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Introduction to healthcare management : Introduction to healthcare finance

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Teaching Experiences

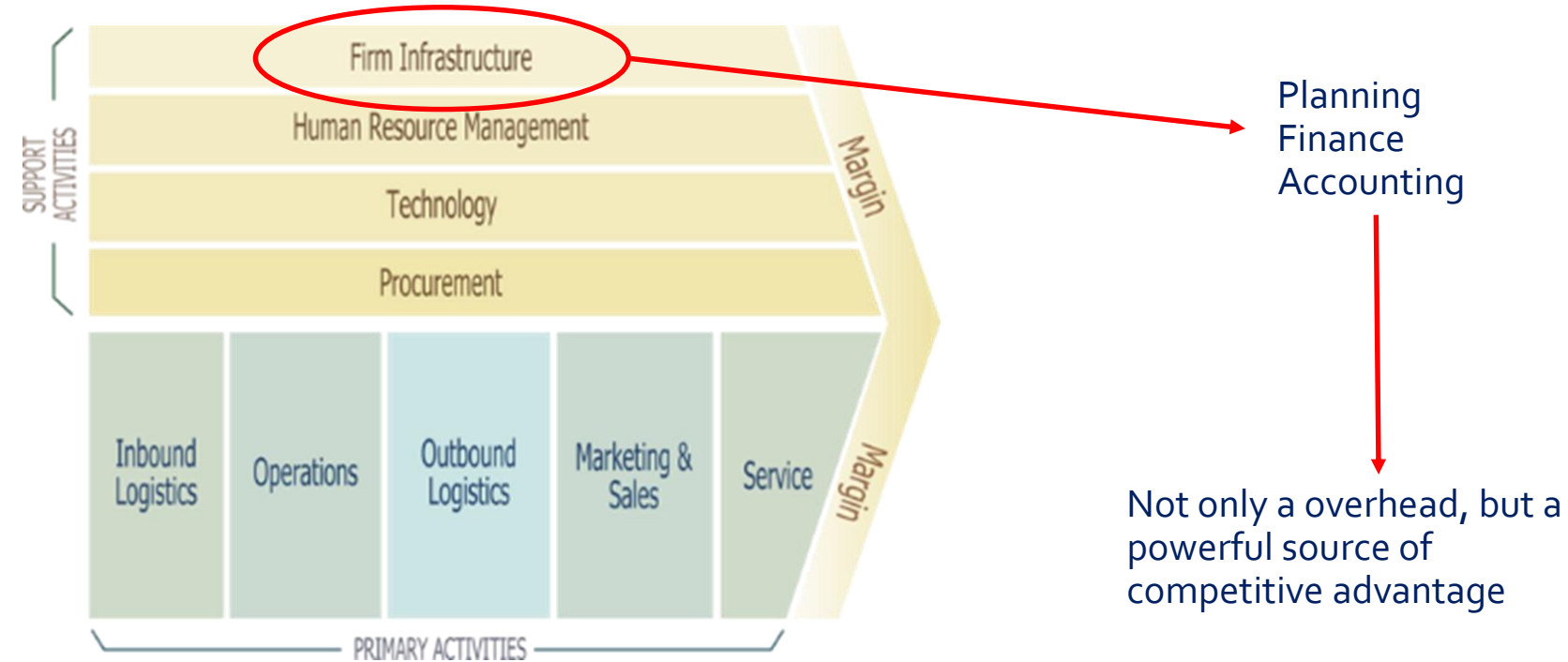


Agenda

- Definition
- Accounting and Financial Statements:
 - Accounting and auditing
 - Cash Flows Management
 - Tax Management
 - Financial Statements and semi-annual reports
 - Financial Issues in research and project management
- Planning & Controlling:
 - Budget and forecasting
 - Reporting and gaps analysis
 - Management By Objectives (MBO)
- Public/private differences
- The future challenges

DEFINITION

What is financial management?



What is financial management? 2 different souls (Formal & Strategic)

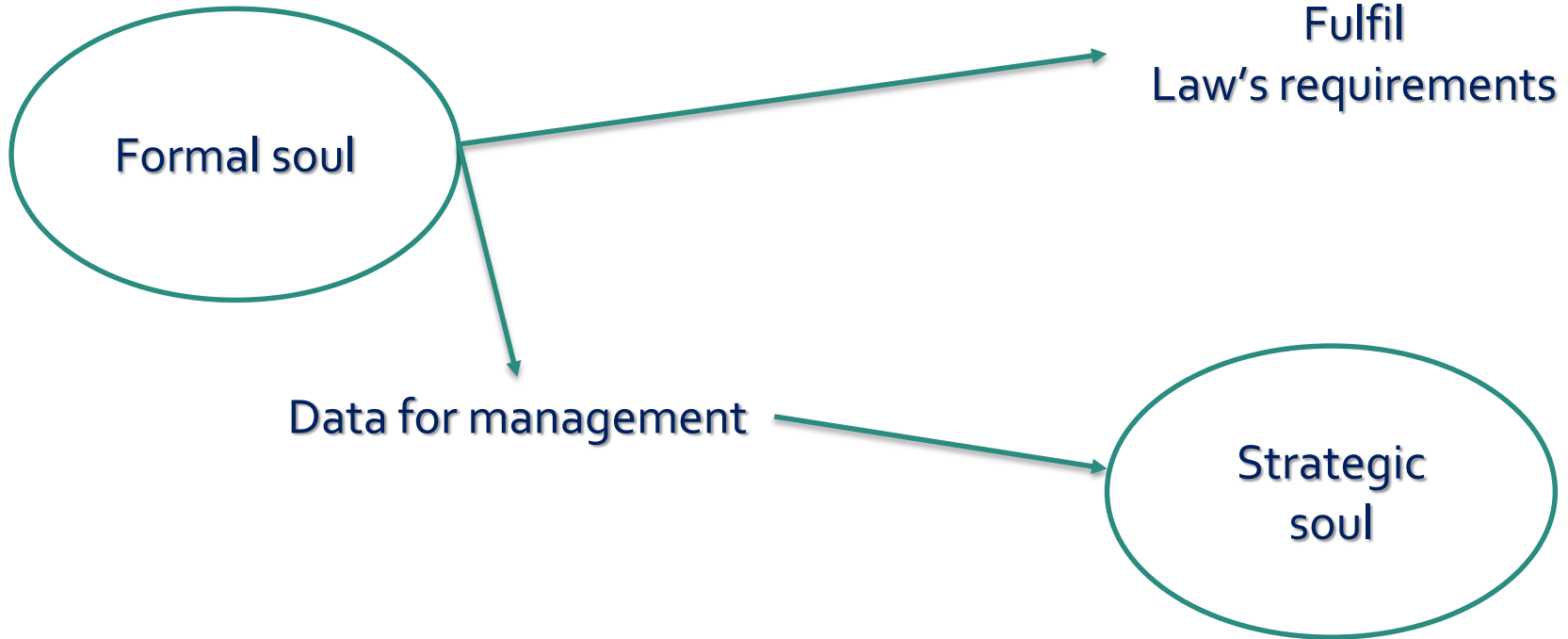
Gives solid roots to the firm and guarantee compliance with legal requirements

- Accounting and auditing
- Firm Financing and Cash Flows Management
- Tax Management
- Financial Statements and semi-annual reports
- Financial Issues in research and project management

Acts like a business partner for the top management

- Investment Planning
- Budget and forecasting
- Reporting and gaps analysis
- MBO
- Operations e human resources organization

The 2 souls of financial management



ACCOUNTING AND FINANCIAL STATEMENTS

Accounting and auditing (1/9)

Accounting (and auditing):

- has the goal to guarantee the reliability of the accounting entries:
 - accuracy to avoid legal problems;
 - data for reporting and strategic decisions;
- Accounting is the process of recording financial transactions pertaining to a business;
- HOW: double entry bookkeeping;
- Today the most operation are automatically performed by the accounting information system



The operator must be careful and follow the procedures (see later)

(Double entry bookkeeping: a very simple example)

1. Invoice from the hospital to the insurance (200 €);
2. The insurance pays the Invoice.

ACCOUNT	DEBIT	CREDIT
Receivables	200 €	-
Sales Revenues	-	200 €
Receivables	-	200 €
Cash	200 €	-

Accounting and auditing (2/9)

Accounting is not only an issue for the financial department but involves the whole firm; eg.:

- Technical department: track the work in progress;
- Purchasing office: play the orders using the correct accounts and with all the elements requested by the law;
- Medical direction: track the requests of external medical counselling;
- Clinical engineering: register and communicate the date of disposal of health technology;
- HR Department: correctly record the accrual of some parts of the salary;
- Principal Investigators (if any): promptly convey to the financial department the information about the progress of the clinical trial.

To prevent flaws that can affect the fairness of the accounting entries ...

→ need for coordination and respect of accounting procedures

Accounting and auditing (3/9)

- Revenues
 - Inpatients;
 - Outpatients;
 - Paying patients;
 - Grants from Region for specific services (ER, transplantions, teaching, etc), individual donors or no profit organizations;
 - Warehouse → consumables: medicines, devices, laboratory materials,...
- Pay attention to stocks management:
- risk of expiration and of getting outdated;
 - Impact on the revenues.

Accounting and auditing (4/9)

- Fixed assets → durable goods:
 - Hospital buildings;
 - Health Technology;
 - Beds and other furniture;
 - Attention to the depreciation: specific accounting principles that differ from the ordinary ones;
- EG: CT-Scan acquired at the beginning of 2023 for 1 million €
(depreciation: 20% per year)

2023	2024	2025	2026	2027
-200.000	-200.000	-200.000	-200.000	-200.000

Accounting and auditing (5/9)

- Human resources
 - Usually managed by a specific office apart from the financial department;
- ➔ Coordination problems and need for aligning the priorities and strictly respect the proceedings:
 - The goal is to hire and spending is an investment, not a loss;
 - Often HR data are used (and elaborate) just to manage the ordinary activities, not as an strategic asset;
 - Specific deadlines that differ from the deadlines of the financial statements (for the public hospitals);
 - Different issues from the financial department (es. Accrual principle).

Accounting and auditing (6/9)

Research (big and research hospital):

- Clinical Trial;
- Grant from EU, Ministry of health, no profit organizations;

→ The accounting proceedings of the projects differ from ordinary ones.

Skills requested: precision and attention



help: accounting proceedings and internal auditing

Accounting and auditing (7/9)

The process of auditing:

- Although laws differ from country to country, an audit of the financial statements of a public company is usually required for investment, financing, and tax purposes;
- Auditing, in the context of accounting, is the "unbiased examination and evaluation of the financial statements of an organization". Audit is a professional service that is systematic and conventional.

Accounting and auditing (8/9)

- An audit of financial statements aims to express or disclaim an opinion on the financial statements. The auditor expresses an opinion on the fairness with which the financial statements presents the financial position, results of operations, and cash flows of an entity, in accordance with the generally acceptable accounting principle (GAAP) and "in all material respects". An auditor is also required to identify circumstances in which the generally acceptable accounting principles (GAAP) has not been consistently observed.
- In Italy a law issued in 2011 (D.Lgs. 118/2011) set specific accounting principles for the Public Healthcare Industry and obligates companies to build a set of accounting proceedings to fulfill specific requirement → in compliance with that law, some public healthcare companies certificated their financial statements, while almost everyone has defined specific accounting proceedings (PAC).

Accounting and auditing: an example from my experience at INT (9/9)

- Shared Guidelines (eg. Accounting Procedures, payment methods, data to collect for the Financial Statements and the semi-annual reports);
- Regular Meetings (eg. All the staffs of the Administrative Direction or Scientific Direction/Administrative Direction);
- Coaching by the financial department;
- Staff of the financial department dedicated to the most critical activities (eg. Research and Paying patients);
- Shared reporting about revenues and costs and meetings in case of negative trends.

Cash Flows Management (1/7)

Cash Flows Management:

- The fuel that makes firms go are the cash flows: to pay salaries and suppliers, you need cash flows, not revenues;
- it's necessary to pair the timing of positive and negative cash flows.



CF BUDGET

BUT In the healthcare industry:

- Deposits for the revenues from the health agencies;
 - Other positive cash flows (paying patients, grants for research or investments, donations, ...);
- In case of gap between negative and positive cash flow, it's necessary to find other sources, usually, not for free (loans, bonds, bank credit...)

Cash Flows Management (2/7)

Differences between Income Statement (IS) and Cash Flow Statement (CFS), some examples:

- Inpatient → date of discharge (IS) vs. date of deposit or date of insurance's payment (CFS);
- Outpatient → date of the visit (IS) vs. date of deposit or date of insurance's payment (CFS);
- Purchasing of consumable goods → date of delivery (except for the inventory) (IS) vs. date of payment (usually after the delivery) (CFS);
- Changes in inventories → is a revenue (if positive) or a cost (if negative) (IS) vs. no cash out (CFS);
- Purchasing of services → date of performing (IS) vs. date of payment (usually after the performing) (CFS);

Cash Flows Management (3/7)

- Purchasing of durable goods → during the whole life of the good (IS) vs. date of payment (at the delivery or according to the plan of the loan, leasing, etc.) (CFS);
- HR costs → according to the accrual principle (IS) vs. date of payment (usually, before the end of the period of competence, for some voices, some months later) (CFS);
- Depreciations → a quota per year (IS) vs. no cash out (CFS);
- Provisions → a cost for the IS vs. no cash out (CFS);
- Capital gain → Difference between price and balance sheet value (IS) vs. The whole price actually paid (CFS);
- Taxes → according to the accrual principle (IS) vs. date of payment (usually, partly before the year of accrual, partly after it).

Cash Flows Management: an example from my experience at INT (4/7)

- Daily monitoring of the cash position;
- Cash flow budget, according the regional scheme;
- CASH REVENUES:
 - Grants from Region: according to the Region's guidelines;
 - Revenues from the healthcare activities: according to the planned deposits from the healthcare agency and according to the budget for the paying patients' revenues; the budget can be reviewed in case of relevant gaps emerging from the periodic reports (it must be taken into consideration that usually the insurances pay with a delay of 3-4 months);
 - Research revenues: Grants according to the Scientific Direction's forecasts (Grants are paid at specific deadlines); Clinical Trials according to the work in progress;
 - Grants for investments: according to the budget and the work in progress (The support of the Technical Department and of the Clinical Engineering is crucial);
 - Revenues from donations and legacies: hard to predict, the forecast is made according to historical trends (it's important that the office in charge of this subject gives quick information about the new donations or legacies to the Financial Department).

Cash Flows Management: an example from my experience at INT (5/7)

CASH OUTFLOWS:

- Salaries and labor costs: according to the forecasts of the HR Department (some voices, like bonuses vary during the year);
- Purchasing of goods and services: according to the initial forecasting and the actual trend (often the services are paid at a scheduled data according to the contract);
- VAT Payments: following the purchasing of goods and services and according to the law (Split payment and deposits);
- Purchases for research project: according to the forecast of the Scientific Direction and of the investigators;
- Investment Expenditures: according to the work in progress (information from the Technical Department) or to the contractual maturities (for the health technologies).

Cash Flows Management (6/7)

CASH FLOWS	JANUARY		
	CURRENT YEAR COMPETENCE	PREVIOUS YEARS COMPETENCE	TOTAL
CASH POSITION 01/01/20XX			35.654.029
CURRENT INCOMES			
<i>By Region</i>			
GRANT BY REGION	2.618.000	0	2.618.000
<i>By Health Agency</i>			
-Deposit for health services (Inpatients, Outpatients, File F)	11.125.768		11.125.768
<i>By other regional agencies</i>			
- By ATS/ASST/IRCCS	915	62.938	63.853
<i>By other entities</i>			
by healthcare firms from other regions		46.018	46.018
by Ministry of Health for research			0
<i>by other revenues</i>			
Other revenues	4.169.455	1.226.899	5.396.354
INVESTMENT GRANTS			
- investment grants by Region			0
- investment grants by Ministry of Health			0
- investment grants by European Union			0
Other investment grants:			
by asset sales			0
- Other investment grants	158.276		158.276
OTHER INCOMES			
- by decrease in provisions			0
- by mortgages			0
- by securities sale			0
EXTRAORDINARY INCOMES			
- Extraordinary incomes			0
TOTAL INCOMES	18.072.414	1.335.855	19.408.269

Cash Flows Management (7/7)

CASH FLOWS	JANUARY		
	CURRENT YEAR COMPETENCE	PREVIOUS YEARS COMPETENCE	TOTAL
CURRENT OUTFLOWS			
Employee salaries	3.572.664	107.862	3.680.526
Professionals salaries	453.927		453.927
Payroll taxes	10.415	6.924.608	6.935.023
Purchasing payments	145.625	7.518.979	7.664.604
VAT payments		356.665	356.665
Intercompany payments		50	50
Health services from private hospitals	160.991	168.806	329.797
Research	23.460	854.398	877.858
INVESTMENT OUTFLOWS			
Mortgages			0
Investment payments	1.027	223.163	224.190
OTHER OUTFLOWS			
Extraordinary outflows			0
TOTAL OUTFLOWS	4.368.109	16.154.531	20.522.640
CASH FLOW NEEDS	13.704.305	-14.818.676	-1.114.371
FINAL CASH POSITION	13.704.305	-14.818.676	34.539.658

Tax Management (1/2)

Direct Taxes:

- IRES (Income tax):
 - ordinary rate: 24% → reduced to 12% for hospitals;
- IRAP (Regional business tax):
 - Named «regional» but State decision;
 - Rate: 8,5% of HR costs.

Indirect Taxes:

- IMU (Property tax):
 - Not due for the properties dedicated to the hospital activities;
- TARI (Waste tax);

Tax Management (2/2)

- IVA (Value Added Tax):
 - Only for commercial activities; eg.:
 - Canteen for employees;
 - Clinical trial;
 - Single rooms and services connected;
 - Parking and other services;
 - Ordinary activities of the hospitals are VAT exempt → it means that VAT on purchased goods and services is a non deductible cost;

Issues:

- Precision to avoid fines (but very often the activity is run by external professional studios);
- Timing of cash flows (the system is based on deposits and balances).

Financial statements and semi-annual reports (1/8)

The financial statements have two main goals:

1. Fulfill legal obligations;
2. Convey the business activities and the financial performance of a company.

Main documents:

- Balance Sheet;
- Income Statement;
- Cash Flow Statement;
- Explanatory Note;
- Management Report.

Financial statements and semi-annual reports (2/8)

Balance Sheet: provides an overview of assets, liabilities, and stockholders' equity as a snapshot in time;

Assets: the tangible and intangible resources of the firm

- Properties
- Health technologies
- Bed and other furniture
- Patents
- Shareholdings
- Credits
- Inventory
- Cash and cash equivalents
- Etc.

Liabilities (and equity): how assets are funded

- Grants
- Donations
- Provisions for risks
- Retained earnings
- Mortgages
- Debts
- Etc.

Financial statements and semi-annual reports (3/8)

Income statement (Also known as the profit and loss statement or the statement of revenue and expense): show a company's revenues and expenses (and taxes, depreciation and amortization, ...) during a particular period.

Once expenses are subtracted from revenues, the statement produces a company's profit figure (net income).

Cash flow statement (CFS): measures if a company generates or burns cash during a particular period;

Financial statements and semi-annual reports (4/8)

Explanatory notes: has the goal to integrate the income statement and balance sheet information:

- Evaluation criteria of balance sheet items;
- Movements in equity items;
- Details about some voices;

Management Report: additional information aimed to give a global vision of the firm, the situation of the society and the management trend, even in a perspective view (how the net income was generated, SWOT analysis, the situation of the associated companies, relevant facts happened after the end of the financial year, etc.).

Financial statements and semi-annual reports (5/8)

A little more on the income statement...

Types of revenue:

- Operating revenues are the revenues earned by the core activities of the firm;
- Non-operating revenues are the incomes earned from non-core business activities, eg.:
 - Interest earned on cash in the bank (not for public hospitals in Italy);
 - Rental income from a property;
 - Income from strategic partnerships like royalty payment receipts;
 - Income from an advertisement display located on the company's property.
- Other (extraordinary) incomes are the revenues earned from other activities (eg. gains from the sale of long-term assets).

Financial statements and semi-annual reports (6/8)

Types of expenses:

- Operating expenses are incurred during the process of earning revenue from the core activity of the firm;
- Expenses that are linked to non operating activities;
- Other (extraordinary) expenses include interest paid on loans or debt. Losses from the sale of an asset are also recorded as expenses.

The main purpose of the income statement is to convey details of profitability and the financial results of business activities. Usually, it compares data from multiple periods and is useful to study if the trend is positive or not.

However...

- It is important to understand not only if the net income is positive or not, but from which area it originated (operating or not operating revenues);
- Financial ratios

Financial statements and semi-annual reports (7/8)

Financial Ratios, a possible classification:

- Liquidity → cash
- Solvency → debt;
- Efficiency → assets;
- Market → competitors;
- Profitability → profits.

The income statement doesn't tell how the net income was generated

→ for management purposes the income statement data must be integrated with cost accounting data.

Financial statements and semi-annual reports (8/8)

Infra-annual income statement:

- Quarterly for listed companies and for public hospitals;
- Useful (other than for stakeholders) for correcting management and, to negotiate new objectives with the parent company or the region;
- As for the annual income statement, data from the infra-annual statement must be read together with the cost accounting data to be useful for changing the management.

Financial Issues in research and project management

- With some exceptions (eg. grant for the ordinary research activity from the Ministry of health and non-finalized donations) the research grant must be spent and reported back in a quite precise way (it's possible that if something is not correctly spent, part of the money has to be returned);
- The goal is to spend the whole amount granted, the opposite of the ordinary activity (save money for larger profit);
- The most of the projects are plurennial, and for this reason the accrual principle must be considered in a different way;
- Some research hospitals can handle dozens of projects in the same period.



Need for specific accounting instruments that:

- Track every single project and keep it distinct by the others;
- Oblige to spend the resources according to the budget approved;
- Help to respect the accrual principle in recording the resources collected and spent.

PLANNING AND CONTROLLING

Budget and Forecasting (1/4)

Planning sets the goals for the organization and **controlling** ensures their accomplishment.

Budgeting is the financial part of planning: a budget is an estimation of revenue and expenses over a specified future period of time and is usually compiled and re-evaluated on a periodic basis.

The process: assumptions on revenues and cost trends (firm specific) and on the overall outlook of the industry

The docs: the master budget also includes budgeted financial statements, forecasts of cash inflows and outflows, and an overall financing plan

(for the Italian public hospitals is mandatory to prepare a budget that takes the form of a financial statement and includes income statement, explanatory notes and management report).

Budget and Forecasting (2/4)

Budgeting in the healthcare industry

- Not changeable data:
 - Most of the revenues for the healthcare services are set by the Region;
 - For the public hospitals the Region set also the cost objectives;
 - Production capacity:
 - Existing contracts (eg. Maintenance of health technologies, leasings and rentals, etc.);
 - Permanent Staff;
- Top-Down:
 - Objectives set by the top management;

Budget and Forecasting (3/4)

- Bottom-Up:
 - Forecast on the variable revenues by the director of the different departments (both clinical and administrative);
 - Needs for goods or services from the different operating units;
 - Need for durable goods and technology;
- Technical support:
 - Filter on requests (both for consumable and durable goods);
 - How to finance the investments;
 - How to reduce expenses;
 - Correct mistakes.

Budget and Forecasting (4/4)

- Budget must be re-evaluated on a periodic basis; an useful tool for this activity is forecasting, that is the process that compares the budget prevision with the actual results and try to modify the prevision itself; forecasting is very useful also in reporting and gap analysis;
- To effectively support the top management in the budgeting process, the finance department must know the budgeting tools in a proficient way ...

but also:

- Know industry rules (what Region and Health agencies expect from the different hospitals and how they control them);
- Know what is behind the names that identifies revenues and cost;
- Build solid relationships both with the administrative and the medical managers (solutions must be found together);



Act like a business partner, not only as a finance manager

Reporting and gap analysis (1/3)

- Management reporting systems capture the sorts of data needed by a company's managers to run the business.
- Gap analysis involves the comparison of actual performance with potential or desired performance.
- To be effective for running the business, the data collected must cover not only the data presented in the financial statement, but also the data from the core business of the firm (not financial).

Some examples:

- Inpatient: DRG's number and value per operative unit in comparison with the previous year;
- Drill Down: details per operative unit and operating room statistics (number and durations of the surgical interventions);

Reporting and gap analysis (2/3)

- Outpatient: same structure of the DRG;
- Drill Down: details per operative unit;
- Consumables: number and value per operative unit in comparison with the previous year, divided for medicines, devices, other sanitary materials and other goods;
- Drill Down: details of medicines and devices per operative unit;
- Paying patients: revenues, costs of the human resources involved in the activities and margin per kind of activity
- Drill Down: details of every activity, even until the single invoice.
- It's important that every set of data is send to the top management along with a brief report that tries to explain the reasons of the trend and some suggestion about how they could act to modify it.

Reporting and gap analysis (3/3)

EXAMPLE: INPATIENTS' STATISTICS

Patients from Operative Unit	2017						2018						DELTA	
	Region of Lombardy		Other Regions		Total		Region of Lombardy		Other Regions		Total		Total	
	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues
Breast Surgery	983	2.847.822	284	935.390	1.267	3.783.212	891	2.661.149	263	867.668	1.154	3.528.817	-8,9%	-6,7%

1ST DRILL DOWN: ORDINARY AND DH

Patients from Operative Unit	2017						2018						DELTA	
	Region of Lombardy		Other Regions		Total		Region of Lombardy		Other Regions		Total		Total	
	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues	Number	Revenues
Ordinary Hospitalization	802	2.635.435	256	901.766	1.058	3.537.200	734	2.489.031	233	834.246	967	3.323.277	-8,6%	-6,0%
Day Surgery	181	212.387	28	33.624	209	246.011	157	172.118	30	33.422	187	205.540	-10,5%	-16,5%

2ND DRILL DOWN: SURGERY AND MEDICAL

Ordinary Hospitalization Operative Unit	2017		2018		DELTA	
	Total		Total		Total	
	Number	Revenues	Number	Revenues	Number	Revenues
Medical Treatment	9	7.921	10	8.390	11,1%	5,9%
Surgery	1.049	3.529.279	957	3.314.887	-8,8%	-6,1%

3RD DRILL DOWN: OPERATING ROOM STATISTICS

Surgical Procedures Operative Unit	2017		2018		DELTA	
	Number	Duration	Number	Duration	Number	Duration
		1.067	1.098	954	1.016	-10,6%

Management By Objectives (MBO) (1/3)

- A good reporting and control system can provide the top management a valid tool for the managerial decisions, but it doesn't aim to change people's behaviors. Instead, that is the aim of the system called "Management by Objectives" (MBO).
- MBO is a strategic management model that aims to improve the performance of an organization by clearly defining objectives that are agreed to by both management and employees. According to the theory, having a say in goal setting and action plans encourages participation and commitment among employees, as well as aligning objectives across the organization.
- In the healthcare industry the objectives are negotiated with the operative unit directors that are mostly doctors.



It's very important to focus not only on the economic targets, but also on the professional growth of the staff, on the aim for quality, on the research projects, etc. (the four dimension of the Balanced Scorecard by Kaplan & Norton can be a useful benchmark – Financial, Customer, Internal Business Processes and Learning and Growth).

Management By Objectives (MBO) (2/3)

- The process must be fair and clearly defined (in the public sector it is mandatory to write a specific proceedings) both in the negotiation and in the evaluations step;
- Mix top-down and bottom-up objectives: it's important that the manager feels involved in the project but also that the firm objectives are clearly expressed;
- The objectives must be SMART (Peter Drucker): specific, measurable, acceptable, realistic, time-bound;
- It's very important to set up a constant monitoring of the objectives during the year (specific system of reporting) and that is guaranteed the possibility to renegotiate them;
- The role of financial department is essential, not only to prepare the necessary documents, statistics, etc., but also to build a continuous dialogue with the operating unit's director, which is necessary for the effectiveness of the process.

Management by Objectives (MBO): an example from my experience at INT (3/3)

- Multidisciplinary Team to prepare the first version of the objectives (Medical Direction, Administrative Department, Planning and Control, HR Direction, Quality and training Office, Paramedic Bureau);
- Revision of the first version by the Strategic Direction → the objectives are shared with the directors of the different operating units that have a couple of weeks to submit any observations or different proposals;
- Meeting for the final negotiating and signing of the objectives;
- Monthly reports on the economic targets;
- Half-yearly monitoring and possible revision of the objectives;
- Final evaluation:
 - Technical Assessment and collecting of the eventual observations by the operating units' directors;
 - Final Assessment by the Evaluation Committee (external entity) to guarantee the fairness of the process.

Differences between public and private companies: some hints (1/2)

- Cash Flow management is a critical issue in the private sector not in the public:
 - Region and health agencies constantly monitor the cash holdings of the public hospitals and cover the gaps, if any;
 - According to the law, Public Hospitals can't earn interests on the current account, while private ones do;
- Firm Financing is a critical issue in the private sector, not in the public;
- The public hospitals benefit of subsidies for ordinary activities while the private ones are payed only for the services that provides (in the first case, the State pays a cost, in the second a price) ;
- Specific accounting principles for the public sector;

Differences between public and private companies: some hints (2/2)

- The private sector usually organized the companies in a more specialized way, while in the public sector the functions are a little more mixed up (eg. The P&C function is often divided between the Medical Direction, the Control Department and the Financial Department);
- The private sector usually set the goals in a clearer way and monitor them more precisely during the year than the public;
- Recruitment of strategic professionals is subjected to time-consuming rules and proceedings in the public sector, not in the private one;
- Salaries and bonuses in the public sector are established by strict rules and contract and are in large part linked to the length of service, while the companies in the private sector are almost completely free to negotiate with the professionals;
- The due respect of the law in the public sector affects the quickness and the efficiency of the purchasing of goods and services.

The future challenges/possible evolutions of the function

The Financial department has two soul:

1. Legal;
2. Strategic.

To develop the second one, is vital that it acts more and more like a business partner:

- Go deeper into the business processes (especially for the public sector):
 - Operations management to optimize the use of the capital resources;
 - Human resources management to optimize the use of the labour resources.



Thanks for your attention