Italian Local Governments and Costs Control

Rebecca Levy Orelli

Ph.D. student in BUSINESS MANAGEMENT OF PUBLIC ADMINISTRATIONS
University of Salerno, Italy
Department of BUSINESS STUDIES AND RESEARCH.
Faculty of Economics of Forlì - University of Bologna - Italy
Piazzale della Vittoria, 15 - 47100 Forlì - Ph. +39.0543.374637 - Fax. +39.0543.374622
Email: rlorelli@spfo.unibo.it - rlorelli@libero.it


Abstract
The Legislative Decree n. 286/99 establishes different typologies of management control for the Italian Local Governments. As a consequence, management information systems play a crucial role in the resource allocation process.
More specifically, the information system has to take into consideration two dimensions: the ability to satisfy the service request, and the cost control. Indeed, services are provided thanks to public resources and imply a citizen sacrifice.
This paper focuses its attention on current or potential costs control tools. Despite the above mentioned decree, evidences from a field research on thirty Italian Local Governments highlight a poor usage of cost information systems.

1. - Introduction

The legislative decree 286/99 states that to each type of cost accounting in Local Governments corresponds a particular controlling body and specific tools1. Therefore, the issue of the best configuration of the control information system becomes more and more important in relation to the question of effectiveness and efficiency.

Indeed, in public administrations, inexpensiveness is a difficult value to achieve, both because there are no profit purposes and because it is a field where a confrontation with the market is not possible.

1 For further investigation on the topic, see Lombrano (2001), Marasca (1998) and for a more general framework of the problem Merchant-Riccaboni (2001).
If on the one hand the information system must take into consideration the ability to satisfy services demand, both in a qualitative and in a quantitative way, on the other hand it is bound to permit cost control. This is because service covering is performed with public resources, by a sacrifice of the citizens.

This paper focuses on the cost control tools which Local Governments use or might use in order to achieve a correct running of the information system. These tools still appear to be inadequate for the carrying out of such task. From this point of view, some guidelines in the development of the cost control information system can be drawn. The control system should provide information on the variations in unitary costs and in the service quality, while Local Governments should aim at developing information systems by introducing such tools as cost accounting, which would guarantee a better monitoring of the Local Governments efficacy.

In this paper a sample-based analysis will try to underline the current difficulties of Italian Local Governments to fully exploit the potential of the traditional and of the innovative cost control techniques. Nonetheless, this does not mean it is impossible to adopt such tools. In fact, although it looks hard nowadays to be able to ascribe a cost to all of the activities carried out by the Local Authority, it could be possible, and indeed desirable, to introduce the ABC (activity based costing) in some restricted fields: for instance in specific services or centres or in particular projects or programmes chosen by the council.

2. - Cost control tools

The provisions about control projects, and in particular the Legislative Decree 286/99, identify the strategic control as one of the “government tools” of the Local Authority. The goal of this control typology is to provide the politic constituent and the top management with the information they need in order to develop and adjust plans and to test their effectiveness.

At the same time, the control project must guarantee the defence of the agency overall balance in the medium-long term, in accordance with the evolution of the related context.

From this point of view, the features listed below are of great importance:

- The method and content devices which are necessary for the spreading of the strategic control;
- The operative implications of the strategic control project, the tools and the techniques involved, the report strategies;
- The improvement of the performance measurements instead of goal achievement measurement;

The development of the managerial skills in the organisation of the service evaluation aiming at the improvement of the effectiveness and the efficiency.

The checking of the effectiveness of the services offered to the public must not confine itself to the mere consideration of the incomes and the costs of the services themselves. It should rather concentrate on the ability to produce common welfare for the public-users.

For this reasons, beside the taking into account of the capacity of satisfying service demand, the information system should be able to provide tools for cost control.

3. - Sample-based analysis of the control tools

In order to test the adequacy of the control tools for the carrying out of this task, we chose a sample composed of thirty Local Governments. The analysis proves that none of them possess useful tools for the achievement of the mentioned purpose.

This empiric survey was conducted on the Local Authorities of the Province of Forlì-Cesena and was performed by interviewing their town clerks and head accountants in a non-structured way.

For this first explorative survey, we chose such area because the very Province of Forlì-Cesena has been assisting its Local Authorities in a tangible way since 1997. Since that date, in fact, the “Osservatorio Bilanci e Servizi Enti Locali” (Balance Sheet and Service Observer in Local Governments) have been cooperating with the Province for a comparative economic-financial analysis aimed at measuring the budget balance, for the making of a benchmarking analysis and the creation or the improvement of managerial control and cost

---

2 The Province of Forlì-Cesena is composed of the following Local Governments: Borghi, Cesena, Cesenatico, Gambettola, Gatteo, Longiano, Mercato Saraceno, Modigliana, Montiano, Roncofreddo, San Mauro Pascoli, Savignano sul Rubicone, Verghereto, Sarsina, Bagno di Romagna, Bertinoro, Castrocarno Term e Terra del Sole, Civitella di Romagna, Dovadola, Forlì, Forlimpopoli, Galeata, Meldola, Portico e San Benedetto, Predappio, Premilcuore, Rocca San Casciano, Tredozio.

3 The “Osservatorio Bilanci e Servizi Enti Locali” is a research project planned and executed by “CRESEM” (Centre of Research and of Economic-Managerial and Law Studies of the Faculty of Economics of Forlì, whose president is Prof. Giuseppe Farneti). It was created thanks to a collaboration with the Province of Forlì-Cesena. The project aims at developing a model of comparative performance and activity measurement of the Local Governments.

4 This analysis is conducted by comparing the efficiency-efficacy levels of the services provided by the Local Authorities and by identifying critical elements in the service management.
accounting systems which are able to provide a more adequate information basis for the construction of performance comparison indicators.

Thanks to the constant cooperation between the Local Governments and the “Osservatorio”, the information systems of each Local Government could be deeply investigated, thus revealing their actual lacks.

While the structural lack of cost information in the observed sample was patent, it was more difficult to understand the reasons for such absence.

In most cases the interviewed subjects maintain it is useful to be able to add to the expense information they already possess, the one about cost values, but they think it is too demanding, both in terms of time and money, to create an information system appointed to that. The interviews also put forward the fact that the subjects do not fully understand the different informative potentiality of the expense data in comparison with the cost data. As a consequence, they do not even get how such information could actually simplify the decision process. However, the need of enhancing the information system for the decisions is widely spread, particularly within sight of the recent reform of local public services, which command a serious meditation on “make or buy” decisions.

4. - Information in Local Governments services reforms

The rules regulating the types of local public service management have had a swift evolution. The law n. 142 of 8th June 1990 introduced in a compulsory way new institutions such as the joint stock company by local public capital, together with the revision of some managerial forms already present in the previous law, such as the special firm. This produced a renewal process leading to the rapid issuing in the last decade of the rules aiming at the perfection of the reform process of the managerial models in the Local Governments.

The goal is to achieve a coherent local regulating plan, which stimulates productive efficiency and managers’ efficacy in the satisfaction of needs, by matching public service internal organisation with the community principles of free competition protection.

The inadequacy of the territorial dimension of most of the current local public service managements and of the incorrect entrepreneurships in management in economy contribute to produce negative consequences on costs and on the quality of the services provided to the citizens.
In order to face this situation and to complete the Local Governments reform process begun with the law n. 142/90, the promulgation of the law n. 448/2001 (Financial law for 2002) had the specific will to protect the social function of the local public service. After the article 35 of the law, the agencies may adopt one of these managerial forms:

- Entrusting for bidding;
- Direct entrusting
- Institution
- Management in economy

According to article n. 35, Local Governments will not be allowed anymore to adopt management in economy because such modality is meant to have an exceptionality feature and its use must always be motivated. Moreover, as the institution and the direct entrusting, it is feasible only residually in comparison with the entrusting for bidding, which is, therefore, the legislator’s favourite modality in the allocation of almost all services. It is quite clear that Local Governments will have to progressively abandon direct management and take on the functions of promotion, control and regulation and they are not at all ready for that. Such a change, by many rightly defined as a “revolution”, is going to produce a radical transformation in the roles and in the behaviours of the Local Governments and is going to sharpen more and more the managers’ need of having information at their disposal which allow them to state correctly whether a management can be defined more economic than another one.

5. - Which is the best information system for the Local Governments?

Up to date, the considerations made on this matter⁵ have singled out a number of guidelines in the development of the control information system. Some aspects are of great importance.

First of all, the system should be built in order to provide indications on the authority capacity to develop competences to match public needs, taking into account that the final purpose of a Local Authority is the production of utility and social value.

Since there are no parameters to measure effectiveness and efficiency, the control system will have at least to provide information on unitary cost variations and on service quality. For this purpose a progressive broadening of the control information system is needed, aimed at matching the demands appearing each time.

⁵ For further reading see Farneti (1997, 2000), Anselmi (2001) and Borgonovi (2002).
On the basis of a traditional accrual accounting system, Local Governments should tend to an information system integrated with a cost accounting type for the analysis of production costs, with an analysis of the parameters of efficacy in terms of volumes of organised production and with the analysis of the inherent quality, perceived and in compliance. This broadening of the information system is functional to seize business performances in relation to all the variables relevant as for the results of the management.

So far it is clear that the Local Governments must tend to the development of compound information systems and at the same time targeted, in order to focus on every informative tool (cost accounting, perceived quality observation, indicators of efficacy) for the different types of performed production, that is for different centres.

In this way, cost analysis will have to be very specific only where the cost element is fundamental for the management effectiveness and efficiency and for the value creation. Even the choice of the configuration of each production should take into account this rule. Only where the cost element is really important and, as a consequence, it is necessary to understand its dimension as precisely as possible, the system is aimed at measuring a complete cost.

On the contrary, where the quality, perceived or in compliance, is more relevant, a lesser emphasis on costs is likely to be put, in favour of informative tools aimed at evaluating such variable. This can be applied to volumes (where the percentage of satisfied demand is important). Each centre, in other words, will have to set “its own” information system according to its goals: even the information system reflects and embodies the project goals and can be a boosting tool for their achievement.

Evidently, if the quality is the most important element for the performance measurement, to base the control information system upon cost accounting may result very misleading. Such considerations are well known in enterprises, but not at all in public administrations, where the trend is to introduce managerial tools with the promulgation of specific laws. It would be illogic to consider necessary, because compulsory, the uniform use of the informative tools introduced by the reform.

The considerations made so far highlight the first relevant dimension for the development of the control information system. It is connected with the type of production and indirectly with the goals and with the responsibility profile to adopt in the managers’ performance measurement.

---

6 See also Anessi Pessina (2000) for an analysis of the conditions for the coexistence between financial accounting and general accounting and the problems it may produce.
A second important dimension in the development of an informative system based on real needs is the choice of the management form:

As for the direct management, what has been stated so far is valid: every responsibility centre, helped by the management control service, will have to develop an informative system tuned for the goals appointed, by allocating further resources to the monitoring of the most critic factors;

In the “external” or indirect management, the width of the control information system will depend on the degree of autonomy from the authority of the subject organising the production.

Moreover, taking into account the most recent legislative trends\(^7\), the information system will have to support the managers in the choices of “make or buy”; in other words, in the choice of whether appointing the management of specific services to an external subject, by providing solid basis to the analysis of such opportunity. Besides, it will have to permit a correct service pricing policy, as the rules themselves underline by facing the fare problem.

A third very relevant element is the size of the Local Authority. In fact, a small size agency permits more direct control forms of the efficiency and the efficacy, not necessarily supported by complex information systems, rather by everyday experience, by a direct contact with the processes underpinning the improvement of life quality and by a close relationship with the public. The smaller the size, the less complex the management and consequently the lesser the need of formalization of the control information system.

At this point of the paper, we, therefore, take a look at what chances the use of cost accounting\(^8\) in local Governments can disclose and in particular the activity based costing. We intentionally leave behind the complete discussion on the problems concerning cost accounting\(^9\).

---

\(^7\) We particularly refer to the reform of the services in Local Governments of which we discussed previously in paragraph 4. “Service reform in Local Governments and necessary information for the decisions”

\(^8\) For a first, general analysis of the cost accounting tool not in specific relation to the Local Authority, see Brusa (1995).

\(^9\) We only remind that cost centre based accounting stands on two main factors: the choice of the “cost configuration” to adopt, that is the selection of the costs to ascribe to the cost objects chosen: the “cost” of a service, product or another alternative cost object, in fact, cannot be detected, on the contrary various cost objects or cost configurations can detected; the choice of the “principle of allocation of indirect costs” to the various products/services, or alternative cost objects. For whom may want to investigate further on this matter, see Brusa (1995: p.41-114), while for the application of this tool to Local Governments, see Modugno (2001: p.168-178).
6. - Why activity based costing (ABC)?

Trying to solve the problem of the low significance of the allocation bases connected with the production volumes, a reflection on the costs was begun without focusing on the products/services provided and on the cost centres, rather on the production activity. The perspective shift brought to the conclusion that it is not the products per se to generate costs, but the activity meant to achieve them. This implies a series of considerations: in fact, the way of conceiving the causal relationship between input and output sensibly changes. We could say that the very factors change: activities (output) are carried out consuming resources (input); the achievement of the product (output) needs specific activities to be carried out (input). Therefore, at the same time activities represent in put and output in a new process of two-phase cost allocation\(^\text{10}\).

In this framework costs are attributed to the activities which produced them, no more to the place where the activity is carried out (the responsibility centre).

Assuming that the activity originating the cost is only one, although carried out in different places, the origin of the cost and its causal relationship with the product are to be found in the activity itself and, consequently, the cost allocation on different basis for different centres would necessarily provoke a distortion.

If activities “take in” resources and products “take in” activities, two different products may happen to be given the same cost amount, only if their organisation demands the carrying out of the same activities, aside from which responsibility centre accomplish them.

As a consequence, cost accounting must measure the cost of the activities carried out in the agency and the quantity of activities needed for the organisation of each product/service. Evidently, it is the case of an average cost, which can be taken as a standard in order to measure the variations of the effective cost. It all suggests that the activity based costing (from now on ABC) is more suitable for the representation of the input-output causal relationship in agencies providing services, because even the achievement of a service demands the carrying out of specific activities. This produces the possibility of applying such technique also in Local Governments.

It is to be reminded that there are various problems linked to the use of the traditional cost accounting. In particular, the most critics concern the abuse of allocation bases related to

---

\(^{10}\) For further reading see Horngren – Forster – Datar (2002: p. 241-259) and Pozzoli (2001).
the production volume: for example, it is useless to impute the administration cost to the product according to the quantity of direct labour used. This is also valid for manufacture and service firms. The attribution of costs to the activities permits to climb over this obstacle, if the causal relationship between the activities and the final object of cost imputation is identified.

The causes of the cost of a service (output) may change every time; one of the most important “pros” of the ABC is to permit to understand such aspect in a more precise way. For example, the cost of solid urban waste disposal does not exclusively depend on the number of dumpsters to pick up and empty (traditional parameter connected with the output volume). The cost of every single activity, i.e. the picking up and the emptying of every single dumpster, waste transportation, etc., may depend on the time the service is carried out (in relation with the traffic density), on the population density (and therefore on the distance between the dumpsters), on the technology used (the vehicles might not easily access to all streets), etc.

We must remind that the concept of activity also applies to tasks or micro-activities carried out in different responsibility centres11.

The crucial element is to understand what are the most significant cost drivers, the ones which best express the causal relationship between resource consume and output.

Generally speaking, a driver is a factor which determines or affects the cost of the chosen object: a product, a service, a cost centre, a process, a customer, etc. The process of cost imputation being two-phase (productive factor-activity; activity-product or another object of cost imputation), there must be at least two driver categories to take into account in order to develop an activity based cost accounting system. For example, in order to estimate the cost of a service it is likely to:

1. estimate the cost of each activity, by assigning the costs of the production factors consumed for every single activity. They are the resources that can directly be imputed to every single activity. At this point, the drivers may be the consumed quantity of each resource and their quality. Activity drivers are called resource drivers;

11 For example, see the activity of calling for bids. In this case the process is represented by the acquiring of goods or by the making of a work; it is composed of many activities, included the one indicated. In order to call for bids, resources of different centres are used (the destination centre of the goods to buy, the legal and contract bureau, the accountancy, etc.); it is comprehensible how costs are aggregated, in favour of an activity, independently from the organisational principle of functional type.
2. assign activities to the various services provided, by identifying the activities taken in by the service analysed. In fact, the cost of a service depends on the quantity of necessary activities for its organisation; the driver, this time called activity driver, is an activity measurement which express the causal relationship between the achievement of the service and the carrying out of the activities. The task is to identify a variable to which the consume of an activity is directly proportional\(^\text{12}\).

Eventually a third driver category exists, by which the causal relationship with the activity cost level is not necessarily measurable, nonetheless, it considerably affects it. These are the cost drivers: they are variables which cause the existence of an activity or determine its quality\(^\text{13}\).

Because of its features, the ABC allows to seize, and to notice in cost accounting, the degree of the service complexity, which is a variable certainly affecting its cost. It is self-explanatory that a complex service requires much more activities than a simple one can take in. The activity based cost allocation techniques are different from the traditional ones, because they consider not only the production volume, but also the modalities of organisation of each product/service. Besides, by imputing production factor costs to the activities, and observing the quantity of activities taken in by each product/service, the use of conventional allocation bases can be avoided, since they do not correctly represent the causal relationship between factor costs and production.

If the production volume cannot be considered the only relevant description of the causal relationship between consumed resources and products/services obtained, then we must conclude that the distinction between fixed and variable costs in relation to the quantities produced, must be surpassed: every cost is variable in relation to one or more cost drivers. The task will be to identify the most significant one, in order to use it as a cost blower.

Another peculiar element of the ABC in comparison with centre based traditional approaches is connected with the distribution of the responsibilities. This is an important point because the cost accounting becomes a control tool only if it is inserted in context of clear and shared “map of responsibilities”\(^\text{14}\).

\(\text{\textsuperscript{12}}\) In the case of waste transportation, for example, the transportation activity can be measured in kilometres.

\(\text{\textsuperscript{13}}\) In relation to the waste disposal activity it is possible to identify various cost drivers: the population density (the less the density, the more the kilometres to cover to get the dumpsters), or the time of the picking up (the picking up of the waste during the night reduces the cost of the activity).

\(\text{\textsuperscript{14}}\) Also see Mio (1997: p. 405-408).
Traditionally, responsibility centres are identified with bureaus, departments, services and areas of the organisation chart as long as their production constitutes a measurable output; even in this case, evidently, the output is a consequence of the execution of specific activities. Therefore, it seems that traditional cost centres can act as responsibility centres even in the ABC logic. But this may result reductive.

In fact, in the traditional logic responsibility centres coincide with organisational structures, differentiated by their function: in this way, inside the personal function (which alone constitutes a responsibility centre) there may be other centres, related to the formation, salary payment, performance measurement and new recruitments (or competitions in the case of the Local Authority), etc.

Activity based management techniques, instead, are conceived for organisation in which responsibility does not coincide with the traditional division of functions, rather it has to do with process, defined as a “sequence of strongly interrelated and interdependent activities aiming at a defined goal”.

In Local Governments, the output of the process may coincide with the service provided to the public, but not necessarily. For example, the “Peg” may be considered the output of a planning process, under the responsibility of the general manager, which involves many responsibility centres and various councillorships (the “functions” of the Local Authority).15

In enterprises, it is a rule to invest managers with responsibilities towards objects which are transversely set in relation to the various functions. This produces transversal organisational positions aimed at coordinating the management of a particular critic process. An evolution of the information systems supporting the management control is due at this level, because the object of the information supply is different.

In Local Governments, as stated in the foreword, the investment with responsibilities regarding the process is still absent. This connected also with the subdivision of the structure into councillorships, owed to the need of getting various competences in order to face the various demands of the community. However, even inside every single councillorship, each corresponding to an intervention area and therefore comparable to the various divisions (or strategic business areas) of an enterprise, the process logic is absent. This is evident in the

---

15 Another example may be the services in the field of youth care, which require a process organised by the operators; at the origin of this production there is a further process, connected with the evaluation of the young people’s situation, which must lead to the definition of an intervention plan.
accounting system, too, which inevitably mirrors the organisational schemes adopted: the legislator wanted to lay out an accounting plan according to a hierarchical-causal logic. At a closer look, in fact, the subdivision into functions, services and cost centres (in the “Peg”) is coherent to that kind of approach.

7. - Possible effects of activity based costing in Local Governments

In the process based management, the one who uses the output of a specific activity may be considered as a customer of whom has executed such activity. As a consequence, there may be customers outside the agency (usually the citizens) or inside (usually the responsibility centre which takes advantage of the activity carried out by another centre). Therefore, the customers’ care does not exclusively concerns the most important cost centres which organise the service and provide it to the citizen.

The ABC, and in general all the techniques related to activity based management, produces two very relevant effects on the efficiency and the efficacy of the management, thanks to the analysis of how activities are carried out and how they take part in the process:

- as for the efficiency, the ABC helps understand which activities do not produce value for the customer (internal or external) and which of these can be eliminated and which can only be reduced or rationalised. Therefore, efficiency cannot be achieved through cost management, rather by analysing the process and the activities and improving their execution;

- as for efficacy, activity based management focuses on the customer, be it internal or external: customer’s needs become the parameter of the evaluation of the best practice for the activities.

As we said before, direct internal communication in local Governments is still very weak in Local Governments: this does not help understand the real interdependence of the centres, creating an obstacle for the achievement of the goals (efficacy).

Very often, in fact, the output represents the result of a process in which many centres take part. If there is no adequate work of coordination, many interruptions of the process may happen, or indecisions on the responsibility of the centres, or voids and overlapping of authority, thus producing obstacles. In order to banish these problems leading to inefficacy (time losses and delays) and inefficiency (time and money spent in search of information with other centres involved in the process, the need of refreshing already settled affairs) the best
way to proceed is to analyse the process itself, every single activity, and to plan it anew eliminating, if it is possible, the binding factors which make an activity necessary\textsuperscript{16}.

Activity based costing offers greater advantages in the organisations which take into account such aspects. It is evident that traditional cost accounting does not permit to understand the transversal dimension of the process, while by contrast the ABC gives its best in those very contexts. In fact, the implementation of an activity based analytic costing needs all activities to be monitored and “mapped”; this process, which represents a necessary premise to the use of such tool, permits alone the important advantage of reorganising the modalities of the activity execution and of the process, by identifying restoring areas of the efficiency and the efficacy (above all in terms of quality and time of organisation of the service).

A necessary step for this is the analysis of the best practice for the activities that are carried out in different contexts from the Local Governments (services), according to different modalities. The comparison of the modalities of resource allocation and of the output of an activity carried out in different places and by different people consents the beginning of a learning process, through the imitation of the best practice.

\textbf{8. - Conclusions}

To conclude, we can maintain that the current local organisational model does not permit the full exploitation of the potential of the activity based management and of all the related techniques, as the ABC. Nevertheless, this does not mean it is impossible to adopt such tool. Though it appears impossible, nowadays, to get to a cost imputation for every process of the Local Governments, it may be possible, and indeed desirable, the application of the ABC in some restricted areas.

There is another remark to do on the possible usefulness of such accounting system in Local Administrations: cost accounting has mainly got decisional purposes, therefore the information it produces must be used only in order to make managerial choices. Nevertheless, many decisions taken by Local Governments are only indirectly influenced by managerial efficiency principles.

\textsuperscript{16} An example of such obstacles in civil service is the authorising activity: the low level of authorisation in order to guarantee the formal regularity of the acts and of the decisions implies however important disadvantages in terms of efficacy and efficiency.
For example, there is no need, and in a sense either no possibility, of determining the price of the service or the mix of services which are going to be offered, or of evaluating the abandon of mature products/services, and so on.

As stated before, in this context the cost accounting works prevalently for make or buy decisions, in which, however, many other factors beside the cost interfere, connected with long term perspectives and the social effects of the choice.

Therefore, the main purpose of the cost accounting is to elevate the efficiency level, which is necessary not for business development reasons, but to avoid the waste resources taken from the citizens and therefore, indirectly, to curb public expenditure and to nourish political consensus.

In fact, under the point of view of the curb of public expenditure the introduced management control system will have to be evaluated on the basis of the results in this field. A Local Authority producing useless costs and not offering adequate services, or less adequate than in other places, is destined to be radically cut down in the long run, i.e. to be deprived of many functions.

From the point of view of the achievement of a larger political consensus, reaching a certain efficiency level and consequently sparing resources, may indirectly produce a number of sensible advantages for the citizens (for instance, the application of the minimum ICI rate or of other local taxes for which local Governments have an imposition autonomy, though restricted) and may permit to shift resources from well-established activities to developing activities in order to offer new or better services.

The achievement of a higher efficiency level is bound to pass through a rationalisation of the production process. In Local Governments, where the main production factor is the staff, the application of an accounting system based on the analysis of the modalities of execution of activities and process may result particularly recommended, at least in specific areas.
9. - Bibliography


