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THE ACCOUNTING INFORMATION SYSTEM OF MUSEUMS

1. *The museum as a non-profit organization: the role of the accounting information system*

The debate on whether the cultural heritage of a nation should be managed from an entrepreneurial perspective is one which is consistently gaining in momentum and relevance . This is specifically true in regard to museums. The question remains open as to whether these institutions should be treated in the same way as investments, business deals, or firms, that is: institutions in need of constant funding, with an organization to run adopting entrepreneurial criteria. It thus becomes necessary to take a novel approach to the economic role that museums carry out, a role that is all too often upstaged by approaches and rhetoric which neglect the fundamental concepts of a corporate economic policy.

The first and foremost concept to highlight is that museum is “a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment”[1]. This alone suffices to understand that **conservation** and **promotion** must be the two principle elements that guide the museum in the carrying out of its **mission**: the “valorization of culture”.

Another steadfast idea (although at times overlooked) is a second fundamental point: that museums must pursue said mission “**without views of profit**”[2]. The definitions provided by some of the primary research institutions and international associations explicitly exclude the possibility that a cultural organization that is managed with the purpose of profit gaining be classified as a “museum”. This, therefore, reaffirms the notion that the valorization of culture cannot coexist with objectives of profit gaining on investments in cultural riches. Along these lines, it follows that museums that aim to generate wealth – we refer, in particular, to few isolated cases of American cultural organizations – cannot be defined in fact as ‘museums’. Although these organizations, from an administrative perspective, can be likened to a museum, the procedure that they adopt in the valorization of culture becomes, indeed, an actual tool through with to gain profit. This contrast between ultimate aims and means used to achieve them cannot but have an affect on the managerial choices that this type of institution adopts, rendering said choices markedly different from those adopted by proper museums. Consequently, it becomes clear that the overall management of museums needs to be examined

[1] ICOM, Code of Ethics, By-laws, art. 2.
[2] ICOM; Code of ethics.

through the use of different methods and tools dependent upon the specific goals and approaches that each individual museum adopts.

The absence of views on profit gaining, therefore, becomes a primary condition in order for a museum to be considered such. However, if we take a glance at the actual situation that the majority of museums find themselves in, it becomes immediately clear that museums that do not benefit from grants and donations commonly post inherent negative economic results[3]. These losses may be attributed, to a small degree, to inefficient internal procedures: a problem that is all too often considered the main reason for negative results, but which is actually only a small part of a more substantial issue. Moreover, the amount of loss incurred by any individual museum will be in direct proportion to the extent that said museum pursues its cultural objectives: the more ambitious the museum is, the greater loss it incurs.

On the basis of as much set out above, a museum may be likened to a non-profit organization. Within the structure of non-profit organizations **museums comprise a part of the institutions producing socially useful services**, institutions that are not guided by objectives of profit making whatsoever[4]. It is within these criteria that an analysis of the tools used for management control in museums must be conducted.

Even though this particular type of non-profit organization has no views to profit gaining, this does not mean that museums are not obligated to guarantee a consistent economic balance that ensures the ongoing concern. This, indeed, is a fundamental factor in the definition itself of an enterprise. In Italy, it is the Ministry of Culture to point out that "museums must dispose of economic resources that are appropriate to their size and characteristics and are such as to guarantee a respecting of the minimum standards established."[5]. Consequently, **the managing of a museum must be oriented, at least in the long run, towards a situation of consistent balancing of the balance sheet statement.** This is understood as a situation in which earnings offset expenditures and in which earnings include also all inflow of funds collected without obligations of being returned, and therefore all public funding. In order to enhance and exhibit culture, a strategic plan needs to be established that can guarantee the utmost amount of visibility and safeguarding of cultural heritage without causing deterioration to the economic-financial conditions of stability of the enterprise.

[3] Even the Metropolitan Museum, which is often taken as an example due to the extent of its commercial activity, is not able to cope with the costs of running the museum through only inflows generated by the museum activity.
[4] MATACENA A., BORZAGA C. (1999).
[5] See 'Atti di indirizzo sui criteri tecnico-scientifici e sugli standard di funzionamento e sviluppo dei musei' L.D. No. 112/98 art. 150 c. 6; Ambito II – Assetto finanziario'. This document continues, observing that "the opening of a new museum must be conditioned by the verification (carried out by the competent public bodies) of the availability of financial resources that are able to, at least, cover the costs of the initial set up and organization and managing of the museum in the medium term".

This is why it is of critical importance to set up an adequate model of accounting control that is able to translate the dynamics of management into relations between profits and costs and between income and expenses. It therefore becomes indispensable to provide management with a tool for planning and controlling the economic-financial situation that allows for a consistent verification of the ongoing concern of the museum. This tool, in fact, will be the very device that is called upon to validate the strategies planned for the enhancing of artistic and cultural legacies. *Without the support of an efficient accounting control one runs the risk, on one hand, of neglecting any eventual signs of institutional instability and underestimating the inefficiency of any productive procedures, and on the other hand, of not being able to estimate the economic-financial effects that future management choices may result in, thereby compromising the future institutional equilibrium.*

Moreover, it is also opportune to point out that, in order to utilize this projected model, it is necessary for a museum to be an autonomous entity, at least from an administrative perspective[6].

The model of accounting control in a museum, in the final phase, must meet the following cognitive needs[7]:

a. keep the general economic-financial equilibrium of the system under control: in particular, the model must indicate the quantity of wealth absorbed and/or produced by each management area of the museum and verify the economic and financial contribution made to the general equilibrium of the institution;
b. measure the levels of efficiency of the institutional processes: accounting documents are used to highlight the relation of input and output of resources invested and produced in each management area;
c. provide benefactors with statements informing of the use of the resources that these financers bring to the museum: the accounting system must clearly indicate the use that was made of said funds;
d. lastly, inform all stakeholders: the reporting system must be able to meet the demands for information expressed by the many subjects who, through various and different ways, guarantee the continuity of the museum activity. This system must, specifically, inform said individuals regarding the cost that is involved for keeping the museum alive. This cost may then be contrasted against the benefit that the museum brings to the people; derived

In the budgetary phase, however, this accounting model offers basically two contributions. The first permits for the studying of the economic-financial feasibility of a specific strategic cultural plan.

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[6] To this regard, see as much stated by ZAN L. (1999), cap. 6 "*Le dimensioni analitiche dei processi di cambiamento nel comparto museale italiano*".

[7] For a more general view of the usefulness derived from the managerial tools, see TERZANI S. (1999), cap. 6.

First the strategic lines are drawn for the conservation and promotional functions, and then the economic-financial impact is measured. Thus, the accounting system supports the top management during the strategic phase, assisting them in setting an initial cultural plan capable of obtaining the maximum benefit from cultural wealth, and, at the same time, guaranteeing economic-financial stability. The second contribution, still in the budgetary phase, is to favor individual fund-raising policies. Indeed, a clear and detailed reporting of the use made of funds collected, illustrating the objectives that the museum was able to reach through the help of said donations, will undoubtedly greatly favor the development of future fund raising campaigns.

2. Structuring the accounting information system by management areas

The economic and financial activity of management needs to be investigated through a model of accounting control. However, before examining the model used, **the criteria of collecting data must be analyzed.** This is because said data will be the information on which the entire analysis is based. As a matter of fact, if, for companies, it is by now widely accepted that the matching principle must be behind the choice of costs and profits chargeable to the financial year underway, this is not true when dealing in non-profit organizations such as museums. If we try to apply the matching principle to a non-profit organization, it becomes evident that most costs are attributable to free-of-charge operations or operations having such negligible income as to be lower than the costs of carrying said operations out. Subsequently, the necessity arises to charge costs only when the relative input is actually used in the productive process[8].

Basically, the proposal is to charge to the financial year:

- the part of revenues matured during the financial year, according to accounting procedures[9].
- the costs that have been incurred financially during the financial period, in proportion to the degree that relative input has been consumed.
- the portion of the cost attributable to a future relevance, cases in which input has been only partly consumed during the financial year at the close.

Now we return to the control model. The scheme for analysis that is most highly regarded by accounting doctrine seems to be the "**management circuits**"[10] scheme. This model allows for the

[8] Referred to as an accrual basis of accounting. See MATACENA A. (1993), pag. 96 ss. for further reference.
[9] See accounting Principle number 11, Consiglio Nazionale dei Dottori Commercialisti e Consiglio Nazionale dei Ragionieri.
[10] The first processing under said scheme goes back to PAGANELLI O. (1987).

studying of the specific characteristics of non-profit organizations, their strategies, and their productive structure to identify an accrual of transactions that can be defined as a management circuit. More specifically, to identify these circuits, the system of the non-profit organization transactions must be analyzed and each institutional factor must be classified according to "*the typicality in respect to the institutional activity and the presence of processes of technical production and providing of goods and services*"[11]. Where museums are concerned, there are two distinct management areas each having a different significance, within which relative management circuits are configured:

1. **OPERATIVE AREA:** it is clear that the typical institutional activity, inevitably in all museums, is made up of a series of operations aimed at (more or less directly) promoting and housing cultural riches. Within this operative area there are, then, management circuits based on "the content of economic exchanges"[12] that characterize each process. This gives way to the following management circuits:
    a. **transactions completely free of charge** -> "these are those transactions which exclude any type of exchange in which the non-profit organization would act as either a 'passive' or 'active' subject, that is incur or cause others to incur charges."[13] Therefore, this refers to exhibitions and other free-entry initiatives. In any case, these are activities aimed at patrons and which, because of this, fall into the promotional area.
    b. **institutional transactions with economic relations** -> "a component of an exchange in which the non-profit is subject to or receiver of financial values, but in which this factor is clearly ancillary to the institutional relation."[14] For instance, if the museum receives offerings for having carried out a certain promotional or conservational activity, the institutional activity however remains prevalent. In this example, however, an economic relation of fund raising is effected, in regard to the specific project in question.
    c. **transactions of economic exchange on institutional activity** -> "these are transactions of exchange on goods or services that are part of the institutional activity of the non-profit in which the conditions may effect (in addition to reasons of economic exchange) choices of the non-profit regarding the institutional activity, choices that change the conditions of the exchange itself."[15] In this category we find all

[11] Stated by TRAVAGLINI C. (2000), pag. 194.
[12] see infra 11.
[13] see infra 11.
[14] see infra 11.
[15] see infra 11.

the transactions that are typical of museum activity (first and foremost sale of tickets) that, exactly because they must respect the institutional goals, are carried out at fair prices.

d. **Transactions relative to general support activity for the non-profit organization** -> in this circuit there are all the functions that support the main activity, such as administrative activity and general logistics, to name two.

2. **EXTRA-OPERATIVE AREA:** all other activity that is not strictly institutional but that forms a part, in some way, of the running of the museum as a whole, and which is not necessarily present in all museums may be grouped into the following management circuits:

e. **transactions relative to activity of fund raising** -> fund raising that is not tied to one specific project is classed into this circuit. This is why this is the circuit that receives the total amount of public contributions granted.

f. **transactions relative to finance management activity** -> this circuit gathers all the economic components generated by finance management. In particular, these will include revenues produced by finance management in the 'active' sense, that is use of surplus cash on hand, and/or costs generated by finance management in the 'passive' sense, if, for instance, the manner of obtaining monies is referred to.

g. **transactions relative to ancillary and other productive and commercial activity** -> this circuit groups together spurious values according to their function of valorization. Thus, all transactions that are not directly aimed at promotion or conservation are put to this area. Above all, all goods and services traded at arm's length fall into this category[16]. These may be refreshment stands throughout the museum, activity of merchandising and all general auxiliary services of this nature.

h. **Extraordinary operations** -> amounts of inflow that are completely "out of the ordinary", or deriving from occasional or singular events are placed into this circuit[17]. Just as in any other company, also non-profit organizations are interested in distinguishing the total of revenues and costs from those considered extraordinary in order to achieve a result that is the product of the ordinary management of the enterprise.

[16] An overview of the management characteristics and the profitability of what is generally referred to as auxiliary services can be seen in "Primo rapporto Nomisma sull'applicazione della Legge Ronchey", May 2000.

[17] The concept of extraordinary is as defined for the purposes of reclassification of the income statement for an analysis of management. See GIUNTA F. (2002), part 1, section b, lesson 1 for more detail.

3. Income and expenditure account

The document that posts the economic result produced/destroyed in the financial year in the non-profit organization is called the income and expenditure account. It is on the basis of this that we must verify if conditions are respected, perhaps the most important of all being the stability of the institution, achieving a consistent economic equilibrium.

The income and expenditure account that has been modeled on the framework of the management circuits is illustrated below:

INCOME AND EXPENDITURE ACCOUNT	
A. promotional area	
transactions free-of-charge	
transactions with economic relations	
transactions with exchange	
Research and development	
Result of promotional area	
B. conservative area	
Typical revenues	
transactions with economic relations	
costi personale	
costi sicurezza	
costi catalogazione	
costi restauro	
costi trasporto	
ricerca e sviluppo	
Result of conservative area	
C. Support area	
administrative costs	
generic costs	
Total support area	
Operating result	(A+B+C)
general fund raising	
Museum result	
ancillary area	
EBIT	
financial revenues	
interests on debts	
taxes	
Ordinary result	
extraordinary income/expense	
Net result	

The criterion of reclassification underpinning the model is the 'destination' criterion: *the economic components are not only grouped on a basis of belonging to a specific management area (promotional, conservational, etc.) but, where specified, further differentiated by management circuits*.

The promotional area was placed at the beginning of the model, in that this is the area that must generate revenues. The transactions grouped into this area have been subsequently separated by classifications of "transactions free-of-charge", or to the circuit of "transactions with economic relations", or, lastly to those "transactions with exchange".

In consideration of the fact that *the circuit for transactions free-of-charge* does not generate revenues (logically), a look at the total amount of costs incurred in this circuit allows us to appreciate the profound effort museums must make to carry out actions representing the highest degree of valorization of artistic and cultural heritage: promoting culture to the people free-of-charge. Typical costs attributable to this circuit are those incurred for installing exhibitions and general cultural events, that are of a temporary nature and do not require an entrance fee.

The amount which attests to the participation of the *second circuit* in the financial year result is already presented as a margin, as a contrast between profit and costs. It is essential to understand what degree of cost coverage comes from funds raised for initiatives that those same costs generated. This is because, on one hand, this serves to identify the contribution or cost that is passed on to the other management areas, and, on the other hand, to provide sponsors with information. Here we refer to events, usually of a temporary nature, that are financed through permanent endowments.

Lastly, the margin produced by the "*operations with exchanges*". This margin is the difference between costs and profits of the whole promotional area, except, of course, those which have previously been placed in other areas. This is the circuit that is most important for promotional activity and, as such, the relative economic result is the basis for evaluating the policies developed in this area.

Expenses for research have been deducted from this last circuit, these being still relative to the promotional area considering the strategic importance of research activity. The margin posted at the close of the promotional area comes from the sum of these expenses with contributions specifically set aside for research.

The sum of the four partial results expresses the economic dimension of the whole promotional area.

Moving on to the *conservational function*, the sole source of earnings derives from transactions such as estimates effected, advisory services rendered and other activities that are, however, of negligible relevance. The main valence is therefore represented by costs. Net of those costs connected to transactions financed by specific fund raising (for instance, restoration financed by sponsorships), costs are separated according to management processes. It is however opportune for management to implement this basic scheme, further breaking down the different types of costs deemed relevant for the purposes of effecting an operative control. Lastly, also research costs and relative contributions relating to the area in question must be also considered.

It should be pointed out that unifying costs and earnings according to their circuit generates economic margins that do not illustrate the extent of items that make up costs and earnings on an *individual basis*. On the other hand, the income and expenditure account serves to provide information in order to evaluate how the overall economics of the enterprise are being managed, even though different areas of activity separate this information. A more thorough reading of the composition of each margin is left to other detailed documents (e.g. to the printout of balances on the card of accounts). The analysis, then, of each individual item under costs and revenues is left to the use of more analytical management control tools[18].

Section C houses the last management circuit of the operative area: the support circuit. In this sector costs represent the use of input that results in a general utility to the museum activity, yet without possessing the characteristics to be classed under either the promotional or conservative area. Being able to valuate the burden of indirect costs (indirect as opposed to valorization in the most literal sense), allows one to valuate the efficiency of the entities that promote the activity in question. This is why this category of costs should not be attributed with marginal significance.

The *first intermediary result* reached is in the *operative area*, coming from the sum of sections A, B, and C: from the four management circuits that the area is divided into. This functions quite differently from a commercial business. For museums, if this margin takes on mostly positive values, this does not mean that the activity "is going well". Quite the contrary, **the more the operative result, over the years, posts negative values, the more successfully the museum is fulfilling its mission.** This, in fact, is the result of policies for fair ticket prices, aimed at lessening the result of the promotional area and/or effecting major investments in conservation services thereby increasing said costs. Both of these actions are motivated by the goal of valorization of the cultural wealth held by the museum.

The **Museum result**, which is reached by combining the operative margin with the proceeds from general fund raising activity, **expresses the economic dimension of the mission: how much the process of valorization of culture "cost" or "returned" to the museum. The economic equilibrium of the museum is dependent on this result, and consequently, also the capacity for**

[18] For an application of analytical accounting as a tool for control in museums see PRONTI S., BOCCENTI L. (1998), par. 3.6.2 "*La contabilità analitica*" and subsequent paragraphs.

the institution to stay alive. This is why this margin must post, at least in a long-term perspective, adequately positive values.

Under the museum results, we find the balance relative to the *ancillary area*, which needs to be considered. This item, in fact, includes the income produced by "ancillary services". We are well aware that these forms of activity are meant to produce income, because the services offered are traded at arm's length prices. Therefore, income results must be for the most part positive and, when said results are of a substantial nature, they must be able to contribute to sustaining the operative activity of the museum, which is inherently at a loss. *In these instances, the museum can afford to let the museum results slip below zero. It is the ancillary area that has the responsibility of stabilizing the economic conditions*. ***In any case, the trend over the years of the pre-financial management result must never post negative results***. We can also go one step further. For these types of activity, similar to a standard company, one may even consider (provided the size of the company permits so) turning to the classic tools of management control, created for companies aimed at profit gaining.

If, to the EBIT (Earning Before Interests and taxes), we add the economic contribution of the *financial area* and we then subtract direct taxes, the **Ordinary Result** is reached. The Ordinary Result is of critical importance. In fact, it is **called upon to guarantee the ongoing concern of the museum, in that it is an expression of the capacity of the management to renew a stable economic balance**. In other words, if the Ordinary Result is associated with the concept of repeatability of the economic result, it is clear that this may be taken as an indication of the potential for a lasting life of the enterprise called "museum".

Lastly, there is the **net result.** This is a final account of the wealth produced or consumed by the overall management and which includes also eventual out-of-the ordinary proceeds and costs that are not found in the "normal" activity or which are, however, proceeds or costs not likely to be repeated in the future[19]. This result, as we have reiterated on more than one occasion, **is called upon to respect the obligation of balancing of accounts**.

In conclusion, it is fundamental to observe the role played by a series of physical-technical indicators when interpreting variations in the items in the income and expenditure account and contrasting these with the results of the past years or with the initial budget projected. If, for example, the total costs of the conservation area increase from one financial year to the next, this could be an indication of a greater investment made in the area in question. Or else, it might be the result of a deterioration of conditions of efficiency which placed a greater demand on resources. To identify the

[19] We could, for instance, cite capital losses or gains deriving from divestitures of works of art. These are items which, undoubtedly, cannot be considered recurring in the management of the museum and which, above all, post figures that are extremely variable.

cause behind the variation one needs to analyze the physical-technical indicators which, indeed, are meant to highlight conditions of productivity and efficiency in productive processes.

4. The cash flow statement

The cash flow statement serves to investigate changes that the "coffers" endured during the financial year. This allows for a verification of how much money was produced, but also, and above all, the source of said money and, equally important, where and how it was put to use. This analysis is aimed at probing the conditions of financial equilibrium that underpin the management of the museum. More specifically, **the aim is to verify the capacity of the museum to face up to, consistently, the covering of capital need that running the museum requires over a certain time period**. It is logical that, if the cash flow statement, for example, illustrates that operative capital need is covered by sources that are all extraordinary or gained against the assuming of further debt, this will mean that a review is needed for future strategies so as to avoid problems of liquidity.

The cash flow statement scheme was modeled after the conceptual framework that the whole of the accounting information system relies on: the framework of management circuits. Therefore, its objective is to provide a summative view of monetary dynamics and where possible, observe to what extent the circuits delegated to the production of liquidity have been able to meet the needs of those circuits which consume wealth.

The scheme of the cash flow statement assumes the following form[20]:

[20] For a more thorough examination of the construction of this model and the interpretation of the arising margins see GIUNTA F. (2002), part 2, section b, lesson 3.

CASH FLOW STATEMENT	
+/- result of promotional area + depreciation	
- result of conservative area + depreciation	
- result of support area + depreciation	
EBITDA	
+/- variation of the WoCa	
+/- variation of reserves for risks and charges	
- taxed paid	
Cash outflow from current operating activities	
+/- *Fixed area*	
- perchase of work of art	
Cash outflow from museum activities	
- servicing of finance	
- extraordinary expence	
Total cash outflow	
+/- ancillary area	
+ return on financial assets	
+ extraordinary income	
Net cash outflow	
+ general fund raising	
Residual net cash outflow	
+ increase in debt	
+ increase in capital funds	
Increase/decrease in cash	

The results of the three operative management areas - promotional, conservative and support – net of non-monetary costs contained therein (generally amortizations and depreciations) express the flow or down flow of cash generated or absorbed during the financial year. Undoubtedly the conservative area, as well as the support area, due to their nature are bound to consume liquidity. This, however, is not necessarily true for the promotional area which, quite contrarily, in those museums in which there is a scarce use of fund raising and ancillary services, is in charge of nurturing the activity of the "sister" areas.

The sum of the three different figures is the aggregate absorption (or generation) of capital brought to the company coffers by the current size of the operative management, that is, by the day to day running of the institution. Bearing in mind the construction and the significance of this sum, this result is equivalent to Earning Before Interests, Taxes, Depreciation and Amortization (EBITDA) in regular profit seeking companies' financial statements. For simplicity and directness, this formula may successfully be maintained also in regard to non-profit organizations.

EBITDA however, represents only a potential cash outflow (or inflow) tied to the current running of the institution. This is due, basically, to costs and earnings contained in EBITDA which represent cash-on-hand, but which might not yet have been actually disbursed. In this instance, balance sheet entries exist but as receivables due from clients or payables due to suppliers which must be utilized in adjustments of EBITDA in calculating the actual cash flow of current operative capital. The sum of receivables and payables, but, more generally, balance sheet entries regarding the current operating of the enterprise is called Working Capital (WoCa[21]). The adjustment of WoCa, if positive, aids in the absorption of liquidity and therefore in the increasing of the current operative need. If negative, liquidity is released which blocks the cash outflow from EBITDA. In any case, in regard to museums, one can hypothesize that adjustments to WoCa have a marginal affect on liquidity, bearing in mind that receivables due from clients will be, almost entirely, non-existent and payables due to suppliers will be kept at a consistent figure for the most part.

The EBITDA thus becomes subject to a process of "distillation" when it is contrasted against the change to WoCa and other reserve funds and cleared of eventual taxes paid. This way, from **potential EBITDA we arrive at an actual cash outflow (inflow) of current operative activities**. Therefore, **the actual absorption (flow) of capital expressed by the day to day running of the enterprise is quantified by this margin, the Cash outflow of current operative activities**. In a situation in which the future management of the museum works along the same lines of criteria as the past management (same earnings and costs and same volume of circulating capital), the financial margin in question provides us with one piece of valuable information: ***the liquidity to obtain each year in order to finance the current running of the museum.***

Still remaining in the operative area of management, now we must consider structural dimension – that is, the whole of the transactions through which the stable *productive* mechanism of the museum is prepared, conserved and developed. Also, within the structural area it is opportune to distinguish between two different elements: the element aimed at the management of assets that are instrumental for the carrying out of activity (interior design, automobiles, various equipment, etc.) and the element, on the other hand, that represents the heart of the museum itself, the management of the works of art. By observing the movements of purchases and divestitures of assets that have been carried out during the financial year we may respectively identify the outlays and inflows of capital. It is

[21] See subsequent paragraph for the consistency of WoCa.

realistic however to hypothesize that, generally, the need for liquidity is markedly higher than the limited flows of capital coming from sporadic divestiture of assets, unless we are dealing in the sale of an extremely important work of art. Basically, **the leak opened by the current operative requirement in the institutional "coffers" is worsened by the structural area.**

The joined action of the current and structural dimensions of operative management establishes the ***Cash outflow of museum area. This indicates the total amount of liquidity that has been subtracted from the institutional capital following the carrying out of the "characteristic" activity of the museum.***

The last area destined to absorb capital resources is the area that houses the "*servicing of finance*". The total amount of reimbursements of debts assumed in the past, including capital and interest, must be considered. In a museum, the presence of costly financing, in and of itself, would signify the existence of financial problems. This means, in fact, that in the past debts needed to be assumed to cover capital requirements that exceeded the total amount of funds collected free-of-charge. However, it can also be said that a museum may conveniently resort to financing to cover requirements of a structural nature, such as for instance, for the purchase of an extremely expensive work of art. The cash flow statement, in this case, is called upon to highlight the effect the cost of this debt has on the financial equilibrium. If, for instance, from the cash flow statement it emerges that the installments to return the debt have been paid through the taking on of new debt, we would be faced with a situation which is technically referred to as "substitution of debt with debt", leading therefore, to a deterioration of financial balance.

Moreover, next to the reimbursement of debt, we find extraordinary expenses which also serve to increase the capital requirement. These are costs which, while they are taken in on the income and expenditure account, attention however must be paid to select only those having a monetary nature.

The result reached in this way, called *Total cash outflow*, indicates the level of total liquidity used in an enterprise over the time period examined[22].

The total cash outflow, in a first phase, is held back by the internal circuits called on for the production of liquidity. Among these, the ancillary area assumes primary importance. This area, in the event that it is mainly comprised of auxiliary services, covers an important role of self-financing. For the purposes of valuating financial equilibrium, therefore, it is essential to observe to what extent supplementary services contribute to reducing the total cash outflow. Next to the ancillary area we find two other residual sources that can be found under extraordinary income (again, only those of a

[22] For an empirical investigation relative to the nature and composition of the various sources of financing of a sample of museums, see FUORTES C. (1998).

monetary nature) and in the management of any surplus liquidity (financial proceeds and changes to securities purchased on the stock exchange).

We can state that, ***the total liquidity that must be obtained through external sources is quantified in the Net cash outflow.***

At this juncture, a problem of coverage of the requirement generated arises. Financial channels that may be drawn from to meet this requirement are of two types: without obligations of returning funds, and these can be identified under general fund raising. The second, through the assuming of new debt or the increasing of the endowment fund, called on to cover the eventual *residual net cash outflow*. It is clear, for reasons cited on several occasions, that it is opportune to achieve a total covering of the net cash outflow through general fund raising. The assuming of new debt, being subject to obligations of return payment, and at even more costly conditions, is a source which must be managed carefully. It is this, in fact, which may at some future time threaten the financial balance of the enterprise. Therefore, in certain cases, resorting to financing may be justifiable only if said debt is carried out for the purchasing of instrumental goods.

The final result of the cash flow statement cannot but coincide with the variation that the "coffers" have undergone from the start to the close of the period in question.

A cash flow statement model structured in this way permits one to:

1. understand if, and to what extent, the promotional area plays a part in covering the requirements of the conservation and support areas;
2. determine the total amount of monies needed each year to run the operative cycle of the museum activity (the current operative requirement);
3. calculate the total monetary requirement for the whole museum area (Requirement of the running of the museum);
4. quantify the burden represented by reimbursement of debt on the total requirement.

Moreover, **in regard to the forms of cash requirement coverage, the model permits one to identify:**

1. to what extent it is possible to count on revenues from internal sources of production of liquidity (ancillary area);
2. the amount of monies coming from the collection of "fresh" funds, not subject to obligations of reimbursement;
3. what alternative routes are available for covering the residual requirement.

An analysis of the quantitative composition of the museum cash requirement and of the routes taken to meet said requirement, allows us to express a judgment about whether the financial equilibrium of liquidity is being respected. At this point, the example cited at the start of this paragraph should be all the more clear: the covering of monetary requirements of operative management (Cash outflow of museum area) attributed to sources deemed completely extraordinary (extraordinary income) or to the assuming of new debt (taking on debts among sources of coverage) is considered a situation of financial imbalance.

The model performs a noteworthy informative capacity also at the budgetary stage. In fact, starting from the bottom, once the extent of future amounts of liquidity coming from fund raising and ancillary areas has been determined, it is possible to arrive at the series of results, estimating the other variables until EBITDA is reached. Then, the value that EBITDA must take on can be calculated until the Net cash outflow is equal to zero. A valuable piece of information is reached: **the level of *insufficiency of funds* (EBITDA) that may be permitted in the carrying out of the valorization of culture, without having to resort to further debt.**

Going back to a bird's eye view, a view of the plan of accounting control, the use of the cash flow statement lets one set the maximum amount of penetration that management may give to the various strategies used in the valorization of culture, thus avoiding problems of liquidity. This is a bit like saying that management must know how much the museum's "gas tank" holds, but must also know how much fuel the vehicle actually uses while being driven, so as not to risk running out of gas along the way.

5. The balance sheet

The third and last document that comprises the accounting information system is the balance sheet which serves, generally, to illustrate the composition of the wealth of the enterprise.

The models generally used in analyzing the assets and wealth of an enterprise meet two types of needs: 1) the need to measure profitability of investments; 2) the need to valuate the level of solvability of the overall organization. When dealing in museums, valuations of profitability are excluded by definition. Also an analysis of the extent of debt that the institution assumes is not a reasonable approach in this sector. As a matter of fact, as mentioned earlier, museums generally should not, in any way, resort to assuming debts in order to finance investments. This, you will recall, is due to the absence of positive income margins that will be able, in the future, to reimburse said debt. However, for those situations in which debts have been taken on, it is possible to control the risk of insolvency, as mentioned in the preceding paragraph, through a budgetary analysis carried out on the cash flow statement. Once the amount of each debt re-payment installment is ascertained, one must plan the flows of capital and management around said outlays.

It is easily understood that the third document which completes the accounting information system plays a minor part within the system itself. The functions demanded of the balance sheet are, in fact, limited to showing the make up of the assets and liabilities in order to evidence the financial requirements that each management circuit demands as of a certain date. In other words, understand where wealth was employed and what the sources of said wealth were. In addition, it is also opportune to examine the changes that occurred over time to the financial requirements of each management area. By doing so, we may understand how investment strategies that the museum implemented in the past were developed.

The model of re-classification, which, in our opinion, seems best able to meet these informative needs is the model structured on **managerial areas**, even though there is no need to measure profitability, and this is the main principle underpinning said scheme[23]. This model essentially groups together the assets and liabilities according to their belonging to the different management circuits. The scheme which results is the following[24]:

[23] This re-classification of the Balance Sheet facilitates also the construction of the cash flow statement, which works off this already re-processed information. Consider, for instance, Working Capital.

[24] For a more thorough analysis of the construction of said model and of the interpretation of the various margins arising from the same, see GIUNTA F. (2002), part 1, section a, lesson 6.

BALANCE SHEET

Trade accounts receivable
Inventories
VAT accounts receivable
Other operating current assets
Gross Working Capital
Trade accounts payble
taxes paybles
Other operating current liabilities
Operating current liabilities
Working Capital (WoCa)
Net fixed assets
net intangible assets
Other operating fixed assets
Total long-term assets
Other operating fixed liabilities
Total fixed liabilities
Total long-term investments
Total operating investments
Financial assets
Ancillary assets
Credit for endowments
Financial and ancillary assets
Total invesments
Capital funds
Reserves
Net results
Capital funds
Medium-long term debt
Short term borrowings
Financial Debt
Total liabilities and capital funds

As opposed to the previous models, the operative area is considered in its entirety, without distinguishing between items separated into the three operative management areas. Affecting this sort of distinction would, in fact, be an enormous workload leading to a negligibly significant result. One need only consider, for instance, that payables due to suppliers for any service (logically of an operative nature) would have to be re-classified in different groups according to the circuit – promotional, conservative or support – which availed itself of said service.

Therefore, the circuits considered under assets, starting from the top, are the *operative* circuits, with the main one being *financial*. In the eventuality of a managing of surplus liquidity, we refer to *Fund Raising* circuits. In the event of contributions set aside in favor of the museum, even if the actual disbursement has yet to be effected, we refer to *ancillary* circuits. These latter include, along with eventual spurious items regarding the operative management, also investments effected in side commercial activity. Regarding, on the other hand, liabilities, financial sources are separated into “internal”, net capital, “external”, and debts. Debts, in their turn, are further divided according to the initial duration of the same (short, medium or long term).

The first margin arising from the reading of the balance sheet is Working Capital (WoCa), which is the difference between assets and liabilities tied to the current operative management. As we are aware, this represents *the consistent level of monetary requirement needed for the running of the museum activity at its current size*. By looking at the composition of WoCa, it is logical to hypothesize a scarce, or even a non-existent, volume of under stock and commercial credit, main factors comprising Gross WoCa. On the other hand, regarding non-costly payables due to suppliers of input, there will always be an inherent level of debt. Fundamentally, *WoCa in a museum occupies a position represented by moderate figures and, more often than not, is easily thought of as assuming even negative figures*. ***In this instance, the museum not only boasts an absence of cash requirements, but is also able to use the resources generated by this particular source to finance other types of investments***.

If the amount of WoCa is added to the stock of fixed assets, net of relative liabilities, the result is called Total Operating investments (TOI). Regarding operative fixed assets, an important observation must be made. These fixed assets are mainly comprised of works of art whose valorization has always presented a series of problems. However, this paper is not the forum to address a complicated issue such as this. For this reason, we will limit ourselves to pointing out the distortions that these problems of valorization cause to the economic situation of the museum. Generally, most works of art that a museum owns have not been acquired against consideration and, therefore, cannot be ascribed a numerical value on the accounting records. It is clear, however, that the operative fixed assets are greatly underestimated. This makes it impossible to understand the value of the same by merely reading the balance sheet. In any case, *TOI represents the total amount of investments effected in the heart of the museum management, the operative management.*

And yet again. If we add TOI to the other investments effected in the financial and ancillary areas as well as to the credit coming from Fund Raising activity, the total capital requirement of the management as a whole, the Total investments (TI), is reached, which is the total of global wealth invested in the enterprise.

Moving on to an observation of the ways in which financing is procured to face up to the quantified requirements of TOI, we find two main groups: third party financing and museum capital. How the collecting of monies is distributed between these two sources provides us with an overall idea of the different financial risk that the museum runs. The more the museum depends upon its own capital, the more solid the financial structure will appear against future risks of management.

We can further our analysis by highlighting the size of the short-term debt. Short-term debt, serving to face up to daily capital needs, is best maintained at moderate levels. If an analysis of the economic and asset situation of the enterprise posts a substantial short-term debt during the financial year, this would undoubtedly be a symptom of financial imbalance.

Lastly, in spite of the fact that we have affirmed that an analysis of profitability serves no purpose, it should be noted how this is not true for a control of the ancillary commercial activities, what are referred to as auxiliary services. As we have reiterated on more than one account, these activities represent actual businesses for all intended purposes, existing within the non-profit organization of the museum. It would be interesting to extract not only the investments, but also, when possible, the financing pertinent to ancillary activities. Doing so would allow for the effecting of a valuation of net and operative profitability. All this, however, presupposes the existence of an autonomous accounting system.

In concluding the process of accounting control we need to reiterate that, for the most part, basing the valuations of economic-financial equilibrium on the analysis of aggregate data taken from three accounting documents is not entirely effective. We can liken this to driving a car while keeping your eyes only on the rearview mirror. It is our opinion, therefore, that one needs to **always integrate the historical analysis with some perspective. This perspective must valuate the future economic-financial situation on the basis of the same three informative documents, which, however, should be considered as hypotheses of future management activity**.

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