Introduction

With the evolution of information technology (IT), Higher Education Institutions (HEIs) have invested in the development of websites, often referred to as Academic Portals, to achieve strategic benefits, namely, greater efficiency and effectiveness in the management of students’ and employees’ information, as well as better quality services for stakeholders (Rakemane & Serema, 2018; Semeon et al., 2010). These Academic Portals are interactive tools that aim to facilitate communication among the academic community and provide helpful content and services (Al-Debei, 2014).

The role played by academic portals is increasingly crucial in HEIs, since they need integrated information systems that support all their functions and activities, which allows them to operate efficiently, make informed decisions and offer the best educational experience to students (Lupu et al., 2018). Thus, keeping these information systems up to date is essential, so the search for changes and improvements is continuous. Given this context, HEIs have invested heavily in...

Abstract

This paper discusses the findings of an exploratory study that intended to evaluate the success of an Academic Portal, Secretaria Online, from the perspective of staff members. This study used a questionnaire based on the information systems success model of DeLone and McLean. This paper presents the consolidated results of the answers from 109 staff members (93 faculty and 16 non-faculty staff). The results of this study allow us to understand the critical role of Secretaria Online in ISCAP’s activities; however, they also show that several aspects need to be improved.

Keywords: Academic Portal, Information Systems, Success, Evaluation
creating and updating their Academic Portals (Mukerjee, 2012).

Given the importance and role of Secretaria Online (as an Academic Portal) in supporting the activities of the Instituto Superior de Contabilidade e Administração do Porto (ISCAP), it was considered relevant to conduct a study to assess the success of Secretaria Online adoption by the (teaching and non-teaching) staff. This paper presents the initial results of the assessment carried out by the staff of ISCAP, using DeLone and McLean’s model of information systems success.

Following this introduction section, this paper discusses the importance of information systems success and presents DeLone and McLean’s model of information systems success. Then, are presented the research approach and the main results. This paper ends with final considerations about this research.

**Information Systems Success**

In the last decades, Information Systems have gained particular importance for organizations, supporting most of their activities. It is a fact that organizations continue to increase spending on Information Technology and their budgets continue to rise, even in the face of potential economic downturns (Kanaracus, 2008). Given this importance, it has become increasingly necessary to evaluate its success. The literature suggests that in an organizational context, several factors may influence the success of information systems, and several studies identify these factors and include them in success models (e.g., (Davis, 1985; Venkatesh & Davis, 2000; Venkatesh et al., 2003; DeLone and McLean, 2003)). One of the literature’s most used and cited success models is the Information Systems Success model, often referred to as DeLone and McLean’s (1992, 2003, 2016). The application of DeLone and McLean’s model in various studies has shown different results; however, it has demonstrated that it can help identify the success variables of information systems used in different contexts or scenarios (Yakubu & Dasuki, 2018).

DeLone and McLean’s model (2013) considers six dimensions or constructs to measure the information systems’ success: System Quality, Information Quality, Service Quality, Intention to Use/Use, User Satisfaction and Net Benefits. System Quality refers to the desirable characteristics of an information system and measures its technical success. Information Quality considers the desirable characteristics of the system output in terms of content and the respective reports and, to some extent, measures semantic success. Quality of Service includes all the support that a system offers to users. Intent to Use and Use refers to how users of the system use the capabilities of the information system. User Satisfaction refers to how effective the user is and how satisfied they are with the results obtained from using the information system. Benefits capture the overall impact of the system on users.

**Academic Portal – Secretaria Online**

The Secretaria Online is an academic portal that allows the information management of the ISCAP community, being a complex information system that supports various activities of the institution. The Secretaria Online supports the management of academic activity and other areas such as human resources, accounting, instructional communication and teaching activities. This Academic Portal aims to enable access to ISCAP information and facilitate the transfer of information among the entire academic community, having as primary objectives: improving the quality of student services; improving critical periods in the schedule of services; improving the quality of academic information, and improving the working conditions of employees. Figure 1 shows an example of a screenshot of Secretaria Online.
Research Approach

As previously mentioned, this work aims to evaluate the success of adopting the Secretaria Online by the ISCAP's staff (teaching and non-teaching), based on DeLone and McLean's model. The research approach adopted involves a case study that allows interpreting and understanding the success of the environment (Walsham, 2006). This research applied a quantitative questionnaire, often used in information systems research, to determine an environment's dependent and independent variables without controlling them (Pinsonneault and Kraemer, 1993). According to Isaac and Michael (1995), questionnaires may be helpful to: answer questions raised, resolve observed issues, assess needs and objectives in order to determine whether specific goals have been met, establish a baseline against which comparisons can be made in the future, analyze trends over time, and in general, describe what exists, how much, and in what context.

The questionnaire used in this study was built in the LimeSurvey tool and structured into three groups of questions: one group on demographic information; another group on the usage habits of the respondents; and the third group with the questions related to the evaluation of the Secretaria Online. The group of questions related to the evaluation of the Secretaria Online was based on the DeLone and McLean model, and 23 measures or questions were defined and distributed among the six constructs: five questions are related to the Information Quality construct, five to the System Quality, three to the Service Quality, three to the Intention to Use/Use, three to the User Satisfaction and four measures to the Benefits construct. These 23 measures resulted from an extensive literature review (Table 1). After identifying several measures already validated in related works, the ones that, in our opinion, best suited Secretaria Online's evaluation were selected.
Table 1 - Measures selected for study

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measure</th>
<th>Related Works</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequacy</td>
<td>Wu &amp; Wang, 2006; Halone et al, 2009; Wei et al, 2009; Semeon et al, 2010; Al-Shibly, 2011; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Jaafreh, 2017; Nizamani et al, 2017; Yu &amp; Qian, 2018</td>
</tr>
<tr>
<td></td>
<td>Accuracy</td>
<td>DeLone &amp; McLean, 1992; Fan &amp; Fang, 2006; Bernroider, 2008; Wei et al, 2009; Semeon et al, 2010; Al-Shibly, 2011; Al-Debei, 2014; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Stefanovic et al, 2016; Jaafreh, 2017; Nizamani et al, 2017; Ojo, 2017; Yu &amp; Qian, 2018</td>
</tr>
<tr>
<td><strong>System</strong></td>
<td><strong>Quality</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Availability</td>
<td>DeLone &amp; McLean, 1992; Fan &amp; Fang, 2006; Wu &amp; Wang, 2006; Wang et al, 2007; Bernroider, 2008; Halone et al, 2009; Wei et al, 2009; Semeon et al, 2010; Al-Shibly, 2011; Al-Debei, 2014; Mtebe &amp; Raisamo, 2014; Jaafreh, 2017; Yakubu &amp; Dasuki, 2018</td>
</tr>
<tr>
<td></td>
<td>Ease of learning</td>
<td>DeLone &amp; McLean, 1992; Semeon et al, 2010; Kim et. al, 2012; Mtebe &amp; Raisamo, 2014; Jaafreh, 2017; Nizamani et al, 2017; Ojo, 2017; Yu &amp; Qian, 2018</td>
</tr>
<tr>
<td></td>
<td>Utility of System</td>
<td>DeLone &amp; McLean, 1992; Bernroider, 2008; Halone et al, 2009; Wei et al, 2009; Manchanda &amp; Mukherjee, 2014; Tam &amp; Oliveira, 2016; Jaafreh, 2017; Ojo, 2017; Yu &amp; Qian, 2018</td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td><strong>Quality</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsiveness</td>
<td>DeLone &amp; McLean, 2003; Wu &amp; Wang, 2006; Wang et al, 2007; Bernroider, 2008; Wang &amp; Liao, 2008; Halone et al, 2009; Wei et al, 2009; Khayun &amp; Rachham, 2011; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Stefanovic et al, 2016; Tam &amp; Oliveira, 2016; Jaafreh, 2017; Nizamani et al, 2017; Yakubu &amp; Dasuki, 2018; Yu &amp; Qian, 2018</td>
</tr>
</tbody>
</table>
In order to identify and validate the 23 items of the questionnaire, a test was conducted with the participation of 25 users. Thus, participants received a detailed definition of the constructs and were instructed to indicate which construct they believed each item best represented. Therefore, this task followed Howard and Melloy (2016) suggestions.

Table 2 shows the items with enough assignments for each construct. To answer to the 23 questions/items, a 5-point Likert Scale was used, with the following labels: 1 - I totally disagree; 2 - I disagree; 3 - I neither agree nor disagree; 4 - I agree; 5 - I totally agree.

After this validation, the questionnaire was sent to 246 teaching staff and 65 non-

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measure</th>
<th>Related Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>DeLone &amp; McLean, 2003; Wu &amp; Wang, 2006; Bernroider, 2008; Wei et al, 2009; Khayun &amp; Racham, 2011; Kim et al, 2012; Jaafreh, 2017; Nizamani et al, 2017; Ojo, 2017; Yu &amp; Qian, 2018</td>
<td></td>
</tr>
<tr>
<td>Utility of Service</td>
<td>DeLone &amp; McLean, 2003; Wu &amp; Wang, 2006; Wang &amp; Liao, 2008; Kim et al, 2012; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Stefanovic et al, 2016; Nizamani et al, 2017; Yakubu &amp; Dasuki, 2018; Yu &amp; Qian, 2018</td>
<td></td>
</tr>
<tr>
<td>Frequency of use</td>
<td>DeLone &amp; McLean, 2003; Fan &amp; Fang, 2006; Wu &amp; Wang, 2006; Wang &amp; Liao, 2008; Halone et al, 2009; Wei et al, 2009; Semeon et al, 2010; Khayun &amp; Racham, 2011; Kim et al, 2012; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Stefanovic et al, 2016; Tam &amp; Oliveira, 2016; Jaafreh, 2017; Nizamani et al, 2017; Yakubu &amp; Dasuki, 2018; Yu &amp; Qian, 2018</td>
<td></td>
</tr>
<tr>
<td>Use / Intention to Use</td>
<td>DeLone &amp; McLean, 2003; Rai et al, 2002; Wu &amp; Wang, 2006; Halone et al, 2009; Semeon et al, 2010; Al-Shibly, 2011; Mtebe &amp; Raisamo, 2014; Tam &amp; Oliveira, 2016; Ojo, 2017</td>
<td></td>
</tr>
<tr>
<td>Actual use</td>
<td>Bernroider, 2008; Al-Shibly, 2011; Ojo, 2017; Yu &amp; Qian, 2018</td>
<td></td>
</tr>
<tr>
<td>Nature of use</td>
<td>Bernroider, 2008; Al-Shibly, 2011; Ojo, 2017; Yu &amp; Qian, 2018</td>
<td></td>
</tr>
<tr>
<td>Adequacy</td>
<td>Al-Shibly, 2011; Stefanovic et al, 2016</td>
<td></td>
</tr>
<tr>
<td>User information satisfaction</td>
<td>DeLone &amp; McLean, 2003; Mtebe &amp; Raisamo, 2014; Jaafreh, 2017; Nizamani et al, 2017</td>
<td></td>
</tr>
<tr>
<td>Job improvement</td>
<td>Wang et al, 2007; Bernroider, 2008; Wei et al, 2009; Khayun &amp; Racham, 2011; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Tam &amp; Oliveira, 2016; Ojo, 2017</td>
<td></td>
</tr>
<tr>
<td>Job simplification</td>
<td>Wang &amp; Liao, 2008; Khayun &amp; Racham, 2011; Al-Shibly, 2011; Kim et al, 2012; Mtebe &amp; Raisamo, 2014; Stefanovic et al, 2016; Tam &amp; Oliveira, 2016; Ojo, 2017; Yu &amp; Qian, 2018</td>
<td></td>
</tr>
<tr>
<td>Improve communication</td>
<td>Wang et al, 2007; Bernroider, 2008; Wei et al, 2009; Khayun &amp; Racham, 2011; Manchanda &amp; Mukherjee, 2014; Mtebe &amp; Raisamo, 2014; Tam &amp; Oliveira, 2016; Ojo, 2017</td>
<td></td>
</tr>
</tbody>
</table>
teaching staff. The questionnaire was available for completion for 38 days and was completed by 93 teaching staff (response rate: 37.8%) and 16 non-teaching staff (response rate: 24.6%), resulting in an overall response rate of 35%. Table 3 summarises the demographic information of 109 respondents. In this study, the software SPSS 26 for Windows was used for the data analysis needs. Statistics methods adopted in this paper are mainly descriptive statistics and the test score reliability coefficient Cronbach’s Alpha.

Table 2 – Measures items

<table>
<thead>
<tr>
<th>Item</th>
<th>Measure</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>QINF1</td>
<td>Timeliness</td>
<td>The SO provides accurate information.</td>
</tr>
<tr>
<td>QINF2</td>
<td>Adequacy</td>
<td>The SO provides current information.</td>
</tr>
<tr>
<td>QINF3</td>
<td>Availability</td>
<td>The SO provides relevant and useful information.</td>
</tr>
<tr>
<td>QINF4</td>
<td>Accuracy</td>
<td>The SO provides well-organized information in an appropriate format.</td>
</tr>
<tr>
<td>QINF5</td>
<td>Relevance &amp; Usefulness</td>
<td>The information export and print are adequate.</td>
</tr>
<tr>
<td>QSI1</td>
<td>Utility of System</td>
<td>The SO is useful for the performance of activities.</td>
</tr>
<tr>
<td>QSI2</td>
<td>Availability</td>
<td>The SO is always available.</td>
</tr>
<tr>
<td>QSI3</td>
<td>Structure</td>
<td>The SO is well structured.</td>
</tr>
<tr>
<td>QSI4</td>
<td>Ease of use</td>
<td>The SO is easy to use.</td>
</tr>
<tr>
<td>QSI5</td>
<td>Ease of learning</td>
<td>The SO is easy to learn.</td>
</tr>
<tr>
<td>QSER1</td>
<td>Utility of Service</td>
<td>Help mechanisms are useful.</td>
</tr>
<tr>
<td>QSER2</td>
<td>Responsiveness</td>
<td>Technical support meets the needs.</td>
</tr>
<tr>
<td>QSER3</td>
<td>Reliability</td>
<td>Technical support is reliable.</td>
</tr>
<tr>
<td>USO1</td>
<td>Frequency of use</td>
<td>The frequency of use is high.</td>
</tr>
<tr>
<td>USO2</td>
<td>Actual use</td>
<td>I use all the features available for my profile.</td>
</tr>
<tr>
<td>USO3</td>
<td>Nature of use</td>
<td>My activity is dependent on the use of the system.</td>
</tr>
<tr>
<td>SAT1</td>
<td>Adequacy</td>
<td>I am satisfied with the information provided in the SO.</td>
</tr>
<tr>
<td>SAT2</td>
<td>Overall satisfaction</td>
<td>The SO meets my expectations and needs.</td>
</tr>
<tr>
<td>SAT3</td>
<td>User information satisfaction</td>
<td>Overall, I am satisfied with the use of the SO.</td>
</tr>
<tr>
<td>BEN1</td>
<td>Job improvement</td>
<td>The SO allows reducing time in accomplishing tasks.</td>
</tr>
<tr>
<td>BEN2</td>
<td>Job performance</td>
<td>The SO makes it easier to accomplish tasks.</td>
</tr>
<tr>
<td>BEN3</td>
<td>Job simplification</td>
<td>The SO allows being more efficient in performing tasks</td>
</tr>
<tr>
<td>BEN4</td>
<td>Improve communication</td>
<td>The SO enables improved communication between people and departments.</td>
</tr>
</tbody>
</table>
Table 3 - Demographic Information of respondents

<table>
<thead>
<tr>
<th>Background Variables</th>
<th>Teaching Staff (N)</th>
<th>Non-Teaching Staff (N)</th>
<th>Total (N)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>54</td>
<td>8</td>
<td>62</td>
<td>57%</td>
</tr>
<tr>
<td>Male</td>
<td>39</td>
<td>8</td>
<td>47</td>
<td>43%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;39 years</td>
<td>14</td>
<td>2</td>
<td>16</td>
<td>15%</td>
</tr>
<tr>
<td>&gt;= 40 and &lt;49 years</td>
<td>23</td>
<td>12</td>
<td>35</td>
<td>32%</td>
</tr>
<tr>
<td>&gt;= 50 years</td>
<td>56</td>
<td>2</td>
<td>58</td>
<td>53%</td>
</tr>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>10%</td>
</tr>
<tr>
<td>Master</td>
<td>33</td>
<td>5</td>
<td>38</td>
<td>35%</td>
</tr>
<tr>
<td>PhD</td>
<td>56</td>
<td>0</td>
<td>56</td>
<td>51%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Years at ISCAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5 years</td>
<td>19</td>
<td>3</td>
<td>22</td>
<td>20%</td>
</tr>
<tr>
<td>&gt;= 5 and &lt; 10 years</td>
<td>15</td>
<td>1</td>
<td>16</td>
<td>15%</td>
</tr>
<tr>
<td>&gt;= 10 years</td>
<td>59</td>
<td>12</td>
<td>71</td>
<td>65%</td>
</tr>
</tbody>
</table>

Results and Discussion

Table 4 shows the statistical measures used in this study to validate the results. The standard deviation (Std Dev) values show that the data generally have a solid central tendency (Weisberg, 1991). The skewness (Skew) and kurtosis (Kurt) values, which measure the concentration or dispersion, also show that the distribution tends toward normality, assuming that the acceptable skewness values must be between ±3 and the appropriate kurtosis must be in the range of ±10 (Brown, 2006).

The Kaiser-Meyer-Olkin test (KMO) calculated to examine the appropriateness of factor analysis application shows that for all constructs, the value is higher than 0.6, thus fulfilling the appropriate conditions (Hair et al., 2014). Simultaneously, Bartlett's test presented a sig value of 0.000, demonstrating the significance of the items that make up the same construct.

The Total Explained Variance (TEV) calculated for each construct presents, except for the "Use/Intention to Use" construct, values higher than 60%, which reveals that items underlying the same construct show an appropriate percentage of the explained total variance (Hair et al., 2014).

According to Souza et al. (2017), the quality of the information provided by instruments depends, in part, on their psychometric properties, highlighting the instrument's reliability and validity as key in validating a questionnaire. Yu and Qian (2018) also refer that reliability and validity can be assessed by psychometric properties, which are measured by internal consistency and convergence. Based on this assumption, the Cronbach’s Alpha (CA) coefficient was calculated to assess the reliability of the questionnaire and its results. According to the literature, CA should present values above 0.7 (Nunnally & Bernstein, 1994); however, Carmines...
and Zeller (1979) suggest that values between 0.6 and 0.7 can be considered satisfactory. The CA value for almost all constructs allows high confidence in the validity of the results presented in this paper. However, there must be some caution regarding the Use/Intention to Use Construct results since the CA value is only 0.62 (despite being in a confidence interval considered satisfactory by some authors).

### Table 4 - Statistical measures

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std Dev</th>
<th>Skew</th>
<th>Std Skew Error</th>
<th>Kurt</th>
<th>Std Kurt Error</th>
<th>KMO</th>
<th>TEV %</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information Quality Construct</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QINF1</td>
<td>4.23</td>
<td>4.00</td>
<td>4</td>
<td>0.702</td>
<td>-</td>
<td>0.043</td>
<td>0.231</td>
<td>1.192</td>
<td>0.81</td>
<td>66.20</td>
<td>0.86</td>
</tr>
<tr>
<td>QINF2</td>
<td>4.17</td>
<td>4.00</td>
<td>4</td>
<td>0.780</td>
<td>-</td>
<td>0.013</td>
<td>0.231</td>
<td>0.856</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QINF3</td>
<td>4.35</td>
<td>4.00</td>
<td>5</td>
<td>0.699</td>
<td>-</td>
<td>0.034</td>
<td>0.231</td>
<td>0.896</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QINF4</td>
<td>3.79</td>
<td>4.00</td>
<td>4</td>
<td>1.046</td>
<td>-</td>
<td>0.015</td>
<td>0.231</td>
<td>0.286</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QINF5</td>
<td>3.45</td>
<td>4.00</td>
<td>4</td>
<td>0.995</td>
<td>-</td>
<td>0.037</td>
<td>0.231</td>
<td>0.399</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>System Quality Construct</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>QSI1</td>
<td>4.47</td>
<td>5.00</td>
<td>5</td>
<td>0.632</td>
<td>-</td>
<td>0.098</td>
<td>0.231</td>
<td>1.033</td>
<td>0.77</td>
<td>65.87</td>
<td>0.86</td>
</tr>
<tr>
<td>QSI2</td>
<td>3.85</td>
<td>4.00</td>
<td>4</td>
<td>0.951</td>
<td>-</td>
<td>0.019</td>
<td>0.231</td>
<td>0.165</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QSI3</td>
<td>3.67</td>
<td>4.00</td>
<td>4</td>
<td>1.106</td>
<td>-</td>
<td>0.060</td>
<td>0.231</td>
<td>0.409</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QSI4</td>
<td>3.73</td>
<td>4.00</td>
<td>4</td>
<td>1.103</td>
<td>-</td>
<td>0.076</td>
<td>0.231</td>
<td>0.041</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QSI5</td>
<td>3.96</td>
<td>4.00</td>
<td>4</td>
<td>0.912</td>
<td>-</td>
<td>0.074</td>
<td>0.231</td>
<td>0.259</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Service Quality Construct</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QSER1</td>
<td>3.43</td>
<td>3.00</td>
<td>3</td>
<td>0.937</td>
<td>-</td>
<td>0.141</td>
<td>0.231</td>
<td>0.302</td>
<td>0.69</td>
<td>77.75</td>
<td>0.85</td>
</tr>
<tr>
<td>QSER2</td>
<td>3.93</td>
<td>4.00</td>
<td>4</td>
<td>0.857</td>
<td>-</td>
<td>0.055</td>
<td>0.231</td>
<td>0.655</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QSER3</td>
<td>4.11</td>
<td>4.00</td>
<td>4</td>
<td>0.750</td>
<td>-</td>
<td>0.045</td>
<td>0.231</td>
<td>0.280</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Use/Intention to Use Construct</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USO1</td>
<td>4.06</td>
<td>4.00</td>
<td>4</td>
<td>0.831</td>
<td>-</td>
<td>0.091</td>
<td>0.231</td>
<td>1.175</td>
<td>0.62</td>
<td>57.31</td>
<td>0.62</td>
</tr>
<tr>
<td>USO2</td>
<td>3.39</td>
<td>3.00</td>
<td>4</td>
<td>1.054</td>
<td>-</td>
<td>0.0127</td>
<td>0.231</td>
<td>0.905</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USO3</td>
<td>4.02</td>
<td>4.00</td>
<td>4</td>
<td>0.972</td>
<td>-</td>
<td>0.0148</td>
<td>0.231</td>
<td>1.285</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In order to complement the data analysis, a paired-sample t-test was performed to check if there were significant differences between the responses of the items of each construct. Paired-sample t-tests are generally appropriate and widely used when there is a match (Zimmerman, 1997), in this case, on items related to the same construct. Table 5 presents the paired t-test results. Regarding the items of the Information Quality construct, QINF3 is the item that stands out for presenting statistically significant differences when compared with the other items of the construct, being the one that presents the highest mean response value. Conversely, the QINF5 item presents a lower mean response value, and the difference with the other items is also statistically significant. Concerning the items of the System Quality construct, item QSI1 is the one that shows a statistically significant difference from the other items, with a higher mean response value than the remaining items. In the items of the Quality of Service construct, item QS3 is the one that stands out the most for presenting a mean response value, statistically higher than the other items. The item USO1 is the one that stands out among the items of the Use/Intention to Use construct, presenting significant differences from the other items and being the one that presents a higher mean response value. Finally, in the User Satisfaction construct, item BEN3 has the highest mean response value, and item BEN4 has the lowest mean value, having both statistically significant differences.

Table 5 – Table paired t-test values

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>QINF1</th>
<th>QINF2</th>
<th>QINF3</th>
<th>QINF4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>QINF1</td>
<td>1,228</td>
<td>-2,307**</td>
<td>5,069***</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>QINF2</td>
<td>-1,228</td>
<td>-3,002***</td>
<td>4,461***</td>
<td></td>
</tr>
</tbody>
</table>

Kaiser Normalization Varimax rotation method
Kaiser-Meyer-Olkin measure of sampling adequacy (KMO)= 0.916
Bartlett’s test sig. 0.000.
Total Explained Variance: 71.18%
### Constructs

<table>
<thead>
<tr>
<th>Items</th>
<th>QINF1</th>
<th>QINF2</th>
<th>QINF3</th>
<th>QINF4</th>
</tr>
</thead>
<tbody>
<tr>
<td>QINF3</td>
<td>2,307**</td>
<td>3,002***</td>
<td></td>
<td>6,591***</td>
</tr>
<tr>
<td>QINF4</td>
<td>-5,069***</td>
<td>-4,461***</td>
<td>-6,591***</td>
<td></td>
</tr>
<tr>
<td>QINF5</td>
<td>-8,694***</td>
<td>-8,122***</td>
<td>-9,860***</td>
<td>-4,056***</td>
</tr>
</tbody>
</table>

### System Quality

<table>
<thead>
<tr>
<th>Items</th>
<th>QSI1</th>
<th>QSI2</th>
<th>QSI3</th>
<th>QSI4</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSI1</td>
<td></td>
<td>7,465***</td>
<td>8,953***</td>
<td>8,074***</td>
</tr>
<tr>
<td>QSI2</td>
<td>-7,465***</td>
<td>1,705*</td>
<td>1,025*</td>
<td></td>
</tr>
<tr>
<td>QSI3</td>
<td>-8,953***</td>
<td>-1,705*</td>
<td></td>
<td>-1,352</td>
</tr>
<tr>
<td>QSI4</td>
<td>-8,074***</td>
<td>-1,025</td>
<td>1,352</td>
<td></td>
</tr>
<tr>
<td>QSI5</td>
<td>-6,486***</td>
<td>1,014</td>
<td>4,392***</td>
<td>4,190***</td>
</tr>
</tbody>
</table>

### Service Quality

<table>
<thead>
<tr>
<th>Items</th>
<th>QSER1</th>
<th>QSER2</th>
<th>QSER3</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSER1</td>
<td></td>
<td>-7,366***</td>
<td>-8,819***</td>
</tr>
<tr>
<td>QSER2</td>
<td>7,366***</td>
<td></td>
<td>-3,216***</td>
</tr>
<tr>
<td>QSER3</td>
<td>8,819***</td>
<td>3,216***</td>
<td></td>
</tr>
</tbody>
</table>

### Use/Intention to use

<table>
<thead>
<tr>
<th>Items</th>
<th>USO1</th>
<th>USO2</th>
<th>USO3</th>
</tr>
</thead>
<tbody>
<tr>
<td>USO1</td>
<td></td>
<td>6,863***</td>
<td>0,439</td>
</tr>
<tr>
<td>USO2</td>
<td>-6,863***</td>
<td></td>
<td>-5,689***</td>
</tr>
<tr>
<td>USO3</td>
<td>-0,439</td>
<td>5,689***</td>
<td></td>
</tr>
</tbody>
</table>

### User Satisfaction

<table>
<thead>
<tr>
<th>Items</th>
<th>SAT1</th>
<th>SAT2</th>
<th>SAT3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT1</td>
<td></td>
<td>3,898***</td>
<td>-1,149</td>
</tr>
<tr>
<td>SAT2</td>
<td>-3,898***</td>
<td></td>
<td>-4,460***</td>
</tr>
<tr>
<td>SAT3</td>
<td>1,149</td>
<td>4,460***</td>
<td></td>
</tr>
</tbody>
</table>

### Benefits

<table>
<thead>
<tr>
<th>Items</th>
<th>BEN1</th>
<th>BEN2</th>
<th>BEN3</th>
<th>BEN4</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEN1</td>
<td>-0,729</td>
<td>-0,928</td>
<td></td>
<td>6,038***</td>
</tr>
<tr>
<td>BEN2</td>
<td>0,729</td>
<td>-0,228</td>
<td></td>
<td>6,479***</td>
</tr>
<tr>
<td>BEN3</td>
<td>0,928</td>
<td>0,228</td>
<td></td>
<td>6,837***</td>
</tr>
<tr>
<td>BEN4</td>
<td>-6,038***</td>
<td>-6,479***</td>
<td>-6,837***</td>
<td></td>
</tr>
</tbody>
</table>

*p*90%Sig.; **95% Sig; ***99% Sig.

## Conclusions

This paper presents the results of a study that evaluates an Academic Portal's success, the case of Secretaria Online, from the perspective of ISCAP's staff. This study applied one of the most used models in empirical studies (Semeon et al., 2010), the DeLone and McLean information systems success model, as a theoretical reference for this evaluation.

This paper presents an exploratory analysis of the data and an analysis of Cronbach's Alpha (CA), which allows testing the lower limit of the internal consistency of a group of items related to each construct. The study also presents a comparative analysis of response items for each construct.

The exploratory character of this study allowed gathering information and familiarization with the DeLone and McLean model in a school administrative context. The results obtained in this study presuppose that Secretaria Online plays a critical role in ISCAP's activities; however, the evaluation provided by the users shows that several aspects must improve.
Acknowledgement

This work is financed by portuguese national funds through FCT - Fundação para a Ciência e Tecnologia, under the project UIDB/05422/2020.

References


• Halonen, R., Acton, T., Golden, W. & Conboy, K. (2009) DeLone & McLean success model as a descriptive tool in evaluating the use of a virtual learning environment, in International Conference on Organizational Learning, Knowledge and Capabilities, Amsterdam, 1-16.


• Semeon, G., Negash, S., & Musa, P. F. (2010). The Success of Student Information Management System: The


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