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The information and communication technologies (ICT) and Internet tools are important in learning environments.

There are issues that can affect the potential benefits off e-learning systems [8].

Since 2008 there have been profound changes to higher education among students in Ecuador.

Research on technology acceptance is carried out in the USA [20], not enough of in Latin America.

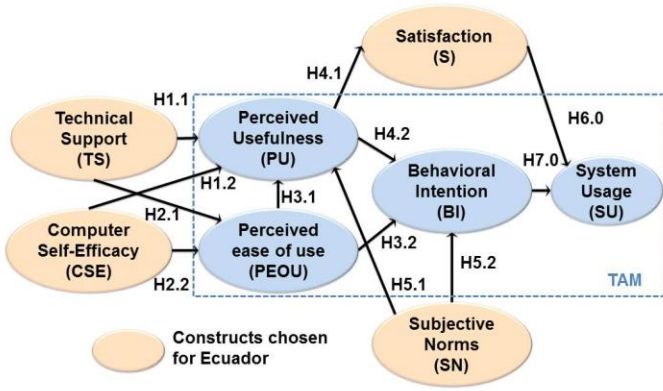
Therefore, it was important to investigate the students' acceptance of e-learning system in Ecuador.

In 1986 technology acceptance model (TAM) of F. Davis was created [13]. It is based on the theory of reasoned action of Fishbein and Ajzen.

**Objective**

To adapt a model that describes the behavior of use and intended use of e-learning systems students in Ecuador based on the TAM

**Fig. 1. Research Model**



**Material and methods**

**Survey using seven-point Likert scale**

- 400 undergraduates and graduates (66% response rate) from Ecuador in 2014
- It included 35 adapted items [25, 26, 27, 28, 29, 30, 31]
- Voluntary and anonymous participation

**Data processing**

- Obtained with a web tool
- R software packages (plspm, lavaan)
- Structural equation modeling (SEM)
- Confirmatory factor analysis (CFA)
- Partial least squares (PLS)

**SEM**

- Maximum likelihood
- A set of indexes fit

**Results**

Table 1 SEM Statistics of Model Fit

Model goodness-fit indexes	Recommended value	Result in this study
Chi-squared ( $\chi^2$ )		1259.213 *
Degrees of freedom (df)		481
Chi-square/degree of freedom	$\leq 3.00$	2.618
Comparative Fit Index (CFI)	$\geq 0.90$	0.940
Tucker-Lewis Index (TLI)	$\geq 0.90$	0.930
Root Mean Squared Error of Approximation (RMSEA)	$\leq 0.08$	0.078
Standardized Root Mean Square Residual (SRMR)	$\leq 0.08$	0.068

Note: N = 263, \* p < 0.05

The hypothesis can be accepted except H2.1 (influence of computer self-efficacy on perceived usefulness).

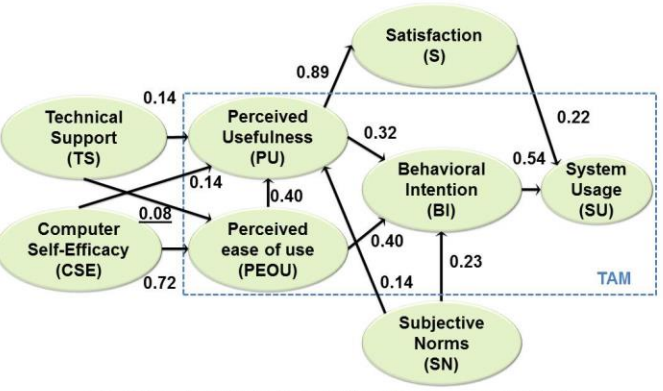


Fig. 2. Structural Paths (no significant paths are underlined)

**Discussion and Conclusions**

The PEOU stands out as the most important factor that influences the BI of using e-learning systems in Ecuadorian students.

This work was characterized by the inclusion of TS, SN and CSE.

Implementation of e-learning systems should focus on the social context and not on the technological one