Abstract
The correct management of intangible assets such as image and legitimacy can be crucial for the survival and success of organizations given the current competitive landscape. These variables have been analyzed in the literature due to their importance. However, additional research is still needed in order to clarify the way in which they are related. Spanish public universities operate in a complex environment, competing for economic resources from the government as well as for talented students, prestigious professors and competent employees at the national and international level. The aim of this paper is to analyze the relationship between image and legitimacy in the higher education context. For this purpose, a review of the literature regarding image and legitimacy will be carried out, followed by an analysis of the results obtained through a survey distributed to a variety of universities’ stakeholders (students, professors, administrative personnel, alumni and managers). To analyze the data, PLS SEM was used. The results confirm the proposed hypothesis regarding the influence that image has on legitimacy.

Keywords
Image, legitimacy, higher education, universities, stakeholders.

How to cite this article
1. Introduction

The higher education sector has been experimenting with relevant changes over the last decades. Universities operate in highly competitive markets (Lafuente-Ruiz-de-Sabando, Zorrilla & Forcada, 2017), where attracting resources has become a complicated task. Globalization has expanded the pressure and competition to international levels since universities need to compete globally to attract talented students, prestigious professors and employees (Altbach, Reisberg & Rumbley, 2010; Christensen & Gornitzka, 2017; Hemsley-Brown, Melewar, Nguyen & Wilson, 2016; Plewa, Ho, Conduit & Karpen, 2016; Verčič, Verčič & Žnidar, 2016). Furthermore, despite existing criticisms (Barron, 2017), stakeholders’ expectations regarding universities’ rankings are increasing, augmenting the pressure in the sector.

In addition, the decrease in government funding has motivated an increase in private institutions, which has resulted in a loss of students attending public universities in favor of private ones (Lafuente-Ruiz-de-Sabando et al., 2017). Under these circumstances, Spanish Public Universities are facing a complicated situation in the higher education sector.

Image and legitimacy are considered to be relevant variables for organizations’ survival and success (Gray & Balmer, 1998; Suchman, 1995; Andreassen & Lindestad, 1998; Zimmerman & Zeitz, 2002). Scholars have shown in their research that legitimacy increases organizations’ access to resources (Czinkota, Kaufmann & Basile, 2014) and that stakeholders are willing to engage with legitimated institutions. Moreover, having a positive image improves the loyalty and satisfaction level of stakeholders (Andreassen & Lindestad, 1998) as well as the overall perception of the organization. Despite the clear relevance that both variables can provide organizations, the interaction between image and legitimacy has yet to be fully elucidated; therefore, further research on this matter remains important.

Under these circumstances, the aim of this paper is to analyze the existing relationship between legitimacy and image as well as the importance of both constructs in Spanish Public Universities. This evaluation will be made considering different stakeholders (students, alumni, professors, support personnel and managers), since the literature has shown that each stakeholder group can have different perceptions and experiences towards the same organization.

To meet this objective, a review on the literature on image and legitimacy as well as on their differences and relationships will be carried out in the higher education sector, followed by an empirical analysis using survey data distributed among Spanish Public Universities. Finally, the main conclusions, limitations and future lines of research will be presented.

2. Theoretical framework

2.1. Image in the Higher Education Sector

Corporate image is classified as a crucial resource for organizations (Gray & Balmer, 1998). When evaluating an organization, corporate image represents a sign of quality and has the ability to affect the degree of stakeholders’ loyalty (Andreassen & Lindestad, 1998; Fornell, Rust & Dekimpe, 2010; Tran, Nguyen, Melewar & Bodoh, 2015). A strong corporate image can help an entity to differentiate itself from its competitors through the development of competitive advantages, which can improve its position in the market (Melewar & Karaosmanoglu, 2006).
Universities are assigning more resources to manage their image and improve their relationship with their stakeholders

The higher education sector has been experimenting with important changes over recent decades. Increases in demand have motivated the expansion of the supply in terms of the number and variety of offers (Maringe, 2009). Globalization has expanded this competition to international levels (Altbach et al., 2010). Furthermore, the existing competitive scenario has also increased the pressure for higher education institutions to hold high a position in rankings, since stakeholders consider these positions to be relevant factors when they decide with which university to engage (Barron, 2017).

Higher education institutions have understood the importance of managing intangible assets, such as image, to differentiate themselves from competitors and to improve their relationship with their stakeholders (Alves & Raposo, 2010; Nguyen & LeBlanc, 2001). Universities are assigning more resources to manage their image and improve it in their stakeholders’ eyes (Curtis, Abratt & Minor, 2009), since in the higher education sector, intangible perceptions may be more relevant than measurable outcomes to stakeholders.

Despite the relevance that holding a positive image has for higher education institutions, there is still a lack of empirical research for understanding to a deeper degree which elements and strategies might be crucial for managing it in an efficient manner (Aghaz, Hashemi & Sharifi Atashgah, 2015; Duarte, Alves & Raposo, 2010; Wilkins & Huisman, 2015).

Image is considered to be a multidimensional and formative construct in the higher education context (Lafuente-Ruiz-de-Sabando et al., 2017). Higher education image formation can vary between different stakeholder groups (Arpan, Raney & Zivnuska, 2003), since they are affected by different stimuli and have different interests in the organization. Therefore, analyzing different audiences’ perceptions and identifying these differences is an interesting aspect to examine (Aghaz et al., 2015).

2.2. Legitimacy in the Higher Education Sector

Legitimacy is a crucial factor for the survival and success of organizations (Suchman, 1995; Zimmerman & Zeitz, 2002). Legitimate organizations are able to pursue their activities without being questioned and can avoid challenges from society (Meyer & Rowan, 1977).

Organizations that are perceived as legitimate are in a better position to compete for resources and have unrestricted access to markets (Suchman, 1995). Deephouse, Bundy, Tost and Suchman (2017) viewed legitimacy as an important factor because it has a defined effect on organizations' social and economic exchanges. Most stakeholders are willing to engage only with legitimate organizations and will avoid maintaining relationships with those that are questioned by the social system (Deephouse et al., 2017). Therefore, organizations seeking continuity and success in the market need to prove their viability and legitimacy to receive support from stakeholders.

Higher education institutions have faced numerous challenges over the last few decades in terms of a decrease in government funding, globalization (Altbach, 2013; Burnett & Huisman, 2010; Dodds, 2008), an increase in international competitiveness, as well as a greater demand for quality and effectiveness in the opportunities provided by universities (Stensaker & Norgård, 2001). These institutions have had to experiment with relevant changes in order to respond to several threats such as changes in governance, the academic profession, quality, innovations as well as internationalization (Altbach et al., 2010).

Universities are facing pressure from stakeholders and their environments to adopt certain structures and follow specific procedures in order to be considered legitimate and thus survive.
Higher education institutions need to renovate their legitimacy since their behavior has been questioned lately by stakeholders and succeed in the market (Stensaker & Norgård, 2001). This adjustment remains a complex matter for higher education institutions, since external demands require adopting specific standards within the higher education “industry” while at the same time offering relevant innovations.

The current situation faced by higher education institutions whereby the sector has been affected by marketization (Fairclough, 1993) and its reconfiguration has been viewed by groups in the academic field as controversial, yet they understand that these institutions need to promote their legitimacy to gain the right to exist (Rodriguez-Pomeda & Casani, 2016).

Moreover, some authors have considered that higher education institutions and, more specifically, business schools have been developing actions that harm their identity and legitimacy since they have been straying from their original mission of serving the public good (Bennis & O’Toole, 2005; Khurana & Nohria, 2008). Due to this behavior, they have raised questions about their legitimacy and whether their actions and activities continue to be acceptable and desirable within the social system (Suchman, 1995).

Despite the relevance of legitimacy for higher education institutions, few empirical papers exist within the literature. In fact, most of the research on measuring legitimacy in the higher education field appears to be related to specific practices more so than to institutions, apart from the work developed by Alajoutsijärvi, Juusola and Siltaoja (2015), Farrugia and Lane (2013) and Rodriguez-Pomeda and Casani (2016) among others. Therefore, additional research is still needed.

2.3. Relationships and differences between image and legitimacy

The relevance of intangible assets such as image and legitimacy for organizations, due to the highly competitive environments in which they operate, have been highlighted in the literature. However, a lack of clarity still exists in defining the differences and relationship between these variables. Despite their relevance, there has not been enough empirical research identifying whether there is a clear relationship between the two. It is clear that, within some of the common traits between image and legitimacy, the benefits that they provide to those organizations holding positive levels of both variables as well as the consideration of stakeholders’ perceptions for their formation can be highlighted (Foreman, Whetten & Mackey, 2012).

Some authors such as Tran et al. (2015) have defined image as the execution of corporate strategy aimed at stimulating and establishing a positive corporate image, which is obtained by delivering ethically and socially acceptable outcomes. Based on this definition of the concept, a relationship between legitimacy and image can be identified, since image is achieved by the delivery of ethically and socially acceptable outcomes, which is similar to the definition of legitimacy provided by Suchman (1995).

In the research developed by MacLean and Behnam (2010), they analyzed the relationship between the compliance programs developed by the company Acme and legitimacy perceptions. They showed how Acme's compliance program was able to project an acceptable and appropriate image for external stakeholders, which allowed Acme to maintain organizational legitimacy. Therefore, this empirical research supports the effect that image has on legitimacy. Metzler (2001) tried to analyze the effect that repair image campaigns have had on the legitimacy of tobacco company Philip Morris. They viewed organizational legitimacy and image repair as complementary theories, since both focus on issues of understanding and addressing norms, values and concerns of the organizational public to succeed and survive. The objective pursued by Philip Morris’ image repair campaign was to show stakeholders the
positive aspects and good corporate character of the organization, since providing benefits to society is a crucial aspect of legitimacy. In this empirical research, the author suggested that image repair can be viewed as a correct response to the legitimacy challenges that organizations face. Under these circumstances, it can be said that an improvement in an organization’s image can have a positive impact on its legitimacy as well.

Furthermore, Rao (1994) established a relationship between image, reputation and legitimacy in his research. Following this approach and due to the bidirectional relationships between image and reputation and between legitimacy and reputation, it can be assumed that a relationship between legitimacy and image exists through these variables’ relationship with reputation. If image affects reputation (Bromley, 1993; Fombrun & Van Riel, 1997; Fombrun & Shanley, 1990; Gray & Balmer, 1998; Tran et al., 2015) and reputation has an effect on legitimacy (Czinkota et al., 2014; Deephouse & Suchman, 2008; Rindova, Williamson, Petkova & Sever, 2005), it can be argued that an organization’s image will have an impact on its legitimacy. On the other hand, if legitimacy affects reputation (Bansal & Roth, 2000; Czinkota et al., 2014; Deephouse & Suchman, 2008; Doh, Howton, Howton & Siegel, 2010; Fan, 2005; Rao, 1994; Reimann, Ehrigott, Kaufmann & Carter, 2012; Thomas, 2007) and image is influenced by reputation (Harvey, Morris & Müller Santos, 2017; Nguyen & LeBlanc, 2001; Zineldin, Akdag & Vasicheva, 2011), it is possible to consider an existing effect of an institution’s legitimacy on its image.

Under these circumstances and considering the previous mentioned arguments, the following hypothesis is established for the Spanish Public Universities’ context:

**Hypothesis 1:** Universities with a better image will have a higher legitimacy.

Figure 1 shows the model to be tested as well as the established hypothesis for this chapter.
3. Sample and methodology

3.1. Research setting
The selected research setting was within the Spanish Public Universities, since, as is apparent in other countries, these institutions need to identify the best manner of managing their intangible assets, such as image and legitimacy, to improve their situation in their sector. Within the Spanish Public Universities, Rey Juan Carlos University of Madrid was chosen to develop the analysis of this paper, such that information from different stakeholders (professors, current students and alumni, administrative personnel and managers) was gathered. Rey Juan Carlos University is a Public University that was founded 20 years ago and currently has 38,085 students and 1,543 professors.

3.2. Data collection
To collect data for this research paper, a questionnaire was developed. In an initial stage, a pretest was developed with 300 online students to verify the scale that was used and to adapt the survey questions if necessary. After analyzing the results of the pretest, several questions were changed, and a number of questions were taken out of the final version of the survey. In the final stage, a total of 844 effective surveys were answered, of which were 73% were completed by students, 0.6% by alumni, 16% by professors, 0.3% by administrative personnel and 0.1% by managers.

3.3. Measurement
All constructs were measured using items adapted from existing scales and were scored using an 11-point Likert scale, with 0 indicating “strongly disagree” and 10 “strongly agree.” The items used to measure legitimacy across three dimensions were taken from Suchman’s (1995) definitions and adapted from the research developed by Thomas (2005), Chung, Berger and DeCoster (2016), and Chaney, Lunardo and Bressolles (2016). The items and dimensions used to measure image were taken from Beerli Palacio, Díaz Meneses and Pérez (2002). Figure 2 presents the measurement model.

Figure 2
Measurement model

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pragmatic Legitimacy</td>
<td>LEGP1</td>
<td>My university offers me personal benefit</td>
</tr>
<tr>
<td></td>
<td>LEGP2</td>
<td>It helps me to grow</td>
</tr>
<tr>
<td></td>
<td>LEGP3</td>
<td>My university satisfies my needs</td>
</tr>
<tr>
<td>Moral Legitimacy</td>
<td>LEGM1</td>
<td>My university follows the law</td>
</tr>
<tr>
<td></td>
<td>LEGM2</td>
<td>It behaves in an honest manner</td>
</tr>
<tr>
<td></td>
<td>LEGM3</td>
<td>It is socially responsible</td>
</tr>
<tr>
<td>Cognitive Legitimacy</td>
<td>LEGCOG1</td>
<td>I know the activities in which my university is involved</td>
</tr>
<tr>
<td></td>
<td>LEGCOG2</td>
<td>I consider these activities and actions to be performed in the best possible manner</td>
</tr>
<tr>
<td></td>
<td>LEGCOG3</td>
<td>My university is well-managed</td>
</tr>
<tr>
<td>Cognitive Image</td>
<td>IMAGCOG1</td>
<td>My university has good facilities</td>
</tr>
<tr>
<td></td>
<td>IMAGCOG2</td>
<td>It offers a good range of courses</td>
</tr>
<tr>
<td></td>
<td>IMAGCOG3</td>
<td>It is orientated and concerned with its stakeholders’ interests</td>
</tr>
<tr>
<td>Affective Image</td>
<td>IMAF1</td>
<td>My university is pleasant</td>
</tr>
<tr>
<td></td>
<td>IMAF2</td>
<td>It is stimulating</td>
</tr>
<tr>
<td></td>
<td>IMAF3</td>
<td>It is dynamic</td>
</tr>
</tbody>
</table>

Source: Own elaboration based on the research of Beerli Palacio et al. (2002), Suchman (1995), Thomas (2005), Chung et al. (2016), Chaney et al. (2016).
The descriptive analysis shows that the stakeholders evaluated their university’s legitimacy and image as 5.66 and 6.22, respectively, on a scale of 0 to 10.

4. Data analysis and results

4.1. Descriptive analysis

First, in order to understand the values of the variables representing image and legitimacy for the sample, a descriptive analysis was carried out. Figure 3 presents the results of this descriptive analysis, showing the means and standard deviations for the different factors as well as their corresponding items based on the results of the survey.

As indicated in Figure 3, the average value for legitimacy is 5.66 and 6.22 for image. Among the averages for the three different dimensions of legitimacy, it appears that the moral legitimacy represents the lowest values, while the pragmatic dimension represents the highest numbers. In the case of image, both the affective and cognitive dimension present similar values. However, the affective one is slightly higher.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Average factor value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pragmatic Legitimacy</td>
<td>LEGP1</td>
<td>6.604</td>
<td>2.580</td>
<td>6.463</td>
</tr>
<tr>
<td></td>
<td>LEGP2</td>
<td>6.595</td>
<td>2.623</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEGP3</td>
<td>6.190</td>
<td>2.577</td>
<td></td>
</tr>
<tr>
<td>Moral Legitimacy</td>
<td>LEGM1</td>
<td>4.822</td>
<td>3.370</td>
<td>4.972</td>
</tr>
<tr>
<td></td>
<td>LEGM2</td>
<td>4.501</td>
<td>3.297</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEGM3</td>
<td>5.592</td>
<td>2.995</td>
<td></td>
</tr>
<tr>
<td>Cognitive Legitimacy</td>
<td>LEGCOG1</td>
<td>5.880</td>
<td>2.637</td>
<td>5.544</td>
</tr>
<tr>
<td></td>
<td>LEGCOG2</td>
<td>5.858</td>
<td>2.637</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEGCOG3</td>
<td>4.895</td>
<td>3.009</td>
<td></td>
</tr>
<tr>
<td>LEGITIMACY</td>
<td></td>
<td></td>
<td></td>
<td>5.660</td>
</tr>
<tr>
<td>Cognitive Image</td>
<td>IMAGCOG1</td>
<td>7.172</td>
<td>2.018</td>
<td>6.176</td>
</tr>
<tr>
<td></td>
<td>IMAGCOG2</td>
<td>7.358</td>
<td>2.066</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMAGCOG3</td>
<td>5.533</td>
<td>2.861</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMAGCOG4</td>
<td>4.641</td>
<td>2.748</td>
<td></td>
</tr>
<tr>
<td>Affective Image</td>
<td>IMAF1</td>
<td>6.991</td>
<td>2.179</td>
<td>6.266</td>
</tr>
<tr>
<td></td>
<td>IMAF2</td>
<td>5.732</td>
<td>2.688</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMAF3</td>
<td>6.074</td>
<td>2.560</td>
<td></td>
</tr>
<tr>
<td>IMAGE</td>
<td></td>
<td></td>
<td></td>
<td>6.221</td>
</tr>
</tbody>
</table>

4.2. Reliability and validity evaluation

To analyze the established hypothesis and relationships, structural equation modeling was applied using SmartPLS, system version 3. This technique was chosen because it is a powerful method of analysis (Chin, Marcolin & Newsted, 2003) that presents some advantages for carrying out the specified research (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014).

The first step in managing the data was to verify the reliability and validity of the proposed model shown in Figure 1. In Figure 4, the information regarding the model’s reliability and validity is presented.
The proposed hypothesis was confirmed, showing a positive and significant relationship between image and legitimacy.

For legitimacy’s reflective items, all Cronbach’s alphas surpassed the recommended level of 0.70 (Cronbach, 1951; Nunnally & Bernstein, 1994). A composite reliability over 0.60 can be considered appropriate (Bagozzi & Yi, 1988). Therefore, all items are within this scope, since they all appear to be greater than this value. In addition, the average variance extracted (AVE) was calculated, and all values were greater than 0.50, which is considered acceptable (Fornell & Larcker, 1981). Furthermore, in Figure 4, the standardized loadings for the reflective items are presented as well as their significance level (p<0.01), which shows that they were meaningfully linked to their respective dimensions and constructs. In Figure 5, aspects related to discriminant validity are presented. The HTMT ratio method, recently proposed by Henseler, Ringle and Sarstedt (2015), was also applied to assess discriminant validity. Since every ratio was lower than 0.85 (Clark & Watson, 1995), no problems appear in the model.

For the formative constructs, image and legitimacy’s second-order items, the collinearity (VIF) values are presented, showing that every item had an appropriate level of VIF<5 (Hair, Ringle & Sarstedt, 2011). In addition, the standardized weights are shown in Figure 4 as well as their significance levels (p<0.01), showing that all formative values were significantly associated with their dimension or second-order construct.

### Figure 4
Measurement model reliability and validity

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Weights/ loadings</th>
<th>t-value</th>
<th>VIF</th>
<th>CA</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pragmatic Legitimacy</td>
<td>LEGP1</td>
<td>0.934</td>
<td>110.990</td>
<td>0.929</td>
<td>0.955</td>
<td>0.875</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEGP2</td>
<td>0.945</td>
<td>128.745</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEGP3</td>
<td>0.927</td>
<td>111.702</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral Legitimacy</td>
<td>LEMG1</td>
<td>0.944</td>
<td>157.516</td>
<td>0.927</td>
<td>0.954</td>
<td>0.873</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEMG2</td>
<td>0.960</td>
<td>280.667</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEMG3</td>
<td>0.898</td>
<td>99.701</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Legitimacy</td>
<td>LEGCOG1</td>
<td>0.822</td>
<td>43.927</td>
<td>0.839</td>
<td>0.903</td>
<td>0.756</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEGCOG2</td>
<td>0.922</td>
<td>141.541</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>LEGCOG3</td>
<td>0.862</td>
<td>74.645</td>
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</tr>
<tr>
<td>Cognitive Image</td>
<td>IMAGCOG1</td>
<td>0.195</td>
<td>5.492</td>
<td>1.639</td>
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</tr>
<tr>
<td></td>
<td>IMAGCOG2</td>
<td>0.177</td>
<td>4.859</td>
<td>1.689</td>
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<tr>
<td></td>
<td>IMAGCOG3</td>
<td>0.578</td>
<td>17.793</td>
<td>1.447</td>
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</tr>
<tr>
<td></td>
<td>IMAGCOG4</td>
<td>0.320</td>
<td>8.796</td>
<td>1.579</td>
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<tr>
<td>Affective Image</td>
<td>IMAF1</td>
<td>0.276</td>
<td>4.654</td>
<td>2.483</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>IMAF2</td>
<td>0.467</td>
<td>6.290</td>
<td>4.557</td>
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</tr>
<tr>
<td></td>
<td>IMAF3</td>
<td>0.334</td>
<td>4.816</td>
<td>3.863</td>
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</tr>
<tr>
<td>Image</td>
<td>Cognitive Image</td>
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<td>18.582</td>
<td>2.496</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affective Image</td>
<td>0.299</td>
<td>6.559</td>
<td>2.496</td>
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<td></td>
</tr>
<tr>
<td>Legitimacy</td>
<td>Pragmatic Legitimacy</td>
<td>0.444</td>
<td>11.286</td>
<td>1.979</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moral Legitimacy</td>
<td>0.346</td>
<td>8.964</td>
<td>2.613</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cognitive Legitimacy</td>
<td>0.334</td>
<td>8.406</td>
<td>2.611</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 5

**Measurement model discriminant validity (HTMT)**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cognitive Legitimacy</th>
<th>Moral Legitimacy</th>
<th>Pragmatic Legitimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Legitimacy</td>
<td></td>
<td>0.845</td>
<td></td>
</tr>
<tr>
<td>Moral Legitimacy</td>
<td>0.740</td>
<td>0.709</td>
<td></td>
</tr>
<tr>
<td>Pragmatic Legitimacy</td>
<td>0.740</td>
<td>0.709</td>
<td></td>
</tr>
</tbody>
</table>

Under these circumstances, it was concluded that the proposed model offered appropriate evidence of reliability and convergent and discriminant validity in the case of the reflective constructs forming legitimacy dimensions as well as in terms of collinearity and weight-loading relationship and significance levels.

**4.3. Hypothesis testing**

The results obtained through the model show that image positively and significantly affected legitimacy (H 1; B=0.851; p<0.01). Therefore, the hypothesis established through the literature review can be confirmed. Figure 6 and Figure 7 show the results.

**Figure 6 Hypothesis testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Beta</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H 1 Image-Legitimacy</td>
<td>0.851</td>
<td>75.174</td>
</tr>
</tbody>
</table>

*R Square (Legitimacy)= 0.723
*Q Square (Legitimacy)= 0.542

**Figure 7 Estimation of the proposed model**

![Diagram showing the relationship between image, legitimacy, and its components with coefficients and t-values]
5. Discussion and conclusions

Due to the current competitive scenario faced by higher education institutions, the introduction of intangible assets management has become a crucial aspect for universities. These institutions have understood the multiple benefits that holding a positive image and legitimacy can provide. Despite the relevance that image and legitimacy have for organizations, there is still a lack of empirical evidence to clarify the possible relationships that could exist between them.

Under these circumstances, the objective of this research was to empirically demonstrate the proposed hypothesis based on the literature review, whereby several references have supported the idea that image has an effect on legitimacy. This hypothesis was tested in the higher education field since, due to the current competition faced in this sector, evaluating the relationship between these two intangible assets can be considered a relevant matter.

As a first step, a descriptive analysis was carried out in order to understand the levels of perceived image and legitimacy. The obtained results show that the levels of legitimacy and image at Rey Juan Carlos University were 5.66 and 6.22, respectively, out of 10. Due to the relevance of these variables in the higher education context, these values could be considered to be relatively low since, even though they are past the midpoint, they are far from ideal.

When considering the different dimensions for legitimacy and image, the following elements were discovered. In the case of the pragmatic, moral and cognitive dimensions considered for the construct of legitimacy, our findings confirm the significance of all three factors for measuring the overall legitimacy of the university, and the weights for each of them were similar. Therefore, the dimensions proposed by Suchman (1995) could be confirmed through this research. In the case of image, both the affective and cognitive components were significant for the overall measurement of the construct, which is in line with authors such as Kennedy (1997) and Beerli Palacio et al. (2002).

Our findings confirm the proposed hypothesis regarding the effect that image has on legitimacy, since a positive and significant relationship exists between the given constructs. This confirmation has already been supported by authors such as Tran et al. (2015), MacLean and Behnam (2010) and Metzler (2001). Moreover, and based on the arguments suggested previously, in a less explicit manner, our findings are in line with the existing relationship that both variables, image and legitimacy, have with another intangible asset: reputation (Rao, 1994).

The relevance of identifying the influence that image has on legitimacy is related, first of all, with presenting additional empirical evidence within a relatively innovative field, and, second of all, this relationship can serve to guide university managers who are trying to manage their legitimacy and image, since managers can develop actions to improve their image, which, as a result, will also have a positive impact on the legitimacy of the given university. Considering that resources are limited, it is interesting to identify these types of relationships in order for universities to benefit from synergies when applying strategies to increase their competitive position in the sector.

Regarding the implications and recommendations for university managers based on the results obtained from this research, the following points can be highlighted. First, the results regarding the values of legitimacy and image for Rey Juan Carlos University are relatively pedestrian. Therefore, it is important that they start developing actions to try and improve these levels, since, given the competitive landscape in which they operate, obtaining high levels...
of intangible assets could determine their survival in the sector. In the case of legitimacy, since the moral dimension was the lowest one, they should develop actions that relate more to improving their right to exists as well as their behavior in order to be considered trustworthy. When analyzing the results for the image variable, the average value obtained in the descriptive numbers for the affective and cognitive components was similar. Therefore, actions and strategies aimed at increasing the overall variable should be related to affecting both dimensions. However, in the literature, many authors have highlighted the fact that the cognitive component is a predecessor of the affective one (Kennedy, 1997). Therefore, university managers should initially focus more on the cognitive aspect, and, with time, it could have an effect on the affective dimension. Finally, in relation to the confirmed effect that image has on legitimacy, managers should take advantage and optimize their resources when managing these intangible assets, since, due to how closely related they are, almost any action or strategy aimed at increasing the image level will have an impact on the legitimacy level of their university.

Within the limitations and future lines of research of this paper, two main points can be highlighted. First, the sample was drawn from a unique Spanish Public University. Even though the number of participants sampled was large enough, a deeper understanding could be reached through an analysis of a greater number of universities in the Spanish higher education context. Second, although different stakeholders were sampled to capture a wider scope of perception of the university, differences in the perceptions between each of these groups was not analyzed. Therefore, future lines of research regarding the analysis of the relationships between image and legitimacy in the Spanish higher education context relate to meeting these two points: 1) Consider sampling a greater number of public universities, and 2) compare the obtained results by stakeholder group.

6. Declaration of Conflicting Interests

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

7. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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