

Chapter 2

The Evolution of the Concept of 'Management Control': Towards a Definition of 'Performance Management System'

2.1 Towards a Definition of Performance Management System

Although management control scholars have not achieved a consensus on the definition of the content of the discipline yet, some main trends can be depicted from the evolutionary analysis of the related literature.

Through the critical review of the main literature of management control - for the purpose of this study - the performance management system (PMS) can be defined as the set of “the evolving formal and informal mechanisms, processes, systems, and networks used by organizations for conveying the key objectives and goals elicited by management, for assisting the strategic process and ongoing management through analysis, planning, measurement, control, rewarding, and broadly managing performance, and for supporting and facilitating organizational learning and change” (Ferreira and Otley 2009: 264). The main characteristics of this definition refers to the following elements:

1. Different types of mechanisms (both *formal* and *informal*);
2. The *effectiveness* in *strategy* accomplishment;
3. The PMS' purpose, i.e. *enabling* the organisation to achieve its *goals*, through learning and change.

These three characteristics outline the main evolutionary paths of *economic control*, which this book is about.

First, the theoretical evolution in organisational studies, which were used to focus more on formal kind of control, where cybernetic feedback controls were implemented in bureaucratic organisations striving to achieve the highest profit. Organisational thought moved from that approach towards a more social, psychological, as well as behavioural perspective, where informal types of control, such as clan and values controls, are mainly implemented in more flexible organisations.

Secondly, from the organisational control literature to the management control one, issues of strategy formulation and strategy implementation became more and

more important. According to this viewpoint, in order to succeed in the evolutionary environment, organisations gave more and more attention to other than financial stakeholders in setting organisational strategic objectives. Moreover, and linked to the previous argumentation, 'effectiveness' has been referred to as the capability to satisfy all stakeholders' needs, favouring issues of social and environmental responsibility.

Thirdly, the negative meaning of 'control systems' has changed into a more constructive, steering meaning of 'performance management', which *enables* (instead of *constraining*) managerial activity to achieve organisational goals.

The remainder of this Chapter will focus on the critical review of different economic control approaches.

First, different theoretical approaches to organizational control will be discussed, in order to highlight the main characteristics of the construct and definitions within different fields. Secondly, control over economic organizations will be outlined according to a managerial perspective. Thirdly, the evolution of the management control definitions will be reviewed in order to define a performance management system. Lastly, Italian literature on economic control will be discussed in order to compare international perspectives with national ones, resulting in a promising unitary perspective of control within economic organisations.

2.2 Different Theoretical Approaches to Organizational Control

PMS literature is rooted in organizational control theory.

Organizational control is a fundamental issue in a variety of contexts, from both a socio-political and corporate governance perspectives, as well as from a managerial point of view, within firms and departments.

At a very general level, organizational control refers to a coalition of agents that implements a set of coordinated and cooperative actions in order to perform individual objectives by means of the organizational objectives (Cyert and March 1963).¹

From this first definition, it could be argued that organizational control is related to two main issues: namely, the information and accountability system design, i.e. the "operating rules", of the activities that individuals within the organization – whether they are workers or managers – have to accomplish, and the behavioural concern, or the "enforcement rules", of motivating managers to achieve organizational goals (Arrow 1964: 398).

¹ Nonetheless there is a very high variety of organizational control definitions; at this stage, a general definition has been proposed. For a comprehensive review of organizational control literature see Chandler (1962, 1977).

Indeed the alignment² between individual and organizational goals is an essential aspect of management control (Cyert and March 1963; Flamholtz 1996; Ouchi 1979).³

2.2.1 *Economic Theories of Organizational Control*

The main economic theories related to organizational control derive from the theory of the firm.⁴

Neoclassical theory assumes that the firm is a legal entity made up of a production set whose knowledge is available to other firms. Managers choose a particular production set and, in a full-information environment, act rationally in order to maximise profits or the net present value of future profits (Chandler 1990; Hart 1989).

Hart (1989) argued that the neoclassical approach to the theory of the firm exhibits some remarkable strengths, since it is based on a mathematical formalization that enables us to analyse both the effect of the firm's productive choice on environmental changes (Varian 1984) and the strategic interactions between firms operating within imperfect competition contexts (Tirole 1988).

Conversely, neoclassical theory falls short in specifying the mechanisms that constitute the essence of the firm, in explaining how conflicts between owners, managers and workers are resolved, and in identifying the boundaries of the firm (Hart 1989).

Following the same argumentations, Moe asserted that:

[t]he neoclassical theory of the firm is not in any meaningful sense a theory of economic organization. It centers around the entrepreneur, a hypothetical individual who, by

² Tannenbaum defined the alignment between individual actions/goals to organizational ones as *conformity* (Tannenbaum 1962: 238). This term implies a twofold meaning. First, individuals should adjust their personal actions/goals so that these align with the organizational ones. Second, individuals perceiving a mismatch between their personal goals and the organizational ones, do not self-select themselves to be part of that organization. Tannenbaum's work seems to be more closely related to the first meaning of conformity, in that he analysed the different behavioural responses individuals give in order to conform to different types of controls.

³ Cyert and March start their reasoning about the conflict between individual and organizational objectives by assuming that "People (i.e. individuals) have goals; collectivities of people do not" (Cyert and March 1963: 26). After that, they outline three main ways in which the goal formation process works. The first one is the bargaining process, in which the handling of side payments drives the definition of general terms and conditions for organizational goal identification and achievement. The second one is related to the stabilization and elaboration of objectives through budgetary control, functions allocation, and organizational memory building. The last one is the change in objectives through experience that relates to the shift in the attention focus between two or more conflicting objectives, when one of them occurs in a drastic experience.

⁴ According to Anthony, economic theories influenced what he called "operational control" (Anthony 1965: 93).

assumption, makes all decisions for the firm and is endowed with a range of idealized properties defining his knowledge, goals, computational skills, and transaction costs. Virtually all aspects of business enterprise that organization theorists find interesting and consequential – from formal structure to social context and worker psychology to bounded rationality, adaptive search, and goal conflict – are thereby assumed away. The model firm is simply a black box that produces optimal choices automatically as a function of any given environment. (Moe 1984: 740).

The theory of the firm changed starkly when authors like Cournot, Chamberlin, Robinson and von Stackelberg proposed different perspectives to the atomistic competition approach.⁵

Machlup stressed that, by rejecting the marginal-productivity principle as the main driver of labour demand, they provided a new perspective that has been followed by other scholars according to a variety of approaches (Machlup 1967).

In the following sections an analysis of the contribution of each economic theory to the organizational control literature will be proposed.

2.2.1.1 Principal-Agent Theory

The separation between ownership and control taking place in modern capitalist organizations leads to a conflict of interest and the rejection of the complete information of the neoclassical view (Hart 1989).⁶ Indeed, the ownership group of the firm has some interest in maximizing profit, or other value-related objective functions; on the other hand, the controlling group of the firm, i.e. managers, looks to maximise their own value function, in terms of both salary and monetary-related rewards. These conflicting interests induce the ownership, i.e. the principal, to control how managers run their business and to strive to maximise the ownership’s function. Although organizational control mechanisms with regard to managerial activities discourages managers to display free riding behaviours, ownership cannot know exactly what activities managers carry on in their everyday operations and which profit related information is available to them. An information asymmetry arises, and the ownership cannot compel management to pursue its objective by simply stating the objective function. One solution is related to the design of an effective incentive scheme in order to align managers’ and ownership’s objectives.⁷ Nevertheless, an optimal incentive scheme is not entirely able to avoid the

⁵ Cournot developed the duopoly competition theory (Cournot 1838), while Chamberlin put forward the monopolistic competition theory (1933). Robinson introduced monopsony competition (Robinson 1933) and von Stackelberg addressed a type of duopoly, i.e. the Stackelberg leadership model (von Stackelberg 1934).

⁶ According to Fama, the separation of ownership and control is “an efficient form of economic organisation within the “set of contract” perspective” (Fama 1980: 289). Entrepreneur develops both the management and the risk-bearing function. While competition stresses for the implementation of devices for “efficiently monitoring” all employees’ performance, the latter (employees) experience incentives for serving both the firm they are employed for and external stimuli.

⁷ For a deeper analysis on the incentive and rewarding mechanism see also Chap. 10.

preference of managers for achieving their own goals instead of those of the owners (Holmstrom 1979).⁸

As Jensen and Meckling clearly pointed out

[t]he problem of inducing an "agent" to behave as if he were maximizing the "principal's" welfare is quite general. It exists in all organizations and in all cooperative efforts. [...] The development of theories to explain the form which agency costs take [...] and how and why they are born will lead to a rich theory of organizations which is now lacking in economics and the social sciences generally. (Jensen and Meckling 1976: 309)

Hart pointed out that principal-agent theory provided some insightful advances in the neoclassical theory of the firm, even though it adds no explanation on where the boundaries of the firm should be established. Indeed, he stated that

[...] principal-agent theory tells us about optimal incentive schemes, but not (at least directly) about organizational form. Hence, in the absence of a parallel between the two, which turns out to be difficult to draw, principal-agent theory provides no predictions about the nature and extent of the firm. (Hart 1989: 1759–1760).

2.2.1.2 Transaction Cost Theory

In trying to define *The nature of the firm*, Coase stated that the existence of the firm is justified by the entrepreneur's ability to get some contracts at a lower cost than those that could be negotiated in the market place (Coase 1937).⁹

Indeed, within a firm the number of contracts that should be negotiated is lower than those outside of it, since the "essence of the contract is that it should only state the limits to the power of the entrepreneur" (Coase 1937: 391); thus, the details of the exchange will be defined only after the contract agreement. He stressed that a "firm is likely, therefore, to emerge in those cases where a very short term contract will be unsatisfactory" (p. 392).

It could be said that in transaction cost theory the organizational control is related to the control over the marketing costs that could, and should, be saved by the firm, compared to the market, in co-ordinating resources. Following this reasoning, Coase argued that:

[t]he entrepreneur has to carry out his function at less cost, taking into account the fact that he may get factors of production at a lower price than the market transactions which he supersedes, because it is always possible to revert to the open market if he fails to do this (Coase 1937: 392).

Referring to Coase's approach, Alchian and Demsetz argued that some issues related to information also play a fundamental role in the definition of the nature of the firm, since the production of optimal teams is more likely to come from inputs

⁸ As there is no absolute solution to the owner-manger conflict, the principal-agent theory is also called the *managerial theory of the firm* (Hart 1989: 1759).

⁹ Transaction cost theory is closely related to agency theory, in that both emphasise the limits of market transactions related to information asymmetries among economic agents (Kaplan 1984).

already within the boundaries of the firm. Indeed, “knowing more accurately the relative productive performances of the [...] resources” results in a more accurate estimation of the price of a resource. Therefore “poorer resources can be paid less in accord to their inferiority; greater accuracy of knowledge of the potential and actual productive actions of inputs rather than having high productivity resources makes a firm [...] profitable” (Alchian and Demsetz 1972: 793–794).

In a similar vein, Ouchi emphasized that

[g]iven a frictionless price mechanism, the firm can simply reward each employee in direct proportion to his contribution, so that an employee who produces little is paid little, and all payments, being exactly in proportion to contribution, are fair. (Ouchi 1979: 835).

Acknowledging the relevance of team organization, Williamson posited that transaction cost analysis does not apply only at the firm level, but at three different levels: the overall structure of the enterprise, the operating parts and human assets organization. The first level is concerned with how the operating parts should be related to each other. The second level, i.e. the operating parts, relates to the extent to which some activities should be either outsourced or internalized, and why. The third level focuses on the organization of human assets in such a way that internal governance structure matches the features of work groups (Williamson 1981). At any of these stages, control means “securing effective compliance with subordinates” (Evans 1975: 252).¹⁰

According to the transaction cost approach, the firm can be regarded as a “nexus of contracts” (Fama 1980: 290); therefore the concept of ownership of the firm is no longer relevant. In large corporations, the ownership of the firm is only the condition for the existence of the firm, and ownerships provide a resource in the same way that other productive resources, i.e. capital, do. On the other hand, the decision-making over the processes of this type of organization is related to managerial action, producing a substantial separation between risk-bearer and decision-maker: i.e., between ownership and control (Fama 1980).

Furthermore, transaction cost theory becomes more and more useful in situations of uncertainty. Hayek emphasized that what distinguishes a high performance economy is its capacity to adapt efficiently to uncertainty; in fact, he asserted that “the economic problem of society is mainly one of adaptation to changes in the particular circumstances of time and place” (Hayek 1945: 524).

Williamson, in fact, argued in his well-known work, *Markets and Hierarchies* (1975), that organizational control is related to hierarchical control involving a threefold relationship, which is composed of uncertainty, environmental factors and human factors (such as opportunism and bounded rationality).

In a similar vein, Kenneth Arrow maintained that the fundamental problems with organizational control are related to the “complement of knowledge”: i.e., uncertainty (Arrow 1964: 404). Indeed, uncertainty inhibits the ability of top

¹⁰ Evan asserted that compliance “has a cognitive and motivational component” since “subordinates must understand what they are supposed to do and they must be willing to do it” (Evans 1975: 252).

management to control the activities of subordinate managers through both direct control and incentives, since they cannot know exactly what subordinates do when the span of control is high.

Although decentralization of decision-making seems to overcome this shortcoming, in that the demand for the attainment of specific activities shifts in the demand for profit maximization, it results in another limitation. In fact, top management cannot know to what extent subordinate managers are either maximizing their outcome or achieving a sub-optimal one.

Even though the objective function of subordinate managers can be defined, it is necessary to compel managers to achieve the stated objective. Enforcement requires devising effective incentive systems that induce managers to undertake behaviour supported by the organization and to avoid non-supported ones. Both reward system design and the relationship between performance appraisal and reward system requires difficult tasks, in that it is not easy to generalize each manager's needs function.¹¹ Furthermore, since a successful performance appraisal system creates new demand for information, a cost-benefit analysis of the enforcement system should be undertaken before implementing it. Moreover, managers could maintain that the outcome of their managerial activity is not only based on the effort they put into achieving target results, but also on external disturbances that may substantially affect the final outcome. In this context, quality and information issues arise.

When it is difficult to control the *quality of goods* because of an information asymmetry, the price system seems to alter the price arrangement when non-price features are also relevant in the goods, or service, exchange.¹² Arrow posited that individuals within an organization choose to exchange their knowledge at a certain cost; thus, this knowledge is available to other members of the organization who can make some decisions according to both this information and the operating rules laid out within the organization. The resulting decisions, in turn, will produce new knowledge, so that operating rules and enforcement rules will be adapted accordingly (Arrow 1964). In this context, it is assumed that the exchange between different departments, within the same organization, can conveniently be based on a price system: namely, *transfer pricing*. According to transfer pricing theory, every input and output activity can be given a price. Setting the transfer price for such a commodity means identifying the price maximising organizational profits.¹³ Although transfer pricing is a potentially powerful method for uncertainty management, it also exhibits some critical issues. As already mentioned, the choice of

¹¹ On the hierarchy of needs, see Maslow (1970).

¹² Arrow gives the example of an exchange between a physician and her/his patient, where "personal responsibility, or fidelity or trust" arises in the assessment of the fairness of the price of the exchange (Arrow 1964: 403).

¹³ Arrow argues that maximization should also consider some constraints: i.e., the demand for the commodity and the supply of input for producing the commodity. The optimum is determined according to the Lagrange method for constrained maxima and prices are given by Lagrange multipliers (Arrow 1964).

enforcement rules, the complexity of operation rules, and the limits of the validity of the price system are all limitations to the implementation of a price system as an organizational control mechanism. Furthermore, the information issue related to the presence of uncertainty represents perhaps the main problem to this kind of control over organizations. As stated by Ghoshal and Moran (1996), criticisms of transaction cost theory range from its ideology, which distorts more than it illuminates (Perrow 1986), to its lack of both empirical applicability (Simon 1991) and generality caused by its ethnocentric bias (Dore 1983), and to its normative implications (Ghoshal and Moran 1996; Pfeffer 1994).

In conclusion, as Micheal Jensen clearly pointed out, the economic theory of the firm needs to be adapted to those mechanisms that define organizations, which instead are considered as black boxes by the economic literature.

Unfortunately, the vast literature on economics that falls under the label of "Theory of the Firm" is not a positive theory of the firm, but rather a theory of markets. The organization or firm in that theory is little more than a black box that behaves in a value- or profit-maximizing way (Jensen 1983: 325).

In this sense, non-economic theories should fill this gap and expand the knowledge on firms' behaviour.

2.2.2 *Sociological Theories of Organizational Control*

Sociological approaches to organizational control try to "explain and prescribe organizational behaviour by emphasizing the central tendencies of groups" (Miller et al. 1982: 237). Perrow asserted that:

The sociologist makes only minimal and quite crude assumptions about the psychology of individuals [...] and the interactions of people [...] because it is the goal of his professional discipline to study the patterned regularities of interaction among groups, or social structure (Perrow 1970: 22).

From the sociological perspective, organizational control is performed by rules, policies and hierarchies of authority (Flamholtz et al. 1985).

In the remainder of this section different sociological theories of organizational control will be analysed.

2.2.2.1 **Functionalism**

The functionalist approach is grounded on the assumption that "society has a concrete, real existence, and a systemic character oriented to produce an ordered and regulated state of affairs" (Morgan 1980: 608).

According to Hassard (1995), the sociological positivism *à la* Comte is accredited with being the foundation of the functionalist approach. Functionalism has been applied to the study of social science, and the first attempts to introduce

functionalism in social science relates to the work of anthropologists, such as Bronislaw Malinowsky and A. R. Radcliffe-Brown. Malinowski pointed out that societies should be analysed with regard to the relationships between the constituent parts and the environment (Malinowski 1944). From Radcliffe-Brown's point of view the concept of function

[...] involves the notion of a structure consisting of a set of relations amongst unit entities, the continuity of the structure being maintained by life-processes made-up of activities of the constituent units (Radcliffe-Brown 1952: 180).

Starting with the work of Talcott Parsons, a *general systems theory* approach has been developed to analyse the social world. Stemming from Pareto's assumptions in *The Social System* (1951), Parsons introduced a model for achieving a social equilibrium, named the AGIL model. AGIL is the acronym for 'Adaptation', 'Goal attainment', 'Integration' and 'Latency'. 'Adaptation' relates to the relation between the system and the environment; 'Goal attainment' specifies the system's main objectives and the resources needed to achieve the objectives; 'Integration' assures the control and coordination between parts; and 'Latency' provides motivation to parts. In applying his social theory to organizations, Parsons focused on the goal identification issue. In fact, he defined organizations as follows:

[...] *primacy of orientation to the attainment of a specific goal* is used as the defining characteristic of an organization which distinguishes it from other types of social systems. (Parsons 1956: 64)

Parsons looked at the organization from both an external and internal perspective. From the external perspective, he tried to classify organizations according to their main functional problems. Economic organizations are more concerned with the adaptation problem; political organizations focus on the goal attainment problem; integrative organizations relate to the control problem; and pattern maintenance organizations try to solve the motivation problem. At the system level, according to Parsons' perspective, the organizational control is contingent upon the organizational focus.

From the internal point of view, he distinguished three main organizational levels: the technical, the managerial and the institutional level.¹⁴ The technical level is involved in the activities that should be carried out in order to achieve organizational goals. The managerial level is concerned with the administration of the organization. Finally, the institutional level has to ensure that the organizational goals conform to the social ones (Hassard 1995). Parsons' reasoning on internal structure control is therefore split up into three levels of analysis. At the technical level, organizational control involves both assuring an effective translation of organizational objectives into day-to-day operations and the control of the extent to which pre-set operations have been carried out. At the managerial level,

¹⁴ The typologies developed by Parsons are in stark contrast with the Weberian hierarchic approach to organizational structures (Weber 1968). In fact, Parsons argued that the pyramidal structure is too simple an approach to adopt (Hassard 1995).

organizational control is assured by both the obtainment of the necessary resources for the technical level and the customers' satisfaction. Organizational control at the institutional level relates to the identification of uniformity between organizational and social objectives.

In a similar functionalist vein, Philip Selznick (1948) analysed organizations according to different perspectives, i.e. as an "*economy*" and as an "*adaptive social structure*" (p. 26). The former perspective looks at controlling the organization according to principles of optimization. The latter, instead, are more concerned with the fit between organizational and environmental characteristics. Organizational mechanisms, such as delegation, and through it, specialization, tend to provide control according to the second perspective.

Indeed, Selznick propounded delegation as an effective way of performing organizational control since

[...] *delegation* is the primordial organizational act, a precarious venture which requires the continuous elaboration of formal mechanisms of coordination and control. (Selznick 1948: 25)

He also noted that these mechanisms of control might lead to dysfunctional outcomes, since individuals tend to achieve sub-goals associated with their specialized function (Hassard 1995).

2.2.2.2 General System Theory (GST) Approach

Stemming from the functionalist approach, the general systems theory approach studies organizations as systems of interrelated parts, each of which is specialized in order to achieve the systemic goals (von Bertalanffy 1950, 1968). Starting from the work of Norbert Wiener (1948), which describes the cybernetic functioning of systems and the general laws and principles under which they operate, the GST has been applied to the analysis and diagnosis of organizations (Beer 1979).

Following a systems-based approach to organizational analysis, Hawthorne's studies advanced the knowledge on methodological studies in organizations, since they deemed the environment as a fundamental variable in organizational analysis. Elton Mayo described the Hawthorne effect on worker satisfaction according to the results of the experiments that took place at the Western Electric Company in his work, *The human problems of an industrial civilization* (1933). Hawthorne's studies widened the concept of organizational control to encompass environmental issues too. Organizational control is therefore related to adjustments to a deviated organization's equilibrium; deviations from the equilibrium are caused by environmental disturbances. By including environmental issues in his analysis, Hawthorne anticipated the contingency approach to organizational analysis and control.

2.2.2.3 Contingency Theory

Amitai Etzioni argued that social systems cannot be run as a cybernetic system, since individuals “cannot be coerced to follow “signals” unless these are responsive, at least to a significant extent, to their values and interests” (Etzioni 1969: 192). They should, instead, be thought of as the outcome of a societal process; i.e., a theory that identifies the factors enabling (limiting) the guiding capacity grounded in the Keynesian theory. Furthermore, he posited that in more stable environments the cybernetic approach to decision-making is feasible, but that when some environmental turmoil arises the adaptation of cybernetic systems is not such an easy task.

In the same way, Paul Lawrence and Jay Lorsch pointed out that organizational performance is contingent upon the fit between certain organizational variables and the environmental characteristics (Lawrence and Lorsch 1967).

In fact, contingency theorists analyse “what specific organizational attributes are related to certain external characteristics of the immediate environment or the nature of the organization’s primary task” (p. 186).

Some of the leading scholars in this field are Burns and Stalker, Woodward, Chandler, Lawrence and Lorsch, Perrow and Thompson. Their works attempt to identify how environmental characteristics affect organizational performance. Burns and Stalker (1961) found that a good fit between the internal management practices and the rate of change in scientific techniques and markets enhances organizational effectiveness.¹⁵ Woodward investigated the use of management practices contingent upon a technical variable, i.e. the predictability of results and the degree of control over the production process (Woodward 1958). His research findings showed that successful firms were associated with management practices that better matched the nature of the various techniques of production and the environmental conditions.¹⁶

Alfred Chandler contributed to the contingency literature even though he was primarily a historian. His study focused on an historical administrative comparison

¹⁵ Burns and Stalker named the two different management practices “mechanistic” and “organic”. The “mechanistic” system “appeared to be appropriate to an enterprise operating under relatively stable conditions. [...] In mechanistic systems the problems and tasks are broken down into specialisms. Each individual pursues his task as something distinct from the real tasks of the concern as a whole”; on the other hand, “[o]rganic systems are adapted to unstable conditions, when problems and requirements for action arise which cannot be broken down and distributed among specialist roles [...] Individuals have to perform their special task in the light of their knowledge of the tasks of the firm as a whole” (Lawrence and Lorsch 1969: 188).

¹⁶ Woodward identified three main techniques of production: *small batch*, *large batch* and *continuous production*. Each technique was assigned a scale of predictability, so that small batches resulted in low predictability while continuous production had high predictability (Woodward 1958).

of the relationship between strategy and structure contingent upon environmental changes (Chandler 1962).¹⁷ He assumed that

[s]trategic growth resulted from an awareness of the opportunities and needs – created by changing population, income, and technology – to employ existing or expanding resources more profitably (Chandler 1962: 15).

Chandler identified different strategies that successful firms adopted to react to environmental changes and to set up different organizational structures.¹⁸ Quoting Chandler:

[a]s long as an enterprise belonged in an industry whose markets, sources of raw materials, and production processes remained relatively unchanged, few entrepreneurial decisions had to be searched. In that situation, such a weakness was not critical, but where technology, markets and sources of supply were changing rapidly, the defects of such a structure became more obvious. (Chandler 1962: 41).

Lawrence and Lorsch's research focused on the integration (vs. differentiation) of the organizational structure (Lawrence and Lorsch 1967). They tested this structural variable contingent upon the relative uncertainty of the environmental sector.¹⁹

According to the contingency perspective, organizational control is related to the identification of a suitable match between organizational characteristics and environmental features. As Woodward clearly argued: “[t]here can be no one best way of organizing a business” (Woodward 1958); therefore, organizational control should be tailored to effectively achieve the fit previously stated.

One of the main criticisms of the functional-structural approach is related to the work of Alvin Gouldner. In his essay on *Organizational Analysis* (1959) he addressed a comparison between “two distinct approaches to the study of complex organizations” (p. 404). They are the rational model, whose founding father is Max Weber, and the natural-systems model or functional-structural approach, which is primarily attributed to Talcott Parsons. Gouldner asserted that both models show some strengths and weaknesses, but he argued that “the natural-systems model tends to neglect the distinctive rational features of the modern organization” (p. 407).²⁰ He stated that “purposive rationality” focuses on “planned adaptation”, instead of “spontaneous adaptive mechanisms”, and called for a “systematic [...] use of applied social science in the modern organizations” (p. 409).

¹⁷ Chandler controlled for environmental changes related to “technology, markets and source of supply” that enacted strategic and subsequently structural changes (Lawrence and Lorsch 1967: 198).

¹⁸ The strategies were related to “expansion of volume”, “growth through geographical dispersion”, and diversification through “new lines of products” (Chandler 1962: 16).

¹⁹ Three sectors were included in Lawrence and Lorsch's study: a scientific, a market and a technoeconomic one (Lawrence and Lorsch 1967: 29).

²⁰ This statement seems to be influenced by the behavioural approach, whose scholars – such as Herbert Simon (1947) – introduced ten years before the Gouldner review.

2.2.2.4 Theory of Bureaucracy

In his work *Economy and Society* (1968), Max Weber introduced the concept of bureaucracy, or “rational economic action”²¹, to social studies.

The linkage to the functionalist approach is witnessed by the specialization of function principle underlying his theoretical framework. In fact, the specialization of functions enables the exertion of “domination” – that is, “the probability that a command with a specific content will be obeyed by a given group of persons” (p. 56) – by the superior over the subordinates, within an “office”.²² Each superior has, in turn, to report to her/his superior, in a *hierarchical* chain of domination. Each office has to accomplish certain tasks in terms of “rules” or “norms” (p. 218). These rules, norms and administrative acts are recorded in documents together with the operation by officials which Weber named “office”, or “*bureau*” (p. 219).

According to Weber, the organizational control of economic organizations follows the principles of monocratic bureaucracy,²³ since it is “capable of attaining the highest degree of efficiency²⁴ and [...] the most rational known means of exercising authority over human beings” (p. 223), because it “means fundamentally domination through knowledge” (p. 225) and “is formally capable of application to all kinds of administrative tasks” (p. 223). Principles of bureaucracy rely, first of all, on “*official jurisdiction areas*”; secondly, on “*office hierarchy*”; thirdly, on management by “written documents”; fourth, on the “training” of office management; fifth, on the “*full working capacity*” of the official; and sixth, on management by “*general rules*”²⁵ (p. 957–8).

Furthermore, Weber maintained that bureaucratic organizations are based on *formal* structures made up of *impersonal* positions that ensure an “administrative democratization”, which implies “the abstract regularity of the exercise of authority, which is a result of the demand for ‘equality before the law’ in the personal and functional sense” (p. 983).

²¹ In describing the ‘social categories of economic action’, Weber pointed out that “[r]ational economic action requires instrumental rationality in this orientation, that is, deliberate planning” (p. 63). He put forward that “[n]ot every type of action which is rational in its choice of means will be called ‘rational economic action’ [...] in particular, the term ‘economy’ will be distinguished from that of ‘technique’ [...] economic action is primarily oriented to the problem of choosing the *end* to which a thing shall be applied; technology, to the problem, given the end, of choosing the appropriate *means*” (p. 65–67).

²² The superior’s dominance over subordinates is limited by both the specified sphere of competence, i.e., “jurisdiction” (p. 218), and higher order superiors who have control over their subordinates use of domination.

²³ Monocratic bureaucracy refers to “the purely bureaucratic type of administrative organization” (p. 223).

²⁴ Weber stated that bureaucratic administration is superior to other types of administration in terms of “[p]recision, speed, unambiguity, knowledge of the files, continuity, discretion, unity, strict subordination, reduction of friction and of material and personal costs” (p. 973).

²⁵ Rules represent the source of knowledge of the bureaucratic administration – i.e., the source of its efficiency – and officials have to learn and manage them accordingly.

Starting from Weber's studies, Peter Blau tried to reframe the bureaucracy theory (Blau 1965); but as argued by many authors (Crozier 1964; Di Maggio and Powell 1983; von Mises 1944; Selznick 1943), the principles of bureaucracy contain the seeds of its dysfunctional effects. Gouldner asserted that the "dimensional perspective" (Hall 1963) of the definition of *bureaucracy* used by Weber refers to an *ideal type* and therefore is loosely linked to real organizations. In fact, he affirmed

[i]t is instead an ideal type, in which certain tendencies of concrete structures are highlighted by emphasis. Not every formal association will possess all of the characteristics incorporated into the ideal-type bureaucracy. The ideal type may be used as a yardstick enabling us to determine in which particular respect an organization is bureaucratized (Gouldner 1950: 53–54).

Following a similar approach, Philip Selznick contended that empirical evidence supported a revision of the bureaucratic approach (Barnard 1940; Roethlisberger and Dickson 1941), since more spontaneous *informal* structures, based upon power relationships and personal ties, arose within organizations (Selznick 1943).

From a different perspective, Crozier stressed that "the bureaucratic system of organization is primarily characterized by the existence of a series of relatively stable vicious circles that stem from centralisation and impersonality" (Crozier 1964: 193). In fact, he put forward some of these vicious circles, such as the centralisation of decisions and the development of parallel power relationships, and the dysfunctional effects that follow, such as

the slowness, the ponderousness, the routine, the complication of procedures and the maladapted responses of the bureaucratic organization to the needs which they should satisfy (Crozier 1964: 3).

He maintained that a bureaucratic organization is an organization that "can not correct its behaviour by learning from its errors" (p. 187) since it is completely based on management by rules, which inhibits managerial innovation and the ability to overcome a crisis. Other scholars analysed the widespread implementation of the bureaucratic model of the organization among enterprises and questioned both the effect of bureaucratization, since

bureaucratization and other forms of organizational change occur as the result of processes that make organizations more similar without necessarily making them more efficient (Di Maggio and Powell 1982: 147)

and the source of bureaucratization, as

[t]his process [of bureaucratization] is effected largely by the state and the professions, which have become the great rationalizers of the second half of the twentieth century (Di Maggio and Powell 1982: 147).

2.2.3 Psychological Theories of Organizational Control

Since the works of Dunnette (1962); Gilmer (1960); Roethlisberger (1962) and Vroom and Maier (1961)²⁶, some prodromal studies on organizational psychology have been carried out, but it is only starting from the work of Harold Leavitt and Bernard Bass (1964), *Organizational psychology*,²⁷ that a new discipline has been introduced.

Katz and Kahn supported the interdisciplinary approach by stating the “[the idea that] social psychological principles can be applied to all forms of collective organized effort is now acknowledged in many disciplines” (Katz and Kahn 1978: iii).

Edgar Shein urged the need for such a discipline by identifying the nature of the organization and the roles psychologists could play. In fact, he asserted that “*the organization is a complex social system which must be studied as a total system if individual behaviour within it is to be truly understood*” (Schein 1965: 3).²⁸

The roles that he addressed were related to some psychological problems arising within organizations. First, psychologists should be involved in solving individual-organizational conflicts and primarily focused on the *recruitment, selection, training and allocation* of human resources. Second, they are needed to minimize the dysfunctional effects of psychological contract between the organization and its members²⁹, which is fundamentally related to *authority, influence and psychological contact*. Third, organizational psychologists have to smooth the *inter-organizational tensions* that arise because of job specialization and individual identification with the sub-unit in which she/he is working. Finally, psychologists should identify the ways to develop *flexibility and adaptability* in the organizational personnel in order to maintain organizational survival.

²⁶ Dunnette’s *Handbook of industrial and organizational psychology* (1973) owes its name to Division 14 of the American Psychological Association, and this is due to the fact that organizational psychology emerged as an independent discipline from industrial psychology (Bass 1965; Blackler and Shimmin 1984).

²⁷ Organizational psychology has been defined as “the study of large scale organizations in their psychological and social aspects” (Quinn and Kahn 1967: 437), or “the study of how men at work are affected by the system of men, money, and materials within which they work. Also, it deals with how they, in turn, exert influence on the conversion of the inputs of human energy, money, and materials on the system’s manifold outputs of wealth, goods, and satisfaction” (Bass 1965: 33). Bass maintained that organizational psychology is connected with other disciplines, such as economics and the physical and behavioural sciences (Bass 1965).

²⁸ On the concept of organization as a complex system, see Rice (1963) and Trist et al. (1963), who developed the so-called *Tavistock Sociotechnical model*; Homans (1950) and the model named after him; Likert (1961), who put forward the *Likert overlapping-group model*; Kahn et al. (1964), who introduced the *Kahn overlapping-role-set model*; and the contingency scholars (Galbraith 1969; Lawrence and Lorsch 1967; Woodward 1958), who introduced the contingency approach.

²⁹ The concept of *psychological contract* has been defined as “the set of expectations about the nature of the exchange between the individual and the organization [...]”. Many of these expectations are implicit and unstated, but they act as powerful determinants of behaviour” (Blackler and Shimmin 1984: 17).

In Leavitt and Bass' study, the focus is more related to the organizational level. In fact, together with traditional issues in organizational psychology, such as personal and interpersonal relations, and a new central issue in the field of organizational behaviour, decision-making, they identified two other problems thought to be the "most viable, reiterating" ones: namely, organizational structure and design, and technology (Leavitt and Bass 1964: 371).

In Miller and his colleagues' perspective, psychological approaches to organizational control "view behaviour in and around organizations as a function of the personalities and capacities of specific individuals" (Miller et al. 1982: 237). In this sense, some of the mechanisms used in the psychological approach to organizational control are target setting, rewards and interpersonal influence (Flamholtz 1979; Tannenbaum 1968).

In addition, some scholars of the psychological approach to organizational control studied control as the use of *power* (House and Singh 1987).

Psychological approaches to organizational control tend to find an effective match between some relevant variables such as "organizational determinants"³⁰, "interpersonal relations"³¹, "responses"³² and "organizational outcomes"³³ through the mediating effect of "personality"³⁴ (Quinn and Kahn 1967: 439).

Hence, from a psychological standpoint, organizational control means identifying the suitable people, in terms of skills and motivation, for a particular job, assigning them challenging, but achievable, targets and putting in place a chain of command in order both to effectively align the objectives assigned to each employee to those of the overall organization and to achieve them. In fact, as Blau and Schoenherr clearly pointed out

[a]n organization can be governed by recruiting anybody and everybody and then using a chain of command to rule them with an iron hand or installing a technology that harnesses them to a machine. But an organization can also be managed by recruiting selectively only those employees that have the technical qualification and professional interest to perform on their own the various tasks for which the organization is responsible (Blau and Schoenherr 1971: 16).

Traditionally, control has been exerted from the top of the organization down through the hierarchical levels (Anthony 1965). Psychologists have maintained that this approach does not satisfy the need to secure positive commitment and feedback from those at whom the control is directed (Child 1977).

³⁰ Organizational determinants are related to the degree of bureaucratisation, size, the hierarchical properties and goals (Bass 1965).

³¹ Interpersonal relations involve supervisory behaviour, power and authority (Quinn and Kahn 1967: 439).

³² In Quinn and Kahn's analysis, responses relate to role behaviour and job satisfaction (Quinn and Kahn 1967: 439).

³³ Organizational outcomes may be referred to productivity, absenteeism or turnover (Quinn and Kahn 1967: 439).

³⁴ Personality can be analysed as either a constant for all individuals or a variable whose dimensions are organizational-dependent (Quinn and Kahn 1967: 451).

After having described the sociological and the psychological approaches to organizational control, the next section will analyse the approach that encompasses both of these perspectives: the behavioural one.

2.2.4 *Behavioural Theories of Organizational Control*

Behavioural approaches try to develop a theory “*that takes (1) the firm as its basic unit, (2) the prediction of firm behavior with respect to such decisions as price, output, and resource allocation as its objective, and (3) an explicit emphasis on the actual process of organizational decision making as its basic research commitment*” (Cyert and March 1963: 19).

A call for more realistic motivational and cognitive assumptions on the theory of the firm by economists, psychologists and sociologists³⁵ has led some research towards a behavioural theory of the firm (Cyert and March 1963). In fact, quoting March and Simon: “[p]erhaps the most critical failure of classical administrative science is that it does not confront theory with evidence” (March and Simon 1958: 32).

The motivational assumption in question relates to the organizational goal, which in the classical approach is supposed to be profit maximisation; in fact, economic and behavioural scholars asserted that profit maximisation is only one of the possible organizational goals.³⁶ The cognitive concern focuses, instead, on the assumption that each firm has complete information of the probability distribution of future events (Alchian 1950; Arrow 1964; Coase 1937; Simon 1947).

A first attempt to introduce a behavioural theory of the firm comes from Herbert Simon’s work *Administrative Behavior* (1947). This masterpiece is related to a fundamental administrative problem, i.e., decision-making within organizations or, in other words, “the process of choice which leads to action” (p. 1). Simon’s work stems from the Weberian administrative approach, as he argued that behaviour

³⁵ As stated by Simon “[t]he question is sometimes asked whether an analysis of organisations in terms of their decision-making processes is “sociological” or whether it is “psychological”. The question is a little bit odd [...]. The correct answer in either case is “both”” (Simon 1976: XXXV).

³⁶ Indeed, Margolis posited “[...] the traditionalist solution [...] does not integrate into the main body of explanation of the non-profit-maximizing goals and business rules observed in practice which arise in part because of the existence of uncertainty” (Margolis 1958: 189). For some evidence of non-profit-maximising goals, see e.g. Rothschild (1947), who asserted that the entrepreneur is primarily interested in the firm’s long-run survival. In a similar vein, Baumol (1959) posited that the main objective of the firm is the maximisation of sales under a certain profit constraint. Gordon (1948), Simon (1947) and Margolis (1958) stressed that instead of maximising profit, managers tend to strive for ‘satisfactory profit’. Other organizational objectives relate to market share (Lanzillotti 1958), managers’ personal objectives (Scitovsky 1943), social responsibility (Freeman 1984), security, autonomy and growth (Galbraith 1967), growth and expansion goals (Penrose 1959).

involves the conscious or unconscious selection of a set of *rational*³⁷ actions from all the available ones.³⁸ Also, he questioned previous administrative studies by criticising some of the fundamental administrative principles, such as specialization and optimization. Simon argued that specialization has to do with the trade-off between the decentralisation and centralisation of decision-making, a problem that cannot be solved with a one-size-fits-all solution since both (decentralization and centralization) show strengths and weaknesses. For what concerns optimization, Simon pointed out that decision-makers usually make decisions according to a single principle, while they should instead take into account “*all* the relevant diagnostic criteria” and assign them a weight (p. 38).

Even though this approach seems to be straightforward, it should be noted that decision-makers have to deal with “limits” to their ability to enumerate all the possible criteria and to assign them an effective weight in order to achieve pre-set objectives. This limited rationality relates to both decision-makers’ “ability to perform” outputs and the “ability to make correct decisions” (p. 39).³⁹ Thus, objective rationality requires three main characteristics: “a complete knowledge and anticipation of the consequences that will follow on each choice”; “imagination [...] supply[ing] the lack of experienced feeling”, i.e., a supply of the lack of the experience related to a future consequence by means of imagination; and “a choice among all possible alternative behaviors” (p. 81). Nevertheless, none of these three requirements can be achieved since, first of all, decision-makers have to deal with “incompleteness of knowledge”: i.e., an individual can take into account only a part of the variables that actually play a role in a given situation, since decision-making is a time consuming activity and should be limited to a reasonable extent. Secondly, the supply of experience related to future consequences falls short since it is value-based and values “can be only imperfectly anticipated” (p. 81). Finally, decision-makers can analyse only one set out of all possible alternative behaviours, since they cannot devote attention to all of them, although a lot of stimuli call for their attention.⁴⁰ March and Simons put forward that rationality can only be assumed “relative to a frame of reference” (March and Simon 1958: 138); in fact, there are a number of “boundaries to rationality” (p. 171) that limit the general assumption of rationality.

³⁷ According to Simon, *rationality* can be defined as “the selection of preferred behaviour alternatives in terms of some system of values whereby the consequences of behaviour can be evaluated” (p. 75). Also, he advised using the term rationality “in conjunction with appropriate adverbs” such as objective (vs. subjective) rationality, or personal (vs. organizational) rationality (p. 76).

³⁸ Simon clarified that he used the term rational in the “goal-oriented” meaning (p.3).

³⁹ Simons asserted that “[o]n the one side, the individual is limited by those skills, habits and reflexes which are no longer in the realm of the conscious [...]. On a second side, the individual is limited by his value and those conceptions of purpose which influence him in making his decisions. [...] On a third side, the individual is limited by the extent of his knowledge of things relevant to his job” (p. 40).

⁴⁰ In Simon’s work, attention has been defined as “the set of elements that enter into consciousness at any given time” (p. 90).

From the organizational standpoint, therefore, the organizational control is related to the “integration of behavior”, which has to involve a fit between the “substantive planning”, i.e., the broad decisions on future goals that should be attained, and “procedural planning”, i.e., the day-to-day decisions conforming to the substantial planning (p. 96).⁴¹

From the operational point of view, according to behavioural theory the organizational control has to be accomplished by identifying “multiple, changing, aspiration-level goals”⁴², solving “problems in each of its decision areas more or less independently”, searching for “solutions in a manner learned from experience”, and adjusting the “decision rules on the basis of feedback on experience” (Cyert and March 1963: 182).

In this section I have analysed the concept of organizational control from four main theoretical approaches: the economic, sociological, psychological and the behavioural approaches. By focusing on the psychological and sociological approaches to organizational control, the following section will undertake a review of the main studies in the management literature that centre on the concept of control.⁴³

2.3 From Organizational Control Theories to Management Control Approaches

As stated by different scholars, *control* is the “central idea” of scientific management (Copley 1923: 358; Giglioni and Bedeian 1974: 292; Person 1929: 10–11). Stemming from Frederick Taylor’s work, *The Principles of Scientific Management* (1911),⁴⁴ where control was targeted to finding “the one best way” to do a job,

⁴¹ Following the same reasoning, Papandreou asserted that substantive planning involves constructing the firm’s budget, while procedural planning is related to the communication and authority system (Papandreou 1952).

⁴² In Cyert and March’s study, *multiple goals* relates to the need to identify and manage more than a single objective at a time; the *changing goals* approach is consistent with the learning from experience that leads to the adjustment of objectives as soon as the related aspiration-level changes; finally, goals are set at an *aspirational-level* because the maximisation principle has been substituted by the “satisfying principle”; i.e., “a level of aspiration that the firm uses to evaluate alternative policies” (Cyert and March 1963: 10). In a similar vein, Margolis defined the aspiration level, asserting that “at least two conditions hold for aspiration level: (1) it must be high enough to assure the long-run survival of the firm [...] and (2) the aspiration level for future periods must be equal to or greater than current normal profits” (Margolis 1958: 190).

⁴³ Anthony stressed that social psychology is the source discipline of “management control” (Anthony 1965).

⁴⁴ Even though many scholars acknowledge that the roots of control within organizations lie in the work of Taylor (Miller and O’Leary 1987), previous studies, such as those by Babbage (1832) and Fink (1874), have been identified as addressing “innovations which led directly to twenty-first-century processes of management control” (Otley et al. 1995: S34).

which should be performed by the “one best man”, the concept of control in management literature has experienced the “serious shortcoming of having different meanings in different contexts” (Jerome 1961: 42).⁴⁵ In fact, Rathe found fifty-seven different definitions of control in management literature (Rathe 1960: 32).

Similarly, Geert Hofstede insisted that control

is definitely not synonymous with its original meaning in French: inspection. In several European languages, as in the writer's mother tongue, Dutch, the same word exists, but it has kept the original French meaning (Hofstede 1968: 9).

The effect of this broadness of meaning is that the concept has “scarcely any generally accepted principles, and everyone in the field, therefore, works by intuition and folklore” (Anthony 1965: vii).⁴⁶ In a similar vein, Mockler has argued that:

[i]n spite of the fact that management control is one of the basic management functions, there is no comprehensive body of management control theory and principles to which executives can turn for guidance in performing their management control functions (Mockler 1967: 80).

In their review, Giglioni and Bedeian identified some “pioneer writers” (Giglioni and Bedeian 1974: 294) in management control. They asserted that starting from Emerson's work (1912), *The Twelve Principles of Efficiency*, some operational control techniques has been introduced in management.⁴⁷ Not much later, Church (1914) and Fayol (1949) addressed control as one of the main functions of management.⁴⁸

Even though management control is still being viewed as a centralized function, during the 1920s management control scholars widened its meaning, with Lichtner linking it to planning. Lichtner defined “planned control” as follows⁴⁹

⁴⁵ As Reeves and Woodward clearly pointed out “In the literature relating to organizational behaviour there is ambiguity in the use of the word control. The confusion arises largely because to control can also mean to direct. Precisely defined control refers solely to the task of ensuring that activities are producing the desired results. Control in this sense is limited to monitoring the outcome of activities, reviewing feedback information about this outcome, and if necessary taking corrective actions” (Reeves and Woodward 1970: 38). Also, Lowe and Machin stressed that the definition of management control “leaves scope for academics to disagree violently, whilst still perceiving themselves to be studying the same thing!” (Lowe and Machin 1983).

⁴⁶ One of the first studies that tried to set forth some principles of control was by Urwick, who introduced three – even though in a previous study responsibility and evidence principles were also concerned (Urwick 1928) – principles of control: “uniformity”, i.e., all figures should be related to the overall organizational structure; “comparison” with standards and previous performance; and “utility”, all figures vary in the value they had when facts happened and the one they had when they are recorded (Urwick 1943: 122).

⁴⁷ Some of these techniques relate to standard setting, the recording of results and directions (Emerson 1912).

⁴⁸ In Church's words, control is “that function which coordinates all of the other functions and in addition supervises their work” (Church 1914: 81); while Fayol defined it as “verifying whether everything occurs in conformity with the plan adopted, the instructions issued and principles established” (Fayol 1949: 107).

⁴⁹ Some initial studies on the relationship between control and planning are those by Holden et al. (1941) and Rowland (1947).

[p]lanning is the managerial function of working out the best combination of procedures through co-ordinating the requirements with the facilities for carrying out the work of the division. Control is the managerial function of putting these procedures into effect (Lichtner 1924: 5–6).

The relationship between planning and control has been confirmed in more recent works. Robert Anthony argued that management accounting is the “‘use of accounting information by management for purposes such as planning and control” (Anthony 1965), while Robert Kaplan stated that “[t]he firm’s cost or managerial accounting system is supposed to provide information useful for managers’ planning and control decisions” (Kaplan 1983: 688).

One of the first attempts to identify different dimensions of control is accredited to Robinson, who posited that control is related to forecasting results, i.e. “what [the business] can be expected to do in the future”; recording results, i.e. “providing the manager and the executives of an organization with continuous, prompt and accurate information concerning the efficiency of operation”; and to the assignment of responsibility to people for expected results (Robinson 1925: 147). On the relationship between planning and control, Cornell stressed that “[p]lanning is of little value unless there is subsequent control to make certain that the plans are carried out” (Cornell 1930: 212).⁵⁰

An early *philosophy* of the concept of management control is provided by Davis, who asserted that control is “the instruction and guidance of the organization and the direction and regulation of its activities” (Davis 1928: 82).⁵¹

During the 40s, with the decentralization to different organizational levels, studies on management control focused on several functional viewpoints (Gigliani and Bedeian 1974), such as business, operations, profit and loss, and finance (Rose and Farr 1957). In fact, an organizational hierarchic control is not limited to a single level, e.g. top management. Control in various ways and to various degrees can be located at all organizational levels. As Tannenbaum clearly pointed out, control in this sense is partly synonymous to the concepts of *power*, *authority* and *influence* (Mechanic 1962; Tannenbaum 1962). Furthermore, Dent analyses the budgetary control (Dent 1934), while Trundle’s approach is related to the implementation of control within manufacturing, sales accounting and industrial relations (Trundle 1931, 1948).

Starting from the 50s, management control has been included in undergraduate programmes and taught in management schools, as some evidence, such as the spread of textbooks published in this period, shows (Davis 1951; Fayol 1949; Gigliani and Bedeian 1974; Koontz 1959).

⁵⁰ One of the well-known techniques to assess planned and actual performance is variation analysis.

⁵¹ Some scholars showed their concern about the “poverty of management control philosophy” (Hofstede 1978).

Starting from the publication of Robert Anthony's 1965 work *Planning and Control Systems* a conceptual framework has to some extent been shared by management control scholars (Holzer and Norreklit 1991).⁵² He focused on both the management control *system* and *process*⁵³ and put forward his "proposed framework" (Anthony 1965: 15) of planning and control systems as sets of three different processes, namely *strategic planning and control*, *management control* and *task control*. He pointed to strategic management as

the process of deciding on objectives of the organization, on changes in these objectives, on the resources used to attain these objectives, and on the policies that are to govern the acquisition, use, and disposition of these resources (p. 16).

Management control is also related to planning, but in an "administrative" meaning, as well as to control.

Management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives (p. 17; emphasis from the original text).

In this sense, management control is likely to take for granted the objectives and policies, since these are defined by strategic planning. Management control involves "get[ting] things done" (p. 17).

Finally, operational control relates to the control of specified tasks and focuses on execution.

Operational control is the process of assuring that specific tasks are carried out effectively and efficiently (p. 18; emphasis from the original text).

In Anthony's first work, the systemic perspective is related to the hierarchical relationship between the three types of control. Strategic planning is at the apex and defines the strategic objectives and policies that management control implements by identifying a set of tasks that operational control executes effectively and efficiently.

In a similar vein, Machin defined management control systems as

[t]hose formal, systematically developed, organization-wide, data-handling systems which are designed to facilitate management control which is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives (Lowe and Machin 1983).

In trying to widen a little more the domain of management control as presented by Anthony, Lowe argued that it can be thought of as

⁵² Otley and his colleagues defined the work of Anthony and colleagues (1992) as the "main-stream" approach, adding that it "can perhaps be credited with the first contemporary attempts to formalise the subject area of management control" (Otley et al. 1995: 17).

⁵³ Anthony stated that "[i]t is important to distinguish between "systems" and "processes." In brief, a system facilitates a process; it is the means by which the process occurs". He continues by saying "we are interested in both in terms of how it works" (Anthony 1965: 5).

[a] system of organizational 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 with overall objectives) so that the discrepancy between the two can be reconciled and corrected for (Lowe 1971: 5).

In their review of management control research, Otley and his colleagues (1995) applied the model introduced by Scott (1981) on the evolution of organizational research based on two dimensions: namely, the *degree of openness* of the system (closed vs. open) and the distinction between *rational* and *natural systems* models.

They interpreted the cybernetic studies and the approach undertaken by Anthony as supporting both a closed and rational perspective, called classical management theory (Otley et al. 1995: S38). A closed but natural perspective, called the behavioural approach, is put forward by some behavioural (Argyris 1952; Hopwood 1974; Schiff and Lewin 1970) and contingent studies focusing on internal variables (e.g., Woodward 1958). Furthermore, a rational open perspective, the systems and contingent approaches, relates both to general systems approaches to cybernetic studies (Beer 1972, 1981) and to the contingency research focusing on external environment variables (Otley 1980; Ouchi 1980). Finally, an open and natural perspective, the radical perspective, is driven by studies that analyse the relationship between environment and organization by considering the effect of organizations on the environment (Chua et al. 1989), and by certain anthropological studies (Peters and Waterman 1982), which have introduced the concept of culture to management accounting research.

Cybernetic theory has been largely implemented in management accounting as a theory for effective control (Hofstede 1978), since cybernetics can be defined as the “control and communication in the animal and the machine” (Wiener 1948). Merchant and Otley state that planning can be viewed as an application of cybernetic principles since “it attempts to produce a more desirable future state than would have occurred in its absence” (Merchant and Otley 2007: 786). Tocher (1970, 1976) put forward a cybernetic model of control and identified four conditions that should exist in order to achieve effective control. First, an organization should set a desired objective; second, it should identify some means to measure the process outputs in terms of the stated objective; third, it should possess the ability to predict the effect of alternative controls; finally, it should have the ability to take actions to reduce deviations from the objective. Along with its undoubted predictive features – i.e. the feed-forward mechanism that prevents deviations from the objective – the cybernetic approach shows some shortcomings, since it lacks “specificity” (Berry et al. 1995: 11).⁵⁴ In fact, as put forward by Vickers:

⁵⁴ Previous studies argued that predictive models use a type of variable that is “outside the scope of the accounting structure” since such models require information that are related to the external environment and difficult to measure objectively (Otley and Berry 1980: 234).

[i]n the management of human organizations, feedback is often absent, ambiguous or uninformative and [the cybernetic concept of control] points to the complementary process of mental simulation which enables management to function in such conditions (Vickers 1967).

Hoefstede (1968) undertook an investigation of the relationship between the behavioural effect of management control on people and vice-versa which is closely related to the works of Argyris, *The Impact of Budget on People* (1952), and Schiff and Lewin's reply, *The Impact of People on Budgets* (1970).

A change in management control resulted in the introduction of a non-'classical' approach to control. In fact, Hopwood developed the concept of control by identifying three main distinctive controls: *administrative*, *social* and *self-control* (Hopwood 1974). While administrative control relates to the 'classical' approach, social control has to do with the implementation of administrative control, since it consists in the "social perspectives and the patterns of social interaction" (p. 26).

Introducing the *social concern* to the management control literature means moving from a bureaucratic-rational perspective to a behavioural-natural one. In this regard Merchant is very clear, since he defined control as "having one basic function: to help ensure the proper behaviours of people in the organization [... by] influencing people's behaviour" (Merchant 1985: 4).⁵⁵ This perspective was later developed in studies developed by Etzioni (1961) and Ouchi (1977). Etzioni (1961) specified three main sources of control that are related to power⁵⁶: *coercion*, *remunerative* and *normative values*. *Coercive power* addresses the threat of pain, or restriction of freedom, that prison is likely to produce. *Remunerative control* is based on a monetary and non-monetary reward system that occurs in economic organizations. *Normative control* mechanisms are founded on symbolic rewards to the organization's members, as occurs in religious organizations. Ouchi, instead, addressed three mechanisms of control: the *market*, the *bureaucratic* and the *clan* mechanism (Ouchi 1979, 1980).

The *market* mechanism is based on contract relationships that enable different agents to exchange different goods or services at certain conditions specified within the contract. Ouchi stressed, acknowledging Williamson's (1975) line of reasoning, that the market mechanism is likely to fail since environmental uncertainty favours

⁵⁵ This definition is related to the concept of *personnel control* that, together with *action control* and *results control*, defines the organization's controls. Merchant's results control relates to people's responsibility for attaining target results. Action control is more concerned with people carrying out proper actions instead of non-proper ones (Merchant 1985). Some scholars stressed that output control is more efficient than behaviour-action control in large organizations (Blau and Scott 1962; Evans 1975; Williamson 1971), while others maintained that, in order to enhance effectiveness, both controls should be performed within the organization (Berry et al. 1995; Ouchi 1977).

⁵⁶ Among the literature that relates control to power, see e.g. Tannenbaum (1962). Other scholars diverged from this view of control as power by insisting that control is the "exercise of legitimate authority rather than power" (Otley et al. 1995: S33).

opportunistic behaviours, hence higher and higher transaction costs should be paid to define contracts in full detail (Ouchi 1979). Ouchi also stated that bureaucratic mechanisms solve to some extent the market failures, in that they simplify the contract. The contract consists of the employee's acceptance to be directed and monitored by her/his superior against a salary. However, since monitoring involves comparing standard or target results/actions with the actual ones, when there is ambiguity in performance evaluation, as in the case of a lack of standard or aspiration-level results, or when there is any incongruence between the employee's and employer's goals, an external evaluation reveals some drawbacks (Ouchi 1980). *Clan* control – i.e. an “organic association which resembles a kin network but may not include blood relations” (Durkheim 1933: 175, in Ouchi 1980: 132) – tries to overcome both market and bureaucratic control shortcomings, because it displays several mechanisms that reduces both goal incongruence between the members of the clan (Katz 1978; Van Maanen 1975) and opportunism, by means of a “strong sense of community” (Ouchi 1980: 136).

By including environmental uncertainty in his studies, Ouchi (1979, 1980), as well as other authors, such as Lawrence and Lorsch (1967), Perrow (1970) and Thompson (1967), have contributed to the development of the contingency theory within the management control field (Otley 1980). As stated in the previous section, from a contingency perspective management control is related to the identification of a suitable fit between organizational characteristics and some contingent variables, such as technology, environment, size, organizational structure and strategy (Chenhall 2003). Strategic issues became a critical concern for management in the 1980s, and this has been translated into a management control concern too, as the introduction of strategic control systems demonstrate. The strategic control system has been defined by Lorange and his colleagues as “a system to support managers in assessing the relevance of the organization's strategy to its progress in the accomplishment of its goals and, where discrepancies exist, to support areas needing attention” (Lorange et al. 1986: 19). In this context, strategic management and management control develops synergies, and their activities have to be more intertwined. In fact, within the contingency approach more and more scholars have focused on the relationship between management control and strategy (Bromwich 1990; Govindarajan and Gupta 1985; Langfield-Smith 1997, 2007; Simmonds 1981) and on the introduction of both strategic management accounting and strategic management control (Simons 1995).

According to Scott's model (1981), taking an open systems perspective, the General Systems Theory (GST) analyses the relationships between, rather than the features of, the components of the system. Stafford Beer formerly introduced cybernetics and GST in management studies (Berry et al. 1995), providing a cognitive representation based on the human neural system of the firm as a non-elemental viable system (Beer 1972, 1979, 1985). Beer developed the Viable System Model (VSM), applies human nervous system mechanisms (equipped with a feedback control) to the control system of the firm. The metaphor of the firm as a brain reflects management's need for the same variety of information, interactions and operations displayed by the firm. Beer accomplishes the VSM with

amplificatory, stability and regulatory devices in order to manage the high variety that proliferates within (and outside) the firm's boundaries. In fact, according to Ashby's Law "only variety can destroy variety" (Ashby 1956: 207). Beer's model questions the most widespread management accounting systems, which attempt to solve composite issues with simple tools. His model provides an effective dynamic system able to cope with ever-changing economic trends. As Bititci and colleagues (2000) maintain, it is possible to define a dynamic performance management system as a system with the following characteristics: an external and internal monitoring system as well as a review system and an internal deployment system. VSM embraces all three of the above-mentioned systems. Notwithstanding these important strengths, some scholars have argued that such an approach shows some pitfalls, such as the use of the organismic analogy in the open systems approach (Burrell and Morgan 1979). In fact, it seems that "[t]he neglect of control by organisational theorists has been paralleled by the neglect of organisations by control theorists" (Otley and Berry 1980: 234).

Some more recent reviews on the management accounting concept have stressed the need to distinguish between *financial* control and *management* control. While the former focuses on "the management of the finance function within organizations", the latter involves "a general management function concerned with the achievement of overall organizational aims and objectives" (Otley et al. 1995: S33).

Recently, the emphasis of management control systems has focused on the increasing interest in the *corporate governance* and *risk management* concepts. This has resulted in the introduction of new insights into the management control concept (Merchant and Van der Stede 2007). As clearly argued by Bihimani, "[t]he notion that different organisations might exhibit distinct calculative styles underpinning different risk management mixes is entirely new" (Bihimani 2009: 4). Furthermore, he asserted that

[p]lacing boundaries on risk taking and organisational functioning by identifying acceptable variances from predefined parameters of action is fully part of the definition of management control for most modern organisations. [...] Even though it is inadequate for firms simply to only deploy managerial controls which are considered to be effective. What is also essential is to make their deployment transparent (p. 4).

According to the analysed management control approaches, control has been given several different meanings. Furthermore, the evolutionary trend shows how the control concept is extending its boundaries to encompass new management areas. The following section will explain how a shift in focus within management approaches has resulted in a similar change in management control.

2.4 From Management Control Systems to Performance Management System

Starting in the 70s a stark change in management philosophy affected management control discipline as well (Holzer and Norreklit 1991). The increase in internationalization practices called for more efficiency in production processes. As a result, managerial programmes, such as Just-in-Time and Total Quality Production, brought more emphasis on management control systems, resulting in the introduction of new cost management techniques and pressure on performance measurement areas.

New cost management techniques include *Activity Based Costing*, *Life Cycle Costing*, and *Strategic Cost Analysis*.⁵⁷ New performance management areas relate to *quality control* measures, *material control* measures, *inventory control* measures, *machine performance measurement*, *flexibility* measures and *innovation* measurement (Garrison 1991; Kaplan 1983).

Furthermore, from the 80s onwards management control scholars stressed that financial-based incentive formulas led to managerial practices, which favoured short-term results, thereby annihilating long-term ones (Coates et al. 1992). They strongly called for a shift in focus from management control systems based on financial performance metrics towards performance measures based on drivers for long-term survival (Kaplan and Norton 1994; Peters and Waterman 1982; Rappaport 1978).

By acknowledging this shift in focus from management control systems towards performance management system, several authors pointed out that the term ‘control’ should have been replaced by the term ‘performance’. In fact, Nanni and his colleagues specified that

[t]he choice of the term performance measurement reflects an attempt to avoid more traditional accounting terms like control or performance evaluation. If management accounting and the environment in which it operates are currently facing a paradigm shift [Shank 1989; Porter 1990], it is best to use a term without strong connections to the old paradigm (Nanni et al. 1992: 9).

In a similar vein, Otley “extended the boundaries” of management control and identified the performance management field as the “focus of many of the ‘new’ techniques of management accounting that have been developed over the past 20 years” (Otley 2001: 249).

Although this shift seemed to solve previous management accounting problems, several scholars stressed the difficulty of defining *what* is a performance. Lebas, for example, asserted that “[p]erformance is a complex concept” (Lebas and Euske 2002: 71) and that therefore “[p]erformance per se may not be definable in the absolute. It is [...] contextual both in terms of user and in terms of purpose” (Lebas 1995: 24). In his opinion, as a context specific concept “[p]erformance is a social

⁵⁷ For a summary of historical developments in cost accounting, see Kaplan (1983, 1984).

construct" since it is defined by the organization and its environment (Lebas and Euske 2002: 71).

Some early definitions of performance measurement relied on performance indicators, specifying that grouping these indicators leads to a performance measurement system. According to de Haas and Kleingeld:

[a] set of performance indicators with procedures for periodic data gathering and the group of organizational actors they relate to, form the elements of a PM system (de Haas and Kleingeld 1999: 234).

In this sense, Simons tried to solve the conflict between performance measurement and control systems by asserting that both are "*formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities*" (Simons 1995: 5, 2000: 4).

Some research has distinguished between *subjective* and *objective* performance measurement systems by identifying the latter as the

relative weighting placed on objective measures in the objective/subjective performance measurement mix, [which] means that the measurement is increasingly "free from personal bias" (O'Connor et al. 2006: 160).

Others, according to the level of analysis, have specified that the performance measurement system at the *local level* represents the "instruments to support decision-making, either for launching or choosing improvement actions or redefining objectives" (Clivillé et al. 2007: 171), while at the *global level* it represents a

multi-criteria instrument, made up of a set of performance expressions (also referred to as "metrics" [...], i.e. physical measures as well as performance evaluations, to be consistently organized with respect to the objectives of the company (p. 172).

Propounding a *causal approach*, Lebas asserted that:

performance is about deploying and managing well the components of the causal model(s) that lead to the timely attainment of stated objectives within constraints specific to the firm and to the situation (Lebas 1995: 29).

Following the causal approach previously stated and acknowledging the shift in scholars' concern, the Balanced Scorecard (BSC) by Robert Kaplan and David Norton (1992) extended the meaning of performance measurement. The BSC overcame the "relevance lost" in management accounting (Johnson and Kaplan 1987) by defining performance measurement as a balanced set of both past financial and forward-looking non-financial measures. The authors stressed that the BSC is a "*strategic management system*", since the "measurement focus of the scorecard [can be used] to accomplish critical management processes", such as "translate vision and strategy", "communicate and link strategic objectives and measures", "plan, set targets, and align strategic initiatives", and "enhance strategic feedback and learning" (Kaplan and Norton 1996: 10). In addition, they affirmatively asserted what the BSC is, i.e. "a comprehensive framework that translates a company's vision and strategy into a coherent set of performance measures", and what it is not, i.e. a "controlling system" (pp. 24–25).

Acknowledging the need for a *balanced approach* in performance measurement systems, Tuomela defined a performance measurement system as:

collections of financial and/or non-financial performance indicators that managers use to evaluate their own or their unit's performance or the performance of their subordinates (Tuomela 2005: 297).

From a balanced perspective, scholars have put forward an *integrated* or comprehensive *performance measurement system*; that is, a “parsimonious” (Malina and Selto 2001: 55) but “diversified” (Ijiri 1975; Ittner et al. 2003: 715; Nanni et al. 1990) set of critical performance measures that “provides performance measures that describe the important parts of the SBU's operations and integrates measures with strategy and across the value chain” (Hall 2008: 144).

Integrated performance measurement is what we call the process of acquiring cost and other performance knowledge and employing it operationally at every step in the strategic management cycle (Nanni et al. 1992: 9).

With the integrated and strategic approaches, the time has come for a link between performance *measurement* systems and performance *management* systems that reflects the latter's ability to “enable” decision-making and action. In fact, Neely defined a performance management system as:

enabl[ing] informed decisions to be made and actions to be taken because it quantifies the efficiency and effectiveness of past actions through acquisition, collation, sorting, analysis, interpretation, and dissemination of appropriate data (Neely 1998: 5–6).

From this perspective, it can be argued that, out of the three functions Simon (1947) identified for management accounting information – namely, decision-making, attention-directing and scorecard – a performance measurement system fulfils only the last one. A performance management system also accomplishes the other two.⁵⁸

Performance management is a daily management system that ensures an organization accomplishes its vision and becomes a high performing entity. [...] It's based on a systematic approach. [...] It focuses on assigning work, enabling work to be carried out as planned, and evaluating performance. [...] It leads to mutual success (Hopen 2004: 15).

Some definitions clarify the gap between measurement and management in the performance management literature. An early formulation focused on the means-ends relationship that the system should deliver for effectively implementing the organizational strategy; in fact, a performance management system (PMS) has been defined as:

a major mechanism that can be used to make explicit the set of means-end relationships that the organization has developed as the methods it will use to implement its strategic intent (Otley 1999: 367).

In a slightly edited version, Otley stated that a PMS

⁵⁸ Similarly, Lebas posited that “measuring parameters descriptive of performance makes sense only if the data are to be used in making decisions” (Lebas 1992: 65).

provides an umbrella under which we can study the more formal processes that organizations use in attempting to implement their strategic intent, and to adapt to the circumstances in which they have to operate (Otley 2001: 250).

Similarly, Bititci and his colleagues defined a PMS as the “process by which the organization manages its performance in line with its corporate and functional strategies and objectives” (Bititci et al. 1997: 524). Abernethy and Chua also provided a similar definition, but they focused on the control system as a “package” concept, which is defined as

a system that comprises a combination of control mechanisms designed and implemented by management to increase the probability that organizational actors will behave in ways consistent with the objectives of the dominant organizational coalition (Abernethy and Chua 1996: 573).

A misconception of PMSs tends to either confine the concept only to “individual performance management or appraisal schemes” (Kloot and Martin 2000: 233)⁵⁹ or to a maximising approach where scholars define it as “a regime where corporate objectives are expressed as the optimization of financially oriented metrics” (Nilsson and Olve 2001: 347). Others opt for the decision-support function of PMSs, stressing that they are “sets of practices that support processes of strategic decision making, planning and control” (Busco et al. 2008: 104).

A more developed and detailed concept has been put forward by Ferreira and Otley, who state that a PMS is represented by:

the evolving formal and informal mechanisms, processes, systems, and networks used by organizations for conveying the key objectives and goals elicited by management, for assisting the strategic process and ongoing management through analysis, planning, measurement, control, rewarding, and broadly managing performance, and for supporting and facilitating organizational learning and change (Ferreira and Otley 2009: 264).

A strategic concern has been clearly addressed by Amaratunga and Baldry. They defined a *strategic performance management system* (SPMS) as “a system that uses the information to produce a positive change in organisational culture, systems and processes” (Amaratunga and Baldry 2002). Although the two authors do not spell out what “positive change” actually means, it could be argued that it refers to the reviews that the system should undergo in order to dynamically match the environmental changes (Otley 1999).

As Ittner and his colleagues have clearly pointed out, strategic performance measurement systems focus on both providing information and aligning the managers' and the organization's objectives. In fact, they

(1) provide information that allows the firm to identify the strategies offering the highest potential for achieving the firm's objectives, and (2) align management processes, such as target setting, decision-making, and performance evaluation, with the achievement of the chosen strategic objectives (Ittner et al. 2003: 715).

⁵⁹ Armstrong follows this approach by stressing that performance management is “a systematic process for improving organizational performance by developing the performance of individuals and teams” (Armstrong 2006: 1).

Alignment between the organization's and the managers' objectives is a shared concern among management accounting scholars that view alignment as a fundamental role of performance measurement systems, since

it is responsible for coordinating metrics across the various functions and for aligning the metrics from the strategic (top management) to the operational (shopfloor/purchasing/execution) levels (Melnik et al. 2004: 213).

Similarly, the SPMS has been conceived of as a "subset" of performance measurement systems that improve the decision-making process according to the following features:

1) the integration of long-term strategy and operational goals; 2) the provision of performance measures in the area of multiple perspectives; 3) the provision of a sequence of goals/metrics/targets/action plans for each perspective; and 4) the presence of explicit causal relationships between goals and/or between performance measures (Gimbert et al. 2010: 480).

Following a similar reasoning, Atkinson framed the SPMS process as a set of four steps that explicitly focus on *stakeholder management*:

1. The organisation's primary objectives as established by its owners or principals;
2. The role the organisation's stakeholders play as the organisation pursues its primary objectives – which define a second level of objectives which we will call secondary objectives;
3. What each stakeholder requires in exchange for undertaking its role in supporting the organisation's strategy, and how to measure the organisation objectives and stakeholder roles (Atkinson 1998: 553).

Assuming a balanced and multi-perspective approach, Chenhall stressed that the SPMS

[is] designed to present managers with financial and non-financial measures covering different perspectives which, in combination, provide a way of translating strategy into a coherent set of performance measures (Chenhall 2005: 396).

More recently, the performance measurement concept has been addressed to specify particular issues of strategic relevance, such as customer relationships and R&D activities. Lamberti and Noci have put forward a definition of *marketing performance measurement system* by identifying the process of performance measurement as:

the system managers use in order to (i) check whether the intended strategy is being implemented; (ii) communicate to their employees what are the goals they are expected to achieve and whether they are achieving those expected goals; (iii) validate whether the intended strategy is still valid; and (iv) facilitate individual and organizational learning and improvement (Lamberti and Noci 2010: 141).

By adopting an R&D perspective, Chiesa and colleagues defined the performance measurement system as

an integrated system not only able to measure a specific set of performance, but also to explain the managerial and organizational meaning of each measure, to suggest the most

appropriate use of each measure and to analyze R&D performance with respect to the overall company strategy (Chiesa et al. 2008: 214).

Furthermore, additional attention has recently been devoted to *environmental* and *social performance measurement*. Environmental performance indicators have been defined as

the analytical tools that allow one to compare various plants in a firm, or various firms in an industry, with each other and with respect to certain environmental characteristics (Tyteca 1996: 281).

In trying to define an *Environmental Performance Index*, Srebotnjak stressed that it is

a fact-based, statistically sound policy tool that helps countries achieve environmental objectives by tracking progress, identifying environmental “best practices”, and providing strategic peer-group analyses (Srebotnjak 2007: 406).

In addition, *corporate social performance* has emerged as:

the impact of a corporation’s activities on a society. This embodies the performance of its economic functions and other actions taken to contribute to the quality of life. These activities may extend beyond meeting the letter of the law, the pressures of the competition or the requirements of contracts (Keller 1974: 39).

2.5 The Italian Literature on Management Control

2.5.1 *The Forerunners of Management Control in the Italian Literature: Besta and His Disciples*

As for English literature, Italian literature on management control has not achieved a consensus on the definition of management control yet (Cescon 1988). One of the most aged and influential work on “management control” dates back to 1922, when Fabio Besta defined accounting as the *science of economic control* (Besta 1922; Mattessich 2007).⁶⁰ He stated that accounting

studies and enounces the laws of economic control within any economic organisation, and establishes proper laws that should be followed in order to achieve effective, convincing and complete control (Besta 1922: 10; translated from the original).

In Besta’s approach, control is one of the three *moments* of the economic administration.⁶¹ Moreover it is the most regular activity of the economic

⁶⁰ Although previous works in the Italian accounting literature involve the “surveillance” as one of the accounting discipline’s “superior functions” (e.g. G. Rossi 1921: 233), the control activity is no more specified and explained (Giannessi 1964).

⁶¹ Together with the economic control, management (“gestione”) and leadership (“direzione”) form the three *momenti* of economic administration (Besta 1922).

administration across industries and among different-sized organisations, since general principles of economic control can be both developed and applied to all economic organisations (Besta 1922; Lorusso 1922).

To Besta, management control aims at identifying causes and effects of economic activities, which drive further management activities (p. 114). Control is primarily made up of two components, namely (a) calculation and recording of economic administration, and (b) constraining of economic work.^{62,63} The two stages are closely linked together, in order to assess whether the stated managerial direction has been properly implemented. Similarly, Carlo Ghidiglia, one of Besta's disciples, affirmed that accounting is composed of two branches, the theoretical part related to the science of control, and the empirical branch referring to the means and procedures to apply that science (Ghidiglia 1896). On the same vein, Giovanni Massa posited "accounting, in its applications, exerts a very important function, i.e. control, within the economic administration", highlighting on the one hand the strong relationship between accounting and economic administration, while on the other the separatedness of the two disciplines (Massa 1906, vol. IX: 25; translated from the original). Moreover, Massa stressed the role of accounting control for an effective administration (Massa 1906, vol. IX: 26), stating that accounting is the "science that oversees the running of the administrative functions within economic organisations in order to control and classify results" (Massa 1905, vol. III: 55; translated from the original). A further confirmation of the tight linkage between accounting and control has been given by Vincenzo Gitti who defined accounting as "that part of the administrative science studying means of recording, classifying and controlling the administrative facts in order to determine the related economic effects" (Gitti 1915: 13–14; translated from the original). Therefore, economic control identifies the fundamental tasks accounting has to accomplish (Lorusso 1932).

Furthermore, according to the time in which control is exerted, Besta maintained that control can be either *antecedent*, or *concomitant*, as well as *subsequent*. *Antecedent* control aims at planning every single activity of management related to the planned period.^{64,65} *Concomitant* control is expressed through several types

⁶² Furthermore, Amaduzzi asserted that there is no difference, neither in finality nor in content, between recording and constraining, hence accounting and management control are overlapping in Amaduzzi's approach (Amaduzzi 1963: 455–ff.). This approach seems to address a very extensive concept of accounting, covering other disciplines such as organisation, management, as well as psychology, which are closely related to management control. Besta's approach develops a more coherent relationship between recording and constraining, namely that of *means* to an *end* (Mondini 1898: 17).

⁶³ From a different standpoint, Giovanni Rossi argued that on the one hand control is only a part of the accounting discipline, while on the other economic control is made up of two components, that is recording and administrative constraining, that are conceptually heterogeneous, hence they can't belong to the same discipline (Rossi 1922: 246; Giannessi 1964). A similar point of view is that of Achille Sanguinetti (1903).

⁶⁴ Planning, i.e. antecedent control in Besta's terms, is composed of both partial (or single) forecasts, and general forecasts (Besta 1922, Vol. I: 115).

⁶⁵ Napoleone Rossi put forward that planning should be conveniently translated into a "planned balance sheet" (Rossi 1966: 165; translated from the original), or "*budget*" which is "made up of

of “surveillance” (setting contrasting interests, indicators, charts, and so forth). *Subsequent* control aims at recording past administration, and comparing actual with planned results, in order to approve (disapprove) reported administration (p. 115). He asserted that there is no primacy in one of the three afore mentioned types of control, since

the importance of concomitant control within the administrative work is not certainly less than both antecedent and subsequent one; instead, it could be argued that both the antecedent and the subsequent controls, without concomitant control, would be poorly effective in dependent and separate administrations, since it is not enough to set what should be done and assess what has been done, but it ought supervise, change and constrain everyone’s activity, while it is accomplished (Besta 1922, Vol. II: 177; translated from the original).

One of Besta’s disciples, Vittorio Alfieri, put forward that economic control should encompass organisational control too (Alfieri 1923), specifying the relationship between accounting and organisation (Giannessi 1964).⁶⁶

2.5.2 *Gino Zappa and the Recent Literature on Management Accounting*

Besides Fabio Besta and his school’s approach to economic control, other schools developed different perspectives to management control. The outcomes of these developments are primarily due to two causes, namely an increase in the rate of diffusion of international – primarily Anglo-Saxon – literature, and the introduction of both a new concept of business organisation (“azienda”)⁶⁷ and the introduction of a new discipline, i.e. ‘economia aziendale’ (Zappa 1950).

The first cause – increase in the diffusion of Anglo-Saxon literature – provided the classification of planning according to both the complexity of the forecasted activities and the time span of planning. One of the first taxonomy has been given by Aldo Amaduzzi who put forward that planning can be both long-term oriented, i.e. “prospective planning” or simply “planning”, and short-term oriented,

operational plans for each sector of the business” (p. 165). The Author stressed the importance to test the feasibility of the budget “*a priori*”, i.e. in advance (p. 168). On the same vein, Maria Bergamin Barbato addressed budgeting as a “crucial” step, when it is related to strategic planning (Bergamin Barbato 1992: 10).

⁶⁶ Alfieri stressed that the Anglo-Saxon literature on organisational control came from Besta’s approach to accounting and from his definition of economic organisation (Alfieri 1923).

⁶⁷ Gino Zappa defined an “azienda” as an “economic coordination in action, constituted and run for the satisfaction of the human needs through the production of goods and services” (Zappa 1927: 30; translated from the original).

i.e. “preventive planning” or “budgetary control” (Amaduzzi 1963: 519).^{68,69} A bridge towards the American literature, identified in Anthony’s framework, is set, since *prospective planning* can be conveniently expressed by strategic planning, while *preventive planning* can be encompassed within the managerial control. Gino Zappa argued that planning (“pianificazione”) and programming (“programmazione”) are conceptually different, in that planning is more “generic” and subject to “in-depth revisions” as time goes by, while programming is less “uncertain” compared to plans’ forecasts, although they are “uncertain” (Zappa 1957, Vol. III: 170). Carlo Masini put forward that there are “reciprocal relationships” between plans and programmes, since once “generic perspectives” are set in plans, programmes drive “specific actions” (Masini 1970: 7–8). This Author adopted a new taxonomy of management control, which seems to be influenced by English literature (Masini 1970). It distinguishes between *operational* and *strategic planning*, as in Anthony’s framework (Anthony 1965). Furthermore, Carlo Masini addressed the need for *rolling forecasting*, hence rolling plans, indeed he stated that “programming and planning are ongoing, rather than periodical, functions” (Masini 1970: 121; translated from the original).⁷⁰ The recent management control literature, indeed, put great emphasis on Anthony’s taxonomy of control, explaining the role of strategic planning, management control, and task control, and then acknowledges the Italian approach, firstly propounded by Besta, related to management control (Brusa and Zamprognà 1991). A sort of settlement of the two different perspectives – the Italian approach, which is due to Fabio Besta’s economic control, and the Anglo-Saxon approach, whose primarily development is due to Robert Anthony’s framework of control – has been addressed by Giorgio Brunetti, who distinguished between “economic” and “executive” control, according to the fact that control refers to either “economic convenience of directional choices” or “the subordinates’ behaviour” (Brunetti 1979: 10), since the first finds mainly reference in Besta’s work, while the latter is influenced by Anthony’s approach.

⁶⁸ Similarly, Ferdinando Di Fenizio put forward that general, overall planning can be termed “programmazione”, i.e. planning, while the economic documents encompassing planning principles, is a “programma”, i.e. a plan (Di Fenizio 1963: 14).

⁶⁹ A slightly different taxonomy of antecedent control, or planning, has been introduced by Lino Azzini, who defined *long-range plans* (“piani di lungo periodo”) the result of planning activity, while *defined-range plans* (“piani di periodo definito”) relates to either annual or more than annual plans, *particular plans* (“piani particolari”) when related to sub-systems of different kind, activities, and so forth, finally *forecast accounts* (“conti di previsione”) relate to elemental activities, or process stages (Azzini 1982: 363–ff.).

⁷⁰ From a similar perspective, Pellegrino Capaldo asserted that planning is both a “continua”, i.e. ongoing, and a “sistematica”, i.e. systematic, forecasting activity. The ongoing characteristic refers to the urge of continuously check for a fit between internal forecasts and environmental change. The systematic feature is related to the need to coordinate forecasts between all organisational dimensions (Capaldo 1965: 38). On the effectiveness of planning, Fortunati and Maticena stressed that planning should be “strategic”, “quantitative”, “global”, as well as “flexible and ongoing” (Fortunati and Maticena 1997: 34–ff.).

The second cause – the new concept of business organisation and the introduction of a new discipline of business economics (*economia aziendale*) – promoted a ‘new tendency’, as argued by Gino Zappa (1927), i.e. a comprehensive discipline encompassing accounting and management, as well as organisation. As the Author put forward

the approaching, or coupling in a coordinated way, and for a single purpose of the three complementary investigating disciplines delineates new ways, in which nowadays instant opportunities of remarkable developments arises (Zappa 1927: 20; translated from the original).⁷¹

Furthermore, the definition of accounting as economic control, as provided by Besta, slightly changed with De Dominicis’s work “Lezioni di Economia Aziendale” (Lectures of Business Economics), where he described accounting as “any calculation and representation of the amount of economic goods and services aimed at enlightening different people’s choices” (De Dominicis 1966: 117; translated from the original). In this definition the Bestian meaning of economic control has become a *choice* related to the economic control.^{72,73} As Piero Mella clearly pointed out, the choices relates to both decisions, operations and recording activities,

management control can be defined as the set of decisions, operations, and recording required to maintain the ‘*firm as a system*’ on the proper *track* in order to attain the objectives set by management, according to maximum levels of both efficiency and effectiveness (Mella 1997: 15; translated from the original).

These choices are closely linked to the set of organisational values which became more and more evident, as both “plans and programmes find the last reference in the system of organisational values” (Superti Furga 1969: 29; translated from the original).⁷⁴

⁷¹ A comprehensive discipline such as *economia aziendale* has been introduced in the Anglo-Saxon literature with the *strategic management accounting* approach (see in this work § 2.4; Siboni 2005: Chap. 2).

⁷² Similarly, Capaldo (1965), Fortunati and Maticena (1977), Guarini (1966), and Superti Furga (1969). The latter defined programming as “expected actions that should be accomplished”, while the programme is “the projection in the future of the administrative activity” which “has been determined through the flow of administrative decisions” (Superti Furga 1969: 26; translated from the original). Control, instead, is an “operational decision that follows the remarking of deviations related to different actual either internal or external conditions compared to hypotheses founding the programme” (p. 27).

⁷³ Although statistical methodologies support decision-making, decision-makers’ bounded rationality limits their effectiveness (Sciarelli 1967).

⁷⁴ Organisational values define the organisational culture, since it is the “set of values shared by management, which provide *cohesion* within and an *image* towards the outside of the firm” (Cescon 1988: 13; translated from the original).

From this standpoint, on the one hand, the choices related to planning aim at reducing the risk connected with the economic activity, forecasting the effects of future events (Capaldo 1965: 40).⁷⁵ Planning should also favour the rapid adaptation of the business' structure and dimension to environmental changes, hence seeks expansion opportunities (Capaldo 1965: 188). Therefore planning should be based on two different kinds of approximations, namely first on the fit to external conditions, then on the fit to internal conditions.⁷⁶ On the other, choices related to control are of utter importance, since Pietro Onida stressed that – both the direct and indirect – *costs of control* should be compared with the “damages” coming from the lack of control (Onida 1950: 137; translated from the original). Indeed both effective and timely controls should be implemented in order to avoid that “great inefficiencies” can be kept hidden till when it is too late to adjust production activities hence it results in a “huge loss” of money (p. 138). Pietro Onida put forward a systemic approach to management control, by linking economic control to both rewarding and punishment systems in order to give incentives to higher production efficiency to employees.⁷⁷ Related to issues of cost of control (and cost for lack of control) are issues of valuation, since planning is related to a set of hypotheses on future management which should be considered in estimating stock values, as well as other future costs and revenues (Capaldo 1965; Superti Furga 1969). Acknowledging Anthony's approach, Italian literature stressed the opportunity of reconciling strategic planning and management control in a single process (Amigoni 1984; Brusa and Zamproga 1991; Mella 1997).⁷⁸

⁷⁵ Reducing risk is one of the functions of the interactive control system in Robert Simons' framework, which identifies “strategic uncertainties”, i.e. “uncertainties and contingencies that cloud threaten or invalidate the current strategy of the business” (Simons 1995: 94).

⁷⁶ For additional insights into the fit between performance management systems and the environment, see Chap. 12 of this work.

⁷⁷ Onida posited that both economic and “moral” rewards can promote employees' productivity. Furthermore, he addressed negative rewards, i.e. punishments, as a form of disincentive to low productivity, as well as thefts of securities (Onida 1950: 136–137).

⁷⁸ Brusa highlighted the stages of strategic planning, which are (Brusa and Zamproga 1991: 17):

- Analysis of the “macro” scenario;
- Setting of long-term objectives;
- Setting of organisational “rules of behaviour”;
- Identifying businesses and related choices;
- Analysis of the business' competitive profile;
- Identifying business' strategic alternatives;
- Formulating portfolio strategy;
- Operative planning.

2.6 Conclusions on Management Control Revolution

From the analysis of the performance measurement and management concepts, it can be argued that these concepts have widened in scope, since

[f]rom its traditional form, with a focus on monetary measures such as ROI and RI, performance management has thus broadened its scope and gradually become more strategically oriented (Nilsson and Kald 2002: 235).

Furthermore, more and more agreement on the need for non-financial measurement has been achieved. Moreover, some recent literature calls for a management, not only a measurement, approach to performance, even though the performance measurement literature is still more widespread than the management one.⁷⁹

The Italian literature – initially focused on accounting control – widened its focus to encompass both managerial and organisational issues in a comprehensive approach to management control, which can conveniently be compared to strategic management accounting.

Lastly, a call for concept specification is appropriate.⁸⁰ In fact, performance measurement and management are taken-for-granted concepts, since they are defined only in a small percentage of the analysed literature.⁸¹

After defining the performance management concept, the following Chapter will focus on reviewing the approaches to performance management system design.

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⁷⁹ The systematic literature review provided only forty performance measurement studies (compared to the more than two hundred for performance measurement), which contained “performance management” in their title.

⁸⁰ Concept specification is “the process whereby fuzzy and imprecise notions of constructs are made more specific and precise” (Bisbe et al. 2007: 790).

⁸¹ Only 30 % of the papers reviewed explicitly define or refer to other authors’ definitions of the terms performance measurement or performance management.

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