# THE UTILITY OF PROCESS AND COMPETENCY MANAGEMENT IN THE DEVELOPMENT OF A BALANCED SCORECARD: THE EXPERIENCE OF THE PORT AUTHORITY OF VALENCIA-VALENCIAPORT

# UTILIDAD DE LA GESTIÓN POR PROCESOS Y POR COMPETENCIAS PARA EL DESARROLLO DEL CUADRO DE MANDO INTEGRAL: LA EXPERIENCIA DE LA AUTORIDAD PORTUARIA DE VALENCIA-VALENCIAPORT

Arturo Giner Fillol Director Económico-Financiero de la Autoridad Portuaria de Valencia (España). E-mail: aginer@valenciaport.com

#### Yoaima Dickinson

Profesora del Departamento de Contabilidad y Finanzas de la Universidad de Matanzas y Especialista de la gestión economica en la empresa provincial de Campismo. (Cuba). E-mail: <u>y.dickinson@gmail.com</u>

#### Vicente M. Ripoll Feliu

Director de IMACCev – Equipo Valenciano de Investigación em Gestión Estratégica de Costes. Dapartamento de Contabilidad. Facultad de Economía. Universidad de Valencia (España) E-mail: vicente.ripoll@uv.es

Recebido: 05/02/2010 Aprovado: 18/03/2010 Publicado: 13/05/2010

#### ABSTRACT

The aim of this article is to carry out an analysis of the accounting tools implemented in the Port Authority of Valencia and so, determine whether improvements in management can be achieved if the level of efficiency is established with attainable targets as a consequence of opportune and reliable information in Management Accounting. In this article we analyse how the use of a Balanced Scorecard has helped Port Authorities from the Spanish State Port System to implement their strategic Plan. The Port Authorities have become reliant on the Competency Management model as an instrument for strategic planning of human resources and also in the progressive use of Process Management, which aims to meet the objectives established in the Strategic Plan. On this premise, we set out how the above-mentioned Port Authority can fulfil specific strategic and operational objectives regarding the efficiency and effectiveness of the services they provide.

Keywords: Balanced Scorecard; Management Accounting; Competency Management; Process Management.

#### RESUMEN

El trabajo tiene como objeto realizar un análisis de las herramientas de Contabilidad de Gestión implantadas en la Autoridad Portuaria de Valencia, efectuando un análisis en virtud del cual se pueda determinar que si el nivel de eficiencia se establece con objetivos alcanzables, se consiguen mejoras en la gestión, como consecuencia de una oportuna y fiable información de la Contabilidad de Gestión. En el artículo se analiza como con la utilización del Cuadro de Mando Integral las Autoridades Portuarias del Sistema Portuario de Titularidad Estatal español, se han apoyado para la puesta en marcha sus Planes

Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ (online), Rio de Janeiro, v. 15, n. 1, p. 52 - p. 66, jan./abril, 2010. ISSN 1984-3291

Estratégicos. Las Autoridades Portuarias se han venido apoyando en el modelo de Gestión por Competencias como instrumento para la planificación estratégica de los recursos humanos así como en la progresiva implantación de la Gestión por Procesos con objeto de dar cumplimiento a los objetivos previstos en el Plan Estratégico. De esta forma se expone cómo en la Autoridad Portuaria de Valencia, se puede conseguir el cumplimiento de determinados objetivos estratégicos y operativos relacionados con la eficiencia y eficacia en las operaciones de los servicios prestados.

**Palabras Clave**: Contabilidad de Gestión; Cuadro de Mando Integral; Gestión por Competencias; Gestión por Procesos.

#### 1. METHODOLOGY OF THE INVESTIGATION

Initial publications which analysed ports from an economic perspective did not prove relevant until the 1960s. Researchers focused primarily on studies of economic impact, where port services were assessed in terms of the amount of employment created or cost reduction, and its impact on the port community and transport itself (Chang, 1978:294-305). Subsequently, research concentrated on aspects related to the pricing of port facilities, capacity and port investment policies (Goss, 1990a:207-219; Goss, 1990b:221-234).

This study puts forward a case in which an interpretative methodology was used and shows how Spanish Port Authorities have managed to successfully implement their Strategic Plan by using a Balanced Scorecard (BSC) and how the use of Process Management and Competency Management tools have supported the BSC implementation process and helped to set the Strategic Plan in motion. The study shows how, if the information used in the management of a Strategic Plan and of different costing objectives is opportune and reliable, improvements in decision-making can be achieved.

The article's aim is to carry out an analysis of the accounting tools implemented in specific Port Authorities. By virtue of undertaking such an analysis, we can determine whether improvements in management can be achieved if the level of efficiency is established with attainable targets as a consequence of opportune and reliable information in Management Accounting.

Having analysed and debugged the system for assigning costs and achieved an excellent information system, something which is reflected in the Integrated Information Systems and Business Intelligence tools used by the Port Authority (AP), high quality information has been provided to the management team so that they can make decisions which are in-line with the organisation's plans and strategies (Giner, 2009:18).

This research study was the result of an agreement between the University of Valencia and the Port Authority of Valencia via projects promoted by the University Business Foundation of Valencia and the Department for Transfer of Research Results (OTRI), which were as follows:

- 1. A study and assessment of designing a costing system which allows simulation of future production by employing the view of maximising company profits and improving the management and organisation of the Port Authority of Valencia (APV).
- 2. A study centred on developing reccomendations for improving the costing system at the APV.

These projects consisted of a collaboration between researchers from the Accounting Department at the University of Valencia along with staff from the Economic-Financial Department at the Port Authority of Valencia. These research projects began in 2004 and finished in 2008.

It was decided that the Management Accounting assessment would be somewhere between positive research and interpretive research. The study of previous cases is a research method or technique which aims to highlight social interactions through an in-depth analysis of groups, specific individuals or part, or parts, of an organisation, with the main focus being on social sciences. The major advantage of this method is in its capacity to provide an approximation between the theory and the practice (Ayuso and Ripoll, 2005).

This article uses an interpretive method which, in the opinion of the authors, is the most appropriate technique for the holistic outlook required in their analysis.

# 2. THE EFFECTIVENESS AND EFFICIENCY OF PORT OPERATIONS

In recent decades significant advances in technology and a growing liberalisation and globalisation of the world economy has boosted international trade between countries. Faced with this new international scenario, maritime transport of goods is becoming more and more important whilst ports, equipped with improved infrastructure and better intermodal connections with their land routes, are fast-becoming one of the main driving forces for a country's economy (Van Niekerk, 2005).

Inefficient use of the different activities carried out in a port directly affects the goods distribution process. It has an impact upon international trade between countries, which may damage any future development in that port's sphere of influence. That is why it is crucial that ports function efficiently and they improve the effectiveness and efficiency of their port operations to the best of their capabilities (Giner and Ripoll, 2009b).

As pointed out by Amerini (2008), the European ports that have grown by an average of more than 5% over the last ten years, are those ports whose volume of container traffic represented more than 50% of their total volume. In other words, the ports that have grown the most, overall, are those which are specialising in container traffic. Given that this form of traffic is the fastest growing on a European and global scale, it is not surprising that large port expansion projects are geared towards this type of goods traffic, especially with the expectation that container traffic is set to be the lead player in coming years.

In light of this situation, Spain's competitiveness depends, largely, on its transport system and on efficient ports which are strongly integrated in it. These ports should allow for the transfer of large quantities of goods in a rapid, reliable, economic and secure manner (Giner, 2008:18). For this reason, the Spanish State Port System (SPTE) promotes the use of management tools by the Port Authorities in order to improve the decision-making process.

In order to promote the effectiveness and efficiency of port operations, the Public Organisation for State Ports made steps to work together with the Port Authorities on a Strategic Framework, which establishes a strategic development model and performance criteria, as well as general objectives for technical, economic, financial and human resource management for the whole of the port system (AECA, 2006).

A general process for strategic planning was established which enables a general benchmark framework for the SPTE, strategic plans for individuals and its deployment to be defined for every one of the Port Authorities (AECA, 2006). In order to do this, it is necessary to have, among other things, a series of management tools that the Port Authorities use, such as Cost Accounting, Environmental Management, Process Management, a Balanced Scorecard, Competency Management, etc.

#### 3. STRATEGIC FRAMEWORK FOR THE SPANISH STATE PORT SYSTEM (SPTE).

The Spanish State Port System comprises the Public Organisation for State Ports (OPPE) and the Port Authorities (AAPP). The OPPE coordinates and controls 28 Port Authorities which manage 44

significant ports. The Port Authorities are public organisations which manage significant ports and depend on the Central Administration for the State, which falls under the Ministry of Public Works and, in turn, depends on the General Transport Secretary.

The SPTE has established a Strategic Framework which determines the activity and the future development of the Spanish State Port System. It sets out a general performance framework for the SPTE by using a strategic analysis that looks at different perspectives (AECA, 2006). Within this Strategic Framework is the definition of the Port Authorities' mission, which is to defend general interests during the development of port policy as a consequence of carrying out public activities, as indicated in Spanish legislation. The aim of the Port Authorities is to maximise social benefits by optimizing mobility conditions for goods and people, and by economically and socially developing the economic area which serves each Port Authority. Their consistent management shall contribute to the reduction in import costs and make exports more competitive.

The fulfilment of this mission for the Port Authorities becomes a proactive activity by creating infrastructure just as it does in providing efficient and effective Port services

Ports are increasingly becoming centres which can house a whole range of activities that generate added value to goods and are completely integrated in the intermodal and logistic chains (Giner and Ripoll, 2007; Giner and Ripoll, 2009a).

# 4. THE BALANCED SCORECARD AS A SUPPORT TOOL IN THE IMPLEMENTATION OF THE STRATEGIC PLAN

Ports now require an even greater level of management and innovation in order to be able to compete efficiently. By using a Balanced Scorecard (BSC), Port Authorities can support the implementation process for their Strategic Plan, which uses the Strategic Map in order to define Strategic Perspectives, Lines and Objectives (Aparisi, et al., 2009).

The Strategic Plan Perspectives are the key aspects, as they explain the strategy from different points of view and establish a balanced way of ordering the basic structure for creating value. The Port Authorities and the Spanish State Port System has four perspectives which are set out below (Ripoll, et al., 2004):

- I. In accordance with the Port Authorities' mission, and given the social and economic character of their activities, this value perspective has been defined as an Economic Perspective. This means that the ultimate goal for the Port Authorities is the economic development of the State and the Regional Communities (through the achievement of growth objectives), economic self-sufficiency and the optimisation of investments.
- II. Due to the economic character of the ports, one part of the Client Perspective is dedicated to the Port Authority's own clients and the other part to the socio-economic climate that surrounds the Port authority. This second part includes strategic objectives regarding the relationship between the port and the city, and the community in which they are located.
- III. The Internal Processes Perspective indexes the steps in the Port Authority's value chain, which are key in achieving the objectives set out for the Client Perspective and the Economic Perspective. Some examples of the processes involved in a Port Authority's value chain could be: marketing and trade processes, services provided (docking and undocking operations and the dispatch of ships), relationship processes with other agents that make up the port community, quality control processes, security, environment, etc.

IV. The Learning and Growth Perspective contains the basic elements that make the Port Authority function as it does. These elements work on an internal level and give support to processes such as: organisation, people, systems and technology, and on an external scale: Service Providers or External Providers and the Port's own Infrastructure. Furthermore, it contains objectives which are paramount to the development of service providers' activities, which should enhance the Port's competitiveness.

Due to its importance in port business management, the current document sets out the aspects that feature in the Resources and Processes Perspective, in particular, Process Management and Competency Management.

#### 5. PROCESS MANAGEMENT IN THE PORT AUTHORITIES.

In order to fulfil their mission, companies define objectives that allow specific targets to be reached. Due to this, they have to manage their activities and their resources with a view to guiding them towards the vision they have set out. In light of this, it was necessary to employ certain tools and methodologies that allow organisations to configure and optimise their Management Systems, given that they help organisations to establish the methodologies, responsibilities, resources, activities, etc. that are needed for a management method which is aimed at achieving the desired results.

Process Management contributes a new angle to management (by moving beyond the traditional hierarchal organisation, where every individual has a task which is related to its functional department) in order to introduce a new organisation aimed at the final customer. This is achieved through knowledge, control and improvement of the internal processes, with the end result being the service or product offered and the achievement of eliminating those activities that do not contribute any value, yet generate a cost (AECA, 2006).

Process Management maintains that a result is reached more efficiently when activities and resources are managed as one process, a group of interrelated activities which transform an "input" activity (information, materials or a service) into an "output" activity, and contributing an added value.

Nogueira Rivera et al (2004), based on the criteria of different authors, put forward the following definition: "An ordered and logical sequence of repetitive activities which are carried out in an organisation by a person, group or department, with the ability to transform inputs into outputs for a particular destination (from within or outside the company which requested it, as a client of each process) with an added value. Generally, processes repeatedly cross functional boundaries; they force cooperation and create a different company culture (more open, less hierarchal, more focussed on achieving results than maintaining privileges).

Two essential characteristics of these processes are<sup>1</sup>:

- Variability. Each time a process is repeated, there are slight variations in the activities carried out which, at the same time, generate variability in their results. "Two outputs are never the same"
- Recurrence. Processes are created to produce results, and to try and repeat this result over and over again. This allows the process to be worked on and improved. "More repetitions mean more experience".

Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ (online), Rio de Janeiro, v. 15, n. 1, p. 56 - p. 66, jan./abril, 2010. ISSN 1984-3291

<sup>&</sup>lt;sup>1</sup> Available at: <u>http://www.diba.es/flordemaig/documents/pdc/agents/se1/gestion.pdf</u>

Therefore, the aim of process management is to reduce unnecessary variability which originates when specific services are produced or provided, and to try and eliminate the inefficiencies associated to the repetition of actions or activities or the inefficiencies relating to the inappropriate consumption of resources, among other causes<sup>2</sup>.

The processes can be grouped into Key, Strategic and Support. The Key processes are those that directly affect the service provision, the economic results and the satisfaction of the final customer, consuming a high percentage of the organisation's resources. Suitable control of these factors allows the objectives established by the organisation to be met. The Strategic processes are those that provide guidelines and dispatch policies and strategies, and establish limits for the rest of the processes. They in themselves are the organisation's governing processes. The Support processes are those that provide resources and support for the key and strategic processes.

In order to be able to implement Process Management as a management tool in a Port Authority, a series of determining factors must all be in place:

- 1. Commitment by the management to change the organisation's system.
- 2. Definition of the Port Authority's mission, vision and values.
- 3. A project manager appointed by the management.
- 4. Internal plan of communication.
- 5. Active participation by the management team.
- 6. Staff involvement.
- 7. Team work.

Once the Port Authority's mission, vision and values have been defined and communicated, the next necessary step is to carry out a process of identifying the activities that are undertaken at the Port Authority, and whose sequence and classification determine the group of Strategic, Key and Support processes that comprise its organisational map. The following step is the grouping together of the related activities with their results or objectives. The criteria to be used in this task may be as follows (AECA, 2006):

- 1. Group the activities that are related to the definition, control and tracking of policies and plans, and strategies for business, clients, the environment, people, etc.
- 2. Link together the activities that are related to provision processes and service control, public port management, operations control, design and development of infrastructure, etc. In general, this deals with those activities or tasks which are directly associated with the Port Authority's mission and vision.
- 3. Identify those activities which are related to processes of administration, invoicing, payments, financial accounting, HR administration, legal advice, information systems, etc, which offer support to the development of the activities mentioned in points 1 and 2.

Once the grouping of activities has been established, the next step is to link them to a specific process so that the identification of all the processes that a Port authority undertakes can be concluded. An example is shown in Table 1:

<sup>&</sup>lt;sup>2</sup> Available at: http: //www. calidad.umh.es/curso/procesos.htm

Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ (online), Rio de Janeiro, v. 15, n. 1, p. 57 - p. 66, jan./abril, 2010. ISSN 1984-3291

#### Table 1: Process identification

| PROCESSES | Description                               |
|-----------|---|
|           | Strategic planning                        |
|           | Trading Policy and Customers Policy       |
|           | Personnel Policy                          |
|           | Quality Policy                            |
|           | Environmental Policy                      |
|           | Control and rendering of port services    |
|           | Quay Management                           |
|           | Infrastructure Management                 |
|           | Authorisations and concessions management |
|           | Financial Management                      |
| ES        | Administration and Documents Management   |
| SE        | Information Systems                       |
| S         | Maintenance and conservation              |
|           | Personnel Administration                  |
|           | Purchases                                 |
|           | Environmental Management                  |
|           | Quality Management                        |
|           | Legal Counselling                         |
|           | Security and Surveillance                 |

Source: AECA, 2006

The next stage will be to identify the processes as Strategic, Key and Support. Specific methodologies are employed to achieve this classification. Having carried out the previous steps, the conditions are now set to be able to show the Map of Processes graphically, as shown in Figure 1, which could be a typical map for a Port Authority.

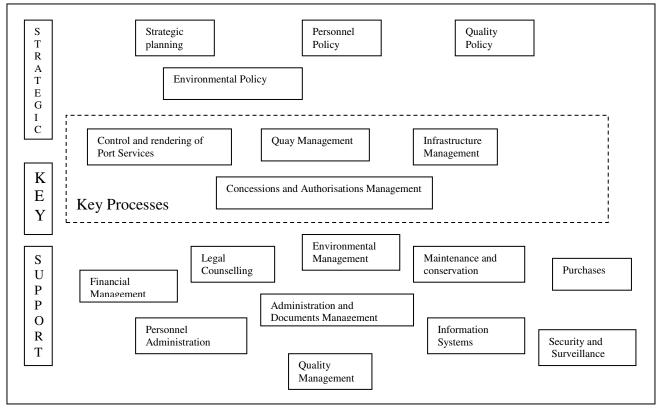


Figure 1: Typical Process Map for a Port Authority

Process management is directly intertwined with the Processes Perspective of the BSC's Strategic Map. The implementation of Process Management in the Port Authorities is creating improvements in internal management, and the knock-on effect is filtering down to the customer by eliminating the activities that do not contribute any value but do generate a cost. It also enables a reduction in execution times, a greater dedication to planning and an improvement in the main activities that are carried out in the organisation.

### 6. COMPETENCY MANAGEMENT IN PORT AUTHORITIES

Competency Management is a Human Resources management model used in organisations. It is a professional development model based on the competencies which try to maintain, update and increase the capacity of people that form part of an organisation in order to perform specific functions within it (Labruffe, 2008; Fernández, 2005).

The implementation of the Competency Management model in the Spanish State Port System has allowed the Human Resources function of ports to adopt a value creation focus and they are now linked to the Strategic Planning of a Port authority, which enables the implementation of other global management philosophies, such as the Balanced Scorecard (Puertos, 2006).

In this sense, the need for innovation in management techniques in Port Authorities (under the directives set out by the European Union, to establish a transformation process which sees significant ports become ports that provide infrastructure and spaces, and also regulators of services that are provided through private initiatives) has brought about an increased demand in a Port Authority's Human Resources. HR have had to adapt to the changes that Port Authorities have gone through as they moved from being a Tool Port (providing a collection of port services), whose policy focussed on the internalisation of services and activities, to a Landlord Port (providing infrastructure and spaces), which was aimed at customer satisfaction and the implementation of processes in order to externalise non-strategic services and activities. The future points towards Mainport Managers, which are integrated, planning and proactive trade ports, as described in Table 2 (AECA, 2006).

| PAST   | PRESENT  | FUTURE  |
|--|--|---|
| Tool Port  | Landlord Port  | Mainport Manager  |
| <ul> <li>Provider of collective port services.</li> <li>Internalisation of services and activities.</li> </ul> | <ul> <li>Provider of<br/>infrastructure and<br/>spaces, aimed at<br/>customer satisfaction.</li> <li>Outsoursing of non-<br/>strategic services and<br/>activities.</li> </ul> | <ul> <li>Integrated port<br/>comprising agents with<br/>opposing interests.</li> <li>Planning port with a<br/>strategic mission and<br/>vision.</li> <li>Trade port with<br/>proactive labour.</li> </ul> |

| Table 2: Strategic | Analysis from a                | Management | Approach                |
|--------------------|--------------------------------|------------|-------------------------|
| Table 2. Strategie | <sup>1</sup> mary 515 11 0 m a | management | <sup>1</sup> uppi vacii |

In order to reach a consensus between the Port Authorities and the Social Delegation, a professional development model based on Competency Management was established at the 2<sup>nd</sup> Collective

Convention, published in the official State Bulletin, which attempts to maintain, update and increase the HR capacity of Port Authorities and the Public Organisation for State Ports (OPPE).

The competencies, by type, which are set out in Figure 2, are classified as follows (Vargas et al., 2001):

- Technical: knowledge competencies, which are specific to each job position.
- Generic: professional quality competencies, which are transverse in organisations.

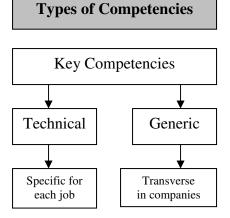


Figure 2: Types of Competencies

The Technical Competencies are those that are academically related, with a capacity for action, and they correspond to a specific occupation. These competencies are capable of change and increased learning due to training and experience.

Generic Competencies are a group of patterns for conduct and personal characteristics, which are observable and measurable. They are related to the necessary management abilities required to perform different occupations. They are capable of change and development by means of experience. Table 3 sets out a series of generic competencies for the management staff at a typical Port Authority.

Table 3 – Types of generic competencies for management staff at a Port Authority

| 1 | Attitude to change      | 6  | Management ability       |
|---|-------------------------|----|--------------------------|
| 2 | Communication           | 7  | Self-development         |
| 3 | Attention to customers  | 8  | Influence and leadership |
| 4 | Interpersonal relations | 9  | People management        |
| 5 | Involvement             | 10 | Initiative               |

The change in HR management models over the past few decades changed fundamentally due to a change in the way staff were conceptualised; they were no longer considered a cost to the company and began to be conceived as a resource. In this fashion, it is notable that HR Management actions have incorporated a strategic outlook to their actions, and they have generated a new perspective which highlights the strategic importance of human resources as a way for businesses to gain a sustainable competitive edge (Fernández, 2005).

Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ (online), Rio de Janeiro, v. 15, n. 1, p. 60 - p. 66, jan./abril, 2010. ISSN 1984-3291

HR Management in the Port Authorities is increasingly leaving behind the traditional emphasis on costs, and is heading towards a strategic method of management where HR performs a basic role in achieving the Port Authorities' strategic objectives. This approach is shared by Competency Management and means that the system not only influences conduct (work performance) but also workers' attitudes (organisational commitment) (Labruffe, 2008; Vargas, et. al., 2001).

In Competency Management, the competencies of an organisation's vital staff, and their relationship with each of the job positions, are identified and analysed. As set out in Figure 3, Competency Management is used in: staff selection, drawing up training plans, career plans, performance evaluation and the economic assessment of job positions (CINTERFOR/OIT, 2004). It is a model which treats the people of an organisation as a resource, with the ability to develop and transform them into a competitive advantage for the organisation.

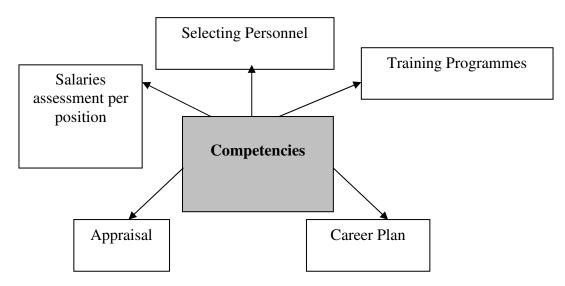


Figure 3: Application of Competency Management

Competency Management is a management tool which:

- Identifies the competencies that each job position requires within a company, so that the individual who carries it out can maintain a heightened level of performance, or greater than the average. It profiles competencies for an occupation (it defines the job requirements for each position).
- Assists in the staff selection process so that competencies are better fulfilled by identifying the competency profile of an individual (it defines an individual's abilities in relation to a specific job) (Figure 4).
- Enables the development of competencies in order to improve performance and reach an above-average level by implementing training plans (it interconnects the competency profile of an individual with that of the occupation).
- Assesses the performance levels of job positions, with the aim of guaranteeing that the objectives set out by the company are met.
- Allows economic assessments to be carried out for job positions within the organisation, in accordance with the demonstrated and necessary competencies.

- Provides support so that all of the members of the organisation can be transformed into a competitive advantage for the company.

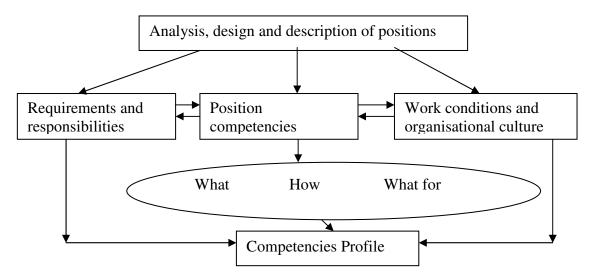


Figure 4: Definition of competency profiles

Source: Cuesta, 2001

So that a company's human resources department learns quicker than its rivals in order to have a competitive edge over them, Competency Management incorporates corporative learning, which links organisational abilities (key competencies) with the knowledge and qualities that individuals must employ in order to carry out their job description. This allows faster human resources training (CINTERFOR/OIT, 2004).

The general strategy of each company has now become the increasing focus on the strategic objectives of each department. Each objective demands the fulfilment of a key competency (own and differential competency) which has to be maintained and optimised continually. Without key competencies, there is no differentiation in the market, and without differentiation, the company has greater difficulty than others in surviving. The key competencies are set out as profiles, to which the company's employees have to contribute in order to be able to do their jobs successfully. This improvement formula connects company strategy with man management, by means of competencies (Labruffe, 2008). This alignment ought to be carried in all spheres: staff selection, salary, training and assessment have to be developed using the required base knowledge for each company to achieve its objectives. In this fashion, HR adopts a value creation focus and is directly linked with the strategic planning of a company, making it easier to implement other management tools (Fernández, 2005).

The strategy of the Port Authority of Valencia is clear and well-defined with regards to its current and future situation. It understands very well which market it must deal with and which services it must offers. Starting from the conception and vision of its directors, everything is geared towards its mission (Lavarda, 2008:266).

The development of a Competency Management project requires the following actions, among others, as based on the experience of the Port Authority of Valencia:

- Identification of the Port Authority's key competencies with regards to its policy and strategy. One must identify not only the technical competencies but also the generic ones for each occupation and define levels of competency which allow them to be measured.
- Definition of the competency profiles for the jobs carried out in the Port Authority. This provides competency profiles for the specific job positions with a retributive profile that can be held up against the competencies required.
- Definition of the competency profiles for the individuals of the organisation based on their knowledge, experience and personal abilities.
- Development of training plans and specific career paths that can be compared against the differences that exist between the competency profiles of individuals and different job positions.
- Professional development of the Port Authority's staff by way of collective or individual training processes, whichever is deemed to be the most appropriate.

The strategic core of Competency Management is basically related to the ability to guide the employees of an organisation towards improving what they know how to do, forgetting diversification and concentrating on reinforcing the key competencies, and achieving corporate objectives. In order to do this, the organisational structure must be continually adapted to the changes that the outside world and the organisational structure impose on them. As Vargas et al. (2001) points out, this focus requires the staff to be looked at as the reason for the organisation's success so far, and it also requires the conservation and development of existing knowledge, the use of Competency Management in all of the organisation's processes and the increase in the intellectual capacity of everyone involved.

Based on Kaplan and Norton (2004), this tool is directly linked to the management of knowledge, which is, more precisely, the management of the intangible assets that generate a value for an organisation. The majority of these intangibles have a lot to do with processes that are related, in one way or another, to the training, structuring and transmission of knowledge. Therefore, knowledge management has organisational learning as its main tool. It is a dynamic or fluid concept, as it is a group of processes and systems that allow the intellectual capital of an organisation to grow by managing its ability to resolve problems in an efficient way in order to create a sustainable competitive advantage over a period of time (Fernández, 2005).

Knowledge management of HR in the Port Authority of Valencia (APV), as Lavarda (2008) indicates, is supported by new information technologies, which are helping progress towards advanced reporting systems that are more efficient than traditional systems. These reporting systems are capable of offering solutions to the information needs of the Port Authority with less transaction costs than previous systems.

The Integrated Information Systems (ERP<sup>3</sup>), the business intelligence software programs and HR training are enabling the Port Authorities to develop information systems capable of grouping together series of data, which originate from many different sources, to obtain information that is quicker, simpler and more useful. Integrated Information Systems and Business Intelligence software programs has meant that Human Resources have been assigned in a better fashion (as well as providing improvements in obtaining information) and have served as a support to the decision-making process for management, making sure that the rate of change is not excessive for HR, which has to analyse said information (Dool, 2008).

The Integrated Information Systems and the business intelligence software programs prevent organisations from potential losses of knowledge as a consequence of an even greater amount of information and data, which enables them to be proactive and agile in analysing information (Méndez, 2006; Giner and Ripoll, 2009b).

The advantages that a Competency Management model contributes to a Port Authority are:

- a) Investment in people from the organisation.
- b) Defined professional profiles that will improve productivity.
- c) Development of teams which have the necessary competencies for that specific area of work.
- d) Identification of weak points, resulting in improvement interventions that guarantee results.
- e) Performance assessment based on objectives which are measurable, quantifiable with the potential for direct observation.
- f) Increased productivity and optimised results.

In order to contribute a value, all of the HR tasks must adopt the Competency Management philosophy. This involves adapting the compensation, professional classification and performance in order to optimize the competency profiles of the workers. This converts the HR function into a process of definition, development and proportional value from the employee, with them and for them (Puertos, 2006).

Competency Management acts directly on part of the Resource Perspective for the BSC's Strategic map in Port Authorities, improving the Human Resources training and the processes that this department undertakes.

#### 7. CONCLUSIONS

Organisations have an increasingly greater need to obtain results through excellent and sustained management over time. This forces them to look for and apply different and wide-ranging management tools.

By analysing the management system at the Port Authority of Valencia, a series of management tools were found to be used periodically. It is important to analyse the systematic and efficient use of these tools. This analysis may be more generalised than in other organisations, taking into account that each one has its own peculiarities.

The three management tools that were selected were the Balanced Scorecard (Company Policy and Strategy), Competency Management (HR management) and Process Management (Improvement and Control). Together, they complement each other sufficiently so that, when correctly structured, they formed an integral management system for the Port Authority of Valencia.

Three management tools were analysed. However, it is clear that each Port Authority has very particular characteristics and needs, which means that each one should analyse the collective group of basic tools that their management processes can handle.

# 8. BIBLIOGRAPHY

Amerini, Giuliano. (2008). Maritime transport of goods and passengers 1997-2006. EUROSTAT – European Commission. Statistics in focus, nº 62/2008.

- Aparisi Caudeli, J. A., Giner Fillol, A. y Ripoll Feliu, V. Análisis del proceso de implantación de un sistema de gestión estratégica: estudio de caso del Cuadro de Mando Integral en la Autoridad Portuaria de Valencia". Spanish Journal of Finance and Accounting (Revista Española de Financiación y Contabilidad). Vol. XXXVIII, nº 142 abril-junio 2009. ISSN: 0210-2412. Depósito Legal: M. 18735-1972. pp. 189 212.
- Asociación Española de Contabilidad y Administración de Empresas (AECA) (2006). La contabilidad de Gestión en el Sistema Portuario Español, Documento Nro.31. Madrid.
- Ayuso Moya, A. y Ripoll Feliu, V. (2005). El estudio de casos como prototipo de la investigación en Contabilidad de Gestión desde una perspectiva cualitativa. *Revista Iberoamericana de Contabilidad de Gestión* III. Enero-Junio 2005. (Nº 5), 131-168.
- Chang, S. (1978). Production function and capacity utilization of the port of Mobile. Maritime Policy and Management 5, 297-305.
- CINTERFOR/OIT (2004). 40 preguntas sobre competencia laboral. Centro Interamericano de Investigación y Documentación sobre Formación Profesional/Organización Internacional del Trabajo (CINTERFOR/OIT). Montevideo: 2004.
- Cuesta Santos, A. (2001). Gestión por Competencias. Facultad de Ingeniería Industrial. Universidad Tecnológica de la Habana. (ISPJAE).
- Dool, R. (2008). Change fatigue: the impact of enervative change on job satisfaction. Colloque et Séminaire Doctoral Internacional. Development Organisationnel et Cahngement. Volume 1 págs. 487-501.
- Fernández López, J. (2005) Gestión por competencias: un modelo estratégico para la dirección de los recursos humanos. Prentice Hall, Financial Times. Madrid: 2005.
- Giner Fillol, A. (2008). Impacto de los Sistemas de Información Integrados y de Business Intelligence sobre la Contabilidad de Gestión de la Autoridad Portuaria de Valencia. Manager Business Magazine, Nº 10, marzo/abril, Depósito Legal: M-4244-2005. ISSN: 1699 0773. pp. 13 20.
  (2000). Costión estratógica de costas en la Autoridad Portuaria de Valencia. Manager Business

- (2009). Gestión estratégica de costes en la Autoridad Portuaria de Valencia. Manager Business Magazine, Nº 27, julio/agosto. Depósito Legal: M-4244-2005. ISSN: 1699 - 0773. pp. 14-19.

Giner Fillol, A. y Ripoll Feliu, V. (2007). De la contabilidad de costes a la contabilidad de gestión. El caso de la Autoridad Portuaria de Valencia - Valenciaport. *Partida Doble nº 184. Enero 2007, 62-74.* 

- (2009a). Información estratégica de costes y sistemas de información integrados en una unidad de negocio del Sistema Portuario español.Revista Internacional de Administración & Finanzas (RIAF), The Institute for Business and Finance Research (IBFR). ISSN: 1933-608X. Volumen 2. Nº 1. 2009. pp. 73-92.

- (2009b). "Cálculo y gestión estratégica de costes portuarios". ISBN-10: 84-934174-5-9. ISBN-13: 978-84-934174-5-1. Depósito Legal: V-1694-2009. pp. 1 - 318.

- Goss, R. (1990a). Economic policies and seaport: 1. The economic functions of seaports. Maritime Policy and Management 17(N° 3), 207-219.
- (1990b). Economic policies and seaport: 2. The diversity of port policies. Maritime Policy and Management 17(N° 3), 221-234.
- Kaplan, R. S. & Norton, D. P. (2004). Mapas estratégicos: convirtiendo activos intangibles en resultados tangibles, Ed. Gestión 2000, S. A.
- Labruffe, A. (2008). La gestión de competencias. Planteamientos básicos, prácticas y cuadro de mando. Asociación Española de Normalización. ISBN 10 8481435821; ISBN 13 9788481435825.

Lavarda, R. (2008). El proceso de formación de la estrategia y los tipos de trabajo desde una perspectiva microorganizativa. Tesis Doctoral. Directores: Peris Bonet, F. y Canet Giner, M. T. Facultad de Economía. Departamento de Dirección de Empresas. Juan José Renau Piqueras. I.S.B.N.:978-84-370-7062-9. pp. 1-382.

Méndez del Río, L. (2006). Más allá del Business Intelligence. Gestión 2000. págs. 23-24.

- Nogueira Rivera, D. Medina León, A. y Nogueira Rivera, C. (2004). Fundamentos para el Control de la Gestión Empresarial. Editorial Pueblo y Educación. Cuba. pág. 105
- Puertos (2006). Capacitación, la clave del modelo de gestión de recursos humanos por competencias. Puertos. Nº 131, febrero 2006. pp. 5-8.
- Ripoll Feliu, V, Giner Fillol, A, Aparisi Caudeli, J. A. y Maganto López, J. (2004).Caso práctico: la planificación estratégica y la implantación del Cuadro de Mando Integral del Sistema Portuario Español. HARVARD DEUSTO Finanzas & Contabilidad, ISSN 1134-0827, N°. 63, enero-febrero 2004. pp. 60-71.
- Van Niekerk, H. C. (2005). Port Reform and Concessioning in Developing Countries. *Maritime Economics & Logistics* Tomo 7(Nro.2), 141.
- Vargas, F.; Casanova, F.; Montanaro, L. (2001). El enfoque de competencia laboral: manual de formación. CINTERFOR. Montevideo: 2001.