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AN INSTITUTIONAL APPROACH TO THE ENVIRONMENTAL MANAGEMENT SYSTEMS OF GOLF COURSES IN ANDALUSIA

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ABSTRACT: In many tourist destinations, such as Andalusia in Spain, the number of golf courses has increased exponentially, which has generated a public debate about how to reconcile economic development and respect for the natural environment. This paper analyzes its highly institutionalized context - and the main practices that derive from it - and test empirically, in a sample of golf courses located in Andalusia, the relationships between these practices with its corresponding coercive, normative and mimetic mechanisms. Finally, its relationship with the performance of these organizations is established, testing if a direct or indirect relationship, through the search for legitimacy, exists, as suggested by the Institutional Theory.
Keywords: Institutional Theory, golf, tourism, environmental management.
RESUMEN: En muchos destinos turísticos, tales como Andalucía, en España, el número de campos de golf se ha incrementado exponencialmente, lo que ha generado un debate público sobre cómo conciliar el desarrollo económico y el respeto por el medio ambiente natural. En este estudio se analiza su contexto altamente institucionalizado - y las principales prácticas que derivan de ello - y se pone a prueba empíricamente, en una muestra de campos de golf situados en Andalucía, las relaciones entre estas prácticas con sus correspondientes mecanismos coercitivos, normativos y miméticos. Finalmente, su relación con el desempeño de estas organizaciones se establece, probando si existe una relación directa o indirecta, a través de la búsqueda de legitimidad, como lo sugiere la Teoría Institucional.
Palabras clave: Teoría Institucional, golf, turismo, gestión ambiental.

INTRODUCTION

The practice of golf is a phenomenon that goes beyond the mere sport, it carries implications of great significance for tourism. It has risen to an entire tourism industry revolving around golf, and Andalusia has become the leading region of Spain in the reception of tourists of this type, with the consequent increase in the number of golf courses.

However, there is an open debate in society on the environmental impact of this type of installation. This debate has led to a series of

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actions being undertaken, in most cases imposed by legal regulation, aimed at reducing the negative effects that golf courses can have on the natural environment. Consequently, we have opted to take Institutional Theory as our reference framework.

The great majority of theoretical institutionalists agreed that the three pillars supporting this theory are the regulatory, normative and cognitive approaches (Table 1).

Table 1. Differences of emphasis of the three institutional pillars

Institutional elements	Regulatory	Normative	Cognitive
Basis of commitment	Convenience	Social obligation	What is accepted
Mechanisms	Coercive	Normative (Standards and Values)	Mimetic
Logic	Instrumental	Appropriation	Orthodoxy
Indicators	Rules, laws, sanctions	Accreditation	General, isomorphism
Basis of legitimacy	Legal sanction	Moral government	What is conceptually correct

Source: Scott, 1995.

The regulatory institutionalists interpret legitimacy as conformity with standards. Thus legitimate organisations will be those that act in accordance with the legal requirements, carrying out actions rationally and subject to a legal, rational and consciously constructed order. The agents act in their environment in response to diverse restrictions and incentives that they believe will serve their own interests.

The normative conception considers legitimacy as moral obligation, which goes beyond the merely legal requirements. It is argued that normative controls will be more interiorised than regulatory controls, and compliance with those controls will bring both intrinsic and extrinsic rewards. Actions carried out are rooted in their social context and are orientated by the moral dimension provided by obligations and relationships with others, in each situation (Navarro & Ruiz, 1997).

Lastly, in the cognitive pillar it is stated that organisations seek legitimacy by adopting structures and behaviours of reference, already accepted as correct, that are designated "socially-constructed acceptations" (Navarro & Ruiz, 1997). Organisations operate in accordance with "rational myths", which are the institutionalised beliefs or rules of the game (Scott, 1995).

RESEARCH MODEL

The research model proposed is based on the configuration of the institutional context of the golf courses of Andalusia. The different systems that we have described previously translate to the three institutional mechanisms (normative, coercive and mimetic) that will exert pressure on their environmental practices. Therefore, the proposed research model is presented in Figure 1.

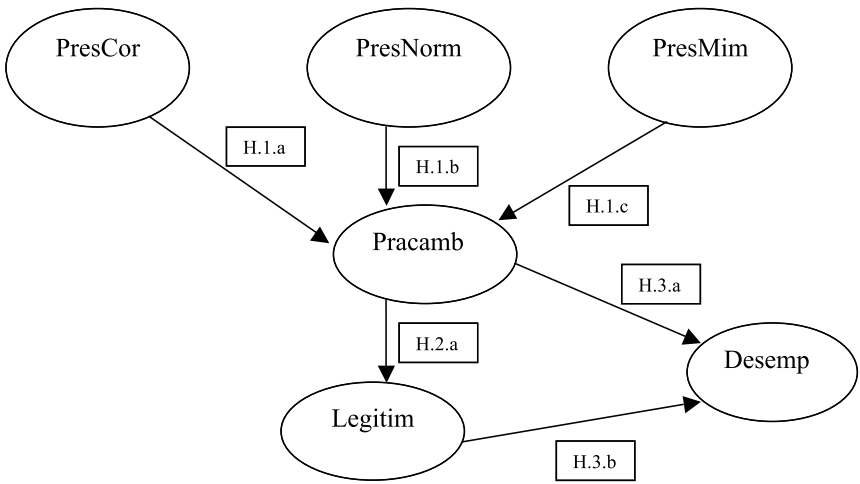

Figure 1. Graphical representation of the model
Source: Authors' own compilation.

PresNorm = Normative Pressure.
Prescor = Coercive Pressure.
PresMin = Mimetic Pressure.
Pracamb = Execution of environmental practices.
Desemp = Organisational performance/returns.
Legitim = Legitimacy.

The following research hypotheses are put forward:

H1a: Coercive pressure produced by the laws and other regulations applicable to the activities carried out in the golf courses of Andalusia have a positive influence on the adoption of sustainable environmental practices by these organisations. (+)

H1b: The acceptance of values and standards that originate from the normative pressures applicable in the context of the golf courses in Andalusia have a positive influence on the adoption of sustainable environmental practices by these organisations. (+)

H1c: The imitation of environmental practices employed by other organisations perceived as successful by the golf courses in Andalusia has a positive influence on the adoption of sustainable environmental practices by these organisations. (+)

H2a: The implementation of environmental practices by the golf courses in Andalusia is principally motivated by the search for social legitimacy, more than by the increase of business performance or returns. (+)

H3a: The implementation of responsible environmental management practices by the golf courses in Andalusia has a positive influence on the business performance of these organisations. (+)

H3b: A positive direct relationship exists between the social legitimacy sought by the golf courses in Andalusia and their business performance or returns. (+)

From the preceding hypotheses, it can be inferred that our model aims to measure the degree of influence that the mechanisms of institutional pressure (Scott, 1995; DiMaggio & Powell, 1983; North, 1990; Berger & Luckman, 1967; D´Andrade, 1984) have on the employment of sustainable environmental practices by the golf courses in Andalusia. In addition, we aim to corroborate the propositions of the classic institutionalists (Meyer & Rowan, 1977), in the sense that the final objective of practices of this type is more to gain legitimacy and social acceptance than to increase economic efficiency or organisational performance/returns.

METHODOLOGY AND SAMPLE

The instrument of measurement utilised to obtain the data was a structured questionnaire directed to the green keepers and/or managers of the golf courses of the Autonomous Region of Andalusia, since these are believed to be the individuals who have the most direct information on the topics studied.

A first version of the questionnaire was tested by several faculty members, with experience in this type of research, and managers of golf courses. Our objective was to ensure the validity of content of the instrument of measurement. Once the questionnaire had been sent, and after waiting one week, we interviewed these initial recipients to analyse their suggestions, which were incorporated in the definitive questionnaire.

Having thus validated the questionnaire, we were then ready to apply it to the population being studied, that is, to the population consisting of the 96 golf courses in Andalusia that were in active operation during the year 2009. In continuation (Table 2), we present the principal characteristics of the sample.

Table 2. Technical specifications of the sampling

Research field	Golf courses located in the Autonomous Region of Andalusia
Geographic location	Andalusia
Methodology	Structured questionnaire
Universe	96 golf courses in Andalusia
Size of the sample	Sample = universe, 96 golf courses
Valid responses	31 (32.29% of response rate)
Sampling error	7.42%
Level of confidence	95%, p = q = 0.5; Z = 1.96
Period of data collection	Pretest: September 2008. First mailing: December 2008. First re-mailing: January 2009. Second re-mailing: February 2009. Treatment of data: February and March 2009.

The scale utilised to measure the key factors of the research model is a Likert scale of five points. For the three pressure mechanisms argued under the Institutional Theory the type of measurement used has been utilised before, in the studies of DiMaggio and Powell (1991), Kostova and Roth (2002), and Llanas (2005). For the performance of environmental practices we have taken the indicators designed by Romero et. al. (2005) as the basis. The measurement of legitimacy has been made based on Deephouse (1996). Lastly, we utilised the scale proposed by Powell and Dent-Micallef (1997) to measure the organisational performance, utilising the respondents' perceptions of their own organisation's performance in comparison with its competitors.

Table 3. Latent variables of the model and indicators

Hypothesis.	Constructs	Indicators	Abbrev.
H2a	Legitimacy (Legitim)	Social recognition.	Recosoci
		Organisational values.	Valorg
		Legitimacy, Public Administration.	Admolegi
		Legitimacy, employees.	Emplegi

(Continued)

(cont.)

		Legitimacy, citizens.	Ciulegi
		Legitimacy, communications media.	Maslegi
		Legitimacy, customers.	Clielegi
		Legitimacy, suppliers.	Provlegi
		Legitimacy, associations of ecologists	Asoclegi
		Legitimacy, professional associations.	Proflegi
		Legitimacy, business sector.	Sectlegi
		Relationships with pressure groups.	Relagrup
H1a	Coercive pressure (Prescor)	Knowledge of laws.	Conoley
		Compliance with laws.	Cumpley
		Regulatory authorities.	Orgregul
		Existence of agreements.	Exacuerd
H1b	Normative pressure (Presnor)	Moral obligation.	Obligmor
		Congruence with values of the context.	Congrval
		Social norms.	Normsoci
H1c	Mimetic pressure (Presmim)	Knowledge from experience.	Conoexp
		Models to follow	Modelseg
		Imitation practices.	Imiprac
		Knowledge of successful experience.	Conoexit
H3a	Environmental management practices (Pracamb)	Number of environmental proposals.	Numprop
		Proposals put into practice.	Propract

(Continued)

(cont.)

		Proposal achieves objectives.	Probjet
		Cost of environmental actions.	Costemed
		Number of environmental legal proceedings.	Expedmed
		Employees in environmental training activities.	Emplefor
		Hours of environmental training activities.	Horafor
		Awarded environmental certification.	Provcert
		Purchases from suppliers with environmental certification.	Compcert
		Expenditure on disseminating environmental achievements.	Diflogro
		Expenditure on campaigns to increase awareness.	Campconc
H3b	Business performance or returns (Desemp)	Economic conditions 2007.	Condeco
		Financial result 2007.	Rtdoeco
		Returns 2007.	Rentbil
		Number of Green Fees 2007.	Numgren
		Market share 2007.	Cuotame
		Economic conditions 2003-2007.	Condec03
		Financial result 2003-2007.	Rtdoec03
		Returns 2003-2007.	Rentb03
		Number of Green Fees 2003-2007.	Num03
		Market share 2003-2007.	Cuota03

The scales were reviewed utilising factorial analysis, with the object of determining their uni-dimensionality. In relation to the type of indicator selected, in all cases the indicators have been of the reflective type.

ANALYSIS OF DATA USING PLS

The PLS (Partial Least Squares) technique has been utilised for the analysis of the data. This technique can be considered appropriate in our case for two main reasons. First, as a result of the procedure of segmentation of complex models, the PLS approach can work with small sample sizes (Barclay et al., 1992), as in our case. Second, according to Selling (1995), the use of PLS should be considered in studies of the exploratory nature.

The graphic representation of the structural model appears in figure I. Having represented and defined the variables, a PLS model has to be analysed and interpreted in two steps, in which the measurement model and the structural model are considered.

Analysis of the measurement model

In this step we determine whether the theoretical concepts are measured correctly by the variables observed; for this their validity and reliability are studied. In a PLS model the individual reliability of the item, the internal consistency and the convergent and discriminant validity are analysed (Chin, 1998).

The **individual reliability of each item** for constructs with reflective indicators is evaluated by the PLS model by examining the loading, or simple correlation, of each indicator with the construct that it is intended to measure. The value of the standardized loadings must be equal to or greater than 0.50 according to Falker and Miller (1992). In the scales employed, the majority of the indicators present loadings higher than 0.50; in particular, and after successive clearings, we are left with 27 items, out of a total of 44 that comprised the initial scale.

Table 4. Composite reliability of the constructs of the model

Constructs	Composite reliability
PresCoer	0.697582
PresNorm	0.802031
PresMIm	0.744143
Pracamb	0.915181
Legtimi	0.885277
Desemp	0.867587

The **reliability of a construct** allows us to check the internal consistency of all the indicators when measuring the concept; in other words, an evaluation is made of how rigorously the manifest variables are measuring the same latent variable. To measure this parameter

we must look at the composite reliability, given the advantages that it presents over the Cronbach's Alpha. For this we follow Nunnally (1988), who suggests 0.7 as a modest level for the reliability in early stages of research, and a stricter 0.8 for basic research. Table 4 gives the values of the composite reliability obtained, for the reflective constructs that comprise the model proposed.

It can be seen that all the constructs have a composite reliability higher than or practically equal to 0.7.

The **convergent validity** is analysed by the average variance extracted (AVE), which gives the amount of variance that a construct obtains from its indicators in relation to the amount of variance due to the measurement error. For this, Fornell and Lacker (1981) recommend values higher than 0.5, since this level guarantees that at least 50% of the variance of the construct is due to its indicators. Table 5 presents the values of the AVE obtained in the research model proposed.

As can be observed, all the constructs of the research model proposed meet the condition recommended by Fornell and Lacker (1981); therefore it is accepted that the constructs possess convergent validity.

Table 5. Convergent validity of the constructs of the model

Constructs	AVE
PresCoer	0.537966
PresNorm	0.579547
PresMIm	0.593380
Pracamb	0.576204
Legtimi	0.609760
Desemp	0.505700

To evaluate the **discriminant validity** we check whether the average variance extracted (AVE) of the construct is greater than the square of the correlations between that construct and the rest that make up the research model (Fornell & Lacker, 1981), which indicates that one construct is different from any other. To make the procedure of calculation more practical, we perform the inverse procedure, that is, to determine the discriminant validity of a construct the square root of AVE is calculated; the AVE has previously been calculated by running the data on the Visual-PLS software; the value must be higher than the correlations presented with the rest of the constructs. These values are given in the Table 6, in which the elements of the diagonal correspond to the square roots of the AVEs.

Table 6. Discriminant validity

Constructs	PresCoer	Pres-Norm	PresMIm	Pracamb	Legtimi	Desemp
PresCoer	0.733					
PresNorm	-0.382	**0.761**				
PresMIm	-0.097	0.357	**0.770**			
Pracamb	-0.425	0.444	0.397	**0.759**		
Legtimi	-0.312	0.633	0.411	0.486	**0.780**	
Desemp	-0.464	0.207	0.135	0.505	0.461	0.711

As can be observed, all the constructs meet the condition argued by Fornell and Lacker (1981); therefore we can state that the constructs have discriminant validity.

Analysis of the structural model

Table 7 reflects the path coefficients between the different constructs, which tell us, in each case, the strength of the relationship established between two constructs:

Table 7. Path coefficients, correlations and variance explained

Relationships of the internal model	Path coefficients	Correlations	% of variance explained
PresCoer->Pracamb	0.3120	-0.425	13.26
PresNorm->Pracamb	0.2220	0.444	9.86
PresMim->Pracamb	0.2880	0.397	11.43
Pracamb->Legtimi	0.4860	0.486	23.62
Legtimi->Desemp	0.2820	0.461	13.00
Pracamb->Desemp	0.3680	0.505	18.54

As can be observed in Table 7, all the path coefficients meet the condition proposed by Chin (1998), being above 0.2.

The predictive power of the model that we have put forward can be analysed utilising the value of the variance explained (R^2) for the dependent latent variables (Chin, 1998; Falk & Miller, 1992; Leal & Roldán, 2001). Falk and Miller (1992) stipulate values that are equal to or larger than 0.1 as adequate for the variance explained. In our case,

as reflected Table 8, we can conclude that the model presents an adequate predictive power.

Table 8. Variance explained of the dependent variables

Endogenous constructs	R^2
Pracamb	0.345
Legitmi	0.236
Desemp	0.315

In respect of the stability of the estimations offered and according to the propositions argued by Barclay et al. (1995), Tenenhaus et al. (2005) and Henseler et al. (2009), we consider appropriate to complement the analysis of the structural model estimated with the PLS technique, by means of the *cross-validated redundancy index* (Q^2) or the Stone-Geisser test (Stone, 1974; Geisser, 1975). In our case the values of Q^2 are slightly higher than zero, as shown in Table 9; this indicates that the model has some predictive capacity or relevance, albeit weak.

Table 9. Stone-Geisser test for the latent variables

Endogenous constructs	Q^2
Pracamb	0.005
Legitmi	0.002
Desemp	0.003

In any case, the values presented by Q^2 in our work are not negative, which would have indicated that the model lacked any predictive power (Henseler, 2009). We agree, however, with what Barclay et al. (1995) state. They argue that the objective of the PLS analysis is to explain the variance in a sense of regression and thus R^2 and the level of the path coefficients are measures sufficient and indicative of how well the model performs. In our cases acceptable levels in both measures are obtained, so we can conclude that the model does have predictive capacity.

TESTING OF HYPOTHESES

Subsequent to this checking, we have executed a Bootstrap analysis in PLS to utilise a Student-T distribution of two tails, with n-1 degrees of freedom, n being the number of subsamples analysed (in

our case 500), to determine that the relationships (hypotheses) are statistically significant.

The following figure shows the ß coefficients and the Student-T tests (in parentheses in Figure 2) of all the relationships between the constructs of our model.

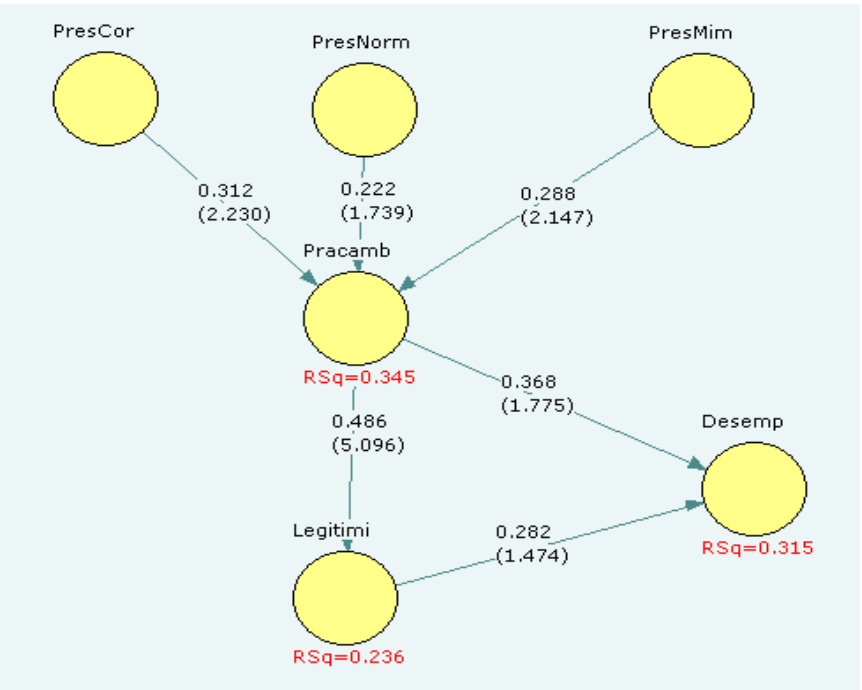

Figure 2. Model with the results of testing the hypotheses

If we take as reference the levels of acceptance commonly argued in the scientific literature for this type of PLS technique, we can state that the hypotheses H1a, H1c and H2a would be accepted and their testing would be positive. Similarly, the hypotheses H1b, H3a and H4a would be rejected because their Student-T test values do not exceed the minimum level required of 1.96 (or alternatively we would have to lower the level of significance demanded).

CONCLUSIONS

The object of the present work is to analyse and study the impact of the corresponding institutional context on the golf courses of Andalusia. A series of conclusions can be drawn from this analysis, with implications for the management of organisations of this type.

First we can state that the golf courses of Andalusia coexist with a highly institutionalised environment, in which we can differentiate the

classic mechanisms of pressure and isomorphism developed according to Institutional Theory and defended by authors such as Meyer and Rowan (1977), Scott (1995) and DiMaggio and Powell (1983). Thus, we can distinguish a coercive mechanism that is reflected in the broad legal tradition regulating the activities of these organisations; similarly we have been able to identify a mimetic mechanism arising out of the experiences considered successful in environmental matters; and lastly there is a normative mechanism that arises from the various initiatives of professional associations of this field in environmental matters.

From this institutional context, which we have identified and defined, we can conclude, in function of the data of composite reliability that we have obtained, that all the constructs considered in the present study have a fairly acceptable internal consistency. Similarly, we can state that at least 50% of the variance of all the constructs is due to their indicators; therefore convergent validity is another of the characteristics to be noted, particularly in respect of the constructs that form the institutional context.

We can state that the mechanism that has the greatest incidence on the development of environmental management practices by these organisations is coercive pressure, followed by mimetic pressure and, in third place, normative pressure. This proposition is motivated by the great diversity of standards that exist in relation to the activities of golf course management, and their relationship to the natural environment, and especially by the approval of Decree 43/2008 that regulates the establishment and functioning of golf courses in Andalusia, with many environmental implications.

Another of the conclusions that needs to be emphasised refers to the importance for these golf course of the concept of legitimacy, understood broadly as social acceptance. It has been demonstrated in the study that the principal motivation for implementing practices of environmental protection is the achievement of social legitimacy, even more than the improvement of financial performance and returns. Moreover, those managers interviewed at these golf courses do not believe that a greater legitimacy necessarily generates better returns for them. They are similarly sceptical that putting environmental policies into practice represents a better organisational performance for them.

The preceding statement strengthens the importance for the golf courses of being respectful of the natural environment, since this confers social acceptance to them and, therefore, brings clients and resources that ensure their survival.

Our aim with this study is to contribute to the studies termed "environmental or green institutionalism", but from a perspective of organisations related to tourism, and we believe this study provides additional knowledge to this field of research.

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