

**STUDENT ATTITUDES TOWARD INTERNATIONAL BUSINESS AND THE
INTERNET: AN EXPLORATORY STUDY**

Thuhang T. Tran
Middle Tennessee State University

and

Cheryl B. Ward
Middle Tennessee State University

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ABSTRACT

The Internet as a learning tool in the International Business (IB) curriculum is becoming more widespread because of its informational and multimedia benefits. This research explores the relationship between student attitude toward the Internet and toward IB with four performance measures (i.e., objective, expected, behavioral, and attitudinal) and affect toward international learning to determine the effectiveness of Internet-based assignments. The results indicate that Internet attitude did not have a significant impact on any of the performance measures and had a negative significant relationship with international learning affect. However IB attitude had a significant positive relationship with expected IB grade, assignment enjoyment, and international learning affect as well as a significant negative relationship with assignment finishing time. The interaction effect of the two attitude measures was only positively related to assignment enjoyment. This study shows that student IB attitude is more pertinent than their Internet attitude when applied to student performance and international learning affect. At best, a positive Internet attitude can amplify an existing positive IB attitude, and at worst, it may dampen international learning affect.

INTRODUCTION

The pace of globalization has made an International Business (IB) curriculum a vital component of a business education (Fugate & Jefferson, 2001), but how to infuse this curriculum in a meaningful way with budgetary and time constraints has been a challenge for educators. In response, the Internet has been used as a low-cost alternative that can enable student learning through information gathering, access to marketing information, and communications with foreign experts (Siegel, 1996).

Although the Internet can provide new ways of teaching and learning, it does not guarantee that learning objectives will be met (Kirkwood & Price, 2005). Several researchers have examined student attitudes toward Internet usage and its benefits to international business education (e.g., Alon, 2003; Greene & Zimmer, 2003). Our study contributes to this growing body of research by exploring student attitudes not only toward the Internet but also toward IB and the interaction of these two attitudes on student performance and affect toward international learning. Furthermore, performance is tested from four different perspectives: objective, expected, behavioral, and attitudinal. Given the myriad possible applications for the Internet and the corresponding learning objectives to be met in a course, exploring the effectiveness of Internet applications in coursework can provide useful insights for pedagogy.

LITERATURE REVIEW AND RESEARCH QUESTIONS

The extant literature on Internet technology in the classroom has established that students are receptive to Internet usage for information and learning (Lundgren & Nantz, 2003). It can also enhance research skills and cross-cultural learning by providing a

better understanding of foreign countries and cultural differences as well as enhance students' cross-cultural communication skills (Greene & Zimmer, 2003; Lawson, White, & Dimitriadis, 1998). Career benefits include an increased interest in an international business career or graduate studies (Greene & Zimmer, 2003) and perceived improvement in career opportunities and future job performance (Clarke, Flaherty & Mottner, 2001) as a result of using Internet assignments. Although students may gain additional international business skills and abilities, they may find the assignments too difficult or not entirely enjoyable (Alon, 2003).

Peng, Tsai, & Wu (2006), found that students' Internet attitude was influenced by gender, self-efficacy, and perceived Internet utility. While most students indicated a positive attitude toward the Internet and adequate Internet usage skills, males tended to have a more positive attitude than females. However, this gender gap is narrowing (End, et al., 2000) and the gap may be non-existent for the "Net generation," those born after 1977 (Tapscott, 1997). The majority of the students tended to view the Internet as a functional tool, but those who saw the Internet as a leisure tool had a more positive attitude toward the Internet and demonstrated better communication skills.

The extant research on Internet usage confirms that students tend to have a positive Internet attitude, but research has not focused on student attitude toward IB. Given the role that attitudes play in student learning and their receptiveness to new ideas and concepts (Peng et al., 2006), this oversight should be addressed. Student attitude toward IB may have an influence on what and how much they learn and consequently affect their class performance. In addition, Internet usage in an IB class setting may lead to an interaction between the two attitudes since learning context can play a role in shaping student attitudes and performance. A study by Nahl (1998) found that student attitudes toward an Internet assignment as well as the Internet improved as their Internet skill level improved enhancing their comfort with and confidence in using the Internet. The Internet may provide a "safe" environment for students to explore and learn about foreign concepts and ideas without requiring direct interaction or producing any negative feedback (Winnicott, 1962). Conversely, students with a prior interest in IB who may have felt stymied by the limitations of the classroom may be encouraged by the access to international resources that the Internet can provide (Lawson et al., 1998). The literature also highlights the fact that there is a wide range of applications and situations for Internet usage in the classroom. However, its efficacy can vary depending on the desired learning objectives and student learning measurements (Kirkwood & Price, 2005). In this study, we address these gaps in the literature by examining the impact of student attitude toward IB and the Internet and their interactive effect on four learning performance measures: objective, expected, behavior, and attitudinal.

Objective measures of learning are desirable because they are irrefutable in that the student either answered the question correctly or not. Barring a lucky guess, an objective measure can gauge student mastery of a learning goal. Expected performance is less tangible because it looks at future intentions and goals. Although student expectations can quantify student aspirations, it may also measure students' self image if expectations are unrealistically high or low relative to their abilities. Behavioral performance measures the actual actions that a student takes and provides concrete evidence of performance under "real-world" conditions. Attitudinal performance can point to potential future behaviors since students with a positive attitude toward an

experience are more likely to want to do more with the subject. Each performance measure captures a different aspect of learning. Thus, this study will explore the following research questions.

Research Question 1: Do student attitudes toward the Internet and toward International Business (IB) affect student performance (objective, expected, behavioral, and attitudinal)?

Research Question 1a: Is there an interaction effect between student attitudes toward the Internet and IB with regard to student performance (objective, expected, behavioral, and attitudinal)?

Ultimately, the goal of teaching IB is to better prepare students for the global work environment. One way to do this is to increase students' multicultural knowledge and awareness since most of the challenges found in international management and marketing stems from a lack of cultural knowledge or appreciation. Because of its multimedia nature, low cost, and limitless information availability, the Internet may empower students to learn more about other cultures. Although the Internet is currently limited to visual and auditory information, the lack of direct knowledge may encourage learners to seek additional information. Exposure to the information provided on the Internet can also increase student curiosity about the topic. Contrarily, the vast amount of information found on the Internet may either overwhelm students or give them a false sense of international knowledge leading them to withdraw from further international studies. As a result, we are interested in finding answers to the following questions.

Research Question 2: Does student attitude toward the Internet influence attitude toward international learning?

Research Question 2a: Is there an interaction effect between student attitudes toward the Internet and IB with regard to international learning?

RESEARCH METHOD

The sample is comprised of 112 students enrolled in the International Business course at a large southeastern U.S. public university. The demographic results revealed the following distributions: mean age 24.6 years; mean income \$39,520; 91% (102) Seniors; 54% (59) female; 79% (87) only spoke one language even though 91% (102) had taken a foreign language course. On average, the students used the internet 2.2 hours daily for 8.85 years. The majority of students reported usage of the Internet in a variety of places including the home (88.4%, 99 students), school (97.3%, 109), and work (41%, 46). A majority of the students surveyed used the Internet for multiple purposes including information (97.3, 109 students), communication (82.1%, 92), entertainment and shopping (both 75.9%, 85).

For this study, students were asked to use the Internet to plan for a business trip to Europe and answer five requests for information related to the proposed trip. First, students had to find the proper mailing address for a hotel in Germany leading them to the hotel's website or a comparable website. Second, students had to find the meaning of a German word (*wassterturm*) using an online language translator or use visual clues from the hotel's website. The third question asked students to visit www.amazon.de to find a book price to experience shopping on a foreign website. For the remaining two

questions, students were directed to www.bahn.de, the German rail system website, to find effective dates and price for a discount train ticket for a trip from Germany to England and possible denominations for a frequent-user *bahn* rail card. These tasks were used because they involve elements common to international business etiquette, transactions, and travel. Unfortunately, a software error created data losses for Questions 3 & 4 so only three of the original five questions yielded usable data. Upon completion of the tasks, students completed an online survey questionnaire using a Likert-type scale [strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1)] to determine their attitudes toward IB and the Internet.

For research questions 1 and 1a, four measures were used for the dependent variable, Performance. First, an objective performance measure, Score, was taken as the sum of the number of questions the student answered correctly (0= no questions; 3= all questions). Since the study was conducted during the IB course, students were asked for their expected grade for the IB course to measure expected performance, IB_Grade. Behavioral performance, Fin_Time, was taken as the number of minutes to complete the exercise as reported by the students. Finally, an affective performance measure (Enjoyest) was taken by asking students to identify the tasks they found to be the most enjoyable (from 0 = none of the tasks to 4 = all of the tasks). To determine if the students' attitude toward multicultural learning, LearnMore, had changed after the exercise, students were asked to rate their agreement with the following statement: "I want to learn more about other cultures after this exercise" using the Likert-type scale mentioned previously.

A survey instrument containing 25 questions (ten related to IB attitudes, nine related to Internet attitudes, and six related to self attitudes) was used to collect the attitude measures. A factor analysis using principal components with a Varimax rotation yielded three factors with eigenvalues greater than 2.0 (i.e. Net_Att, IB_Att, and Self_Att). Factor scores using the regression method were calculated for the factors identified from the survey. The independent variables included Internet attitude, Net_Att (7 items) and attitude toward IB, IB_Att (6 items). A reliability analysis of the factor items yielded a Cronbach's alpha of 0.73, which is marginally acceptable. The interaction effect between student IB and Internet attitudes was calculated by multiplying IB_Att and Net_Att = IBXNet. Self_Att (4 items) was originally intended as a control variable, but it did not contribute to the model and was removed for parsimony. The control variables used in the regression model included Age, Sex (0=Male, 1=Female), Income, Rank (0=Junior, 1=Senior), and daily Net_Use.

RESULTS

The results of the Pearson correlation analysis along with the descriptive statistics are summarized in Table 1. Of note, the correlation between Age and Fin_Time (r -squared = 0.19*) is positively significant indicating that older students reported taking a longer time to finish the exercise. One possible explanation may be that older students may not be as comfortable or conversant with the capabilities of the Internet, and consequently, spent more time to find the necessary information. Although the average age of the students was approximately 25 years, student age ranged from 19 to 52 years. Fin_Time was also significantly correlated with IB_Att (r -squared = -0.20*), but in a negative direction. In this case, students who have a positive IB attitude may have spent

less time on the exercise perhaps because of familiarity, or spending more time doing the exercise led students to have a lower attitude toward IB because they were frustrated with the length of time it took to complete the exercise. Student IB attitude is positively significantly correlated to IB_Grade (r -squared = 0.28**) suggesting that students who have a positive IB attitude expect to earn higher grades, or students have a positive IB attitude because they expect a higher grade.

The correlation results for Learn_More show that students who wanted to learn more about other cultures tended to be ones who enjoyed the exercise more (r -squared = 0.23*), seniors (r -squared = 0.22*), as well as those who used the Internet more (r -squared = 0.19*). As expected, IB attitude was positively correlated with Learn_More (r -squared = 0.26**) while the opposite was the case for Internet attitude (r -squared = -.24*), which is discussed below. However, when Internet and IB attitudes interact, the correlation of the interaction and Learn_More is positive (r -squared = 0.20*) suggesting that a positive attitude toward IB may override the negative impact of the Internet attitude when it is applied to students desire for multicultural learning.

Table 1
Descriptive Statistics and Pearson Correlations

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Score	1.84	0.81												
2. IB_Grade	3.31	0.63	0.03											
3. Fin_Time	22.00	11.24	0.05	-0.14										
4. Enjoyest	1.07	1.09	0.08	0.16	-0.09									
5. Age	24.61	5.90	-0.12	0.04	0.19	0.00								
6. Rank	0.91	0.29	-0.02	-0.09	0.08	-0.09	0.10							
7. Sex	0.54	0.50	0.10	-0.01	-0.08	0.08	-0.13	0.13						
8. Income	39.5K	43.0K	-0.02	0.06	-0.12	-0.01	0.02	0.02	-0.11					
9. Net_Use	2.20	1.54	0.11	0.04	-0.03	0.18	0.08	0.14	0.14	0.07				
10. Net_Att	0.00	1.00	0.09	0.08	0.07	0.06	-0.15	0.06	0.16	-0.10	0.11			
11. IB_Att	0.00	1.00	-0.05	0.28	-0.20	0.33	0.03	-0.12	-0.06	0.06	0.14	0.00		
12. IBXNet	0.00	1.07	0.02	0.09	0.04	0.20	0.12	0.07	0.07	-0.12	0.09	-0.16	0.01	
13. LearnMore	3.07	0.81	-0.03	-0.04	0.04	0.23	0.02	0.22	0.11	-0.12	0.19	-0.24	0.26	0.20

$N=104$ to 112 ; *** $p<0.001$, ** $p<0.01$; * $p<0.05$

Multiple linear regression analysis was performed on the four performance variables; however, only Enjoyest yielded significant models. All of the models shown in Table 2 have significant F-values, and the variables used explain 18-28% of the variance in their respective models. From Model 1 of Table 2, the results show that while Net_Att was not significant, students' Rank ($b = -0.28^{**}$), daily Net_Use ($b = 0.24^{*}$), and

IB_Att ($b = 0.27^{**}$) did significantly predict the level of enjoyment in the exercise. In other words, students that tended to enjoy the more challenging activities were Juniors, students with high daily Internet usage, and students who had a more positive IB attitude.

The interaction effect between IB_Att and Net_Att ($b = 0.22^*$; r -square change = 0.041^*) was found to be positively significant in Model 2, suggesting Internet attitude has a positive interaction effect with IB_Att when applied to students' enjoyment of the exercise. A plot of the interaction between IB and Internet attitudes (see Figure 1) show that the two have a quadratic, curvilinear relationship. IB_Att increases with an increase in Net_Att until Net_Att reaches a value of approximately 1.00, at which point IB_Att decreases with an increase in Net_Att. These results support the arguments developed earlier and suggest that the appeal of the Internet and its multimedia usage transfers to IB, but after a certain point, the Internet may supplant the need for IB. Students may feel that the vast resources and connections provided by the Internet to be more useful than IB education. In response to Research Questions 1 and 1a, student Internet attitude had no effect on their performance while student attitude toward IB had a positive effect on their enjoyment and expected IB grade, but a negative effect on finishing time. There is also an interaction effect for enjoyment.

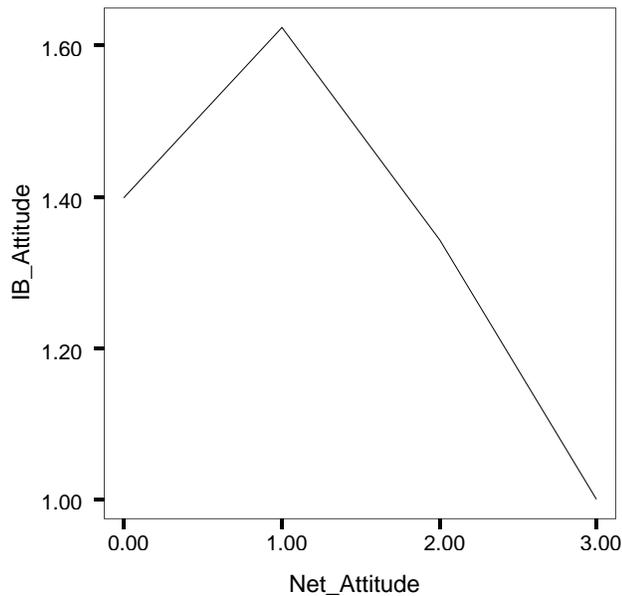
Table 2
Multiple Linear Regression Results

Variable	Dependent Variable = Enjoyest		Dependent Variable = LearnMore		
	Model 1	Model 2	Model 3	Model 4	Model 5
(Constant)	--- *** (.88)	--- *** (.87)	--- *** (.65)	--- *** (.64)	--- *** (.64)
Age	-0.12 (.02)	-0.15 (.02)	-0.09 (.02)	-0.10 (.01)	-0.11 (.02)
Rank	-0.28 ** (.57)	-0.28 ** (.56)	0.18 (.42)	0.21 * (.41)	0.21 * (.41)
Major	-0.03 (.21)	-0.04 (.21)	-0.10 (.16)	-0.09 (.15)	-0.10 (.15)
Sex	0.08 (.23)	0.07 (.23)	0.11 (.17)	0.13 (.17)	0.12 (.17)
Income	-0.11 (.00)	-0.08 (.00)	-0.17 (.00)	-0.19 (.00)	-0.17 (.00)
Net_Use	0.24 * (.09)	0.22 * (.09)	0.16 (.07)	0.15 (.06)	0.14 (.06)
Net_Att	0.04 (.11)	0.09 (.11)	-0.35 *** (.08)	-0.35 *** (.08)	-0.32 ** (.08)
IB_Att	0.27 ** (.11)	0.28 ** (.11)		0.25 ** (.08)	0.25 ** (.08)
IBXNet		0.22 * (.10)			0.12 (.07)
<i>N</i>	91	91	91	91	91
<i>R-squared</i>	0.24	0.28	0.18	0.24	0.25
<i>F-value</i>	3.16 **	3.47 ***	2.64 *	3.26 **	3.05 **
<i>Deg. of Free</i>	(8, 82)	(9,81)	(7,83)	(8,82)	(9,81)

*** $p < 0.001$; ** $p < 0.01$, * $p < 0.05$

^Standardized coefficients reported; standard errors in parentheses.

Figure 1
Plot of Interaction between IB_Attitude and Net_Attitude



To answer Research Questions 2 and 2a, Model 3 examined the impact of Net_Att on students' affect for international learning and surprisingly found that there was a significant negative result ($b = -0.35^{***}$) that was consistent across models 3-5 in Table 2. One possible explanation for this finding is that students may be frustrated by the information limitations of the Internet, and as a result, may want to learn more to make up for the deficiency. Another possibility is that students who have a more positive Internet attitude may feel that it adequately connects them to the world or meets their informational needs, and so they have a lower affect toward multicultural learning.

The addition of IB_Att in Model 4 shows that IB_Att ($b = 0.25^{**}$) and Rank (0.21^*) are positively significant. The result for IB_Att is expected given that multicultural learning is a core element of IB; however, the Rank results are in the opposite direction from the results of Models 1 and 2. Taken together, the results show Seniors are more likely to pursue multicultural learning even though they enjoyed the assignment less than their Junior counterparts, possibly because Seniors are more conscious of globalization's impact on their future career goals. The interaction effect, shown in Model 5, was not a significant factor in predicting multicultural learning intentions. Thus, the answers to Research Questions 2 and 2a are that Net_Att does impact multicultural learning but in a negative direction, and the interaction of Net_Att and IB_Att has no significant influence on multicultural learning.

CONCLUSIONS

In conclusion, student attitude toward the Internet and the interaction of student attitudes toward the Internet and IB had a significant impact on whether or not they enjoyed the Internet assignment, but they did not influence objective, expected, or behavioral performance measures while student attitude toward IB had a positive significant relationship with their expected, behavioral, and attitudinal (Enjoyment)

performance. Contrary to expectations, student attitude toward the Internet had a negative significant relationship with the desire for more multicultural learning. This suggests that students may gain a false sense of knowledge or learning from the Internet or the limitations of the Internet may spur students to seek additional international knowledge. The interaction of student attitudes toward the Internet and IB had no significant impact on the desire for more multicultural learning.

There are some acknowledged limitations to this study. First, generalizability of these results may be limited by the sample size (N=91 for the regression analyses) which may not represent the U.S. student body since a majority of the students are from one region of the U.S. A second problem with the study is the data for Score was severely truncated because of software error. If full data had been retained for all 5 questions (instead of just 3), the regression analysis for the objective performance measure may have yielded significant results. A third issue may arise from the nature of the Internet assignment which asked students to search for information both in English and German as well as navigate through a foreign-based website. Although these activities create a problem for students to solve and expose students to foreign customs and norms, they do not require in-depth involvement, analysis or critical thinking, and the students may not have found these activities to be very interesting. Fourth, the study may have a common method bias since a common survey instrument was used to collect data for both the independent and dependent variables at the same time. This may create an inflated correlation between the independent and dependent perceptual variables because of an item priming effect (Podsakoff et al., 2003). Future studies on this topic would need to incorporate a larger, more representative sample, additional objective performance measures, and assignments that are more engaging or requiring deeper levels of interaction and learning.

Although prior research has focused on student attitude toward the Internet as influential factors in IB education because of the novelty of this educational tool, our study shows that student attitude toward IB is more relevant than their attitude toward the Internet in relation to student performance and affect for future learning. At best, a positive student attitude toward the Internet can amplify an existing positive attitude toward IB, and at worst, it may dampen the desire for additional international learning because it may give students an unrealistic sense of international knowledge and understanding. Given the effects that IB_Att has on student performance and desire for more multicultural learning, more research is needed to examine the factors that would influence students' attitude toward IB.

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