

# ATTITUDES TOWARD THE USE OF VIRTUAL LEARNING TOOLS IN UNIVERSITY STUDENTS

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## Abstract

To support management processes of teaching and learning, universities have used Information and Communication Technologies (ICT). Due to this, for universities is important to monitor the usage and users' attitudes towards the use of virtual available tools. That is why this paper researches attitudes towards the use of virtual learning tools from students of two different institutions: Metropolitan Institute of Technology and University Institution Escolme. The proposed methodology is based on a self-administered questionnaire and quantitative data collection instrument applied to 144 students of marketing and management science programs. Among the results, a positive perception against the advantages offered by the use of virtual tools in their learning processes due to time savings in the trip to the institution and granted independence in the educational process. A positive perception of students about the use of virtual tools comes from the autonomy that these tools give them on their own learning process.

Keywords: University students, ICT, perception

## 1. INTRODUCTION

The rise of e-learning has forced the education and training institutions to rethink their educational strategy, some, usually with traditional educational models. They have been isolated from the dynamic that has waked up this global trend and even now beginning to report. Others are still attentive of experiences and hunting of success and failure stories, and others are just testing a learning management system or Learning Management System (LMS) that can manage processes of learning of student [1].

The e-learning platforms provide students and teachers a set of tools to enhance the learning process [2], Implementing an e-learning tool allows an educational institution to develop learning materials aimed to students electronically, offering virtual courses, assessing students virtually and generating student electronic databases with historic results obtained by the students and their progress [3]. Initially, this paper presents the e-learning background, establishing which critical success factors are in the implementation of a tool of this type. Subsequently the strengths and advantages presented in institutions where are implemented are showed. Following this, the results of the research conducted at the Escolme University Institution of Medellin, which measured the perceptions of students in business administration and marketing in the use of e-learning platform called AcademicSoft.

## 2. BACKGROUND

Considered as an alternative to learning, the e-learning is becoming an increasingly method widespread in method of higher education in worldwide, according Garrison and Anderson [4], in many cases, the goal is to determine a profound change in the way that teaching and learning take place in universities. The e-learning has gained force in educational centers in recent years, and is considered as a new paradigm in modern educational methods, which changes the behavior of individuals in terms of technological advances witnessed in the 21st Century [5].

In this sense, during the last decades universities have acquired extensive experience in the application of Information and Communication Technologies (ICTs) in education management. However, Lu [6] suggests that the adoption of e-learning is still relatively new to many universities and therefore these are facing new challenges in building management systems of e-learning, and this hinders their integration into existing information systems throughout the campus [6].

A literature review by Teo [7] leads to the conclusion that the Critical Success Factors (CSFs) that affect e-learning are many and their interactions are complex, some of these are quality tutor measured in their level of knowledge of the technological tools and concepts taught, perceived usefulness of the system and the ease of use of the system. While, it is important to know that e-learning is an effective means for teaching and learning in currently educational environment. It is necessary to obtain a deeper understanding of the factors that motivate users to accept the e-learning [7]. Selim [8] said that CSFs of e-learning within a university environment can be grouped into four categories:

- The instructor: The teacher plays a central role in the effectiveness and success of courses based on e-learning. He is who should take the style of interactive teaching and promote student-student interaction. For students it is important the attitude towards technology, control technology and the teaching style of the instructor. This is according to the findings of the author, the most important critical success factor.
- The students: Students need to have time management, discipline and computer skills to have success, since the courses based on e-learning are compared favorably with traditional learning and students of e-learning perform as well or better than traditional learners [8].
- Information Technology: If technical support is poor, the e-learning will not success. Students are interested in ease of access and infrastructure.
- University support: The support of the university administration for e-learning system that is implemented is essential to its success.

Papp [8] explained that students like to use e-learning if it facilitates learning, a conclusion supported by Roca, Chiu, & Martinez [9] who claim that systems of e-learning must offer enough relevant information for the user's goals, in other words, e-learning. When students feel that the e-learning system provides useful information for their jobs, they are more interested in their use and this increases their satisfaction [9].

Another study confirms the importance of formative evaluation of e-learning systems in the processes of innovation in higher education, using the e-learning not simply as a new hardware platform and software for its use by teachers and students, but as a complex environment comprising the technology platform, the underlying pedagogical approach and related learning materials [4].

Meanwhile Lee [10] concluded that satisfaction is the strongest predictor of the intention of users to continue using the system for e-learning, followed by perceived usefulness, attitude, concentration, and behavioral control perceived as significant but weaker predictors. Consistent with Selim [8] instructors should make good use of plays and learning, testing, and other creative approaches to arouse more fun and interest in the learning process [10].

In another study realized by Ong & Lai [11], it found in first place that to increase the effectiveness of e-learning is important that people perceive that the system is useful to improve their job performance or productivity [11] and making gender differentiation it found that women and men differ in their decision-making processes relating to the acceptance and use of e-learning: perceptions of men regarding the self-efficacy of computer, perceived usefulness, perceived ease of use and behavioral intention to use e-learning are all higher than in women. Moreover, also it indicated that perceptions of self-efficacy of the computer and its perceived ease of use were more prominent in women [11].

Lu [6] identifies as CSFs the influence of learning styles (visual, verbal, kinesthetic, educational, etc.). The perception of ease of use, the perception of utility, which depends on the ease of use and the

trend of verbal and visual style of learning. Layout and usage behavior, which depends on the individual learning style [6].

In his study, Chen [12] indicates that educational technology compatibility is important for the acceptance of e-learning system. To increase the acceptance of e-learning systems, developers and professionals should not only focus on technological expectations of the students but also consider how to allow the e-learning system faces the educational skills that can improve the expectations of students. To satisfy the technology expectations of students, a system of e-learning should focus on improving the learning ability of students through better learning conditions [12].

### 3. METHODOLOGY

This research is an exploratory field study, non-experimental, from non-probability sampling, to measure perceptions about virtual learning tools available on Virtual Escolme of students programs of Escolme University Institution of Medellin, Colombia. A self-administered questionnaire to 144 students was applied.

This questionnaire consists of several questions in Likert scale of 5 levels, with the following response options: strongly agree (SA), Agree (A), neither agree nor disagree (NA, NDA), Disagree (DA), Strongly Disagree (SDA) and don't know, don't answer (Dk / Da), to establish the perception of users about e-learning tool AcademicSoft.

### 4. ANALYSIS OF RESULTS

The analysis of the results begins with the contrast between the academic programs of the students surveyed and the frequency of use of the virtual tool of Escolme. The results are shown in Table 1:

Table No. 1 Frequency of use by curricular program

Curricular program	FREQUENCY OF USE					
	1-2 times/week	3-4 times/week	5-6 times/week	More than 6 times/week	No entries	Dk/Da
Business Administration	3,9%	6,6%	7,9%	40,8%	40,8%	0,0%
Marketing	21,7%	1,7%	1,7%	16,7%	35,0%	23,3%

Source: own elaboration

In these results are highlighted that students of business administration program present a largest use of virtual platform Institution. About 41% work more than 6 times, while the students of marketing program only 16.7% have this frequency of use. Importantly to stand out a highly significant proportion, 35% of marketing students do not enter the virtual platform. In this sense it is necessary to establish strategies in the program to encourage students in their greater use of the platform.

In Table 2 and 3 the results of those questions that are directly related to the utility perceived by students about AcademicSoft virtual tool, differentiated by curricular program, while this aspect is considered by theorists as one of the key success factors:

Table 2: Usefulness perceived by Business Administration students

	BUSINESS ADMINISTRATION					
	Strongly Agree	Agree	Neither Agree nor disagree	Disagree	Strongly Disagree	Dk/Da
The use of virtual learning tools allows me to do may work faster.	11,84%	44,74%	26,32%	7,89%	6,58%	2,63%

I think that the virtual tools incorporated by AcademicSoft are useful for my learning.	9,33%	46,67%	24,00%	13,33%	4,00%	2,67%
I perceive that my classmates value AcademicSoft as a usefulness technological tool in the career.	5,33%	28,00%	28,00%	33,33%	4,00%	1,33%

Source: own elaboration

Table 3 Usefulness perceived by marketing students

	MARKETING					
	Strongly Agree	Agree	Neither Agree nor disagree	Disagree	Strongly Disagree	Dk/Da
The use of virtual learning tools allows me to do may work faster.	8,20%	22,95%	19,67%	13,11%	6,56%	29,51%
I think that the virtual tools incorporated by AcademicSoft are useful for my learning.	13,11%	31,15%	18,03%	6,56%	1,64%	29,51%
I perceive that my classmates value AcademicSoft as a usefulness technological tool in the career.	8,20%	11,48%	31,15%	24,59%	4,92%	19,67%

Source: own elaboration

Similar to the results of the frequency of use of the tool. It can prove that students of business administration perceived a higher level of utility of AcademicSoft. About 57% are Strongly Agree and Agree that the use of this tool enables faster completion of academic work, 56% considered as a useful tool in their learning process and finally, 33% believe their classmates considered useful in the development of their academic process. In the case of students of marketing, these levels are less significant; 31% for the first case, 44% for second and 19% for the last one. These results are explained in the very low levels of the students of marketing, that probably have not noticed any real use as they have not used the tool frequently.

As previously discussed, the role of teachers is fundamental to the successful implementation of e-learning tools, which is why in Tables 4 and 5 show the results of the questions that are focused on the role of teachers in use of the tool AcademicSoft.

Table 4: Role of teachers in the use of virtual tools – Business Administration

	BUSINESS ADMINISTRATION					
	Strongly Agree	Agree	Neither Agree nor disagree	Disagree	Strongly Disagree	Dk/Da
Escolme's teachers motivate me to use the Information and Communication Technologies in my learning process.	11,84%	30,26%	26,32%	21,05%	9,21%	1,32%
I think Escolme's teachers should give more use of virtual learning tools in the teaching process.	25,00%	35,53%	15,79%	22,37%	1,32%	0,00%
Escolme's teachers have adequate knowledge for the use of ICT in their courses	9,33%	34,67%	28,00%	21,33%	5,33%	1,33%

Source: own elaboration

In this case it is important to note the high percentage, 60% of students believe that teachers should give more use virtual tools. Given the importance of teachers in the success of these tools, the need to have a much more active role in its use and encouragement in students is evident.

Finally in Table 5, the results for marketing students are showed. There an identical perception, 60% perceived that the increased use by teachers in the teaching support in virtual tools is necessary. It is also important to note that in the other two statements, motivation of teachers to give to students the use of virtual tools and knowledge appropriate to the use of the same. The percentages of Strongly Agree and Agree, are nearly 50% lower than the case of students of business administration, 28% for each one of them.

Table 5: Role of teachers in the use of virtual tools –Marketing

	MARKETING					
	Strongly Agree	Agree	Neither Agree nor disagree	Disagree	Strongly Disagree	Dk/Da
Escolme's teachers motivate me to use the Information and Communication Technologies in my learning process.	6,56%	21,31%	19,67%	21,31%	13,11%	18,03%
I think Escolme's teachers should give more use of virtual learning tools in the teaching process.	21,31%	39,34%	11,48%	11,48%	1,64%	14,75%
Escolme's teachers have adequate knowledge for the use of ICT in their courses	4,92%	22,95%	27,87%	16,39%	6,56%	21,31%

Source: own elaboration

## 5. CONCLUSIONS

According to the research results, It is evident that students of marketing of the university institution ESCOLME under study, have a low level of use of e-learning platform. It is important to develop strategies and mechanisms from the coordination of the curriculum that will increase their participation, while for the case of students of business administration the use of the tool is important.

The researches that have been conducted regarding the use of e-learning tools have established that one of the critical success factors in the implementation of these tools is related to the perceived usefulness by users. Of the same order of ideas, results of this research point to low levels of perceived usefulness in marketing program students, which it has set out in the development of this document, it can be explained by the low use of AcademicSoft presented by these students. Therefore, it is important to increase their use and be able to assess in future research the levels of perceived usefulness in students of this program.

Finally, assessing the role of teachers in successful implementation of virtual learning tools as AcademicSoft, it was found that in the case of students of marketing is not perceived a strong commitment from the teachers in the sense of encouraging the use tool in them, as well as the right knowledge to manage the platform. However, it is important to design mechanisms within the institution intended for teachers, so that, they can increase the students' use of the tool to support learning processes, as for students of both programs, a high percentage believes that teachers should give greater use of virtual tools.

## 6. REFERENCES

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