC project was extended to the entire departments of the headquarter of the bank.

The HR manager evidences as changes and the introduction of new and stricter regulation policies and the increasing of competiveness and M&A actions within the banking industry at national and international level are some of the main reasons that forced Carige Bank to set up a control system developing a BSC model. The goal of the project was to increase the quality of the management control and information function in such a way that the execution of the strategic and divisional plans could be monitored with objective, reliable, timely, and consistent information.

The top management charged a specific team for the BSC design and implementation composed of several members, such as management of the Research & Development and HR departments supported by a external consultants.

The BSC project was executed in four phases (figure 6.5):

- **Phase 1: Evaluation** – the team charged of the implementation of the BSC analyzed the Strategic Plan of the company.

- **Phase 2: Design of the BSC for banking and insurance networks** - the team defined the perspectives to use, the KPI to implement basing on the Strategic Plan in the BSC for the banking and insurance networks of Carige Bank.

- **Phase 3: Design of the BSC for the headquarter** – the team defined the perspectives to use in the BSC of the headquarter and the KPI to insert.

- **Phase 4: Evaluation of the reward system** - the team developed the reward system by 5 main steps, that are (a) definition of the valued added created by the bank

\textsuperscript{38} The bank called its monitoring system BSC inspiring to the Kaplan and Norton model. In spite of the many definitions of BSC presented in the academic and managerial literature (e.g Bisbe et al. 2007), here I am going to follow Carige Bank using the term BSC for referring to their MACS.
representing the base of the reward system; (b) determination of the correlation between the valued added of the bank the amount of rewards to share to the personnel; (c) definition of the criterion for partitioning the amount of rewards identified in point b; (d) definition of the system for addressing rewards and (e) sharing the BSC design with the member of the board.

One crucial institution in facilitating learning was the measurement team composed by the Research & Development department, the HR unit and the Planning & Control division. While the original purpose of the first units was only to construct the new measurement system, this team was involved in the measurement and control of the BSC analyzing the results of the measures and their implications, as well as issues related to different aspects of implementation and the future development of the BSC, serving an important purpose by providing a discussion forum for considering connections and relevance of different measures from the point of view of strategy.

Then the BSC was developed at two main organizational levels and times, first, for the banking and insurance networks (according to the area and sales channel and considering the organizational structure) and later on extending it to the headquarter.

6.4.1 BSC Perspectives

The way the Carige Bank set up its model can be defined as “traditional” and innovative at the same time. Traditional because the architecture of the model resembled closely the BSC methodology as developed by Kaplan and Norton (1992) and the perspectives were labeled
from the bottom to the top as “Financial”, “Customer”, “Internal” and “HR” and innovative because of the addition of a further perspective addressed to the head quarter, namely “Internal Client” (instead of customer) for measuring the quality of services (for example the quickness in answering emails and furnishing documents) provided to colleagues and the quality of the interrelationships among colleagues inside the bank.

Such sequencing of perspectives means a cause-and-effect relation based on the hypothesis that by improving employees’ skills and collaborative interrelationships among colleagues and management and enhancing their motivation would help to achieve improvements in the processes such as budgeting, clients’ attendance and work climate attention. This in turn would permit to maximize the financial and non-financial revenues. The latter would lead to the achievement of the top strategic objectives, such as the enhancement of bank image, optimal resources allocation, sustainable growth and promotion of economic activities (Figure 6.6).
The Financial perspective is oriented toward the evaluation of the profitability element of the strategy and the set of metrics used by Carige Bank are comprehensive of the following indicators: ROE, ROA, cost income, contribution margin, leverage, TIER 1, FIA, direct deposits, loans to customers.

The Customer perspective identifies the targeted market, segments measuring the company's success in these segments. It is measured, for instance, by customer acquisition, satisfaction, retention, multichannelity, on line services development.

The Internal perspective is focused on the internal operations of the bank and on specific strategic projects, KPI are base of the analysis of their profitability, quality and timeliness.

The HR perspective identifies and aims at stimulating the capabilities of the personnel working within the bank and it is measured, for instance, by job rotation, hours of training per employee.

Internal client perspective is developed only for the BSC of the head quarter to evaluate the working climate and collaboration within departments and within the bank.

"...all in all even the staff of the headquarter is a provider of services, not towards the final customers, but towards colleagues...". [employee HR department]

The perspective is measured by 9 behavioral factors valuing management and departments, that is: 1 reliability, 2 collaboration, 3 expertise, 4 awareness, 5 willingness, 6 innovation and flexibility, 7 problem solving, 8 timeliness and 9 vision.

The Internal client perspective is monitored externally (contrarily to the “traditional” perspectives that are measured internally by the bank headquarter), surveyed by an external consulting company for guaranteeing the independence of the data collected. In the survey each manager must provide a self-assessment of his performance related to the nine factors that are compared to the valuation of his colleagues on his behavior. Later on collected data are represented in a radar chart, personalized for each manager and each department. For instance, Chart 6.1 depicts the case where a manager underestimates his/her performance (line green) with respect to the judgment of his/her colleagues about his/her behavior within the bank (line blue).
Carige Bank designs and allots different models of scorecards according to departments and business unit and consistently to the targets reported in the Strategic Plan. For instance, figure 6.7 depicts as for networking units and subsidiaries KPI are associated to financial, customer and internal (and marginally to HR) perspectives, while for the headquarter scorecards present a more enlarged view inserting financial, customer, internal and internal client (instead of HR).
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

Figure 6.7 BSC Structure
(source: bank’s presentation prepared ad hoc for my research purposes)
### 6.4.2 BSC KPI

The choice of using some determined KPI and some determined perspectives for organizational levels depend on the strategic plan of the bank. Table 6.2 highlights the extent to which subsidiaries does not implement both internal and internal client perspectives, while headquarter does not imply the customer dimension which is central for the network branches of the bank. The choice of KPI and their collocation in scorecards confirm roughly results emerged in the survey presented in the previous quantitative section (chapter 5) of this thesis highlighting the extent to which the measures utilized in evaluating the bank's performance depend heavily on the strategies of the bank.

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Measures</th>
<th>Organizational Level</th>
<th>Headquarter</th>
<th>Subsidiary</th>
<th>Network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Rorac</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roe</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roa</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost Income</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribution Margin</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leverage</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tier 1</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FIA</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Direct deposits</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loans to customer</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project X profitability</td>
<td>X</td>
<td>PNP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project X timeliness</td>
<td>X</td>
<td>PNP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project X quality</td>
<td>X</td>
<td>PNP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Official Ratings update</td>
<td>PNP</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td><strong>Customer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer retention</td>
<td>PNP</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer satisfaction</td>
<td>PNP</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On line services development</td>
<td>PNP</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development of multichannality services</td>
<td>PNP</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer acquisition</td>
<td>PNP</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td><strong>Internal client</strong></td>
<td>Internal client satisfaction</td>
<td>X</td>
<td>PNP</td>
<td>PNP</td>
<td></td>
</tr>
<tr>
<td><strong>HR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Job rotation</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>h training/employee</td>
<td>X</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

PNP : Perspective not present

*Table 6. 2 Perspectives and KPI for organizational units*
In utilizing the scorecards, Carige Bank assigns relative weights for each of the scorecard measures in order to evaluate performance. The bank designed a plan of BSC where the distribution of weights for each perspective is similar for the subsidiary and network organizational levels (around 50 percent of relative weight for financial dimension, 40 percent for the customer one while HR received only a residual 4 percent of relative weight) (even if network uses a further dimension, internal), but the weight for each indicator within perspectives may changes according to strategy directions. In contrast, headquarter gives more emphasis on financial results (around 70 percent of relative weight) and minor interests on internal client, HR and internal perspectives (around 10 percent). Those results evidence that the relative weight placed on each of the perspectives and on each measures is situational, it depends heavily on strategies of the bank (table 6.3).

"Over time the structure of the BSC remained unchanged, while KPI have changed according to the evolution of the strategic objectives of the bank, for instance the KPI we are currently working on are associated to the 2011-2014 Strategic Plan" [Manager HR department]

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Weight of perspective Head quarter</th>
<th># KPI</th>
<th>Weight of perspective Subsidiary</th>
<th># KPI</th>
<th>Weight of perspective Network</th>
<th># KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>70</td>
<td>9</td>
<td>55</td>
<td>8</td>
<td>53</td>
<td>8</td>
</tr>
<tr>
<td>Internal</td>
<td>10</td>
<td>4</td>
<td>PNP</td>
<td>-</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Customer</td>
<td>PNP</td>
<td>-</td>
<td>41</td>
<td>6</td>
<td>39</td>
<td>5</td>
</tr>
<tr>
<td>Internal client</td>
<td>10</td>
<td>1</td>
<td>PNP</td>
<td>-</td>
<td>PNP</td>
<td>-</td>
</tr>
<tr>
<td>HR</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perspective not present</th>
<th>Weight of perspective</th>
<th># KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNP</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 6.3 Weight of perspectives and number of KPI according to organizational levels

The process of selection of measures to insert in each perspective resulted in the selection of a first set of around 30 indicators (the number going far beyond the recommended 18-20 by
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

Lipe and Salterio (2000), progressively reduced to 15 in last versions of the BSC. To this purpose the director and an employee of the HR department claimed that:

“Considering the entire Group have around 30 scorecards and almost 20 measures for each, then globally we have around 400 measures” [director of the HR department]

“I think that measures in the BSC are not too much since they are grouped in only four perspectives per scorecard for us that is a perfect level for aggregating indicators” [director and the employee of the HR department]

“BSC minimizes information overload by limiting the number of measures used and forcing managers to focus on the key measures inserted in the perspectives” [employee of the HR department]

Data to insert in the BSC are gathered at the departmental level. Later on the Research and HR departments collect, transform and analyze this data establishing contacts with departmental units and asking for the piece of information they need. When information are received, Research & Development and HR departments perform the necessary calculations and introduce the data in a specified Excel sheet (the bank does not use a specific software for managing its BSC).

“……Gathering and monitoring information is a difficult task, further more we do not have a specific tool for elaborating and monitoring data automatically” [director of the HR department]

The collection and processing of the information turned out is one of the major obstacles in using the BSC. Delays in data supply are explained as due to the shortage of time and resources for the extra task. Nevertheless, almost the 100 percent of the planned of KPI is collected. The data analysis phase consists in comparing the actual values of the indicators with the targeted ones producing an output of this analysis later on analyzed from the Research department and discussed with managers responsible for each department.

6.5 Strategy
Carige Bank implemented its scorecard’s program in the top-down fashion. The macro definition of strategy is done by the top management and the task of translating the strategy
into the operational terms is done by the Research and HR departments. The Strategic Plan of the bank is shaped every year considering several environmental contingency factors, such as socio-political, regulatory, economic, technology and competition scenarios of Italy as depicted in figure 6.8 for 2011-2014.

<table>
<thead>
<tr>
<th>1 SOCIO-POLITICAL SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aging society and net population decrease</td>
</tr>
<tr>
<td>• Integration: 2.4 million new immigrants, numbers growing fast low level of bankarisation</td>
</tr>
<tr>
<td>• Job instability and new family life cycles: increasing rates of divorces, common-law couples, “extended” and “mixed”</td>
</tr>
<tr>
<td>• Decreased propensity to save and increased propensity to consume and borrow</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 REGULATORY SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New standards governing the banking industry: Basel III (increased capital requirements and stricter liquidity management requirements) and reputation risk</td>
</tr>
<tr>
<td>• Constraints and restrictions for consumer protection (maximum overdraft charges, usury interest rate, mortgage portability, Mifid, PSD,...)</td>
</tr>
<tr>
<td>• Introduction of Solvency II on solvency requirements for the insurance sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 ECONOMIC SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Globalization vs nationalistic tensions</td>
</tr>
<tr>
<td>• Growth of global GDP driven mainly by emerging countries Asia as well as Latin America and Africa)</td>
</tr>
<tr>
<td>• Slow recovery of the Italian economy (1% growth of the GDP over the plan period)</td>
</tr>
<tr>
<td>• Progressive raise of interest rates as of 2011</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 TECHNOLOGY SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Widespread digitalization</td>
</tr>
<tr>
<td>• Use of technology and inter-channelling in areas where no physical offices exist</td>
</tr>
<tr>
<td>• Opportunity to let customers’ needs emerge: customers are called on to plan products and services interactively (e.g. “shopping cart style” modular current accounts)</td>
</tr>
<tr>
<td>• New, technologically advanced payment methods to acquire new young customers</td>
</tr>
<tr>
<td>• Channels addressing the electronic social networks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 COMPETITION SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Possible new wave of M&amp;As driven by the need to optimize capital and liquidity</td>
</tr>
<tr>
<td>• Shrinking of unit margins on traditional products and simultaneous search for maximum distribution Efficiency and commercial effectiveness</td>
</tr>
<tr>
<td>• New competitors: large-scale distribution, telecom providers, application and network/virtual community administrators</td>
</tr>
<tr>
<td>• Easier to compare prices of financial service offerings and customers’ readiness to switch to a different provider</td>
</tr>
</tbody>
</table>

Figure 6.8 Competitive Scenario – Italy (2011-2014) (source: archival Company data)
The Strategic Plan is reviewed periodically by some meetings over the year in order to verify if actual bank’s results are consistent with the targets. The purpose of those meetings is to outline the vision and mission of the Carige Bank and to ensure that all managers understand and agree on the directions of the organization (table 6.4).

**STRATEGIC INITIATIVES**

1. Strengthening of the Liguria network
2. Reduction of the productivity gap between Liguria and Extra-Liguria operations
3. Reduction of the productivity variance between branches
4. Optimization of the Group’s local presence
5. Development of integrated inter-channeling
6. Pricing optimization
7. Service model refinement for corporate
8. Proactive credit management
9. Risk monitoring and management
10. Development of corporate services
11. Private segment enhancement
12. Development of offerings to immigrants
13. Cost & lean management
14. Improved communications

Table 6.4 Strategic Initiatives (2011-2014)

(source: bank’s presentation)

The analysis of the BSC of Carige Bank highlights the extent to which top and middle management identify strategic initiatives and KPI even if they do not consider adequately causal relationships among perspectives and metrics necessary to design strategic maps. Then, even if strategic directions are central in the BSC design, the idea of cause-and-effect chains receives only limited attention in the model used by the bank. Management is well aware of the importance of connectivity and dependence among the elements of the map, however this step result difficult and one of the managers interviewed claimed that working on the cause-and-effect part of the BSC model is not of primary interest for the Carige Bank at the moment.
“......for us our Strategy Plan is the first step for design scorecards, their components and their functioning. I know strategy maps are crucial in the concept of BSC, but they are difficult to implement..... I mean it is unrealistic that a company can design, develop and above all use cause and effect mechanisms in its monitoring system, in its BSC......no.....implementation of cause and effect mechanisms is unrealistic” [director of the HR department]

“.....the use of cause and effect mechanisms in our scorecards is not one of our first primary interests at the moment” [employee of the HR department]

6.6 Contingency factors and implementation stages

The case of Carige Bank shows as the three implementation stages are executed sequentially, suggesting a probable influence of contingency factors across the implementation process of BSC as showed in the results emerged from the analysis of the following three stages:

6.6.1 Stage 1: Non adoption

Carige Bank started planning the introduction of a monitoring system like the BSC around 1999, first by a reward system for network branches and after by an organic plan for adopting BSC in 2002. During this stage top managers and managers showed positive attitude at starting the BSC project. This positive disposition was caused by the fact that they considered its use as a logical step able to upgrade their measurement control system, increasing in this way the execution of strategic and divisional plans and providing reliable, timely, and consistent information.

In spite of that, management was not actively involved in the decision-making process since top management delegated the BSC project to a team charged of its development and composed by people belonging to the Research Study and HR departments, supported by external consultants.

The decision to start with the BSC was taken without providing adequate training to people and without presenting them any guidelines concerning the strategic objectives of the bank. As a consequence, employees were unclear the objectives and the functioning of the new system when the project actually had started.

Management made little use of BSC at this stage, mainly because it was at the starting stage and partially because it detected some problems in determining strategic objects and
corresponding measures to insert in scorecards the effective benefits providing from the BSC use.

6.6.2 Stage 2: Adoption

This second stage started in 2002 and ended one year later. Managers of the bank were involved to a small degree in the development and selection of the KPIs, since the definition and development of measures were determined by the top management supported by the Research & Development department. Then, managers did not actively participated in choosing and defining the KPI or in the setting of targets and they regarded KPI as being especially useful in their accountability toward the board of supervisors; however when the bank decided to introduce compensation schemes management showed an higher degree of involvement in the BSC implementation process.

The KPI selected were around 400 for the entire Group and around 20 for the scorecard of each unit, to this purpose the director and one employee of the Research department claimed that

“*The choice of KPI was complex and dependent from the strategic directions of the board of directors. We spent a lot of time and energies in defining those indicators able to satisfy the Bank’s Strategic Plan. We developed almost 400 measures and monitoring each of them was complex [……] I think that the KPI method is a good one, but not always an easy one*”

[director of the Research & Development department]

“The selection of KPI was hard. Choosing only some indicators instead of others was difficult and it took a lot of time during the planning and adoption stages…….” [employee of the Research & Development department]

There was a strong link between KPI and the compensation systems, increasing the incentive to improve performance of the personnel.

…..*Our BSC is based on the reward system, more in detail on bonus compensations. We do not use intrinsic reward, we prefer bonus since people demonstrated be more involved in bank’s activities…………*[employee Research & Development Department]

*Before the adoption stage of the BSC we did not use to imply any reward system for the head quarter, only for the network. Later on, management decided to adopt the BSC at all levels,*
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

by a reward system, with the aim to involve people in the implementation process [.....]
People reacted positively to the compensation policy [employee 2 HR Department]

We prefer using bonus at an aggregated level, I mean we prefer assigning compensation at the departmental level and not at individual performances [....] since we do not want to stimulate competitive behaviors among personnel within the bank or within a department [....] this allocation system works efficiently and it does not stimulate any free riding behavior among personnel [director of the Research department]

We are satisfy of our compensation schemes [director of the HR department and employee of the same department]

The adoption of BSC in Carige Bank implied significant costs in terms of additional workload. New performance measures required new reporting procedures. For certain measures, reporting responsibility was assigned to functional and business unit managers. The reason for not automating this procedure, nor to pass the responsibility to controllers, was that an objective could make managers responsible it they can verify the data and, most importantly, to increase these managers’ awareness of how certain measures were originated and how they could initiate actions to improve results.

To let managers to better understand the BSC, they were educated in its functioning, characteristic and goals by specific training activities delivered by the Research and HR Departments, developing a higher degree of involvement in management.

6.6.3 Stage 3: Implementation

The implementation stage started in 2003. The fact that this stage contributes most to the success of the BSC may be explained by the fact that this stage is, in contrast to the starting and adoption stages, a continuous stage. The consequence of this is that the contingency factors that are important to the implementation stage have to be monitored continuously to ensure regular use of the BSC. In contrast, the attention for contextual factors that are important to the non-adoption and adoption stages lies in the past and therefore becomes less significant and visible through time.

The positive attitude of managers toward performance management that they displayed at the start of the project was still there after more than 10 years of use of BSC.
Results of the KPI are not threatening as long as the data is reliable and the KPI definitions are solid.

"Now KPI of our BSC work well and we are satisfied, but we really spent a lot of time and energies in setting those metrics" [director of the HR department]

Generating data needed for the BSC does not cost too much effort to managers and they felt the time allotted in working with the system reasonable. Data gathered by scorecards is seen by directors of units, top management and Research Department member as steering and managing information that provided more insight into critical issues. Nevertheless, collecting and processing data turns out to be one of the major obstacles in BSC implementation causing delays and niggling timeliness in data supply.

"......Gathering and monitoring information is a difficult task" [director of the HR department]

The BSC of the bank seems to be a dynamic management tool, the system plays a prominent part in the daily planning and control cycle and managers are fully involved in the program. Nevertheless the degree of participation of managers is not the same and their attitude toward the BSC is the decisive factor for increasing/decreasing the degree of participation of an entire department.

KPI are monitored monthly and updated annually according to bank’s strategic directions and according to external factors, such as change in the banking system regulations (the introduction and evolution of the Basel’s Agreements changed the structure of the KPI inserted in the BSC’s perspectives), socio-political scenario (for instance the aging society and population decrease), economic setting (for example globalization against national tensions), technology situation (for instance the widespread of digitalization) and completive scenario (for example possible new waves of M&As drives by the need to optimize capital and liquidity).

"The introduction of the Basel’s Agreements and the dispositions of 4th March 2008 of Bank of Italy influenced transversally all the indicators present in the BSC, there's no way out.....” [employee HR department]

Many managers do not have insight into relationships between KPI themselves and between KPI and financial results, making difficult for them to improve performance. Furthermore, causal linkages among perspectives and KPI are not well understood and their significance is underestimated.
Reward systems were gradually changed to take into account non-financial measures, showing a strong link between results of KPI and bonus at the department level to enhance a positive atmosphere that could encourage a collaborative work climate.

BSC was assumed to have an important communicative power, able to increase management understanding of strategic issues. Nevertheless its practical impact is constrained because measures are not systematically communicated and integrated to the performance measurement and reward systems at all organizational levels. In other words, the strategy is not enforced at the operative level.

6.7 Discussion and conclusion

The main purpose of this chapter was to analyze, by a case study, the influence of contingency factors across the implementation process of a SPMS in an Italian bank. Before 1999 Carige Bank did not use any SPMS and decided to start the implementation process of BSC with the purpose of increasing the quality of the management control and information in such a way that the execution of strategic plans could be monitored with objective, reliable, timely, and consistent information.

The structure of the SPMS used by Carige Bank can be depicted by the three types of BSC developed by Speckbacher et al. (2003). They derived three main types of BSCs, ranging from a “minimum-standard BSC” (Type I) to a “fully-developed BSC” (Type III) developing considering the natural evolution of the BSC concepts and practices over time. Then, BSC of Type I is characterized by “a specific multidimensional framework for strategic performance measurement that combines financial and non-financial strategic measures” (Speckbacher et al. 2003, page 363), BSC of Type II is typified by BSC type I “that additionally describes strategy by using cause-and-effect relationships” (Speckbacher et al. 2003, page 363), while BSC of Type III is represented by BSC type II “that also implements strategy by defining objectives, action plans, results and connecting incentives with BSC” (page 363). Then according to Speckbacher et al.’s (2003) classification the BSC model developed by the Bank is “hybrid” since it is composed of some elements characterizing type II and other characterizing type III at the same time.

In particular, from a more detailed analysis emerges that the Carige Bank’s BSC fully satisfies the requisites of type I being composed of multiple perspectives (financial, customer, HR, internal, internal customer) composed of financial (e.g. ROE) and not financial measures (e.g. training per employee). However, this model fails to describe strategy by using cause-and-
effect relationships among indicators even if in the Bank takes as a reference the Strategic Plan to set targets. Then the characteristics of type II are not satisfied. The BSC of the bank defines targets and objectives connecting them with bonus systems, nevertheless, being the characteristics of type II not totally satisfied, the bank’s BSC cannot belong to type III.

Then, basing on the paper of Speckbacher et al. (2003), emerges that Carige Bank is employing and “hybrid” system, based on the use of multiple perspectives (financial, customer, HR, internal, internal client) composed of financial and not financial measures, defying targets, measures, action plans and reward systems according to the company’s strategy, but failing in describing strategy by using cause-and-effect relationships.

Even if scorecards of Carige Bank are aligned with the Annual Strategic Plan of the company as developed by the Top management and based on the links among strategic target, perspectives and KPI, the bank demonstrated and admitted its difficulties in “digesting” and developing the concept of causality. The management claimed that the causality among them is not totally clear and easy to reach confirming the assumptions of many investigators (e.g Norreklit 2000, 2003, Webb 2004) on the importance and difficulty to reach of well-articulated mechanisms of causal links.

The number of perspectives, the measures and their relative weights utilized in evaluating bank’s performance suggest that the number of performance measurement components and their relative composition are situational depending heavily on the strategic directions of the bank.

Then, Carige Bank maintains three aspects of the original BCS (following model developed by Kaplan and Norton over time). First, the use of strategic financial and non-financial measures that are inserted in the four traditional pre-categorized areas of measurements (depicting the Michael Porter’s model, 1980, 1985) customized by the addiction of a further perspective, “internal client”, focusing on the work climate inside the bank. Second, Carige Bank deployed its BSC through an analytical hierarchical top-down process by which the top-management’s objectives cascade to lower levels (Kaplan and Norton, 1996) and each manager has control over what s/he is made responsible for and nothing else. Third, Carige Bank strongly emphasizes the use of bonus programs at all departmental levels. Their BSC makes qualitative objectives such as quality, customer service, departmental involvement and cooperation etc., quantitative ones. It helps differentiate the basis of rewards, which was previously limited almost exclusively to financial results, and does so without abandoning the “objectivity” of figures. In spite of that, the BSC of Carige Bank fails in implementing cause-and-effect relationships among the four areas of measurements at the strategic level, the crucial point is
in the BSC’s model, since strategy maps allows the measurements in non-financial areas to be used to predict future financial performance (Kaplan and Norton, 1996, Bourguignon et al. 2004, Epstein and Manzoni 2004).

Delving into the analysis of the research question presented in section 6.1 the results emphasized as contingency factors present different degrees of influence on stages along the BSC implementation process and as Carige bank recognizes the crucial role that play those factors monitoring continually their trends over time.

Management reacted positively to the introduction of the BSC in the bank and their enthusiasm increased drastically over time in spite of the difficulties that the bank had to overcome at the beginning of the development of the initiative. However, the HR director recognized that first progresses in implementation and use of BSC were not uniform across departments depending in a significant way on the disposition to change of respective directors to this new management system.

In pre-adoption and adoption stages the top management delegated the BSC project to a team charged of its development, then the middle management was not actively involved in the decision-making process. Things changed within the implementation stage where the BSC played a prominent part in the daily planning and control cycle of the bank.

The decision to start with the BSC implementation was taken by top management without providing any guidelines to managers concerning the strategic targets of the bank and the objectives and functioning of the new control system were unclear when the project actually started. However, training actions and strong campaigns for sensitizing managers were carried out and the analysis of the internal documents showed as the contents of bank’s objectives got clearer and clearer.

Starting from the non-adoption stage and evolving in the other set of the implementation process, management demonstrated strong interest on financial target based compensation schemes. In fact, the bank uses BSC measures to compensate employees upon the achievement of the planned outcomes preferring to put emphasis on targets focused on departmental performance39 instead of the individual in order to avoid competitiveness among

39 Carige Bank employs bonus bases on departmental performance, but the use of "collective bonus" (as labeled by Brusco 1997) can stimulate free riding actions and individual self-interest’s behaviors instead of to contribute to the common interest (e.g. Dresher 1961, Brusco 1997). Dawes et al. (1986) point out the extent to which in natural circumstances a wide range of uncontrolled factors can influence free riding behaviors and as four main variables may be associated to the successful use of collective bonus: group discussions, “fair share” devices, fair and greed. “Collective bonus” have positive effects on cooperation within the organization if group discussion and internal
colleagues stimulating a collaborative work climate within each department and within the organization. To this purpose, the HR director pointed out the absence of any free-riding behavior, considering their reward system as a successful model.

Planning and designing the BSC meant for the bank significant costs in terms of additional workload. Collection of data appeared very inefficiently in the first stage of the implementation process, but improved a little during the adoption, even if internal communication procedures still needed some ameliorations. When the bank attained the implementation stage, the BSC assumed an important communicative power increasing the understanding of strategic issues. Nevertheless its practical impact was constrained because measures were not systematically communicated and integrated to the remaining performance measurement systems.

At the beginning of the process of change management reported many difficulties in selecting the KPI more suitable to insert in the BSC and only during the implementation the selection of metrics were not threatening as long as the data was reliable and the KPI definitions were solid.

Carige Bank acquired many banks since the adoption of the BSC, increasing its organizational size and directors of the HR and Research & Development departments admit that the increasing of the size of the bank made necessary some changes in the original BSC structure according to the specific characteristics of the subsidiaries acquired but they did not noticed any influence on the implementation stages. However, the qualitative analysis teats only one bank, then the study of the organizational size can be hazarded.

Then, results providing from the study of Bank Carige indicate that management involvement, clarity of company’s objectives, financial target based compensation schemes and internal communication flows are permitted (see for example Caldwell 1976, Edney and Harper 1978). “Fair share” device is a consequence of long experience with alternative ways of trying to persuade the beneficiaries of group efforts to contribute to those efforts. Dawes et al. (1986) add that this kind of device is successful because “expectations of its success do not undermine that success-in contrast to the money-back guarantee” (page 1183). The same authors highlight the extent to which the actual behavior of an individual can be influenced by other two factors. First, the fear to lose a contribution; this mechanism works better than enforcing a contribution since individuals need protection and life's stability. Second, in a global work climate of cooperation, with “fair share” devices and free from the fair that that the good will not be provided and that his contribution will be lost, an individual contributes under this rule because he sees nothing to be gained by not contributing and, presumably, because he recognizes the personal benefits available from the public good. The, the successful results conquered by the compensation systems of Carige Bank depend on the capability of the management of the bank in mixing all those factors highlighted by Dawes et al. (1986).
communication were relevant in assisting the deployment of the implementation process of the BSC initiative. These insights are in line with the results provided from the survey analysis presented in chapter 5.

Moreover, the case study provided indications suggesting as management disposition to change is positively related to stages, contrarily to the results emerged from the quantitative analysis. Finally, the bank reported many difficulties in selecting KPI at the beginning of the BSC initiative showing a negative association between this factors and the implementation stages. Then, management disposition to change and difficulties in selecting KPI fail to confirm the quantitative results emerged from the survey study.

Finally, some of the opinions given by managers and employees of HR and Research center department (those more involved in the project) on the BSC of the bank were:

"Maybe the BSC is not a perfect monitoring system but looking around I think that model is the best among those existing” [Director of the Research Department]

"We elaborated a very good model which could be very useful for management. We invested a lot of energy into this and we obtain satisfactory results in its implementation in practice”
[Director of the Research Department]

"The BSC was an important step toward the creation of a new culture of performance measurement considering that before of it we did not have any control system within the bank”
[Employee of the HR Department]

"if we had to come back we would definitely implement the BSC again”
[Director of HR Department]

Even if they recognize some elements of criticalities:

"A first threat of the BSC model is how complicated its theory is”
[directors and employees of HR and Research departments]

"we spent a lot of time and efforts in setting KPI” [employee of HR department]
“... the really use of cause and effect mechanisms in the BSC is unfeasible, too difficult to implement and manage” [director of HR department]

“......gathering and monitoring information is too complex” [employee Research department]

And finally, I would like to conclude this analysis of Bank Carige reporting a statement of the HR director:

“BSC is like the idea of democracy, it is an imperfect model, but probably it is among the best one can find...” [director of HR department]

6.8 Limitations

The research methods used during the case study, the results, and the interpretations of these results have to be described in such a way that afterwards checks and criticisms of the research are possible.

Field studies are particularly subject to validity issues, for instance getting access to a suitable research site (McKinnon 1988). Field researchers are expected to minimize sample selection bias when selecting the research site. However, because of the limited opportunities available mainly due to the financial crisis40, I selected Carige Bank because it was willing to cooperate and because of its unique situation of 10 years of experience in using BSC.

Yin (1994) and Abernethy et al (1999) mention a number of criteria that have to be satisfied in order to produce sound case study research, as well as techniques to satisfy these criteria.

40 Standard & Poor's Ratings Services cut its credit ratings on several Italian lenders among them Intesa Sanpaolo, Mediobanca e Bnl a ripple effect following the company's decision to downgrade Italy's sovereign rating (from A+ to A) some days before explaining that the political paralysis in Prime Minister Silvio Berlusconi's governing coalition has become an obstacle to overhauling the Italian stagnant economy. Mr. Berlusconi's government recently passed a €54 billion austerity package, but the package's mix of tax increases and spending cuts has been widely derided by business leaders and economists, who say stronger medicine is needed to revive the country's moribund economy. Italy is saddled with high youth unemployment, rigid labor regulations and heavy bureaucracy. These weaknesses have become a major source of concern to ratings agencies and the European Central Bank, which is currently propping up Italy's bond market (Stacy Meichtry, “S&P Cuts Ratings on Italian Banks”, The Wall Street Journal, Europe Edition, 22th September 2011).
Listed below are the techniques mentioned by Yin and a description of how these have been applied in this research:

I. **Construct validity** – Yin defines this as establishing correct operational measures for the theoretical concept being studied. A specific danger in this respect with case study research is that the researcher fails to develop an operational set of measures and uses subjective judgments to collect data. Before the case study was carried out in this research, the theoretical concept was drafted by the literature (developed in chapter 2) and by the quantitative research (presented in chapter 5). During the case study I used several sources of information. I interviewed several managers who were all differently involved in the performance management system; I recorded such interviews in such a way that following an audit trail is possible. The case description has been reviewed and checked by the contact persons and several managers at the bank and finally I gain the final approval from the bank with regard to the content of the case description.

II. **Internal validity** – Yin defines this as establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships. A specific danger in this respect with case study research is that the researcher infers that a particular event resulted from some earlier occurrence without being absolutely sure about the correctness of this inference. In this research, I did not focus my attention on establishing causal relationship among variables, instead, because of lack of data, I tried to analyze associations between contingency factors and implementation stages.

III. **External validity** – Yin defines this as establishing the domain to which a study's findings can be generalized. Case study research relies in this respect on analytical generalization, in which the researcher is striving to generalize a particular set of results to a broader theory (Jick 1979, Abernethy et al 1999). This qualitative analysis reports only a case, then its external validity is limited, however, it represents a starting point for developing other cases in further research, in any case Stake (1995) points out as “we do not study a case primarily to understand other cases. Our first obligation is to understand this one case” (page 4).
Chapter 7 Conclusion, limitations and further research

The research questions underlying this piece of work were focused on the relationships between contingency factors and implementation stages of SPMS. In order to engage in an empirical study of these relationships, I took the Italian banking industry as the research site. In chapter 2 I introduced the literature review and in chapter 3 I detected the gaps in the literature and presented research hypotheses that aim to cover these gaps. I aimed to address these gaps through a combination of quantitative and qualitative analysis. In chapter 4 and 5 I have performed various statistical analysis on the data focusing on correlation between contingency factors and SPMS implementation stages. Afterwards, in chapter 6 I have triangulated data running a case-study analysis on the Carige Bank.

In this chapter, I am going to give a summary of the research described in this dissertation and I am going to evidence limitations of the study and directions for further research.

7.1 Introduction and discussion

Strategic Performance Management Systems (SPMS) are widely used in organizations. For instance Fernandes et al. (2006) reported that around 60% of the Fortune 1000 companies of U.S. have either adopted or are familiar with the concept of SPMS. Nevertheless, many organizations report difficulties in implementing them (Innes and Mitchell 1995, Malmi 1997, Chenhall 2004). Hence, a research conducted by Lewy (in Pforsich 2005) highlights that the overall failure rate of implementation is around 70 percent, considering as failures both the cases of firms that have implemented a SPMS without any benefit and firms that have used it in a discontinuing way.
In order to better understand the factors that condition the success or failure of SPMS implementation, in this thesis I have tried to investigate the relationships of a battery of contingency factors with the progress across SPMS implementation stages.

To address this issue, I chose to investigate the Italian banking sector. This is in an interesting setting since it was (and it is) subject of structural changes, due to modifications occurred in its external environment in the past two decades (and currently), for instance the liberalization of capital flows, the prospect of a common market, the introduction of new regulations at national and international level, the global financial crisis and the process of concentration of the market by M&A actions.

Following the literature review I concentrated my efforts on 7 specific contingency factors that are likely to be associated to the implementation stages of SPMS. These contingency factors cover behavioral, organizational and technological variables, namely: management disposition to change; management involvement (both of them behavioral factors); clarity of objectives; financial target based compensation systems; internal communication; organizational size (the four of them being organizational factors) and difficulties in selecting KPI (technological factor).

In parallel, I developed a stages of implementation model elaborating on the conceptual differences between adoption and implementation as developed by Gosselin (1995) and by Krumwiede (1998). Following this theoretical elaboration and taking into account the distribution of my quantitative empirical, I ended up defining a model that comprises six stages: a) implementation non considered, b) implementation considered, c) implementation considered but rejected, d) adopted, e) adopted then refuse and f) implemented.

On the basis of these concepts, I built a theoretical model using contingency theory (Otley, 1980, Chenhall, 2003) as the background framework and adapting prior studies regarding process of change and implementation models of ABC and MACS in general (Rogers 1983, Anderson 1995, Krumwiede 1998). As a result, this thesis tries to answer to the following question: is there an association between contingency factors and SPMS implementation stages? And going more in detail: is there an association between management disposition to change and SPMS implementation stages? is there an association between management involvement and SPMS implementation stages? Is there an association between clarity of objectives and SPMS implementation stages? Is there an association between financial target based compensation schemes and SPMS implementation stages? Is there an association between internal communication and SPMS implementation stages? Is there an association
between organizational size and SPMS implementation stages? Is there an association between difficulties in selecting KPI and SPMS implementation stages?

I chose to address those questions by the use of a combination of both quantitative and qualitative methods. I counted on a survey method for the quantitative analysis and on a case study for the qualitative analysis. I justified this decision considering the validity threats that are present in any one single method. These threats suggest the convenience to triangulate survey and case study methodologies as recommended by Jick (1979), Atkinson and Shaffir (1998) and Modell (2005). This convenience was even more accentuated given the small size of the sample collected by the survey.

7.1.1 Survey

This study was performed between April and July 2010 on a population of 67 banks’ headquarters identified by consulting the register of banks ("Albo dei Gruppi Bancari") of the Bank of Italy. I received 22 responses, for a response rate of 32.8 percent. For non-respondents, the dominant reason for refusing to participate in the survey was the sensitive nature of the data being collected. Despite the limited sample size, results depicted insightful findings relating to the structures of PMS and to relationships among contingency factors and SPMS implementation stages.

The investigation highlights the extent to which 9 percent of respondent banks have not yet come in contact with SPMS (4.5 percent) or they are valuating it without undertaking any concrete steps (9 percent); 13.8 percent have already introduced it completing its adoption and finally 72.7 percent are using SPMS extensively. As applied in these banks, SPMS are based on the use of multiple perspectives, with a extensively use of financial (90.9 percent) and risk adjusted (68.2 percent) demonstrating scarce interest for remaining dimension that is internal (40.9 percent) and learning and growth (31.8 percent). Banks prefer implying MACS based on financial metrics (61.9 percent) while non financial indicators are used moderately (4.8 percent) even if some banks declare to use both of them (33.3 percent).

Some instances of the KPI used in financial perspective are represented by: ROE, ROA, EVA™, cost income, contribution margin, leverage. Following the focus on the financial measures the risk adjusted perspective emphasizes return on RORAC, EVA™, capital adequacy, credit and liquidity risk ratio, solvency ratio and TIER 1 reflecting essentially suggestions and recommendations of Basel Accords. Inside customer dimension, banks highlight their interest on satisfaction, redemption and profitability per customer; while learning and growth dimension is measured by employees satisfaction, turnover ratios and operating costs per
employee. Finally, internal perspective puts emphasis on the development and on the time to market of new products as internet banking services (for instance the volumes and the number of transactions). Then, banks declare to imply a broad array of measures (financial and non financial) linking long term strategy with goals and activities across the value chain inserted in a multi-perspectives structure focused on diverse measurement components such as financial, risk adjusted, customers, internal and learning and growth perspectives. These findings suggest that Italian banks make extensive use of SPMS, even if, because of the limitations imposed by ABI in developing the questionnaire, I cannot value the effective quality and function of those measurement systems. Moreover, I am aware of the caution needed in order to generalize these results since non-response might be present and consequently bias the results.

Concerning the relationships between contextual factors and SPMS implementation stages, the study shows the extent to which management involvement and financial target based compensation schemes present strong positive and highly significant associations (p<0.01) with SPMS implementation stages. In turn, three other variables, namely clarity of objectives, internal communication and organizational size present also significant positive associations with stage of implementation of SPMS; albeit these associations are weaker (p<0.1). In contrast, the survey highlighted the absence of any significant association between the implementation stages of SPMS and management disposition to change and difficulties in selecting KPI. Then, basing on the theoretical development and on empirical results, I consider plausible that those factors may influence SPMS implementation stages. However, since correlations capture only associations among variables, to establish cause-and-effect relationships out of these tests would be hazarded.

7.1.2 Case study: Carige Bank

In order to address the research question from a qualitative perspective, I run the case study of Carige Bank, a middle size Italian bank, between February 2010 to September 2011. At the time of the research, Carige Bank had extensive experience with BSC and the purpose of the case study research was to identify the contextual factors that could be relevant to the SPMS implementation stages. Carige Bank started the process of design of BSC in 1999, with the purposes of increasing the quality of management control and information function in such a way that the execution of strategic plans could be monitored with objective, reliable, timely, and consistent information. In 2002 the bank attained the adoption stage and finally one year later it reached the full implementation level. The three stages were executed sequentially, which means that the first two levels were executed before the implementation stage started.
Carige Bank deployed the BSC through an analytical hierarchical top-down process by which the top-management’s objectives were cascaded to lower levels (Kaplan and Norton 1996), strongly emphasizing the use of bonus programs at all departmental levels. The BSC is composed of the traditional four perspectives: financial, customer, learning and growth and internal and adding a further dimension labeled “internal client” for measuring the quality of services provided among personnel (for example the quickness in answering emails and in furnishing documents) and the quality of interrelationships among management and staff inside the bank. Carige Bank uses financial and non-financial metrics basing on strategic directions (defined by the top management). Nevertheless, the idea of cause-and-effect chains received only limited attention in the model since management assesses its implementation and use too complex.

Delving into the analysis of the research question presented in section 6.1 the results emphasized as contingency factors present different degrees of influence on stages along the BSC implementation process and as Carige bank recognizes the crucial role that play those factors monitoring continually their trends over time. The enthusiasm and involvement of management had increased tremendously over time, in spite of remarkable difficulties reported in defying and communicating the bank’s objectives, in selecting KPI and in collecting and processing information during the initial phases of planning and design of the BSC.

Progresses in implementation and use of BSC were not uniform across departments depending in a significant way on the disposition and involvement of departments’ directors toward the management innovation, however, their disposition to change and participation increased remarkably over time (pushed by other contingency factors, such as training initiatives). Financial target based compensation systems played a crucial role in the BSC initiative, stimulating management and employees to sustain and to participate to the execution of the BSC implementation process.

Then, results providing from the study of Bank Carige are consistent with the predicted positive associations between management disposition to change, clarity of company’s objectives, financial target based compensation schemes, internal communication, management involvement and SPMS implementation stages. Furthermore, the analysis of the case findings seems to suggest that the difficulties in selecting KPI make progress across implementation stages harder.
7.2 Concluding remarks and implication of the study

This study is intended to contribute to the understanding of the implementation of SMPS. More specifically, this research is intended to contribute to address the question of whether contingency factors (namely behavioral, organizational and technological) influence the implementation process of SPMS. To this purpose, my research design has aimed to provide empirical data obtained from both a survey and a case-study to investigate the extent to which contingency factors are associated to SPMS implementation stages. As far as the quantitative analysis is concerned, empirical data obtained from the survey indicate that management involvement and financial target based compensation systems present a positive strong association ($p<0.01$) with stages of implementation. For clarity of objectives, internal communication and organizational size the data confirm a positive association with stages of implementation, albeit with a lower level of significance. On the contrary, management disposition to change and difficulties in selecting KPIs present no relationship with stages of implementation according to the survey analysis.

The case study confirms the relevance of contingency factors on SPMS implementation stages showing positive associations between behavioral and organizational factors. Then, results provided from the quantitative and qualitative analyses support the presence of positive relationships between management involvement, clarity of the objectives, financial target based compensation systems and internal communication. Moreover, the case study points out to a negative relationship between difficulties in selecting KPI and progress through implementation stages.

To conclude, this study has dealt with a fascinating subject that may help to capture the steps that organizational members can take to deal with contextual issues provoked by the implementation process. Findings can add to the body of literature on MACS implementation and on the contingency stream of research helping academics and practitioners to better understand the mechanisms for the implementation of SMPS, becoming a fruitful instrument for addressing company decisions.

According to Abernethy et al. (1999), the expectation in management accounting is that findings of empirical investigation have some relevance to organizational practice (applied rather than pure research). Studies and failures on implementation processes are common both in research and in firms and Berry et al. (2009, page 16) argue that this field of research “is seen neither as academic-led (with academic knowledge being transferred to practice) nor as practice-led (with the academic contribution being relegated to the description and perhaps explanation of practice). Rather it should be framed as a collaborative exercise actively involving both sets of participants”.

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7.3 Limitations and further research

The results of the study shed some light on the association between contingency factors and SPMS implementation stages even if some limitations must be noted which should addressed in subsequent research. Furthermore, the findings open up a number of potentially relevant issues that remain to be examined and which suggest several directions for further research in order to cumulatively develop a more complex understanding of the role of contextual factors along the implementation process of administrative innovations.

This study has six main limitations. One first limitation concerns the modeling in the quantitative analysis. As Malmi (1997) argues any limit to the number of possible factors affecting the implementation outcome is hardly definably and “although it may be possible to establish the relative importance of various factors at various implementation phases, such factors models fail to address both the competing and complementing ways of obtaining information and controlling activities in organizations” (Malmi 1997 page 460) suggesting that complementing approaches are recommended to provide detailed information on the factors under analysis. Moreover, the extent to which the influence of the different factors varies across the different transitions among stages cannot be captured in the current quantitative model. On the other hand, MACS implementation processes are not straightforward, rather they are complex and may be interpreted several times and in different manners within the same company (Braam and Nijssen 2004).

A second limitation refers to difficulties associated with obtaining willing participants for the research and consequently in obtaining high participation rates from managers. It was mainly due to the financial crisis that shacked banks but also because banks tend to adopt official policies which enable management and employees to decline any participation into academic and practitioner studies.

The third limitation refers to the small sample size in the quantitative study. This undoubtedly creates problems of power and distribution. These problems were partially compensated by the fact that I complemented the survey with the case study. The use of multiple methods of research provides means not only for achieving the objectives of generalisability limiting bias but also for enhancing the meaningfulness of the measures to those completing the survey (e.g., Webb et al. 1966, Denzin 1978, Todd 1979, Abernethy et al. 1999, Roberts 1999, Ahrens and Chapman 2006, Vaivio 2008, Modell 2009). In any case, further research should aim to address any research design issues that might contribute to increase sample size.

Furthermore, the investigation was confined to the banking industry only and carried out during a period of severe financial crisis. Consequently, expanding the results reported in this
thesis to other situations should be done cautiously. Moreover, the study was performed in Italy, but findings may be different if the research is expanded to other countries with different national cultures and diverse banks’ business models.

All those limitations may encourage several avenues for further research streams. With respect to the survey analysis, a potentially worthwhile avenue of further study is to look at contextual factors that have been excluded from the initial study (for instance task characteristics and external environment factors). Because of the limited sample size, the data were analyzed using simple non-parametric univariate tests such as Spearman’s Correlations. Further investigations may test causal relationships among factors, intervening variables and implementation stages using more complex procedures (for instance through structural equation modeling, binary or ordinal logit techniques).

Last, the thesis is grounded into a contingency perspective. Future research may extend the findings by addressing the topic of interest from alternative angles and following other theoretical streams, covering for instance the institutional theories and the concept of power and its distribution into the implementation process of MACS in Italian banks.
Appendixes
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
### Appendix 1 Factors research on MACS innovation

<table>
<thead>
<tr>
<th>Study</th>
<th>Research Method</th>
<th>MACS under study</th>
<th>Independent variables (IV) (factors) influencing DV</th>
<th>Dependent variable(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damanpour (1991)</td>
<td>Analysis of abstracts mainly collected by the Sociological Abstracts from 1960 to 1988</td>
<td>IS</td>
<td>Specialization (<em>); Functional differentiation(</em>); Professionalism(<em>); Formalization; Centralization; Attitude toward change(</em>); Managerial tenure; Resources adequacy (<em>); Administrative intensity(</em>)</td>
<td>Organizational innovation</td>
</tr>
<tr>
<td>Innes and Mitchell (1995)</td>
<td>Survey of 251 UK large organizations</td>
<td>ABC</td>
<td>External communication(<em>); Internal communication(</em>); Vertical differentiation; Attitude toward change; Formal support to change; Complexity for users; Relative improvements; Resource adequacy; Availability of ABC software; Heterogeneity of demand; Competition; Environmental uncertainty</td>
<td>Adoption rate of ABC in the UK’s largest 1000 companies</td>
</tr>
<tr>
<td>Study</td>
<td>Research Method</td>
<td>MACS under study</td>
<td>Independent variables (IV) (factors) influencing DV</td>
<td>Dependent variable(s)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Shields (1995)        | Survey of 143 organizations | ABC             | Top management support (*); Consensus on objectives; Competitive link strategy; Link to quality initiatives (*); Linkage to JIT/Speed; Non accounting ownership; Link to performance Evaluation/compensation (*); ABC design training; Implementation training; Training in using (*); Clear and concise objectives; External consultants; Stand alone system; Adequacy of resources (*); Canned software; Custom software; Accounting ownership | Degree of success, measured as:  
  a) management evaluation  
  b) perceived dollar improvement |
| Foster and Swenson (1997) | Survey of 132 organizations | ABCM            | Shields (1995) variables; Number of primary applications(*); culture (*); Controls; Champions, Disposition toward change; Commitment (*); Education; Number of primary application (*); Average years of primary applications (*) | Degree of success, measured as  
  a) Information use  
  b) Decision actions taken  
  c) Dollar improvements  
  d) Management evaluation |
<p>| Malmi (1997)          | Case study in two organizations | ABC             | Disposed to change; Sponsorship; Role involvement; Top management support; Environmental uncertainty;                | Success and failure with ABC as reduction of strategic uncertainties.                  |</p>
<table>
<thead>
<tr>
<th>Study</th>
<th>Research Method</th>
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<th>Independent variables (IV) (factors) influencing DV</th>
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</thead>
<tbody>
<tr>
<td>McGowan and Klammer (1997)</td>
<td>Survey of 53 employees from 4 targeted sites</td>
<td>ABCM</td>
<td>Shields (1995) variables; User involvement (<em>); Clarity of objectives stated ex ante(</em>); Objectives shared</td>
<td>Degree of success, measured by a) employees satisfaction with ABC</td>
</tr>
<tr>
<td>McGowan (1998)</td>
<td>Survey of 69 employees from 4 targeted sites</td>
<td>ABCM</td>
<td>Attitude toward change(<em>); Accessibility; Accuracy(</em>); Reliability (<em>); Timeliness(</em>); Understandability(<em>); Job quality improvements; (</em>); Control over work-related procedures(<em>); Ability to accomplish task quickly(</em>); Support in job critical aspect (<em>); Increase job productivity(</em>); Job performance increase; More work accomplish than under the old system(<em>); Effectiveness on the job(</em>); Makes it easier to accomplish work related tasks; Usefulness (<em>); Quality decision(</em>); Waste reduction(<em>); Innovation(</em>); Internal Communications ;(<em>); Relationships and communication across functions ; (</em>) Overall focus on the goals of the organizational(*)</td>
<td>Preparers’ and users’ perceptions of the benefits associated with the ABCM implementation measured by: a) attitudes toward the ABCM implementation b) comparison of perceived characteristics of ABCM and traditional systems c) perceived usefulness d) organizational validity</td>
</tr>
</tbody>
</table>

Appendix 1 follows below
### The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

I have included Anderson and Young (1999) as a factors research since it does not refer to implementation stages but focuses on the influence of factors on the use and accuracy of ABC systems. However, it is important to notice that Anderson and Young include factors related to the implementation process (e.g. top management support, degree of involvement, availability of resources) as independent variables.

<table>
<thead>
<tr>
<th>Study</th>
<th>Research Method</th>
<th>MACS under study</th>
<th>Independent variables (IV) (factors) influencing DV</th>
<th>Dependent variable(s)</th>
</tr>
</thead>
</table>
| Anderson and Young (1999)\(^{41}\) | Survey of 21 projects in two organizations, 236 interviews | ABC              | Disposed toward change; Commitment (*); Values; Extrinsic reward system (*); Competitive environment; Quality of information system; Environmental turbulence; Impediments to plant growth Perceived importance of the plant to the company; Perceived importance in cost reduction; Management support (*); Management involvement; Union support (*); Resource Adequacy | Degree of success, measured by  
  a) Cost reduction  
  b) Perceived accuracy  
  c) Perceived use |
| Anderson et al (2002)   | Survey data from 18 ABC teams in 18 USA plants | ABC              | Training (*); Team size (number of employees); Heterogeneity; Presence of consultant; Competition; Task significance (*); Conflict resolution (*); Team cohesion (*); Model complexity | ABC model complexity and time to develop the initial ABC model |
  Affective conflict (*); Cognitive Conflict (*); Financial benefits (*)                                       | Degree of success, measured by  
  a) Usefulness of ABCM for product planning  
  b) Usefulness of ABCM for cost management |

\(^{41}\) I have included Anderson and Young (1999) as a factors research since it does not refer to implementation stages but focuses on the influence of factors on the use and accuracy of ABC systems. However, it is important to notice that Anderson and Young include factors related to the implementation process (e.g. top management support, degree of involvement, availability of resources) as independent variables.

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<th>Research Method</th>
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<th>Independent variables (IV) (factors) influencing DV</th>
<th>Dependent variable(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kallunki and Silvola (2008)</td>
<td>Survey with 105 organizations</td>
<td>ABC</td>
<td>Size (net sales)(<em>) ; Number of employees ; Age of the firm ; Products diversity ; Production complexity ; Education ; Venture capital investors ; Stock market listing ; Industry ; Life cycle stages (Maturity and revival stages) (</em>)</td>
<td>ABC use at different life cycle stages Understand real product cost; Decrease product cost; Improve decision making based on comparison costs; Modernize cost accounting system to meet reality; Allocate indirect cost more accurately; Identify factors that drive costs; Identify activity costs; Control and decrease indirect cost</td>
</tr>
</tbody>
</table>
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
### Appendix 2 Factors research on MACS innovation – Stages and factors

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Innovation under analysis</td>
<td>Analysis of abstracts mainly collected by the Sociological Abstracts from 1960 to 1988</td>
<td>Survey of 251 UK large organizations</td>
<td>Survey of 143 organizations</td>
<td>Survey of 132 organizations</td>
</tr>
<tr>
<td>Individual</td>
<td>Attitude toward change; Professionalism; Managerial tenure</td>
<td>Disposed to change</td>
<td>Top management support; Champion (sponsor);</td>
<td>Top management support;</td>
</tr>
<tr>
<td>Organizational</td>
<td>Specialization; functional differentiation; Formalization; Centralization;</td>
<td>Formal support to change</td>
<td>Consensus on objectives; Competitive link strategy; Non accounting ownership</td>
<td>Implementation training;</td>
</tr>
<tr>
<td></td>
<td>Administrative intensity; Internal communication; Vertical differentiation</td>
<td></td>
<td>Link to performance Evaluation/compensation;</td>
<td>Link to performance evaluation/compensation;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average years of primary application;</td>
<td>Average years of primary application;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of primary applications;</td>
<td>Number of primary applications;</td>
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<td></td>
<td></td>
<td></td>
<td>Controls</td>
<td>Controls</td>
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</table>

Appendix 2 follows below
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Technology</strong></td>
<td>Resource adequacy;</td>
<td>Adequacy of resources;</td>
<td>Link to quality initiatives</td>
</tr>
<tr>
<td></td>
<td>Availability of ABC software</td>
<td>Canned software; Custom software; Linkage to JIT/speed</td>
<td></td>
</tr>
<tr>
<td><strong>Task</strong></td>
<td>Resource adequacy</td>
<td>Complexity for users; Relative improvements</td>
<td>Adequacy of resources</td>
</tr>
<tr>
<td><strong>External environment</strong></td>
<td>External communication</td>
<td>Heterogeneity of demand; Competition; Environmental uncertainty</td>
<td>External consultants</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td>Time (abstracts collection 1960-1988)</td>
<td>Size</td>
<td>Size</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Type of study</strong></td>
<td>Case study of two organization</td>
<td>Survey of 53 employees from 4 targeted sites</td>
</tr>
<tr>
<td><strong>Innovation analysis</strong></td>
<td>ABC</td>
<td>ABCM</td>
</tr>
</tbody>
</table>

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### The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Individual</strong></td>
<td>• Disposed to change; • Sponsorship; • Participation involvement</td>
<td>• Role involvement</td>
</tr>
<tr>
<td><strong>Organizational</strong></td>
<td>• Top management support</td>
<td>• Management support; • Objectives understood; • Objectives shared; • Linkage to performance evaluation system; • Training; • Training resources</td>
</tr>
<tr>
<td><strong>Task</strong></td>
<td></td>
<td>• Adequacy of resources</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td></td>
<td>• Information quality</td>
</tr>
<tr>
<td><strong>External environment</strong></td>
<td>• Environmental uncertainty</td>
<td></td>
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</tbody>
</table>

Appendix 2 follows below
### The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

| Study                                | Type of study                           | Innovation under analysis | Individual                                                                                     | Organizational                                                                                      | Task                                                                                           | Technology                                                                                     | External environment                                                                 |
|--------------------------------------|-----------------------------------------|---------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Anderson and Young (1999)            | Survey of 21 projects in two organizations | ABC                       | • Disposed toward change; • Commitment; • Values                                             | • Top management support; • Extrinsic reward system; • Management involvement; • Quality of labor relations; • Impediments to plant growth • Perceived importance of the plant to the company | • Resource Adequacy; • Quality of information system                                            | • Perceived importance in cost reduction                                                      | • Competitive environment; • Environmental turbulence; • Union support                        |
| Anderson et al. (2002)               | Survey data from 18 ABC teams in 18 USA plants | ABC                       | • Affective conflict; • Cognitive conflict                                                  |                                                                                                      | • Task significance                                                                         | • Model complexity                                                                         |                                                                                           |
| Chenhall (2004)                      | Survey within SBUs of 18 organizations   | ABCM                      | • Training                                                                                    | • Training; • Clarity of objectives; • Top management support; • ABCM financial benefits             |                                                                                                  |                                                                                               |                                                                                           |
| Kallunki and Silvola (2008)           | Survey with 105 organizations            | ABC                       | • Education                                                                                    |                                                                                                      |                                                                                                  |                                                                                               |                                                                                           |

Appendix 2 follows below
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>Industry automobiles manufactures)</td>
<td>Industry (two automobiles manufactures-plant level)</td>
<td>• Industry (two automobiles manufactures) • Size (large organizations)</td>
<td></td>
</tr>
</tbody>
</table>
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
### Appendix 3 Process research on MACS innovation – Stages and factors

<table>
<thead>
<tr>
<th>Study</th>
<th>Research method</th>
<th>MACS under study</th>
<th>Independent variables (IV) (factors) influencing DV</th>
<th>Model of stages of implementation</th>
<th>Dependent variable (DV): Stages captured in the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooper and Zmud (1990)</td>
<td>Survey - 62 production managers</td>
<td>MRP</td>
<td>Accuracy of data (<em>); Integration with other IT (</em>); Task variety (<em>); Heterogeneity of demand (</em>); Product complexity (*)</td>
<td>Kwon and Zmud (1987): • Initiation • Adoption • Adaptation • Acceptance • Routinization • Infusion</td>
<td>Attainment of stage: • Adoption • Infusion</td>
</tr>
<tr>
<td>Anderson (1995)</td>
<td>Field study at a manufactory organization (General Motors, 1986-1993)</td>
<td>ABC</td>
<td>Disposition toward change; Education; Job tenure; Involvement; Informal support Centralization; Functional specialization; Internal communication; Extrinsic reward system; Training investments; Heterogeneity of demands; Competition; Environmental uncertainty; External Communication; Complexity for users; Compatibility with existing systems; Relative improvement over existing system (accuracy and timeliness); Relevance to managers’ decision; Uncertainty /lack of goal clarity; Worker autonomy; Worker responsibility</td>
<td>Stage model based on Cooper and Zmud (1990)</td>
<td>Attainment of stage: • Initiation • Adoption • Adaptation • Acceptance</td>
</tr>
<tr>
<td>Gosselin (1997)</td>
<td>Mail survey - 161 business units</td>
<td>ABC</td>
<td>Type of strategy selected by the organization measured by: Centralization (<em>); Vertical differentiation (</em>); formalization (<em>); Size(</em>)</td>
<td>• Adoption • Implementation</td>
<td>ABC adoption and implementation</td>
</tr>
</tbody>
</table>

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42 Strictly speaking, Cooper and Zmud (1990) is not a management accounting study. However, I include it here since it has a significant influence on subsequent management accounting investigation.
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

<table>
<thead>
<tr>
<th>Study</th>
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<th>Independent variables (IV) (factors) influencing DV</th>
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<th>Dependent variable (DV): Stages captured in the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krumwiede (1998)</td>
<td>Survey of 225 production managers</td>
<td>ABC</td>
<td>Shields’ variables Number of purposes identified with ABC (<em>); Degree of potential for cost distortion (</em>); Degree of decision usefulness of cost information (<em>); Degree of total quality management implementation; Information technology quality (</em>); Degree of lean production system implementation; Job Shop</td>
<td>• Not considered • Considering • Considered then rejected • Approved for implementation • Analysis • Getting acceptance • Implemented then abandoned • Acceptance • Routine system • Integrated system</td>
<td>Attainment of stages: the stage captured in the study is the same of Model of stages of implementation</td>
</tr>
<tr>
<td>Baird et al. (2004)</td>
<td>Survey - 246 organizations</td>
<td>ABC</td>
<td>Business unit size (number of employees)(<em>); Decision usefulness of cost information (</em>); Business unit culture(*) composed by: innovation, outcome orientation, tight vs. loose control</td>
<td>• Adoption</td>
<td>Attainment of stages: the stage captured in the study is the same of Model of stages of implementation</td>
</tr>
<tr>
<td>Beasely et al. (2005)</td>
<td>Survey - 175 organizations</td>
<td>ERM</td>
<td>Presence of a Chief Risk Officer, CRO (<em>); Percentage of independent Board Members (</em>); CEO and CFO internal audit involvement in ERM; Presence of Big Four auditor in the organizations (<em>); Size (revenues) (</em>); Industry (*); Country of domicile</td>
<td>• No plans exist to implement ERM • Investigating ERM, but no decision made yet • Planning to implement ERM • Partial ERM is in place • Complete ERM is in place</td>
<td>Attainment of stages: the stage captured in the study is the same of Model of stages of implementation</td>
</tr>
</tbody>
</table>

Appendix 3 follows below
### The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

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<tr>
<th>Study</th>
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<th>Dependent variable (DV): Stages captured in the study</th>
</tr>
</thead>
</table>
| Chen et al. (2006) | Survey - 157 organizations and interviews to 5 CEOs | BSC | Job tenure; CFO Knowledge of BCS; Management involvement (*); Participation (*); Size (*); Management support(*); Difficulties in selecting and weighing performance measures to align with strategy; Difficulties in design and maintaining IS and software; Benefits arising from implementation; Size (number of employees) | **Non Adoption**  
- Not considered  
- Considering  
- Considered then rejected  
**Approved for implementation**  
- Develop objectives for BSC  
- Determine the appropriate organizational unit  
- Build BSC team  
- Formulate a project plan  
- Develop a communication plan  
- Gather and distribute background  
- Develop or confirm mission, values, vision and strategies  
- Conduct executive interviews  
- Develop objectives and measures  
- Develop cause-and-effect linkages  
- Establish targets for measures  
- Develop the ongoing BSC implementation plan  
- Implement then abandon BSC  
- Communicate with employees and start employee training  
- Build consensus around strategies and objectives at the employee level  
- Cascade BSC at all levels of the company  
- Assist the development of personal BSC to align with company’s strategies  
- Link BSC to budgets  
- Link BSC to PMS  
- Continually update BSC  
- Considered than rejected | Attainment of stages:  
the stage captured in the study is the same of Model of stages of implementation |

Appendix 3 follows below
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<tr>
<th>Study</th>
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<th>Model of stages of implementation</th>
<th>Dependent variable (DV): Stages captured in the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fernandes et al. (2006)</td>
<td>Case study at a UK medium organization</td>
<td>BSC</td>
<td>Disposed toward change; Informal support (champions); Commitment; Formal support; Management Support; Management involvement; Benefits arising from implementation; Relevance to managers’ decisions and compatibility with decision strategy; Relationships/cooperation across departments; Difficulties in selecting and weighing performance measures to align with strategy; Cooperation within departments; Difficulties in design and maintaining is and software; Resource adequacy; Heterogeneity of demands; Competition; Environmental uncertainty</td>
<td>• Project initiation&lt;br&gt;• Strategy clarification&lt;br&gt;• Strategy analysis&lt;br&gt;• KPI analysis&lt;br&gt;• Measurement analysis&lt;br&gt;• Strategy initiation&lt;br&gt;• Implementation plan&lt;br&gt;• Formal review</td>
<td>Attainment of stages: the stage captured in the study is the same of Model of stages of implementation</td>
</tr>
<tr>
<td>Liu and Pan (2007)</td>
<td>Action research approach in a large Chinese manufacturing company</td>
<td>ABC</td>
<td>Disposed toward change; Management involvement; Management support; Non accounting ownership; Training; Size; Presence of external consultants; Internal communication; Information accuracy; Compatibility with existing systems; Competitions, Environmental uncertainty; Relationships/cooperation across departments</td>
<td>• Adoption</td>
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Appendix 4 Process Research Literature – Significant Factor Classification

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<td><strong>Type of study</strong></td>
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<tr>
<td>Survey - 62 production</td>
<td>Field study of</td>
<td>Mail survey - 161</td>
<td>Survey - 225</td>
<td>Survey - 246</td>
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<td>managers</td>
<td>a manufactory</td>
<td>business units</td>
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<td>Motors, 1986-1993)</td>
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<td><strong>Innovation under</strong></td>
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<td><strong>analysis</strong></td>
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<td>Centralization;</td>
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<td>Training investments</td>
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<td>Management support;</td>
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<td>Level of non accounting</td>
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<td>ownership;</td>
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<td>Clarity and consensus of</td>
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<td>objectives;</td>
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<td>Training</td>
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<td>Business unit culture:</td>
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<td>innovation, outcome</td>
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<td>orientation, tight vs.</td>
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<td>lose control;</td>
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<td>Size</td>
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Appendix 4 follows below

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*a3 Strictly speaking, Cooper and Zmud (1990) is not a management accounting study. However, I include it here since it has a significant influence on subsequent accounting investigations.*
## The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

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<tbody>
<tr>
<td><strong>Task</strong></td>
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<tr>
<td>- Task variety;</td>
<td>- Uncertainty /lack of goal clarity;</td>
<td>- Degree of potential for cost distortion;</td>
<td>- Decision usefulness of cost information</td>
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<tr>
<td>- Product complexity</td>
<td>- Worker autonomy;</td>
<td>- Degree of decision usefulness of cost information;</td>
<td></td>
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<td></td>
<td>- Worker responsibility</td>
<td>- Degree of total quality management implementation;</td>
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<td></td>
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<td>- Information technology quality</td>
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<tr>
<td><strong>Technology</strong></td>
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<tr>
<td>- Accuracy of data;</td>
<td>- Complexity for users;</td>
<td>- Degree of lean production system implementation;</td>
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<tr>
<td>- Integration with other IT</td>
<td>- Compatibility with existing systems;</td>
<td>- Job Shop</td>
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<td></td>
<td>- Relative improvement over existing system(accuracy and timelineless);</td>
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<td></td>
<td>- Relevance to managers’ decision</td>
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Appendix 4 follows below
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

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<tbody>
<tr>
<td><strong>External environment</strong></td>
<td>• Heterogeneity of demand</td>
<td>• Heterogeneity of demands; Competition; Environmental uncertainty; External Communication</td>
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<tr>
<td><strong>Control variables</strong></td>
<td>Size</td>
<td></td>
<td>• Product diversity; Production process</td>
<td>• Size (revenues)</td>
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<td></td>
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<td></td>
<td></td>
<td>Size (number of year since ABC was adopted)</td>
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<tr>
<td><strong>Type of study</strong></td>
<td>Survey - 175 organizations</td>
<td>Survey - 157 organizations and interviews to 5 CEOs</td>
<td>Case study at a UK organization</td>
<td>Action research at a Chinese company</td>
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<tr>
<td>Innovation under analysis</td>
<td>ERM</td>
<td>BSC</td>
<td>BSC</td>
<td>ABC</td>
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<tr>
<td><strong>Individual</strong></td>
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<tr>
<td>Job tenure;</td>
<td>Disposed to</td>
<td>Management involvement;</td>
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<tr>
<td>CFO knowledge of BCS</td>
<td>change;</td>
<td>Disposed to change;</td>
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<td></td>
<td>Informal support (champions);</td>
<td>Management support;</td>
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<td></td>
<td>Commitment</td>
<td>Non accounting ownership;</td>
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<td>Training;</td>
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<td>Size;</td>
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<td>Internal communication;</td>
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<td>Relationships/ cooperation across departments</td>
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<tr>
<td><strong>Organizational</strong></td>
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<tr>
<td>Presence of a Chief Risk Officer;</td>
<td>Management involvement;</td>
<td>Information accuracy;</td>
<td></td>
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<tr>
<td>Percentage of independent Board Members;</td>
<td>Participation;</td>
<td>Compatibility with exiting systems</td>
<td></td>
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<tr>
<td>CEO and CFO call for internal audit involvement in ERM;</td>
<td>Management support;</td>
<td></td>
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<tr>
<td>Presence of Big Four auditor in the organizations;</td>
<td>Benefits arising from implementation;</td>
<td></td>
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<tr>
<td>Size (revenues);</td>
<td>Size (number of employees)</td>
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<tr>
<td>Industry;</td>
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<td>Country of domicile</td>
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The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks

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<tbody>
<tr>
<td><strong>Technology</strong></td>
<td></td>
<td>• Difficulties in design and maintaining IS and software; • Difficulties in selecting and weighing performance measures to align with strategy</td>
<td>• Relevance to managers' decisions and compatibility with decision strategy; • Difficulties in selecting and weighing performance measures to align with strategy; • Difficulties in design and maintaining IS and software;</td>
<td></td>
</tr>
<tr>
<td><strong>Task</strong></td>
<td></td>
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<td></td>
<td>• Competition; • Environmental uncertainty; • Presence of external consultants</td>
</tr>
<tr>
<td><strong>External environment</strong></td>
<td></td>
<td></td>
<td>• heterogeneity of demands; • competition; • environmental uncertainty</td>
<td></td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td>Size</td>
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Appendix 5 Survey Questionnaire (English version)

Performance measurement systems in the Italian banks
Rome, May 2010

Topic: Participation in research into performance monitoring systems (PMS) implementation

Dear Sir, Madam,

We would like to ask your attention for the following. The questionnaire before you is part of a research project, conducted at several Italian banks, concerning the structure and the way each bank has implemented its performance monitoring systems. The research is executed jointly by ESADE Business School (Barcelona, Spain) and Università Sant’Anna di Pisa (Italy). Il Centro Studi e Ricerche dell’ABI has participated in defining the questionnaire and oriented its questions toward the Italian banking sector, inserting some questions relating to the “Performance Management” activity that will be presented to the associates as announced in the meeting of Commissione Tecnica per le Ricerche e le Analisi on next Tuesday 25th May.

The questionnaire is composed of three parts: a first one concerning general questions, a second one about the implementation of PMS in the bank and a final section proponing a discussion on relevant factors within the implementation process. Please read the questionnaire and related instructions for its right filling, it will take less that 15 minutes.

The information you provide us with will be treated confidentially. The questionnaire is filled in and processed anonymously. The overall results of the research will be communicated to participants by a report.

We thank you very much for your cooperation. For any question or comment, please contact Dott.ssa Francesca Francioli, researcher at Esade Business School (Barcelona) (francesca.francioli@esade.edu). Please send the questionnaire via mail before 15th June.

Best regards,

Francesca Francioli
Ph.D Candidate,
Department of Financial Management and Control Systems,
Esade Business School
Avenida Pedralbes 60-62
E-08034 Barcelona (Spain)
francesca.francioli@esade.edu
www.esade.edu
SECTION 1: GENERAL QUESTIONS

1 What is your role in the bank?
   a) Risk Manager   b) Compliance Manager   c) Controller
d) HR Manager   e) Other (_____________)

2 What is the bank’s total assets per year (average last three years, in million of euro)?
   a) Less than 5,000   b) Over 5,000 up to 10,000
c) Over 10,000 up to 50,000   d) Over 50,000

SECTION 2: PERFORMANCE MONITORING SYSTEM FEATURES
Next section proposes some questions related to the main features of the SPMS.

3 Regarding the SPMS, please check one of the following stages that best describes your bank’s current situation:
   1. Implementation not considered: SPMS has not been seriously considered (the fullfiment of the questionnaire is finished, thank you for your collaboration)
   2. Implementation considered: SPMS is being considered and implementation is possible, but it has not been approved
   3. Implementation considered but later rejected: SPMS has been considered (not implemented) but it was later rejected (the fullfiment of the questionnaire is finished, thank you for your collaboration)
   4. Adopted: SPMS is used, but only occasionally
   5. Adopted then refused: SPMS was adopted and analysis performed, but it was not functional to company goal and later rejected (please, to respond to next questions make reference to the SPMS that your bank adopted and later rejected).
   6. Implemented: SPMS is used extensively in everyday activity and supporting the decision process. It is regularly updated and benefits of its use are detected

4 When did your bank start the implementation process?
   a) Less than one year ago   b) Over 1 up to 3 years ago   c) Over 3 up to 6 years ago
d) Over 6 up to 9 years ago   e) Over 9 years ago

5 Does the SPMS mainly use financial or non-financial data?
   a) almost only financial information (for instance ROE, ROE)
b) almost only non-financial information (for instance customer satisfaction e retention)
c) the importance of both kinds of information is about equal
6 Would you please tick in the scale the importance of financial indicators on non-financial indicators (the weight of the measures was scored on seven-point Likert scales where 1 = “non-financial indicators are strongly important” and 7 = “financial indicators are strongly important”)?

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</table>

7 Do the SPMS of the bank group key measures in perspectives according to their characteristics?
   a) Yes  
   b) No

8 If so, can you indicate those perspectives?
   a. **Financial perspective**: it refers to company profitability and it can be measured by some traditional measures, such as TIER1 capital ratio, capital ratio, return on equity, return on sales, return on assets, current ratio, quick ratio, and others.
      
      a) Yes  
      b) No
   
   b. **Customer perspective**: it refers to company profitability focusing on customers and it can be measured by some indicators as customer satisfaction, retention, profitability, and others.
      
      a) Yes  
      b) No
   
   c. **Learning and growth perspective**: it refers to human capital, working climate, and human resource and information technology. It can be measured by some indicators as turnover of personnel, hours of training per employee, value added per employee, absenteeism, and others.
      
      a) Yes  
      b) No
   
   d. **Internal perspective**: it refers to internal activities aimed to the value creation expected to bank’s stakeholder. It can be measured by some indicators as response time to customers requests, new product introduced, frequency of returned purchases.
      
      e) a) Yes  
      b) No
   
   f. **Risk adjusted perspective**: it refers to the bank profitability at the management and control risk level. It can be measured by some indicators as solvency ratios, TIER2, CAR, and others.
      
      a) Yes  
      b) No
f) **Other perspectives**: please indicate the presence of additional or substitute perspectives:

____________________________________________________________________________________________________________________

____________________________________________________________________________________________________________________

9 Could you indicate the indicators used in the financial perspective?

____________________________________________________________________________________________________________________

10 Could you indicate the indicators used in the customer perspective?

____________________________________________________________________________________________________________________

11 Could you indicate the indicators used in the growth perspective?

____________________________________________________________________________________________________________________

12 Could you indicate the indicators used in the internal perspective?

____________________________________________________________________________________________________________________

13 Could you indicate the indicators used in the risk adjusted perspective?

____________________________________________________________________________________________________________________

14 Could you indicate the indicators used in additional perspectives?

____________________________________________________________________________________________________________________

15 When using the SPMS do you pay attention to relationships between strategic objectives and measures adopted?

(a) Yes (b) No (c) Partially
SECTION 3: CONTEXTUAL FACTORS AND THE DEVELOPMENT AND USE OF THE SPMS

The following section presents some questions about some contextual factors that could be influential in the use and development of the SPMS of your bank. Would you please tick in the scale the importance of the following factors (factors were scored on seven-point Likert scales where 1 = "strongly disagree" and 7 = strongly agree)?

3.1 Senior management has communicated a clear plan for meeting our business goals

3.2 Management has planned and communicated company strategy to attain strategic objectives

3.3 When the SPMS initiative began, there was consensus among managers about its specific objectives

3.4 Connections between the business objectives and my job are clear

3.5 Changes in the way we work in the organization are needed

3.6 I think the company needs new performance monitoring systems

3.7 Most of the managers are capable to use the SPMS to attain bank’s objectives

3.8 Management was involved in determining the features of the SPMS

3.9 It is difficult for me to distinguish between the results produced by the control systems program and the results caused by other factors
3.10 It is difficult for me to determine how to use performance information to set new or revise existing performance goals

1 2 3 4 5 6 7

3.11 High quality work increases my chances for a raise a bonus.

1 2 3 4 5 6 7

3.12 High performance is recognized and rewarded

1 2 3 4 5 6 7

3.13 Management make use of SPMS everyday to make company decisions

1 2 3 4 5 6 7

The questionnaire is finished, thank you for your participation.
Best regards.

Francesca Francioli
Department of Financial Management and Control Systems, Esade Business School Barcelona (Spain)
The role of contingency factors in the implementation stages of Strategic Performance Management Systems: evidence from Italian banks
Appendix 6 Survey Questionnaire (Italian version)

Questionario per la rilevazione dei sistemi di monitoraggio delle performance aziendali
Roma, Maggio 2010

Gentile Lettore,

La invitiamo a partecipare all’indagine che si pone l’obiettivo di analizzare le caratteristiche e lo sviluppo di alcuni strumenti di controllo aziendale e che si avvale del questionario che segue. L’indagine fa parte di una ampia ricerca accademica condotta da un team di ricercatori facenti parte dell’Esade Business School di Barcellona in collaborazione con l’Università Sant’Anna di Pisa.

Il Centro Studi e Ricerche dell’ABI ha contribuito alla definizione del questionario orientando le domande verso la realtà del settore creditizio italiano e inserendo alcune domande direttamente funzionali all’attività di “Performance Management” che sta per essere presentata agli Associati così come annunciato nella riunione della Commissione Tecnica per le Ricerche e le Analisi di martedì 25 maggio u.s.

Nelle prossime pagine Le verrà chiesto di rispondere ad alcune domande legate ai Sistemi di Monitoraggio delle Performance (SMP) presenti all’interno della sua azienda. Il questionario è suddiviso in tre parti: la prima sezione riporta domande generali, la parte successiva è legata all’implementazione di specifici SMP all’interno della sua azienda mentre l’ultima propone la valutazione di alcune affermazioni che riguardano nel dettaglio alcuni fattori aziendali.

Le chiediamo gentilmente di leggere il questionario nonché le relative istruzioni per la sua corretta compilazione. Il tutto Le sottrarrà meno di 15 minuti.

Le garantiamo che le informazioni che fornirà saranno trattate con la massima riservatezza, che il risultato sarà analizzato in maniera aggregata e non a livello individuale e che ai partecipanti verrà inviata un’analisi dei risultati ottenuti.

La aziende partecipanti all’indagine nonché le persone che materialmente compileranno i questionari resteranno anonimi; in nessun punto della ricerca è richiesta la loro identificazione. Le sue risposte sono per noi di grande valore e desideriamo ringraziarLa anticipatamente per il tempo che dedicherà.

Nel caso in cui abbia qualsiasi domanda o commento, contatti per favore la Dott.ssa Francesca Francioli, ricercatrice presso l’Esade Business School di Barcellona (francesca.francioli@esade.edu).

Cordialmente,

Francesca Francioli
Ph.D Candidate,
Department of Financial Management and Control Systems,
Esade Business School
Avenida Pedralbes 60-62
E-08034 Barcelona (Spain)
francesca.francioli@esade.edu
www.esade.edu
SEZIONE 1: DOMANDE DI CARATTERE GENERALE
Per favore risponda alle seguenti domande indicando una delle possibili opzioni.

1 Quale è la Sua posizione aziendale?
   a) Risk Manager     b) Compliance Manager     c) Controller
   d) HR Manager       e) Altro (specificare__________________________)

2 Quale è il totale dell’attivo maturato annualmente dalla banca (media ultimi 3 anni, dati espressi in milioni di euro)
   a) Meno di 5.000   b) Oltre 5.000 fino a 10.000
   c) Oltre 10.000 fino a 50.000   d) Oltre 50.000

SEZIONE 2: STRUTTURA DEI SISTEMI DI MONITORAGGIO DELLE PERFORMANCE
La prossima sezione riporta alcune domande riguardanti il sistema di monitoraggio delle performance aziendali (SMP) di cui un esempio è la balanced scorecard.

3 Riferendosi al processo di implementazione dell’SMP all’interno della Sua azienda, può indicare lo stadio che meglio descrive la situazione attuale?
   a) Implementazione non considerata: l’azienda non considera seriamente la adozione di un qualsiasi SMP. (La compilazione del questionario è terminata, la ringraziamo per la sua gentile collaborazione).
   b) Implementazione considerata: l’implementazione è stata inizialmente considerata e la sua adozione è possibile, tuttavia una decisione definitiva non è ancora stata presa.
   c) Implementazione considerate ma rifiutata: l’SMP è stato considerato in un primo tempo, ma in seguito rifiutato. (La compilazione del questionario è terminata, la ringraziamo per la sua gentile collaborazione).
   d) Adottato: l’SMP è usato, ma solo occasionalmente.
   e) Adottato, ma in seguito abbandonato: l’SMP è stato adottato, ma non soddisfacendo gli obiettivi aziendali è stato abbandonato (Per rispondere alle successive domande faccia riferimento al modello di SMP abbandonato).
   f) Implementato: l’SMP viene regolarmente aggiornato e utilizzato nell’ambito del processo decisionale. I benefici derivanti dal suo uso possono essere facilmente identificabili.

4 Da quanto tempo è stato introdotto o è iniziato il processo di implementazione dell’SMP?
   a) Meno di un anno   b) Oltre 1 fino a 3 anni   c) Oltre 3 fino a 6 anni
   d) Oltre 6 fino a 9 anni   e) Oltre 9 anni

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5 Quale è la struttura dell’ SMP utilizzato dalla Sua azienda?

   g) E’ composto prevalentemente da misure finanziarie: ad esempio da indici patrimoniali, di solvibilità, di rischiosità e reddittuali.
   h) E’ composto prevalentemente da misure non finanziarie: ad esempio misure di efficienza e soddisfazione del personale, customer satisfaction e retention, new customer acquisition, customer profitability.
   i) E’ composto da entrambe le misure in maniera bilanciata (ovvero entrambi gli indicatori sono presenti in egual misura).

6 Indicare nella scala seguente l’importanza relativa di indicatori finanziari rispetto ad indicatori non finanziari presenti nel sistema (è possibile rispondere sulla base di una scala nella quale 1 indica che il peso degli indicatori non finanziari è assolutamente più importante rispetto a quelli finanziari e 7 che il peso degli indicatori finanziari è assolutamente più importante rispetto a quelli non finanziari).

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7 L’SMP della Sua azienda raggruppa gli indicatori in categorie generali omogenee a seconda delle loro caratteristiche (dette prospettive o perspective)?

   a) Si     b) No

8 Se si, può indicare tali prospettive?

   a) Financial perspective: si riferisce alla company profitability e può essere misurata attraverso l’uso di alcuni indicatori economico-finanziari classici, ad esempio indici patrimoniali (patrimonio netto/crediti verso la clientela), reddittuali (utile di esercizio/patrimonio netto), di solvibilità (patrimonio di base/attività di rischio ponderate) di rischiosità (sofferenze nette su crediti netti verso la clientela/crediti verso la clientela) ed altri indicatori.

   a) Si     b) No

   b) Customer perspective: si riferisce alla company profitability partendo dall’analisi dei clienti e può essere misurata attraverso la customer satisfaction, retention e profitability ed altri indicatori.

   a) Si     b) No

   c) Learning and growth perspective: si riferisce principalmente al capitale umano, al work climate aziendale e alle risorse IT. Alcuni indicatori sono rappresentati dalla facilità di accesso alle informazioni e dalla partecipazione al processo decisionale da parte degli addetti nonché dal loro livello di soddisfazione.

   a) Si     b) No
d) **Internal perspective:** si riferisce alle attività interne volte alla creazione del valore aggiunto atteso dagli **stakeholder** aziendali. Prendendo come riferimento i nuovi prodotti/servizi offerti, alcuni indicatori possono essere rappresentati dal tempo necessario al loro sviluppo, dalle risorse aziendali in ciò impiegate, dal livello delle vendite, da una loro comparazione con i **competitors** e da molti altri indicatori.

   a) Si  
   b) No

e) **Risk adjusted perspective:** si riferisce alla profitabilità dell’azienda misurata attraverso indicatori **risk adjusted** che tengano conto non solo della componente reddituale ma anche della componente rischio/capitale.

   a) Si       
   b) no

f) **Altre prospettive:** indicare la presenza di eventuali prospettive addizionali o sostitutive delle precedenti:

   ________________________________________________________________

   ________________________________________________________________

9 Può indicare con alcuni esempi gli indicatori regolarmente utilizzati all’interno della **financial perspective**?

   ________________________________________________________________

10 Può indicare con alcuni esempi gli indicatori regolarmente utilizzati all’interno della **customer perspective**?

   ________________________________________________________________

11 Può indicare con alcuni esempi gli indicatori regolarmente utilizzati all’interno della **growth perspective**?

   ________________________________________________________________

12 Può indicare con alcuni esempi gli indicatori regolarmente utilizzati all’interno dell’**internal perspective**?

   ________________________________________________________________

13 Può indicare con alcuni esempi gli indicatori regolarmente utilizzati all’interno della **Risk Adjusted perspective**?

   ________________________________________________________________
14 Può indicare con alcuni esempi gli indicatori regolarmente utilizzati all’interno delle altre perspective utilizzate?

15 All’interno dell’SMP utilizzato dalla Sua azienda si considera ed analizza la reciproca influenza tra gli obiettivi strategici e le misure adottate?

(a) Si  (b) No  
(c) Parzialmente

**SEZIONE 3: FATTORI CRUCIALI ALL’INTERNO DEL PROCESSO DI IMPLEMENTAZIONE ED UTILIZZO**

Nella prossima sezione verranno poste alcune domande che hanno come obiettivo la determinazione dei fattori organizzativi che possono avere una maggiore influenza nello sviluppo e nell’uso dell’SMP.

In merito alle affermazioni riportate in basso Le chiediamo di indicare il suo grado di accordo/disaccordo marcando la rispettiva casella. (E’ possibile rispondere sulla base di una scala nella quale 1 rappresenta “estremamente in disaccordo” e 7 rappresenta “molto d’accordo”).

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<th>Gli obiettivi dell’azienda sono formalizzati e comunicati ai dipendenti</th>
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<td>3.1</td>
<td>1 2 3 4 5 6 7</td>
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Il **top management** ha formalizzato e comunicato le strategie aziendali al fine di raggiungere gli obiettivi pianificati.

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<td>3.2</td>
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Nelle prime fasi del processo di implementazione era presente un consenso generale riguardo gli specifici obiettivi del SMP.

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La connessione tra gli obiettivi dell’azienda e il lavoro di ognuno è chiara.

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<td>3.4</td>
<td>1 2 3 4 5 6 7</td>
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Sono necessari cambiamenti nell’organizzazione delle politiche aziendali e nelle procedure (se l’SMP non è stato implementato) oppure è stato necessario effettuare (se l’azienda ha raggiunto la fase di piena implementazione)

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L’azienda ha bisogno di nuovi strumenti di lavoro.

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Il management è in grado di usare l’SMP al fine di raggiungere gli obiettivi aziendali.

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Il management ha partecipato al processo di disegno e pianificazione dell’SMP

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<td>3.8</td>
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E’ difficile distinguere i risultati derivanti dall’uso dell’SMP rispetto a quelli derivanti da altri fattori. 1 2 3 4 5 6 7

E’ difficile determinare come l’uso dell’SMP permetta di identificare nuovi obiettivi oppure di rivedere i precedenti. 1 2 3 4 5 6 7

Una buona qualità del mio lavoro aumenta le mie possibilità di ricevere un bonus. 1 2 3 4 5 6 7

La capacità di raggiungere gli obiettivi aziendali viene riconosciuta e premiata. 1 2 3 4 5 6 7

Il management usa l’SMP quotidianamente all’interno del processo decisionale dell’azienda. 1 2 3 4 5 6 7

Le domande sono terminate, La ringraziamo per la sua cortese partecipazione e le porgiamo i più cordiali saluti.

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