International Journal of Humanities and Social Science Invention (IJHSSI)
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org ||Volume 10 Issue 4 Ser. II || April 2021 || PP 31-35

An Empirical Study on Cross-border E-commerce "1+X" Certificate Teaching in Digital Era

SONG Youkai[1], WANG Wenzhen[2]
1, Foreign Language School of Gui Lin Tourism University; 2 Library of Gui Lin Tourism University, Gui Lin, China, 541006

Abstract: *This study collected 158 Chinese students major in business English as the data through cluster sampling and equipped SPSS 24.0 version to analyze the data by description analysis, correlation analysis, regression linear analysis, the results indicated: 1) The mastering the theory knowledge associate with cross-border E-commerce platform skills positively;2) Good learning habit drive the learning efficiency of students; and 3) The simulation training on cross-border E-commerce platform assisted students' competence in cross-border e-commerce operation.*

Key words: *Cross-border commerce; "1+X" certificate; Chinese students*

Date of Submission: 29-03-2021 Date of Acceptance: 12-04-2021

I. INTRODUCTION

According to the data released by the Ministry of Commerce, the international e-commerce market has been growing continuously in the first three quarters of 2020. First, the epidemic has driven offline consumption to shift to online consumption. In the second quarter, the online retail sales in the United States increased 31.8% on year, up 44.5% year-on-year, while the total retail sales decreased 3.9% on quarter in the second quarter. Second, the quality of foreign trade has been upgraded. During the epidemic, the state has issued "favorable" policies such as "expansion" of cross-border e-commerce comprehensive test zone and B2B export supervision pilot project. Cross border e-commerce has maintained a good growth trend, with the retail import volume of cross-border e-commerce increasing by 17% year-on-year.

In 2019, the Ministry of Education, the National Development and Reform Commission, the Ministry of Finance and the General Administration of Market Supervision jointly issued the pilot scheme for the implementation of the system of "Academic certificate + Several Vocational Skill Level Certificates" (1+X certificate)in colleges and universities, in other words, to combine academic certificates with vocational skill level certificates, and steadily promote the pilot work of "1 + X" certificate system around serving the needs of the country, market demand, and the improvement of students' employability.

In order to carry out the policy, this study analyzed the teaching efficiency by collecting data through 158 business English major students who learned the cross-border e-commerce course.

1. Research design and process

1.1 Data collection: At the end of the course, an online questionnaire survey was conducted among 2018 Business English majors who completed the cross-border e-commerce course. A total of 158 valid questionnaires were collected by using Likert Level 3, 1 = sufficient, 2 = average and 3 = insufficient. SPSS 24.0 data analysis software was used for descriptive analysis, Pearson correlation analysis and linear regression analysis.

1.2 The results of study

1.2.1 Demographic Characteristics: In 158 valid samples, 116 were female students, accounting for 73.42%, 42 were male, accounting for 26.58%; age distribution, 104 were 21-24 years old, accounting for 65.82%, 54 were 20 years old and below, accounting for 34.18%, see table 1.

Table 1: Demographic Characteristics

Items		Frequency	Percentage (%)	Cumulative percentage (%)
Gender	Male	42	26.58	26.58
	Female	116	73.42	100.00
Age	Under 20	54	34.18	34.18
	21-24	104	65.82	100.00
In total		158	100.0	100.0

1.2.2 Reliability analysis: The reliability coefficient is 0.890, which is greater than 0.8, indicating the high reliability of the research data, details see table 2.

Table 2：Reliability analysis Cronbach

Items	CITC	α	Cronbach α
Preview	0.654	0.879	
Class report	0.664	0.879	
Team work	0.483	0.886	
Home assignment	0.522	0.885	
Introduction, feature and models of cross-border E-commerce	0.656	0.879	
Cross-border E-commerce platform	0.511	0.885	
Operation to AliExpress	0.695	0.877	0.890
Logistics of cross-border E-commerce	0.655	0.879	
Warehouse, procurement, store in abroad, supply chain	0.610	0.886	
Customer service in cross-border E-commerce	0.725	0.877	
Customs	0.754	0.875	
Tax in cross-border E-commerce	0.698	0.877	
Simulation training	0.769	0.874	

Standard Cronbach αco-efficiency：0.897

1.2.3 Descriptive statistical analysis of learning habits:

Learning habits include preview, topic report and discussion speech, group cooperation and homework. Among 158 samples, pre class preview is the best, with an average of 1.532, a standard deviation of 0.549 and a median of 2.0. The second is the topic report and discussion speech, the mean is 1.411, the standard deviation is 0.531, and the median is 1.0. The mean group cooperation was 1.304, and the standard deviation was 0.475. The mean value of homework after class is 1.278 and the standard deviation is 0.464. See table 3. The above analysis shows that students have a good preview before class, have a high enthusiasm for topic report and discussion speech, but the completion rate of homework needs to be improved after class.

Table 3：Descriptive statistical analysis of learning habits

Items	N.	Min.	Max.	Means	St. Error	Median
Preview	**158**	**1.000**	**3.000**	**1.532**	**0.549**	**2.000**
Class report and speech	**158**	**1.000**	**3.000**	**1.411**	**0.531**	**1.000**
Team work	**158**	**1.000**	**3.000**	**1.304**	**0.475**	**1.000**
Home Assignment	**158**	**1.000**	**3.000**	**1.278**	**0.464**	**1.000**

1.2.4 Descriptive statistical analysis of course teaching content module:

The teaching content module includes the introduction, characteristics and mode of cross-border e-commerce, introduction to cross-border e-commerce platform, practical training of express, product publishing process, cross-border e-commerce logistics, warehousing, procurement, overseas warehouse, supply chain, cross-border e-commerce customer service concept, cross-border e-commerce import and export customs clearance, cross-border e-commerce import and export taxes and other theoretical parts, as well as the simulation training part: cross-border e-commerce platform simulation sandbox training. Among them, warehousing, procurement, overseas warehouse, supply chain knowledge unit students' learning efficiency is the highest, the average is 2.158, the standard deviation is 0.927. The average value of cross-border e-commerce import and export tax knowledge unit is 1.709, and the standard deviation is 0.568; the average value of cross-border e-commerce logistics knowledge unit is 1.665, and the standard deviation is 0.548; the average value of express platform operation knowledge unit is 1.595, and the standard deviation is 0.587; the average value of cross-border e-commerce customer service concept knowledge unit is 1.576, and the standard deviation is 0.521; the knowledge unit with the lowest learning efficiency is product release and service The average value is 1.462, and the standard deviation is 0.614, as shown in Table 4.

Table 4： Descriptive statistical analysis of course teaching content module

Item	N.	Min.	Max.	Means	St. Error	Median
Introduction, feature and models of cross-border E-commerce	158	1.000	3.000	1.532	0.549	2.000
Cross-border E-commerce platform	158	1.000	3.000	1.551	0.582	2.000
Operation to AliExpress	158	1.000	3.000	1.595	0.587	2.000
Logistics of cross-border E-commerce	158	1.000	3.000	1.665	0.548	2.000
Warehouse, procurement, store in abroad, supply chain	158	1.000	3.000	2.158	0.927	3.000
Customer service in cross-border E-commerce	158	1.000	3.000	1.576	0.521	2.000
Customs	158	1.000	3.000	1.601	0.552	2.000
Tax in cross-border E-commerce	158	1.000	3.000	1.709	0.568	2.000
Simulation training	158	1.000	3.000	1.538	0.560	2.000

1.2.5 Correlation Analysis:

Correlation analysis uses Pearson correlation analysis method to analyze the correlation between learning habits and theoretical knowledge unit module and cross-border e-commerce platform simulation sandbox training. Through customs clearance analysis, it is found that pre class preview, class report and discussion, group cooperation, and homework are positively correlated with cross-border e-commerce platform flipped sandbox training, and the correlation coefficients are (pre class preview 0.514 * *, (class report and discussion 0.665 * *, (group cooperation 0.435 * *, (homework 0.449 * *). Theoretical teaching knowledge unit, except for product publishing and publishing process (correlation coefficient is 0.013, P = 0.876 > 0.005), other theoretical knowledge units are positively correlated with cross-border e-commerce platform simulation sandbox training, as shown in Table 5.

Table 5：Pearson Analysis

Items	Cross border e-commerce platform simulation training
Preview	0.514**
Class report and speech	0.665**
Team work	0.435**
Home Assignment	0.449**
Introduction, feature and models of cross-border E-commerce	0.493**
Cross-border E-commerce platform	0.454**
Operation to AliExpress	0.628**
Logistics of cross-border E-commerce	0.013
Warehouse, procurement, store in abroad, supply chain	0.446**
Customer service in cross-border E-commerce	0.448**
Customs	0.678**
Tax in cross-border E-commerce	0.657**
Simulation training	0.616**

* $p<0.05$ ** $p<0.01$

1.2.6 Linear regression analysis:

Linear regression is used to analyze the driving effect of learning habit indicators and theoretical module unit knowledge on the simulation sandbox training operation of cross-border e-commerce platform.

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \ldots + \beta_p X_{ip} + \varepsilon_i, \qquad i = 1, \ldots, n.$$

Where, y = cross border e-commerce simulation sandbox training operation, β is the standard regression coefficient, X is each learning habit index and theoretical unit knowledge, and ε is the standard error. The linear analysis results are shown in Table 6,

Table 6: Results of linear regression analysis (n=158)

	Nonstandard coefficient		Standardization coefficient	t	p	VIF	R^2	Adjusted R^2	F
	B	Standard error	$Beta$ β						
Constant	-0.271	0.135	-	-2.002	0.047*	-	0.712	0.686	F (13,144)=27.418, p=0.000
Preview	0.051	0.067	0.050	0.756	0.451	2.146			
Class report and speech	0.354	0.071	0.336	4.997	0.000**	2.256			
Team work	-0.013	0.081	-0.011	-0.155	0.877	2.382			
Home Assignment	0.015	0.081	0.013	0.191	0.849	2.224			
Introduction, feature and models of cross-border E-commerce	-0.051	0.067	-0.050	-0.753	0.453	2.178			
Cross-border E-commerce platform	0.085	0.054	0.088	1.580	0.116	1.561			
Operation to AliExpress	0.244	0.063	0.255	3.880	0.000**	2.164			
Logistics of cross-border E-commerce	0.097	0.045	0.106	2.157	0.033*	1.214			
Warehouse, procurement, store in abroad, supply chain	-0.125	0.065	-0.123	-1.924	0.056	2.038			
Customer service in cross-border E-commerce	-0.054	0.038	-0.089	-1.403	0.163	2.026			
Customs	0.289	0.074	0.268	3.884	0.000**	2.389			
Tax in cross-border E-commerce	0.168	0.077	0.166	2.175	0.031*	2.901			
Simulation training	0.144	0.066	0.146	2.185	0.031*	2.226			
Dependent variable: cross border e-commerce platform simulation training operation									
D-W value: 1.913									
* p<0.05 ** p<0.01									

The learning habit index and theoretical knowledge unit are independent variables, while the cross-border e-commerce platform simulation sandbox training operation is the dependent variable for linear regression analysis. The R square value of the model is 0.712, and each variable can change 71.2% of the dependent variable. F-test on the model found that the model passed F-test (F = 27.418, P = 0.000 < 0.05), which means that at least one of their variables will have an impact on the dependent variable. For the multicollinearity test of the model, it was found that all the values in the model were less than 5, which means that there was no collinearity problem; and the DW value was near the number 2, which means that there was no autocorrelation in the model, and the sample size was 0 There is no correlation between the data, and the model is good, as shown in Table 6.

II. CONCLUSION

In addition to the platform products published in the distributed knowledge unit, the other theoretical knowledge unit modules and learning habits indicators are positively related to the cross-border e-commerce platform simulation training module. Based on the results of the research report, this paper proposes a theoretical teaching and practical teaching system for cross-border e-commerce talents training under the background of new business. The theory includes innovative thinking and innovation ability, core values and

social responsibility, independent thinking and cooperation ability as the core goal of the system, with cross-border e-commerce, digital marketing, visual marketing, business English and other majors as the direction; Data management, program development, logistics and supply chain management, and data-based operation are the professional basis of the talent training system, and the cross-border e-commerce platform, e-commerce big data, and new business are used as modules to build the practical teaching platform. To build a three-dimensional system of innovative and entrepreneurial e-commerce talent training system, a "dual" teacher system integrating government, industry, University and research, and a cross-border e-commerce practice teaching system. In order to achieve the new cross-border e-commerce talent training goal of three-dimensional dimension system, the knowledge realization matrix of talents includes economics and management, computer, mathematical statistics, product research and development, data analysis, international trade, financial management, marketing, finance, logistics and supply chain management, as well as the corresponding main courses of each knowledge class.

REFERENCES:

[1]. [1] Notice of the State Council on printing and distributing the national vocational education reform implementation plan (GF [2019] No.4) [Z]. 2019-01-24.
[2]. [2] The SPSSAU project (2020). SPSSAU. (Version 20.0) [Online Application Software]. Retrieved from https://www.spssau.com.
[3]. [3] Sun Dao-de. Selection of the Linear Regression Model According to the Parameter Estimation[J]. Wuhan University Journal of Natural Sciences, 2000, 5(4):400-405.
[4]. [4] Barassi M R. Micro-econometrics; Methods and Applications by A. Colin Cameron; Pravin K. Trivedi[J]. 2005.

Acknowledgement
This paper was supported by the found of Guangxi Tourism Vocational Education Teaching Steering Committee (No.: 2020 LYHZWY001l).
Disclosure statement
No potential conflict of interest was reported by the author(s).
Funding
This paper was supported by the found of Guangxi Tourism Vocational Education Teaching Steering Committee (No.: 2020 LYHZWY001).
Declaration of interest statement
No potential conflict of interest was reported by the author(s).

SONG Youkai, et. al. "An Empirical Study on Cross-border E-commerce "1+X" Certificate Teaching in Digital Era." *International Journal of Humanities and Social Science Invention (IJHSSI)*, vol. 10(04), 2021, pp 31-35. Journal DOI- 10.35629/7722