



# Key Drivers of Perceived Value and Student Recommendation of Collaborative Learning. The Role of Social Factors and Student Beliefs

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## Abstract

*The combined use of collaborative learning and multimedia technologies offer new methodological and didactic opportunities for universities to provide value to students. This research aims to analyse (i) how utilitarian, hedonic and social factors interact when students work in teams using Ted Lessons video-based applications; (ii) the impact of perceived value on the student's recommendation of collaborative learning methodologies. A sample of 203 students from undergraduate and Postgraduate Programmes in Marketing participated in this study during the academic years 2015-16 and 2016-17. Materials from each course were complemented with a Ted Lesson including YouTube videos. Results show that perceived ease of use of Ted Lessons positively influences student perceived usefulness and perceived performance of Ted Lessons. Both utilitarian and hedonic factors influence significantly on perceived value of Ted Lessons. Contrary to our expectations, social identity does not significantly influence perceived value. In addition, copresence is a significant predictor of perceived flow and positive social identity with other members of the learning group. Finally, perceived value affects positively on students' WOM. Academic and managerial implications are provided.*

*Keywords: perceived value, WOM, flow, Ted lessons, collaborative learning*

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## 1. Introduction

The digital era has transformed the way students learn in their daily life, so higher education needs to meet this new reality adopting pedagogies and tools for more engaging forms of learning [1]. Although many social media platforms are not designed primarily for education purposes, using social media to facilitate teaching and learning is a growing trend in the education sector [2]. Collaborative learning refers to the social interaction process in which students engage for the purpose of gaining deeper understanding or social construction of knowledge [3]. Collaborative learning develops students' communication skills and social awareness while sharing information and providing peer feedback [4]. The diffusion of collaborative learning raises the interest on understanding the potential of new technologies in enhancing social learning [4]. From a managerial perspective, the perceived value of collaborative learning methodologies is a key indicator of quality of education. Previous studies have neglected the role of social drivers of perceived value of collaborative learning. This research aims to analyse: (i) how utilitarian, hedonic and social factors interact when students work in teams using Ted Lessons; (ii) the impact of perceived value on the student's recommendation of collaborative learning.

## 2. Literature review

In the marketing literature, past conceptualizations of value emphasized price perceptions through a single overall value factor [5]. This approach applies a rational and cognitive perspective focused on acquisition and transaction value. In this context, [5] define value as the consumer's overall assessment of the utility of a product/service based on perceptions of what is received and what is given.

### 2.1 Utilitarian drivers of perceived value

[6] identify perceived usefulness and perceived ease of use as the basic determining factors in information system acceptance. Students will perceive high usefulness if Youtube-based e-learning

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allows them to improve their effectiveness in learning. Perceived ease of use refers to the degree to which a student believes that no physical or mental effort will be required to use Ted Lessons. Perceived ease of use influences perceived usefulness because a system's simplicity can improve its result and a technology is perceived as being more useful if it is easier to use [6; 7; 8]. Hence:

*H1 Perceived ease of use of Ted lessons has a positive influence on perceived usefulness towards Ted lessons.*

Interactive learning platforms such as Ted Lessons makes it possible to adapt more closely to the customer's needs and consequently offer high-perceived performance [7]. Learners can choose the YouTube videos that develop the aspects the student wishes to reinforce. Despite its advantages, many students encounter barriers associated with the need to use the computer, but it is worth noting that the initial sensation of difficulty disappears after the pupil uses the computer and discovers that it is possible to obtain very satisfactory academic results [9; 7]. Hence, we posit that perceived ease of use leads to perceived performance.

*H2 Perceived ease of use of Ted lessons has a positive influence on the perceived performance of Ted lessons.*

Utilitarian perceptions influence perceived value. Perceived usefulness and perceived performance focuses on functional and convenience benefits. Consequently, the benefits and convenience offered by Ted Lessons for learning will influence users' perception of value. The studies by [10] and [11] present empirical evidence about the influence of perceived usefulness on perceived value. Therefore,

*H3 Perceived usefulness of Ted lessons has a positive influence on the perceived value of Ted lessons.*

*H4 Perceived performance of Ted lessons has a positive influence on the perceived value of Ted lessons.*

## **2.2 Hedonic drivers of perceived value**

According to Social Identity Theory, copresence refers to perception of similarity and interdependency with others, which results in a higher willingness to maintain a relationship with other members of the community [12]. [13] posit flow as an extremely positive experience people have when they voluntarily push their mind to the limit in an effort to undertake a challenging task. Previous research shows a link between social presence experiences and flow [12]. Copresence experiences transport e-learners to alternative domains, where they can feel in tune with the initiatives and interact with other learners available and be more likely to feel absorbed in the activities therein. Hence:

*H5 Copresence has a positive influence on social identity when using Ted lessons*

*H6 Copresence has a positive influence on flow when using Ted lessons*

Social identity refers to individuals' perceptions of belonging to certain social groups with which they share certain values that are important for the individual and the group [14]. Social value refers to the usefulness derived from the capacity of the service to improve social self-concept, which is defined as the result of sharing service use with other people. Team building (social identity) is an element of social value that is a dimension of the overall value. Flow is also correlated with perceived hedonic value. Therefore,

*H7 Social identity has a positive influence on the perceived value of Ted lessons.*

*H8 Flow has a positive influence on the perceived value of Ted lessons.*

Electronic Word-of-Mouth (eWOM) is an activity which requires consumers to engage in attributional analysis and interpretation of events, and sharing meaningful information with others [16]. Since perceived value is thought to focus on the weighing of inputs and outputs of the shopping experience, reflecting the extent to which the learning experience was "successful", it is likely to influence positive word of mouth.

*H9 Perceived value has a positive influence on Word of Mouth about using Ted Lessons*

### 3. Method

The proposed model was tested via a quantitative empirical study using a structured online questionnaire and estimation of the structural relationships. A sample of 203 students from Marketing and Marketing Strategy of Grade in Business Administration and Promotional Communication of the Official Master Degree in Marketing and Market Research at the University of Valencia participated in this research during the academics years 2015-16 and 2016-17. Evaluation activities were developed in March and November 2016 using Ted Lessons, a video based application which integrates Youtube. Students worked in groups of 3-4 people. After the Ted Lesson experience, all participants filled an online questionnaire. All questionnaire items were measured on Likert-type (1) = strongly disagree and (7) = strongly agree scales adapted from previous research.

### 4. Findings

We estimated the proposed theoretical model using Partial Least Squares (PLS) algorithm via SmartPLS 3.0. Before testing the hypotheses, it was verified that the measures had the necessary conditions of reliability, convergent and discriminant validity. Indicators demonstrate the high internal consistency of the constructs. The model estimation shows that perceived ease of use of Ted Lessons positively influences student perceived usefulness ( $B= .67$ ,  $p<.01$ ; H1 accepted), and perceived performance of Ted Lessons ( $B=.61$ ,  $p<.01$ ; H2 accepted). Both usefulness ( $B= .34$ ,  $p<.01$ : H3 accepted) and perceived performance ( $B= .38$ ,  $p<.01$ ; H4 accepted) also influence significantly perceived value. In addition, copresence is a significant predictor of perceived flow when using Ted Lessons ( $B= .68$ ,  $p<.01$ ; H6 accepted) and positive social identity with other members of the learning group ( $B= .82$ ,  $p<.01$ ; H7 accepted). Perceived flow ( $B= .22$ ,  $p<.01$ ; H8 accepted) is positive driver of perceived value, but contrary at our expectations, social identity does not influence significantly perceived value ( $B= -.02$ ,  $p>.05$ ). Finally, perceived value affects positively students' WOM ( $B= .62$ ,  $p<.01$ ; H9 accepted).

### 5. Conclusions

In terms of the academic contribution of this study, it should be noted that there are hardly any studies that identify utilitarian and hedonic drivers of video-based e-learning perceived value. This study has shown that Universities should not only focus on the features of high quality video tools and develop valid pedagogical models, but they also need to understand users' expectations and beliefs about their capabilities in terms of using the technology. This paper extends the current knowledge base by providing insight into the different users' beliefs that influence user's satisfaction towards the video-based elearning. An important outcome of this study is that Ted Lessons provides a viable platform upon which students can improve their perceived value. This research suffers from a few limitations. First, our sample was a convenient sample consisting of English and Spanish speaking University students from a public University. Thus, future research would benefit from expanding the study to a sample of students from a private University. Future research should also compare our results with the use of other video technologies such as Skype.

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