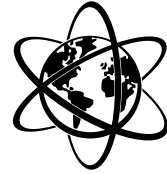


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Identifying and assessing valuable resources and core capabilities in public organizations

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Abstract

The resource-based view has been one of the most relevant theoretical approaches in Strategic Management. However, its use has not been widespread in public management practice and research. This work aims to apply its premises to public organizations to support strategy formulation. To that end, a set of deductive procedures has been designed to identify the organization's valuable resources and its core capabilities. These procedures seek to reinforce the coherence between the internal diagnosis and the organization's objectives and to make that diagnosis more systematic and exhaustive. They have been applied to a Spanish University to illustrate its utility.

Points for practitioners

This work applies the prescriptions of the resource-based view to public organizations. The practical implications of this work are straightforward, since it consists of some procedures for internal diagnosis in public organizations. This internal analysis enables the identification of the valuable resources and core capabilities of public administrations, these being the basic units of the internal environment. The determination of these resources and capabilities forms the groundwork to build up the strategy of the organization.

Key words: competencies, intellectual capital, resources, strategic planning, university

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Introduction

In spite of its limitations (Mintzberg, 1994), Strategic Planning is an important activity for organizations, since it is complementary to Strategic Thinking, both being necessary for an effective Strategic Management (e.g. Heracleous, 1998). In this sense, public institutions are no exception (Bryson, 1996; Bryson and Alston, 1996). Strategic Planning in the public sector is not new and it is one more example of how tools that were originally conceived for firms have gradually been adapted to the needs of public organizations. Some of the origins of that adaptation can be found in the literature on New Public Management (e.g. Hood, 1991; Pollitt, 2001). Moreover, recent years have seen an increase in the demands for public organizations to be accountable for the activities that they carry out. In that respect, accountability must go beyond the economic situation of the organization and the destination of resources, and provide information about how they are attaining their goals.

The Strategic Planning process generally requires a previous diagnosis of the situation of the organization in terms of both its external and its internal environment. To that end, one of the tools most commonly used to analyse that latter environment is the Value Chain proposed by Porter (1985). Thus, Sheehan and Foss (2007) indicate that, although the five competitive forces framework proposed by Porter (1980) is the most cited work in the *Strategic Management Journal* between 1980 and 2000, Porter later recognized that the weakness of that work was that it does not outline how firms may achieve superior positions. Porter (1985) opted to focus on the internal environment and formulated an analysis based on the activities performed by organizations, on the premise that those obtain their results not through their products but through the activities that they perform to provide products for consumers.

One of the strongest theoretical streams in Strategic Management has been the Resource-Based View (RBV). In that respect, Newbert (2007) maintains that a great part of what is studied, written and taught by strategy researchers is strongly influenced by the fundamental prescriptions of that theoretical perspective. One of the principal concerns of that theory is the relationship between customer value, competitive advantage and superior performance, and it is based on the argument that certain resources that meet specific conditions enable the firm to implement strategies that enhance the firm's ability to attain a sustained competitive advantage (Clulow et al., 2007). Moreover, Sheehan and Foss (2007) indicate that the Activity-Based Approach and the RBV are compatible rather than contradictory since many of the underlying assumptions are similar. Bryson et al. (2007) point out that the RBV has been used implicitly or explicitly in works on Strategic Management in the specific context of public organizations.

In light of the above, the objective of this work is to design some procedures to identify which resources and capabilities an organization must possess to accomplish its mission and vision. In that respect, a set of procedures to analyse the internal environment of the organization has been formulated, focusing on two principal aspects: (a) strengthening the alignment between the internal diagnosis and the organization's mission and vision and (b) making the internal diagnosis more systematic and exhaustive to facilitate and improve the process of drawing up the strategic plan in public organizations.

To that end, the following section presents the theoretical grounds of this work. The third section explains the proposed procedures to determine the organization's key resources and capabilities and to evaluate their current situation. The fourth section shows the results obtained from the application of those procedures to a Spanish state university. The main conclusions of this work and possible lines of future research are presented in the fifth and final section.

Resources and capabilities as a basis for achieving the mission and the vision

The RBV (Penrose, 1959; Wenerfelt, 1984) means turning to an internal analysis of organizations to explain the different levels of profitability obtained by firms. This focus on internal aspects (the assets and capabilities possessed and/or controlled by a firm) is based on the dissatisfaction with the framework of static equilibrium of industrial organization, which focuses on the products market to explain the different levels of profitability (Grant, 1991). This theoretical approach is based on two premises. First, firms can be heterogeneous in terms of the resources that they control. Second, such resources are not necessarily perfectly mobile across firms, which means that heterogeneity can be maintained over time (Barney, 1991).

Various definitions of the concept of resources are given in the RBV literature. Most of them can be put into one of two categories: those that restrict the concept to assets that are firm-specific and difficult to obtain and imitate (Barney, 1991; Teece et al., 1997; Wenerfelt, 1984), and those that include within the concept any of the firm's inputs or assets (Amit and Schoemaker, 1993; Grant, 1991). Grant (1992) defines the different types of resources as tangible, intangible and human. Unlike the concept of resources, the capabilities or competencies of an organization consist of its skills to integrate assets bundles and/or other capabilities in order to achieve a desired result (Amit and Schoemaker, 1993; Grant, 1991; Makadok, 2001). Thus, there are different levels of capabilities that form a hierarchy in which those of one level integrate and coordinate with others of a lower level (Brumagim, 1994; Collis, 1994; Eisenhardt and Martin, 2000; Grant, 1992; Teece et al., 1997).

The RBV states that a firm's competitive position depends on a unique set of resources and the relationships between them (Eisenhardt and Martin, 2000; Fladmoe-Linquist and Tallman, 1994; Rumelt, 1984). Along those lines, various studies based on the Resource-Based View have concluded that certain characteristics of the resources and capabilities may be a source of sustained competitive advantage (Amit and Shoemaker, 1993; Barney, 1991; Conner and Prahalad, 1996; Dierickx and Cool, 1989; Grant, 1991, 1992; Peteraf, 1993; Reed and DeFillippi, 1990). As Barney (1991) and Grant (1992) indicate, a resource or capability can be valuable in the sense that it enables opportunities to be exploited and threats to be neutralized. Moreover, only when the relevant resources are scarce, in other words, when they are not distributed homogeneously among firms, can their possession lead to a competitive advantage. However, the resource or capability must be imperfectly imitable to be able to maintain that condition of heterogeneity. Peteraf (1993) and others indicate that, when it is not possible to acquire the resources, one option is to create them. Furthermore, the resources or capabilities must not have substitutes since another option for performing

a particular activity consists of substituting the valuable resource by others that are the equivalent from a strategic point of view (Barney, 1991; Dierickx and Cool, 1989). Finally, the resources that generate sustained competitive advantage must be imperfectly mobile (Mahoney and Pandian, 1992; Peteraf, 1993) since their mobility entails the risk of some abandoning one organization to be installed in another.

Much of the research on RBV has addressed intangible assets and capabilities because of their importance to the success of organizations (Newbert, 2007), since, according to this theory, many of them meet the conditions to be sources of competitive advantage. The relevance given to intangible resources and capabilities has led to work that addresses the management of these resources and capabilities under the label intellectual capital. Various definitions of this last concept can be found but they include intangible assets, especially those based on knowledge, as well as capabilities and organizational processes (e.g. Edvinsson and Malone, 1997; Lev, 2001; Wiig, 1997). The importance attached to this type of resource and to capabilities has led to the design of models that aim to facilitate their measurement and management (e.g. Brooking, 1997; Edvinsson and Malone, 1997; Sveiby, 1997). Those models are characterized by various dimensions that group the different categories of these resources and capabilities and by the use of indicators to assess their condition and to plan their accumulation. One of the best known models and one that has been used by for-profit and non-profit organizations is the Balanced Score Card (BSC) proposed by Kaplan and Norton (1992, 1993), and a special feature of this model is that it places special emphasis on the cause-effect relationships that link the different dimensions considered in the model.

The BSC complements the traditional financial indicators with other measures that are drivers of future action. To that end, the version given for firms contemplates four perspectives: the financial perspective, the customer perspective, that of internal processes and that of learning and growth. The BSC provides information about which knowledge and capabilities must be developed to carry out the internal processes necessary to provide value to the market and which will ultimately lead to higher shareholder value (Kaplan and Norton, 2000). In later revisions of their own work, Kaplan and Norton (2001) adapted this tool to non-profit organizations by replacing the financial perspective at the top of the model with a dimension that represents the vision and mission of the organization. The identification of the key capabilities of public organizations as a basis for strategy formulation is not new. Bryson et al. (2007) provide a set of procedures for that purpose in which they first determine the organization's goals and its critical success factors, and then deduce the distinctive competencies of the organization.

Procedures for the internal analysis of public organizations

This work proposes a method for internal environment analysis that basically consists of identifying strategic resources and capabilities with the aim of facilitating strategy formulation. To that end, the structure proposed by Kaplan and Norton (1992) in the design of the BSC is followed in order to link the identification of valuable resources and core capabilities for the organization with its mission and vision, and to provide a more systematic internal diagnosis. Thus, while BSC focuses primarily on the

identification of some intangible resources and capabilities mainly related to human resources and the information and technology systems, the purpose of the procedures proposed in this work is to determine any type of valuable resource and core capability with the aim of an exhaustive internal analysis. The proposed procedures distinguish five stages (see Figure 1): Defining the organization's goals, determining its services and/or products, identifying its critical internal processes, establishing the valuable resources, and determining its core competencies and key knowledge.

The procedures proposed in the present work are organized into five stages and also start from the organization's aspirations or mission. The next stage is to determine the products or services that the organization must offer in order to accomplish its mission. This is followed by the identification of the critical internal processes that the organization must carry out to provide those services. Taking all this into account, the resources and capabilities that the organization requires must be deduced. Thus, it is a deductive method that, based on generic aspects (mission and vision of the organization), arrives at the base of resources and capabilities that the organization requires; in other words, it identifies the organization's valuable resources and core competencies. The links between the steps that comprise the procedures that are proposed in this work and that determine its deductive nature have been highlighted in works on RBV. Thus Wenerfelt (1984) states that products (or services) and resources are two sides of the same coin, in that the resources and capabilities needed by the organization can be inferred from the products and services that it offers. Internal processes or organizational routines are another item in the procedures proposed in this work. Teece et al. (1997) set an intermediate level between products and capabilities, indicating that competencies are the elements that enable the organization to perform its internal processes, and that the essence of competencies is embedded in organizational processes (see Nelson and Winter, 1982). Porter (1991) indicates also that activities and activity drivers are the link between resources and performance. In a similar way, Ray et al. (2004) assert that activities and processes are the mechanisms through which resources and competencies act in the markets to support organizations to achieve competitive advantage. On the other hand, Amit and Schoemaker (1993) and Grant (1991) define capabilities by highlighting that they permit bundles of resources and other capabilities to work together. That makes it clear that some resources or capabilities determine the need for others. Those procedures are now explained in more detail.

Stage 1: Defining the organization's general goals

The first stage consists in defining a set of general objectives that represent the organization's vision and mission. Thus, while the final objective of firms is generally to achieve satisfactory profitability for shareholders, the ultimate objective of a non-profit organization is, generally but not exclusively, more linked to aspects related to the services provided to users. From this perspective, the vision and the mission should be the principal guides when addressing the content of the following stages. Moreover, the main challenges coming from the institution's environment must be added to the content of the vision and mission.

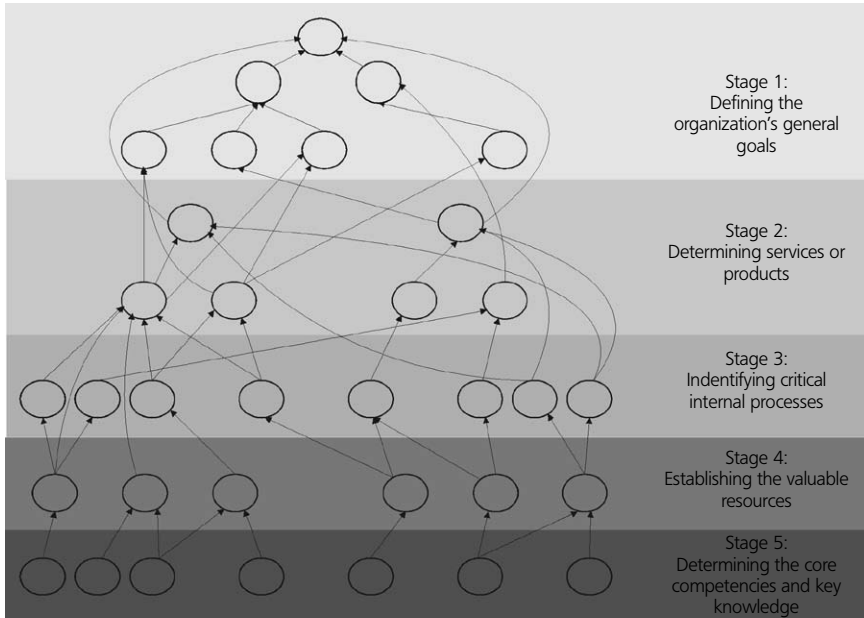


Figure 1 Procedures for internal analysis

Stage 2: Determining the services or products

On the basis of the objectives identified in the first stage, it is necessary to establish the products or services that the organization must offer whether it currently provides them or not. To that end, the factors to be considered include the different groups of users, both internal and external, to whom the services must be provided, as well as the different institutions to which the organization is accountable. The characteristics or attributes that each identified service or product should possess must also be determined. It is then necessary to evaluate currently provided services in terms of the characteristics that are considered ideal, as well as to determine which services are not being provided. Therefore, it is necessary to define the indicators that can help give a better description of the current situation of the organization in relation to each of those elements.

Stage 3: Identifying critical internal processes

Once the services or products that the organization should offer have been determined, it is necessary to identify the critical or most important processes that must be carried out to provide the former. For the perspective of the internal processes of BSC, Kaplan and Norton (1996) suggest the value chain of those processes, which goes from the innovation processes to identify user needs to the after-sale processes. In this sense, it is crucial to bear in mind the desired attributes for the products or services. After the identification of the critical internal processes, their current condition in the organization must be evaluated to determine possible gaps between the

organization's current and desired situations. To that end, the indicators that best enable a description of the current situation in the organization of those processes must be formulated.

Stage 4: Establishing valuable resources

This stage comprises the identification of valuable resources (Barney, 1991), both tangible and intangible, that are necessary to develop the organization's internal processes. The resources that the organization requires will depend on the products or services that it wishes to deliver, its desired attributes and the most relevant internal processes. These resources include both physical and intangible assets, but neither the capabilities nor the knowledge required by the organization, which will be addressed separately in the following stage. The reason for treating them separately is that they depend, to a great extent, on the services that the organization wishes to provide, the internal processes that it must develop and the resources that it must use. As in previous stages, the present state of the valuable resources in the organization must be evaluated. To that end, the indicators that best enable the description of the current situation in the organization of those resources must be employed.

Stage 5: Determining the core competencies and key knowledge

In this phase, the organization must basically consider which competencies and knowledge must be present in the organization and which values and/or attitudes must be promoted. Obviously, the capabilities or competencies should not only be identified at the individual level of the organization's workers: it is also necessary to identify the organizational capabilities that the organization must develop. These competencies must stem directly from the critical internal processes and valuable resources identified in the previous stages. Teece et al. (1997) indicate that competencies are the elements that enable the organization to perform its internal processes, and that the essence of competencies is embedded in organizational processes. The competencies, values and knowledge must be those that permit the development or accumulation of the elements identified in the previous stages and lead to the organization's objectives being achieved. As in the two previous stages, indicators must be established to support the evaluation of the organization's current position regarding those capabilities and key knowledge.

Finally, and in order to facilitate the strategy formulation process, it is necessary to determine the importance of each service or product that the organization must offer, depending on its contribution to the organization's vision and mission. This task must be undertaken not only to prioritize some services or products over others, but also to rank by importance the attributes identified as relevant to each product or service. The results must provide information about (a) which services or products are most important for the organization, (b) which attributes are most important for each service or product, (c) which internal processes, resources and capabilities are necessary to develop each attribute and service, (d) how each capability, resource and process contribute to the organization's different services and products, and (e) the current condition of each of those elements.

Application to a state university

The proposed procedures are illustrated in this section by their application to a Spanish state university. This application served as support for the formulation of the Strategic Plan of the University of Las Palmas de Gran Canaria (Canary Islands, Spain) for the 2007–10 period. This strategic plan was drawn up for the four principal areas of activity of that University: teaching, research, social impact (services to society other than official studies) and internal services to support the previous three. After a brief explanation of the methodology, the next section presents the principal results for the teaching area of activity.

Methodology

The method used to collect the data required in the different stages of the procedures was group discussions. One group for each area of activity was formed. Each group comprised around 15 key experts. The university's governing board programmed meetings and invited those individuals who, because of their special association with teaching or relevant knowledge, could be expected to make positive contributions in the development of the process. This process entailed the following stages:

- a. Extract the most important objectives for the teaching area from the mission and vision as well as from the results of the analysis of the environment. This document was prepared by the technical team responsible for drawing up the plan and was supervised by the governing board. It was submitted to the participants in the group discussions explained below.
- b. A first meeting in which the experts were asked to identify the items related to each stage of the procedures was held; in other words, to determine the services that the organization must offer, their ideal attributes, the most important internal process and which resources and capabilities are required, all with the aim of achieving the university's vision and mission. The order of the analysis process was, first, list the services to be provided, and then determine, for each of those services, the ideal attributes, the critical internal processes and the resources and capabilities needed. The work technique in this process was inverse *brainstorming*.
- c. Assess the importance and current condition of the elements identified in the group discussions. To that end, the participants were sent a questionnaire that basically asked them to give their opinions about: (1) the degree of importance of each service and of each of their ideal attributes, and (2) the current condition of the elements identified in each stage (services and their attributes, internal processes, resources and capabilities). To determine the degree of importance of each attribute in the area of a specific service, the participants were asked to list the attributes in descending order of importance. A 5-point Likert-type scale was used to evaluate the current condition of the different elements of the perspectives.
- d. A second meeting was held to inform the participants of the group discussion on the results of the previous analysis and, on the basis of those results, to initiate the formulation process. These results were presented in summary to

facilitate the generation of actions that would contribute to reducing the gaps in the conditions of the internal processes and most valuable resources and capabilities or to formulate measures that are supported by those that work well.

Results

This section first presents the University of Las Palmas de Gran Canaria's most important objectives for the teaching area of activity, based on the content of this university's vision and mission (see Figure 2), and which were established to carry out the institution's first strategic plan and were maintained for the second. The principal challenges from the environment were also considered. This is followed by the results for one of the services that the university must provide to achieve its goals, official pre-sential graduate studies. For the service analysed, these results comprise the attributes that should characterize it, the most important internal processes and the resources and capabilities necessary to perform those processes. The processes, resources and capabilities which, because of their very nature, are addressed in the area of internal support services activity are not considered in these results.

Taking into account ULPGC's mission and vision, the main objectives identified for the teaching area comprise offering high quality teaching that uses innovative methods and permits the exchange of students and teachers with other universities, which is recognized at both academic and social levels, makes efficient and responsible use of resources and responds to social demands, especially those from the region. Also, teaching must promote values such as solidarity, tolerance and respect for the environment. The ultimate aim of achieving those objectives is to contribute to the economic and social development of the Canary Islands. Moreover, like many other European universities, the ULPGC faces the great challenge of adapting its teaching activity to the principles that will make it possible to construct the European Higher Education Area (EHEA). In addition, the gradually falling birth-rates in Europe and the increasing offers in higher education oblige the institution to be constantly alert in order to capture new students. Figure 2 shows the principal relationships that link all these elements.

In the first meeting, and in light of the previously identified objectives, the principal services that the university must offer in the teaching area were identified as official pre-sential teaching, and official non-pre-sential teaching. Since the aim of this section is to illustrate the application of the proposed procedures, only the results for that first type of service are presented. Thus, in the case of official pre-sential teaching, the attributes considered essential, according to experts' opinions, are that it (a) is adapted to social demands, especially those of the region; (b) teaches up-to-date knowledge; (c) is adapted to the EHEA; (d) has a high practical content; (e) is accessible to the different groups of PWDs; (f) incorporates innovations in teaching methodology and media to improve quality teaching; (g) is evaluated positively by the competent government agency; (h) provides the capabilities and knowledge for the students to be able to attend other universities to complete their education; (i) is attractive to foreign students; and (j) promotes values such as responsibility, resolve, team work, entrepreneurial spirit, professional ethics and respect for the environment (see Appendix 1). Obviously, the achievement of these objectives does not take place only by the provision of this service; other areas of activity and services pursue the

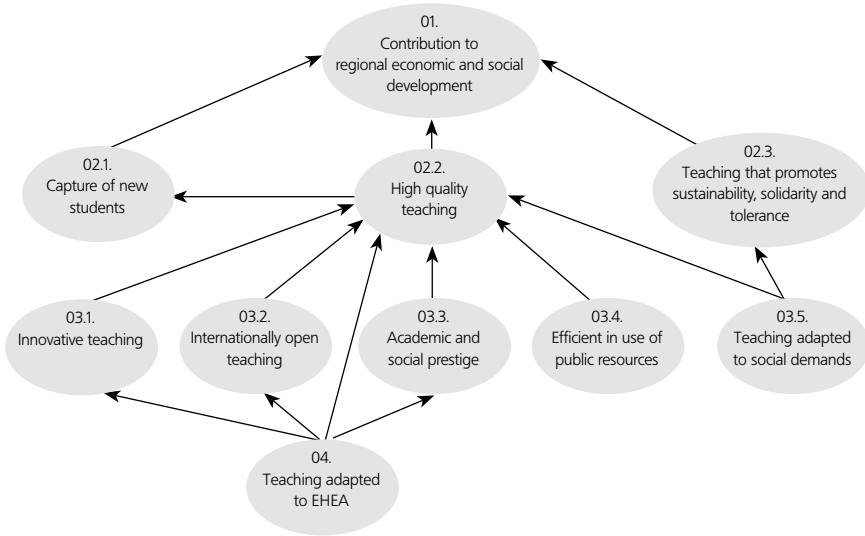


Figure 2 Objectives of the ULPGC in the teaching area

same objectives. Those other areas of activity and services will also pursue objectives not necessarily linked to the teaching area.

It can be seen that there is a strong similarity between the attributes that are desirable for this service and the objectives of the organization. This similarity was indicated by Bryson et al. (2007) when they pointed out that the objectives and the critical success factors for an organization, which include the services that it must provide, can be similar if the managers of the organization and the stakeholders agree on the nature of success. This could be the case in a state university, where the different groups participating in the university strongly agree on its main objectives.

Appendix 2 shows the internal processes that are most important to provide this service together with the characteristics considered desirable, while appendix 3 displays the resources that the organization requires. Appendix 4 contains the competencies and the knowledge that were identified for the development of the internal processes and the provision of this service. Those appendices show the connections between all those elements, in other words, how some are necessary to develop others. Thus, for example, and in relation to one of the most highly evaluated attributes, the accessibility of accredited teaching to PWDs (A5), the results indicate the importance of adapting the teaching process to these groups (P4) and of the teaching guides clarifying student needs related to the most common disabilities (P2). Moreover, the classrooms, laboratories and other places where teaching takes place (R2) must be adapted to the needs of these groups. The importance of the teachers having the specific training and the sensitivity necessary to attend to these groups of PWDs (C4) was also established. This example is depicted in Figure 3.

Also by way of example, one of the most important attributes is that the degree courses taught are those that the region demands and that their content corresponds

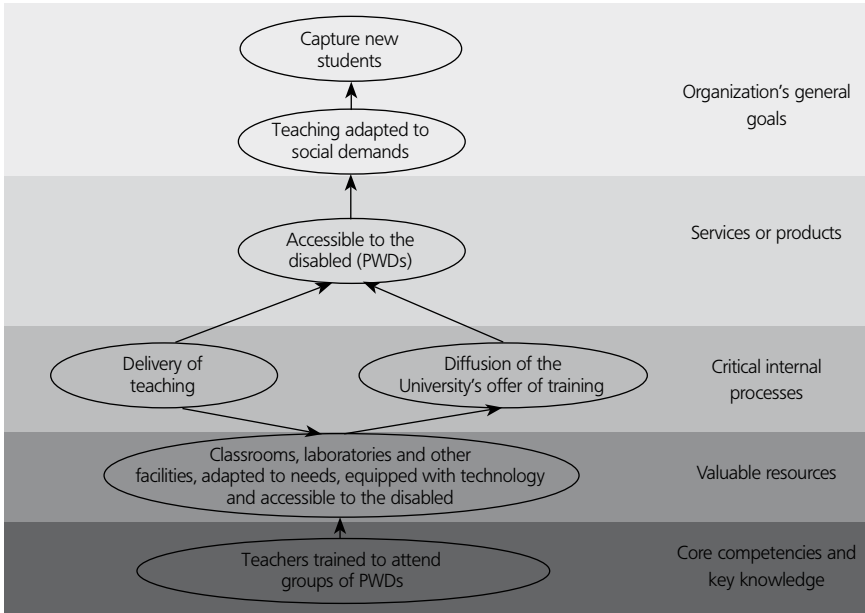


Figure 3 Identification of valuable resources and core capabilities related to the capture of new students

to the needs of the region (A1), as well as being constantly updated (A2). The process of the design of study plans (P1) and the process for internal control of the quality of degree courses (P8) will be of vital importance to that attribute. Moreover, the correct development of these processes will require, among other factors, that the teachers be properly trained in the subjects that they teach (C1). Of course, it will be particularly important that the university has the organizational capability to manage the design of the curricula, which entails connecting with the various economic and social agents and translating these needs, and others, into curricula (C8). It also seems necessary to have the organizational capability to propose the required standards of quality and diligently correct any deviations that may occur in this, or any other, aspect (C11). Figure 4 gives another example of the identification of valuable resources and core capabilities.

Each of the attributes desirable for the official presential studies (see Appendix 1), as well as the processes, resources and capabilities linked to those attributes (Appendices 2, 3 and 4) were also evaluated on the basis of the opinions of the experts consulted for that purpose. These findings also permit the importance of a capability, resource or process to the organization to be detected. In that respect, their importance increases with that of the attribute (attributes are listed in order of importance in Appendix 1) and the service to which they contribute. In turn, a process, resource or capability can be particularly important if it also contributes to the development of various attributes and/or services; consequently, their accumulation or development should receive special attention.

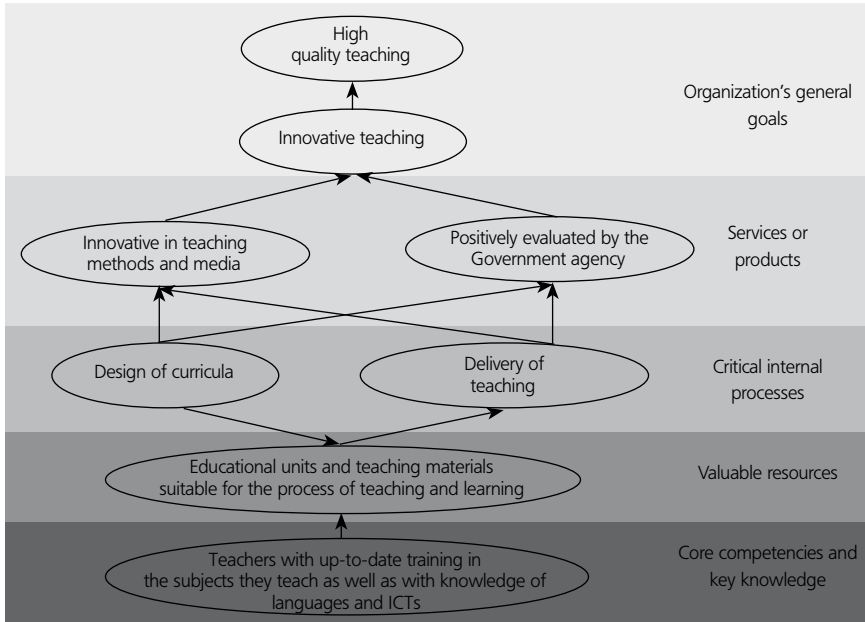


Figure 4 Identification of valuable resources and core capabilities related to high quality teaching

All the above constitutes a solid basis to determine the actions in the organization's strategic plan. Thus, the most important attributes should receive special consideration in the formulation of the actions. With regard to the attributes that are deficient, actions will be required to improve the processes, resources and capabilities that are key to those attributes. On the other hand, the relevant attributes that are in good condition must be considered in order to develop strategies that enable the university to compete with other higher education institutions.

Thus, and to illustrate the process, one attribute to which great importance was attached was that the teaching had a high practical content. However, the average evaluation of this characteristic was only 3. Therefore, in formulating the strategic plan, the proposal was for actions consisting of, for example: (1) expanding the student work practice programme to enhance the curricular and complementary education of future graduates, which enables the development of P5 (see Appendix 3); (2) finalize the study of the need for laboratories in the different areas of knowledge and implement a programme to improve those facilities, which will contribute to the development of R2 (Appendix 3), and (3) design an aid programme for teachers to be able to refresh their knowledge of contents and skills needed in their specialities, which will permit improvements in the capabilities reflected in C1 (Appendix 4).

Conclusions

This work proposes a set of procedures for internal analysis of public organizations to support Strategic Planning. To that end, it follows the prescriptions of the RBV, one of the most used theoretical perspectives in the field of Strategic Management in recent years. The critical insight into the organization that RBV offers has been welcomed in academic research. However, as Priem and Butler (2001) have pointed out, it provides limited guidance to managers because of lack of specificity and unclear explanations about how resources contribute to firm-level value creation. In that sense, the procedures proposed in this work for the internal analysis of public organizations could contribute towards integrating the RBV main concepts and activity concepts (Porter, 1985), which could improve the prescriptive benefit of RBV (Sheehan and Foss, 2007). To that end, these procedures are also based on the models of Intellectual Capital Management, especially that proposed by Kaplan and Norton (1992; 1993), the BSC. Thus, the design of the procedures sought, on the one hand, to reinforce the coherence between the internal diagnosis and the organization's vision and mission and, on the other hand, to make that diagnosis more systematic and exhaustive. The most significant contribution of this work consists in presenting some procedures for a public organization to identify the resources, tangible and intangible, and capabilities that enable it to accomplish its mission and vision, as well as to meet the challenges of its environment. Thus, these procedures combine concepts from the activity-based view (Porter, 1985), Intellectual Capital Models and RBV to offer a tool that could help public managers to implement the RBV prescriptions.

So, the proposed procedures aim, first, to translate the organization's vision and mission, as well as the challenges from its environment, into specific goals. Based on those goals, the organization must ask itself what it should offer in terms of services and/or products. Once those have been defined, the organization must identify the most important internal processes or activities for the provision of those services or manufacture of the products. From the above, the tangible and intangible resources, and the capabilities and knowledge that the organization must possess, can be deduced. Thus, the application of this model entails an exhaustive review of the entire internal environment of the organization, unlike what is proposed by the Intellectual Capital Models, which mainly focus on intangible assets and capabilities. Hence, these procedures lead to reflection on the various aspects of the organization's internal environment from two perspectives: (a) identification of the model that the organization must achieve in terms of products and services, internal processes, resources and capabilities, and (b) evaluation of the gap between this model and the current situation of the organization. Thus, these procedures promote Strategic Thinking in the organization, insofar as they oblige it to reflect more on what resources and capabilities it should possess and develop, and not only on its present and past situation.

Those reflections should provide a solid basis for the development of the strategic plan, which must be complemented with the results of the analysis of the environment. The actions stemming from the results of the internal analysis can basically be directed to resolving the deficiencies found in certain critical resources and capabilities, or they may give rise to strategies that are supported by others in the desired

condition, in order to compete with other organizations or attract new users. Also, the application of the procedures proposed in this work could facilitate the establishment of specific objectives, which should contribute to making the organization more accountable both internally and externally.

The proposed procedures were applied to a Spanish state university in order to formulate its strategic plan, and the results obtained demonstrate their utility. The use of these procedures entailed great effort, both in time and reflection by the participants and by the technical team responsible. As compensation for that effort, the results of the internal analysis are exhaustive and, in particular, preserve the connection with the organization's vision and mission. This set of procedures can be implemented by means of different methods: the one chosen for this work being by means of group discussions comprising experts in the different services provided by the university. However, the procedures can be performed by using other research instruments, such as in-depth interviews or surveys, and the ideal option has not been determined in this work.

Moreover, the application of these procedures to a number of homogenous public organizations (e.g. universities, hospitals, sports centres) could help to determine which are the most important resources and capabilities for that type of organization. Policies to enhance those organizations could be formulated based on their results on valuable resources and core capabilities.

Among the limitations and future lines of research, it should be mentioned that the RBV establishes attributes other than the value of the resources and capabilities to be a source of sustained competitive advantage. Thus, the proposed procedures only identify the resources and capabilities that are important to the organization. Their development should continue in order to detect which resources and capabilities are also scarce, imperfectly mobile, and difficult to imitate and substitute. That last aspect makes particular sense if the organization in question has to compete in markets for the same resources and/or users, as is the case with European universities. In that respect, the heuristic procedures of Schoemaker and Amit (1994) may be of use to complete the procedures proposed in this work.

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Appendix 1. Desirable attributes for official presential teaching

Item	Contributes to	Current situation (1)
A.1. Adapted to social demands	O3.5	3.4
A.2. With up-to-date knowledge	O3.1, O3.2/ O3.2, O3.5	3.2
A.3. Adapted to the EHEA	O.4	3.1
A.4. With a high level of practical content	O3.5	3
A.5. Accessible to the disabled (PWDs)	O.2.1, O3.5	3
A.6. Innovative in teaching methods and media	O3.1, O3.5	2.4
A.7. Positively evaluated by the Government agency	O2.2	3.5
A.8. Facilitates the exchange of students with other universities	O3.2	3.5
A.9. Attractive to foreign students	O.2.1, O3.2	3.9
A.10. Promotes the values of tolerance, respect and sustainability	O2.3	3.1

Note: 5-point Likert scale, where 1 is a very bad situation and 5 a very good situation.

Appendix 2. Key internal processes for official presential teaching

Item	Contributes to	Current situation (2)
P.1. Design of curricula	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	2.3
P.2. Diffusion of the University's offer of training	A5, A9	2.6
P.3. Selection of students for entry to the University	A1, A5	2
P.4. Delivery of teaching	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	2.3
P.5. Management of the student practices in other organizations	A1, A3, A4	2
P.6. Permanent coordination in a subject, between subjects and between levels	A2, A4	2.1
P.7. Comprehensive attention to foreign students	A9	3
P.8. Internal control of degrees quality	P4, A1, A2, A3	2.7

Note: 5-point Likert scale, where 1 is a very bad situation and 5 a very good situation.

Appendix 3. Valuable resources for official presential teaching

Item	Contributes to	Current situation (3)
R.1. Availability of ICTs (software and hardware)	P4	2.9
R.2. Classrooms, laboratories and other facilities, adapted to needs, equipped with technology and accessible to the disabled	P4	3.3
R.3. Bibliographic and information resources for teachers and students	P4	3.4
R.4. Connections and networks with other organizations and universities for student practice and the exchange of students and teachers	P2, P5, P7	3
R.5. Educational units and teaching materials suitable for the process of teaching and learning	P4	3.5

Note: 5-point Likert scale, where 1 is a very bad situation and 5 a very good situation.

Appendix 4. Capabilities, values and knowledge for official presential teaching

Item	Contributes to	Current situation (4)
C.1. Teachers with up-to-date training in the subjects they teach, as well as with knowledge of languages and ICTs	P1, P4, P6, P7, R5	3.4
C.2. Teachers trained in teaching methods	P1, P4, R5	2.4
C.3. Teachers convinced of the need to instil social skills (team work, coordination) and values such as respect, tolerance and sustainability	P1, P4, P7, R4, R5	2.4
C.4. Teachers trained to attend groups of PWDs	P4, R5	2.1
C.5. Teachers with a feeling of belonging to the ULPGC	P2, P4	3.6
C.6. Teachers who promote ethical behaviour in their teaching tasks	P1, P4, A10	3
C.7. Teachers with the ability of self-criticism and who can accept constructive criticism among colleagues	P4, P6, P8, R5	2.7
C.8. Capability of the centres to capture the needs of society and renew curricula	P1	2.9
C.9. Capability to communicate the University's offer of training	P2, R4	3.5
C.10. Capability to manage the University's teaching facilities	P4, R2	4
C.11. Capability to control, evaluate and adapt the degree courses and subjects taught	P1, P4, P8, P6	3.6
C.12. Capability to promote the production of quality material in the University	P4, R5	3

Note: 5-point Likert scale, where 1 is a very bad situation and 5 a very good situation.