Course OGE | IOGE
Organizational Design and Management

Management Control

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The contents presented here has been collected from different sources (Books: Organizational theory, design and change (Gareth R.Jones); Modern Management (Certo); Managment and Organizations (Robbins Coultler) and lectures notes from several origins). Several additions, modifications and updates have been made by Américo Azevedo (ala@fe.up.pt) *in order to support the learning process defined in the context of OGE program .*

After studying this class, you should be able to:

1. Explain the role/relevance of a management control system
2. Describe and explain the basic framework for management control systems
3. Describe two control management systems: budget and BSC

Remembering the Four Activities of Management

Planning	Organizing	Leading	Controlling
Setting goals, establishing strategies, and developing plans to coordinate activities	Determining what needs to be done, how it will be done, and who is to do it	Motivating, leading, and any other actions involved in dealing with people	Monitoring activities to ensure that they are accomplished as planned

Lead to

Achieving the organization's stated purposes

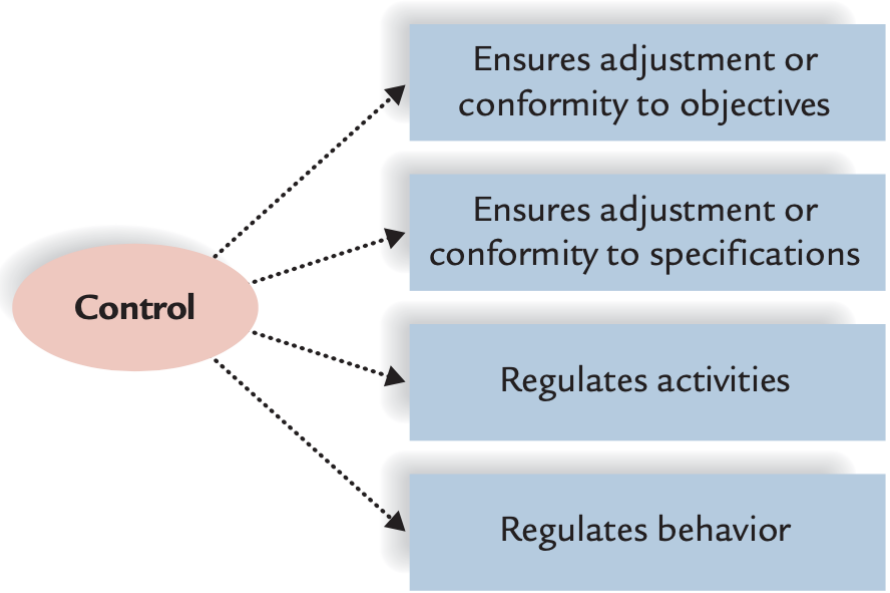
Why do organizations require control? (1/2)

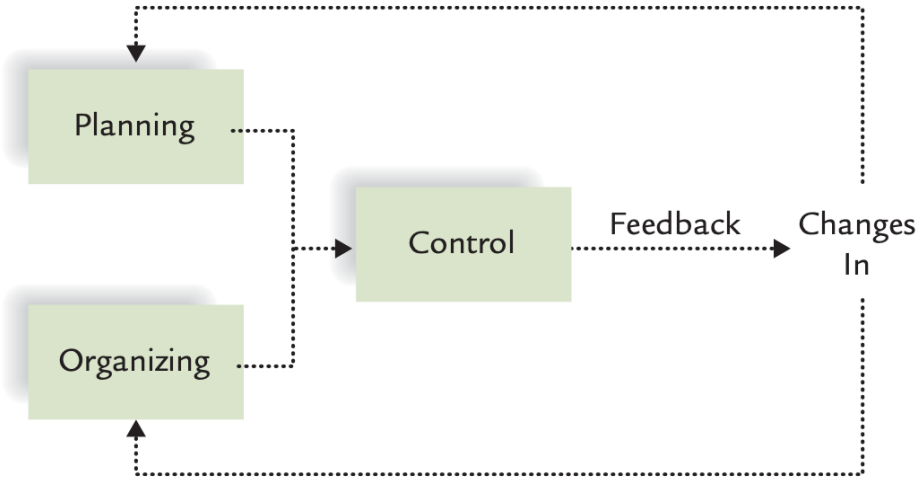
- Organisations require control because
  - they consist of people with different interests, tasks, and perspectives.
  - The efforts of people require coordination and direction, and this, in turn, creates the need for control.
  - The larger the number of people in an organisation, the greater the need for some organisational control mechanism.
  - In relatively small entrepreneurial organizations, "control" is experienced by the entrepreneur, who can see what is happening on a day-to-day basis and make personal interventions.

Why do organizations require control? (2/2)

- Organisations require control
  - to ensure that resources are used effectively and efficiently in the accomplishment of the organisation's objectives
  - To contribute to the effectiveness of the implementation of strategies and task control

The Control Process is closely aligned with the planning process





Management Control Process has four main elements

1. **Establish Standards**

   Quantitative and qualitative targets are set (e.g. profit margins, productivity, quality). These standards must be measurable, realistic and aligned with the organisation's strategy.

2. **Measuring** performance

   The manager determines what and how to measure (this may involve collecting data, conducting surveys, or using other methods to gather information about how well the organization is performing)

3. **Comparing** performance to **standards** and analyze deviations

   This helps to identify any areas where performance is falling short of expectations; analyze deviations:this may involve gathering additional information, conducting root cause analysis, or using other methods to identify the underlying reasons for the performance issues

4. **Taking corrective action**

   Activity aimed at bringing organizational performance up to the level of performance standards

Previously it is necessary to identify the areas the be controlled, based on a clear understanding of the tasks that are being performed.

Scope of Control in the organization

- Just as there are strategic, tactical and operational plans, there are strategic, tactical and operational controls:
- Strategic control
  - are intended the measure how well the organization as a whole is meeting its objectives
  - strategic controls are most likely to be helpful in stable environments when measures are relatively easy to specify
- Tactical Control
  - controls relate to specific, functional areas within the organization.
  - financial and budgetary controls
  - human Resource Controls
  - operational Control

Amount of Control

- Effective control involves balancing over-with under-control
  - New managers tend to apply more control than is necessary resulting in resentment and resistance
  - More experienced managers can determine the minimum amount of control that will get the job done without introducing too great an element of risk.

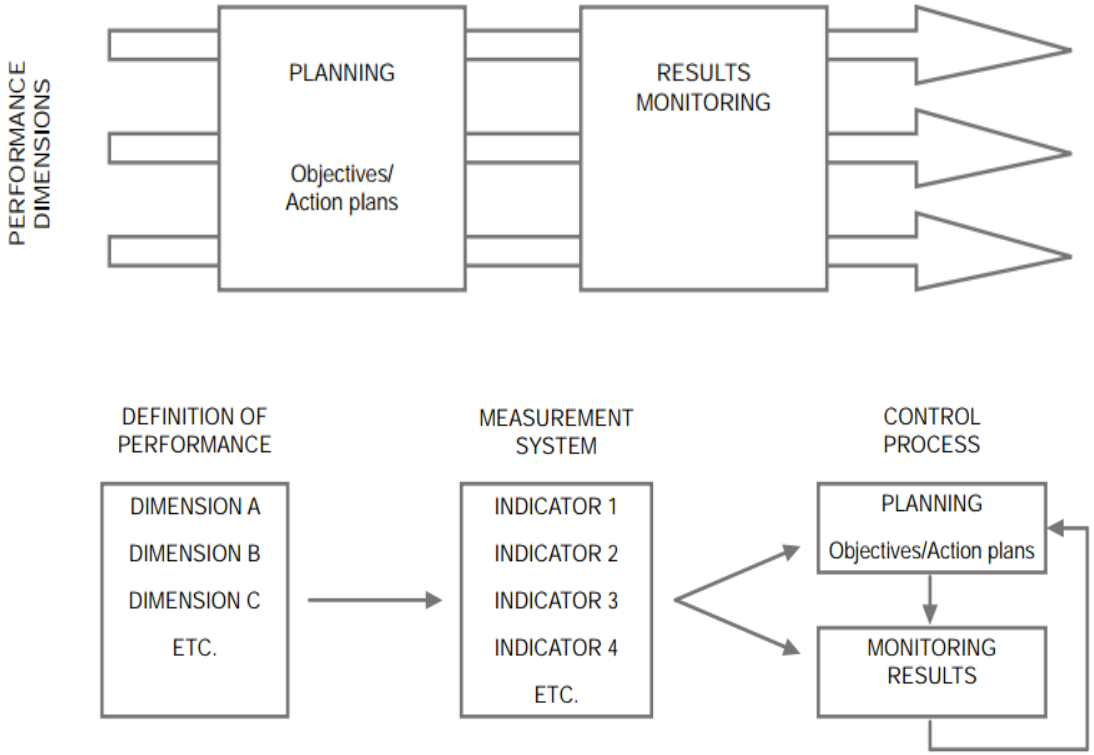
- In multinational organizations this question is even more difficult because what is considered over-control in one culture is not viewed that way in another.

- Control can, within limits, be adjusted.

tools and mechanisms are employed in practice to achieve effective control management

- **Budgetary Control:** Companies use it to monitor financial performance against these budgets, adjusting strategies and operations as necessary to align with financial goals
- **Statistical Analysis:** can help companies understand market trends, customer behavior, and operational efficiency, aiding in making data-driven decisions
- **Performance Metrics and Key Performance Indicators (KPIs):** Common KPIs include sales revenue, customer satisfaction scores, and production costs. These metrics are tracked regularly to ensure targets are met
- **Quality Control Systems:** Methods include regular inspections, testing, and feedback loops.
- **Internal Audits:** help organizations accomplish their objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.
- **Benchmarking:** Insights gained from benchmarking can lead to performance improvements and optimization of operations.
- **Balanced Scorecard:** t improves internal and external communications and monitors organizational performance against strategic goals.

Performance dimensions



Source: 2011 Pearson Education France – Fundamentals of Management Control

What you Measure is What you Focus on

- Finantial Control
- Sales Control
- Control of Quality
- Inventory
- Control of Cycle Time
- Control of Productivity
- Labor
- ...

Efficiency and effectiveness performance measures

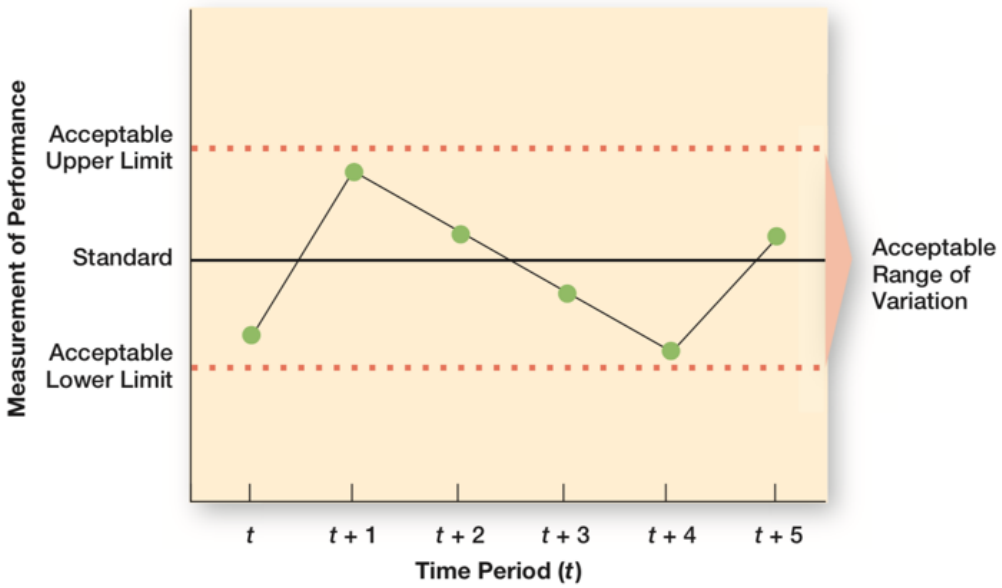
- **Efficiency** is a measure of the inputs required for each unit of output.
- **Effectiveness** is a measure of how well an activity contributes to achieving organisational goals.

Financial Performance Measures (examples)

- Profit Ratios
  - measure how efficiently managers are using the organization's resources to generate profits
- Operating margin
  - calculated by dividing a companies operating profit by sales revenue
  - Provides managers with information about how efficiently an organization is utilizing its resources
- Return on Investment (ROI)
  - most commonly used financial performance measure
  - organization's net income before taxes divided by its total assets

Nonfinancial Performance Measures (examples)

- Control of Quality
  - prevention
  - appraisal
  - internal failure
  - external failure



- Control of Productivity
  - Labour cost as a % of sales
  - Sales per employee
  - Machinery & equipment investments per employee
  - Total labour cost per hour
- Control of Cycle Time
- ....

Example

			Actual						Plan	Var	YTD	YTD	YTD
		1990	Jan	Feb	Mar	Apr	May	June	June	June	Actual	Plan	Var
PRODUCTIVITY													
EAF/LAR[1]:	Tons	587,535	58,080	46,624	55,532	57,281	46,706	56,188	58,832	(3,302)	320,359	347,564	(34,007)
	Tap to tap hrs	12,164	1,152	982	1,133	1,149	956	1,143	1,102	(53)	6,517	6,617	100
	Tons/hr	38.64	40.30	37.97	39.19	39.86	37.44	39.32	42.75	(4.29)	39.32	42.02	(3.37)
	Heats/wk		79.20	70.40	75.20	78.40	61.60	77.60	81.60	(5)	73.60	80.00	(8)
	HIT rate												
CASTER:	Tons	572,704	56,901	44,655	54,201	56,246	45,751	55,272	57,361	(2,611)	313,030	338,876	(32,310)
	Hours	6,346.40	563.20	512.00	563.20	550.40	556.80	550.40	550.40	0	3,296.00	3,308.80	12.80
	Tons/hr	72.19	80.82	53.78	76.99	81.75	65.74	80.34	83.38	(3.80)	75.98	81.94	(7.44)
LABOR													
EAF/LAR:	Man hours	107,307	9,837	8,929	10,236	9,806	9,806	10,000	9,514	(608)	58,632	55,629	(3,753)
	Prod tons/manhr	4.38	4.72	4.17	4.34	4.03	3.81	4.66	4.94	(0.56)	4.37	5.00	(0.78)
CASTER:	Man hours	78,110	6,683	6,089	6,724	4,964	6,938	6,724	6,567	(196)	39,724	39,616	(136)
	Prod tons/manhr	6.01	6.81	5.86	6.45	6.86	5.27	6.58	6.98	(0.51)	6.30	6.84	(0.87)

Caso Prático - Desvios no Orçamento

A empresa AutoParts S.A. identifica desvios mensais nos custos de materiais, superiores a 10% face ao orçamentado.

- Quais poderão ser as causas destes desvios?
- Que medidas podem ser tomadas?
- Como o sistema de controlo de gestão pode ajudar?

Caso Prático - Desvios no Orçamento

Quais poderão ser as causas destes desvios?

Possíveis causas:

- **Avarias na máquina principal** → compras urgentes de material a fornecedores mais caros.
- **Erros no planeamento de necessidades** → encomendas fora de tempo, em quantidades inadequadas.
- **Desperdício ou perdas de material** na produção não detetadas ou mal contabilizadas.
- **Variação do preço dos materiais** no mercado que não foi refletida nos orçamentos.
- **Erros no processo de registo ou classificação** contabilística dos custos.

Que medidas podem ser tomadas?

Ações corretivas e preventivas:

- Rever o processo de **orçamentação**: usar dados históricos e ajustar aos preços reais de mercado.
- Melhorar o **controlo de stocks e consumos** na linha de produção (ex: com sistemas MES ou registos manuais mais fiáveis).
- Analisar **desvios sistemáticos** e implementar ações corretivas com os responsáveis operacionais.
- Introduzir **indicadores de eficiência de material** por tipo de produto ou linha.
- Avaliar **fornecedores alternativos** ou renegociar preços.

Como o sistema de controlo de gestão pode ajudar?

Contributo do controlo de gestão:

- Permite **detetar os desvios** através de relatórios mensais e dashboards.
- **Quantifica a gravidade** dos desvios e permite priorizar ações.
- **Liga a performance operacional à estratégia**, mostrando que o controlo de custos impacta a rentabilidade.
- Ajuda a **atribuir responsabilidades** e a envolver os gestores de produção e compras.
- Suporta uma abordagem de melhoria contínua, com **ciclos PDCA** baseados em dados.

Tools of Control: Managing and Reporting Variance

Regular Reporting

- Frequency and distribution of reports should be part of the control framework of the organisation
- Significant the balancing: danger in too much information and reporting, equal problem with too little

Regular Managerial Review

- Calls for an active review and decision
- Regular review during management/executive committee meetings

Example of a Performance Report

	Budget	Actual	Variance	Explanation
Direct labour	€ 2,107	€ 2,480	€ 373 over	Overtime work
Supplies	€ 3,826	€ 4,200	€ 374 over	Wasted material
Repairs	€ 402	€ 150	€ 252 under	
Overhead	€ 500	€ 500	€ 0	
Total	€6,835	€7,330	€495 over	

Management Control Systems (I)

- Budgeting as a control tool
  - provides an action plan for the organization to ensure least deviations
- Budgets are business plans that are stated in quantitative terms and are usually based on estimations.
  - These plans aid an organization in the successful execution of strategies.
  - There may be significant deviations between the actuals and the plans (due to the uncertainties in the business environment and / or due to wrong estimation)

Management Control Systems: Budget as a control tool

- They are useful in **resource allocation** whereby resources are allocated in such a way that the processes which are expected to give the highest returns are given priority.
- Budgets are also used as **forecast tools** and make the organization better prepared to adapt to changes in the environment
- Budget preparation requires the participation of managers from different functions / departments.
  - This helps in integrating the tactical and operational strategies of the departments with the corporate strategy of the organization.
- Budgets act as a means to verify the progress of the various activities undertaken to achieve the planned objectives.

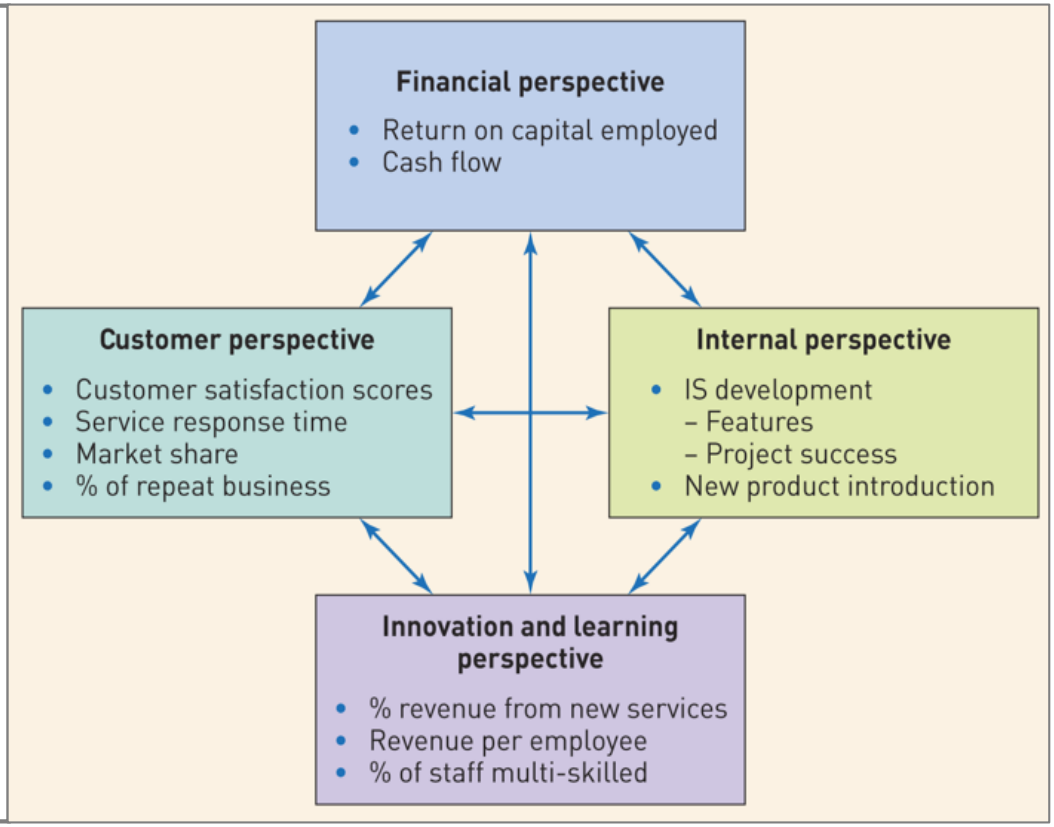
Steps in Budget Formulation

Creating a budget department or appointing a budget controller

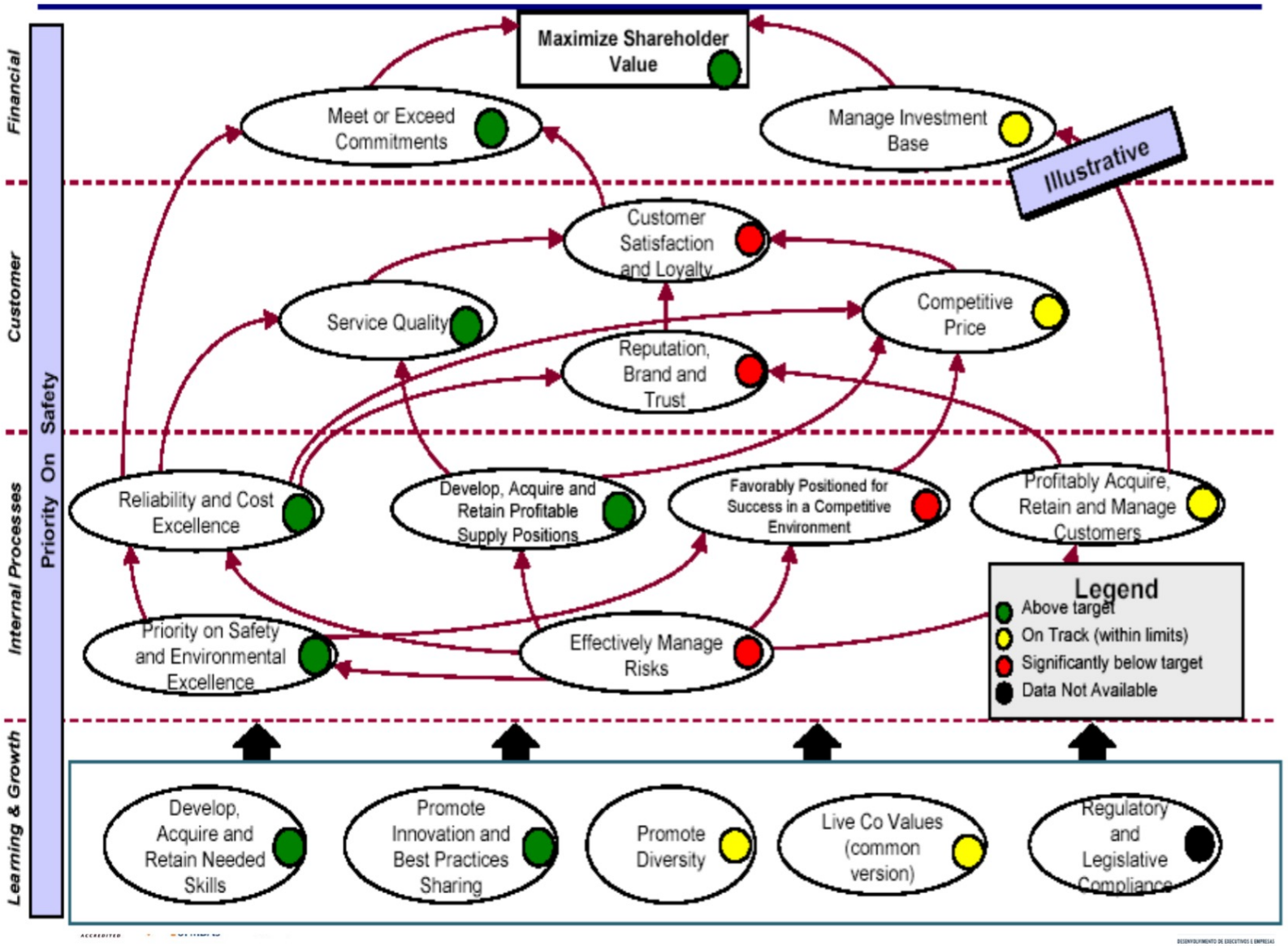
- Developing guidelines for budget preparation
- Developing budget proposals at department/business unit level
- Developing the budget for the entire organization
- Determining the budget period and key budgets factors
- Budget review and approval
- Monitoring progress and revising the budgets

Management Control Systems (II)

- Balanced Scorecard (BSC)
- Links organizational strategy (strategy map) to actions of managers and employees
- Combines financial and non-financial measures



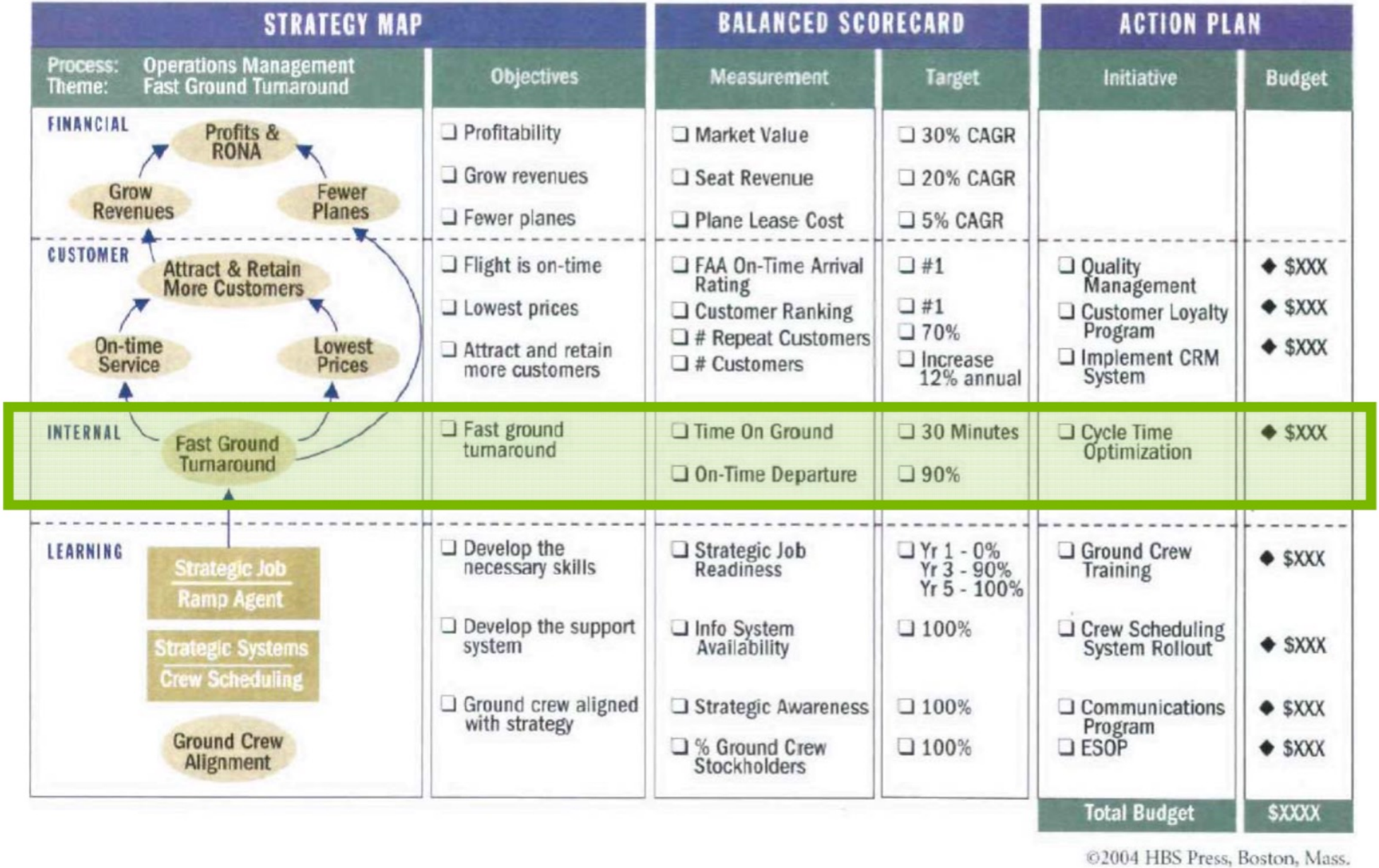
Exemple of a strategic map (BSC)



Example

	Objective	Measurement	Target
Financial	• Increase profit • Grow revenue	• Time aircraft in air • Fuel bill	X% £Y
Customer Attract and retain customers	• Increase on-time flights • Reduce time on-ground	• Ranking • Repeat custom	1st 100%
Internal Fast ground turnaround	• Reduce refuelling time • Reduce baggage loading time	• On-time arrival • On-time departure • Loading time • Fuelling time	100% 100% X min Y min
Learning Strategic job families e.g., ramp agent	• Upskill people • Create IT support system	• Staff availability • Delays due to human error • Data errors	100% 0 0

Example



- Do you think it is possible for an international firm to have a common control system even for a single activity, such as manufacturing, when it has plants in countries such as India, Australia, Japan, the United States, and Germany?

Controls And Cultural Differences

- Methods of controlling employee behavior and operations can be quite different in different countries.
- Distance creates a tendency for formalized controls in the form of extensive, formal reports.
- In less technologically advanced countries, direct supervision and highly centralized decision making are the basic means of control.
- Local laws constraint the corrective actions that managers can take foreign countries.

Digitalização e Controlo de Gestão

- Impacto da Indústria 4.0 no Controlo de Gestão
  - IoT permite recolha automática de dados de produção
  - ERP e MES integram dados financeiros e operacionais
  - Monitorização em tempo real permite atuação imediata
  - Dashboards analíticos e inteligência artificial apoiam a decisão

- O controlo torna-se mais ágil, preditivo e menos burocrático.

Controlo vs Confiança

- Qual o equilíbrio certo?
- Sistemas formais de controlo garantem alinhamento, mas podem inibir a criatividade e a autonomia.
- Tópicos para reflexão:
  - Ambientes inovadores requerem maior confiança?
  - O controlo pode ser "invisível" mas eficaz?
  - Quando o controlo é percebido como vigilância?

- O controlo de gestão não é apenas um conjunto de métricas e processos — é também uma questão de cultura e de liderança. A confiança é um ativo intangível que não substitui o controlo, mas o torna mais eficaz quando bem equilibrado