Library Progress International
Vol.44 No.3, Jul-Dec 2024: P.4032-4044

Print version ISSN 0970 1052
Online version ISSN 2320 317X

Original Article

Available online at www.bpasjournals.com

A Study on Competence Gap Analysis-Based Sino-Thai Cross-Border E-Commerce Workforce Cultivating Standard

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How to cite this article: Chuanchen BI, Wei YANG (2024) A Study on Competence Gap Analysis-Based Sino-Thai Cross-Border E-Commerce Workforce Cultivating Standard. *Library Progress International*, 44(3), 4032-4044.

Abstract

Purpose: Cross-Border E-Commerce (CBEC) among Chinese consumers has grown to be a global online retail sector of greater proportion. The rise in CBEC from China is a result of the worldwide market system; it is not a coincidence. However, by connecting the Belt and Road Economic Corridor (CBEC) with the altered global commerce created by contemporary technology surroundings, the Chinese government and China's platform capitalists have played important roles in driving the acceleration of Chinese economic power. E-commerce may provide SMEs a competitive advantage, and by 2030, it is anticipated to make up the majority of the digital economy in the United States. Only 22% of Thai SMEs, however, are using e-commerce. Industry, university, and academic collaboration is a crucial pillar for developing multidisciplinary talent because it helps resolve the conflict between the growing need for cross-border e-commerce expertise and students with skill levels that are incompatible.

Method: The researcher investigated the skill gaps that students have in order to work in transcontinental and cross-border e-commerce enterprises by reading a sufficient amount of information and researching human resources theories. Despite the fact that a number of earlier studies have looked at the requirements of international e-commerce businesses and the present training program for developing talent in the industry.

Result: In 2018, a trial study was conducted to assess industry-university-research cooperation using data from a for-profit Guangdong e-commerce firm as the third party. This start-up offered cross-border e-commerce business educational programs and a platform enabling employers to locate candidates.

Conclusion: Investigators should work to close the existing research gap, comprehend the path that this discipline will take in the future, and assist academic institutions in establishing a rigorous knowledge system. However, industry-university-research cooperation in the area of cross-border e-commerce has only just emerged and is beset by a number of issues, including ambiguous training strategies and unstable partnership relationships.

Keywords: Cross-Border E-Commerce (CBEC), China's, E-Commerce Companies, Students' Skill Gaps, Collaboration, Thailand, Universities, Talent Cultivation.

Introduction

Trade between nations has gotten closer as a result of the ongoing advancement of Internet technology, and economic growth has progressively shifted toward globalization as well as integration [1]. In nations or areas with comparable topography and cultures, cross-border e-commerce offers enormous potential for growth [1, 2].

Stated differently, it possesses the capability to create novel income models or techniques on a national and global scale [2, 3]. Cross-border e-commerce has entered a new phase of fast development due to its limitless potential. By enticing businesses and consumers to engage in cross-border business-to-business (B2B) and consumer-to-business (C2C) transactions, cross-border e-commerce has not only effectively removed historical trade barriers between nations but has also progressively increased global trade [3, 4]. Global trade patterns and economies will be significantly impacted by a number of significant developments brought about by the shift towards borderless commerce. Cross-border e-commerce

makes for one-third of all e-commerce. Using the European Union (EU) as an example, 15% of foreign vendors sold goods to EU customers via.

Cross-border e-commerce's historical history indicates that, in the near future, it will offer a tonne of room and prospects for global economic growth [5, 6]. Because of the industry's explosive rise in recent years, cross-border e-commerce research has drawn more attention. In terms of learning effects and costs associated with conversion using search engine optimisation and mined methods, the early adopters of third-party platforms that rely on cross-border e-commerce have an edge over the later. They can also better handle the discrepancies in cost, technology, and markets. Summarises and examines the state of the cross-border third-party logistics marketplace at the moment, as well as transportation business models, uses for logistics services, and the effects of integrating with the cross-border e-commerce of my nation on the growth of that sector [7, 8]. What factors influence a person's decision to use cross-border e-commerce [8, 9].

The features and determinants of talent demand led to the conclusion that, in contrast to a design based on the four capacities of technical skills, analytical ability, professional ability, and market knowledge [9, 10], there is a significant gap in the need for cross-border e-commerce talent. To close this gap, a model for cross-border e-commerce talent training was created, and its efficacy was assessed. This study aims to investigate the impact of block chain technology on consumers' purchase intentions in cross-border e-commerce. Specifically, it examines the implementation status of block chain technology in various cross-border e-commerce fields. Using these findings, [9, 10] divide the quality of the cross-border e-commerce block chain system into three dimensions: payment security, logistics service quality, and commodity-based information quality.

China has emerged as Thailand's top commercial partner and nation, and it now exports more E-commerce goods than any other country. E-commerce trade has a favourable potential within the framework of the "Belt and Road" initiative [11]. Using recent trade data on electronic commerce goods between China and Thailand as a guide, this paper examines the growth of e-commerce trade from the perspectives of complementarity and competitiveness. Finally, it provides a thorough summary of the current state of e-commerce trade between China and Thailand against the backdrop of the "Belt and Road" in an effort to enhance bilateral relations and cooperation and advance e-commerce product trade between the two nations [11].

The China-Thailand E-commerce product trade is currently faced with a number of possibilities as well as obstacles, including the decline in the scale of product trade, the degree that integration is weakening, and the relatively small number of trade categories, and the reliance on non-tariff obstacles to trade [12].

About half of Thailand's land area is made up of arable land, and a sizable portion of the population works in e-commerce. As a result, the country's environment for developing e-commerce are very outstanding instruction and with the ongoing development of e-commerce trade between China and Thailand, [13], the volume of trade between the two countries has increased annually, with China already being the primary destination for Thai e-commerce products [14].

Overall, the country's e-commerce resources are relatively rich, with a large population involved in agriculture. E-commerce income is a significant portion of the country's economic materials, and both China and Thailand have very small online shopping development processes [13, 14]. The two countries also have relatively similar degrees of e-commerce mechanisation and modernisation progress, meaning there is plenty of room for cooperation between them in the development and advancement of e-commerce technology. From the standpoint of international trade, Thailand, a significant nation in the ASEAN, [16], has positive strategic implications for the growth of e-commerce trade among China and Thailand during the process of building the China-ASEAN Free Trade Area. Agriculture and Rural Development is one of the key pillars of the establishment of the China-ASEAN Free Trade Area [17].

A new phase of fast expansion in e-commerce trade between China and Thailand will also be ushered in with full implementation of the Belt and Road Initiative, the new trade structure. The background of the current comprehensive creation of the "Belt and Road" is referred to in this paper, along with the bilateral data of E-commerce trade between China and Thailand in recent years, in order to explore the issues and potential solutions for the trade's continued growth [14]. Addressing this issue can help to further enhance research on E-commerce trade and related problems as well as offer straightforward policy recommendations and viewpoints for the trade's advancement between China and Thailand? Additionally, it offers theoretical recommendations for how Chinese e-commerce items might grow their customer base in Thailand and is highly beneficial in fortifying the depth of basic trade and economic cooperation involving China and Thailand [14, 15].

As a result, researching the economic growth of the two nations involved in this project is beneficial to the global economy and provides useful references for the economic growth of other nations. Both nations must act quickly to take advantage of this chance and improve their mutual collaboration in order for there to be a win-win outcome for both parties [16, 17]. In terms of their cooperative interactions, Thailand and China have remained mostly amicable and steady [17, 18].

The two nations before displayed a positive development trend in their trade cooperation, with the trade volume increasing steadily, the cooperation fields expanding, the product trade declining, integration weakening, the trade categories relatively concentrated, and the dependence on non-tariff trade barriers limiting the two sides' economic growth. Therefore, under the crucial "Belt and Road" policy, it is required to research and assess China-Thailand trade in order to identify pertinent countermeasures [18].

1.1 Basic Concepts

1.1.1 The initiative of the Belt and Road

China's premier leader, Xi Jinping, presented two significant plans in September and October 2013; the Belt and Road Program is the subject of this article. The formal unveiling of the Belt and Road Initiative's particular vision and measures took place in 2015 by the State Council. Thailand, which is situated in the middle of the Indochina peninsular, is not only a vital component of the Silk Road Economic Belt but also a crucial location for the Maritime Silk Road [14, 18]. Thai has grown to be a significant participant in the collaborative construction of the "Belt and Road."

The pragmatic collaboration between China and Thailand is being further stimulated by the alignment of the Belt and Road Initiative with Thailand's Eastern Economic Corridor. As a result of this project, China and Thailand have now actively constructed the "Belt and Road" connectivity and have achieved notable progress in their collaboration in a number of other areas, including infrastructure, investment in manufacturing, the digital economy, and agriculture [17]. To put it briefly, the building of the "Belt and Road" will guarantee the policy-driven commercial and economic growth of numerous nations and assist China in better executing trade cooperation with other nations for global commerce. Provide improved guidelines for improvement and more comprehensive business concepts [17, 18].

1.1.2 The economy of double circulation

Considering domestic transportation as the main focus, one should work to open up all connections between domestic manufacturing, circulation, and consumption [19], fully utilise China's ultra-large-scale marketplace, and view satisfying customer demands as the foundation and starting point of economic growth. Not that the concentration on the home economic cycle is "self-style"; rather, the dual circulating of domestic and foreign goods complements one another. This is done in order to fully utilise demand within the country, improve domestic market integration with global market integration, and leverage materials and markets from both domestic and foreign sources to create more robust sustainable growth [17, 18]. Release and cultivate Electronic commerce consumption of goods is not only a successful strategy to form a strong domestic market, but also a means of encouraging superior economic growth and rural revitalisation. The fresh growth structure with the domestic cycle as the main body must establish a strong locally market, adhere to the important base point of growing the internal utilisation of E-commerce goods, and take advantage of China's unique financial advantages. China took advantage of globalisation after entering the WTO, actively engaged in the global division of labour, and established a worldwide cycle pattern of significant goods being imported and exported from both ends of the E-commerce trade [19].

1.2 Present State of Sino-Thai Commercial Development

1.2.1 Examining China's E-Commerce Trade with Thailand

An examination of the features of Chinese e-commerce transactions China has long placed a high value on the economic creation of e-commerce, and e-commerce commerce is a crucial component of this construction. China is a major e-commerce nation in the classic sense; its primary industry is agriculture, and the development and security of the e-commerce trade the marketplace and economy are crucial to China's economic progress as well as the creation and enhancement of the "dual circulation" model [18]. Since joining the WTO, China's overall trade in e-commerce goods has generally demonstrated an increasing trend [19].

Data from the General Administration of Commerce indicates that in 2022, China's e-commerce items would import and export a total of 2.230568 billion yuan, representing a 9.9% annual growth. Among them, the trade imbalance was 918.647 billion yuan, a rise of 1.7% year over year; the export amount was 655.96 million yuan, a year over year growth of 16.5%;

and the import value was 1.574608 billion, an increase of 7.4% [18]. From a comparison of market imports, the most significant suppliers of electronic commerce goods to China are Brazil, the United States, the country of Thailand, New Zealand, Australia, Indonesia, Argentina, Canada, Russia, and the country of Vietnam. Together, these ten nations account for 71.28% of the country's total e-commerce imports [18, 19]. Figure 1 demonstrates such.

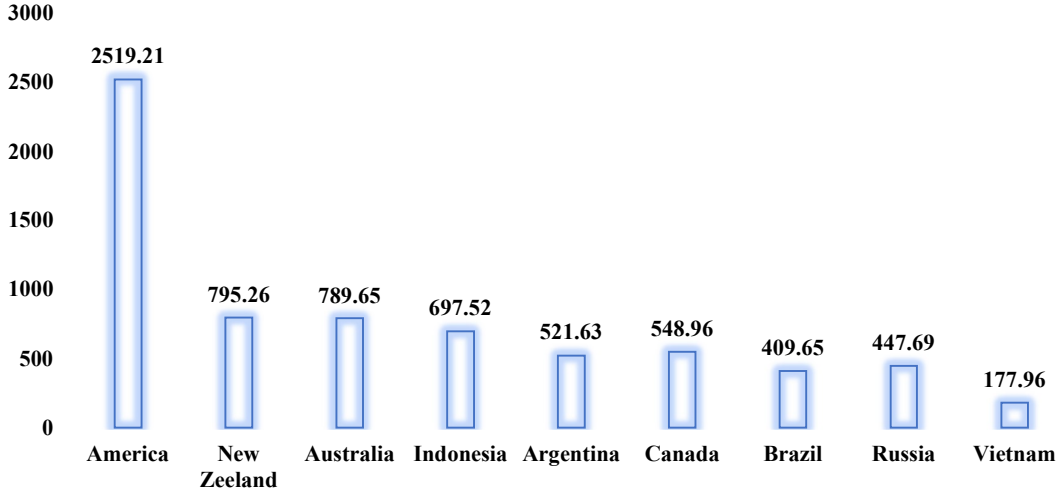

Fig. 1 The Top Ten Importers. [17]

With small and medium-sized businesses as its mainstay, an increasing market in Southeast Asia, and a digitalised transaction procedure, cross-border e-commerce in China took a new turn. In order to succeed in this field, students need to hone their talents in international logistics management, cross-border e-commerce platform operation and leadership, and the capacity to recognise the rapid shifts in the market [15]. However, the three primary issues that impeded the industry's continued growth were the lack of suitable workers, the escalating costs associated with human resources, and the discrepancy between conventional educational models and market demands [16, 17].

To eradicate the disparity, the program,

"Ten thousand e-commerce abilities, 1,000 schools, and one hundred localities,"

Under Alibaba's leadership, the government, businesses, colleges, and training organisations are committed to assisting recent graduates in enhancing their employability and skill set. This type of cooperation represents the growth of the industry-university-research environment and the business environment [18]. Alibaba Group is able to enhance its performance and attract partners that have similar goals by working together with other organisations. In a similar vein, eBay launched its inaugural "E young" program at Jiangsu College of Technology and Engineering to assist international businesses in locating qualified international talent at academic institutions [15, 16].

1.3 Research Purpose

The time has come for established cross-border e-commerce businesses to alter their business strategies. The labour market has two gaps (Fig. 2). One is the discrepancy between the number of students who sought employment in cross-border e-commerce but were unable to meet the position's criteria. The other is the disparity in what many established e-commerce businesses require in order to adapt their business model and acquire cross-border e-commerce expertise [16, 17].

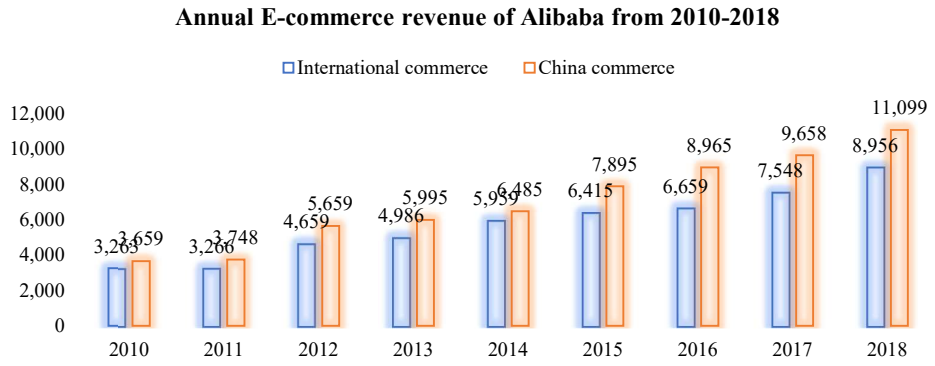

Fig. 2 Earnings from Alibaba's Electronic commerce from 2010 to 2018. [18]

The second section shows the trends and visualisations of studies on industry-university-research working together. It then provides a brief overview of terminology, such as models of competence used in e-commerce studies, skill gaps, international electronic commerce talent, and business-university cooperation ecosystem model [18, 19]. The third section of the study examines the skill gaps among students, cooperation requirements of students, and the variables that encourage and hinder industry-university-research collaboration [19, 20]. The research's consequences for the quantifiable skills shortages and businesses' worries are covered in Part 4.

II. LITERATURE REVIEW

2.1 Collaboration Between universities and Businesses in China to Develop Talent for Cross-Border E-Commerce

(Fang, M., 2023) [21] This study looks at the positive impacting elements and extent of real university-business collaboration on the employability of learners in cross-border e-commerce. Utilising the literature analysis approach and the Delphi method, we developed a list of twelve criteria that impact employability and proposed theories to explain them. By using the methodology of structural equation modelling for the estimation of parameters and path coefficient measurement, we were able to construct an interaction model of the factors influencing college students' employability through international online commerce university-enterprise cooperation. We tested the data and performed correlation analysis using SPSS software. The findings demonstrate that genuine university-business collaboration improves undergraduate students' employability in terms of academic learning, professional application, personal fundamental quality, and professional competency.

(Zheng, J. 2024) [22] A favourable prospect for growth has been brought about by the growing trends of economic and cultural globalisation, which have affected business English instruction. But there is also a growing market need for business English specialists who are thorough and of high calibre. This thesis provides an overview of the present state of business English instruction at Chinese institutions and offers some recommendations for resolving issues based on the literature and real-world circumstances. Consequently, universities ought to tailor their current business English teaching approach to the demands of the labour market and job specifications, taking into account the real evolution of the field. This targeted approach would help to improve the current situation.

(Cui, L., 2020) [23] This study examines three institutions of higher learning in Ningbo and Dalian, representing the Sino-foreign, local complete, and doubling first-class types of colleges and universities, respectively. The cities where these educational institutions are located are two key cities involved with the execution of the Belt and Road Initiative (BRI). The study addresses distinct methods of cultivating creative individuals through analysis of content and conversations. Based on the findings, some recommendations are provided for universities, students, and firms. The growth of innovative talents is not only the improvement of infrastructure and trade collaboration between countries, but also a cultivation of innovative skills to enhance corporate operations.

2.2 University-Business Cooperation in Cross Border E-Commerce Talent Cultivation Research in Other Countries

(Zhang, J., 2014) [24] This study suggests that it be guided by the Ministry of Elementary and Secondary Education comprehensive reform spirit for the undergraduate science and technology instruction, along with the new concepts of

cooperation education, collaborative invention, and common development. It aims to break down barriers between professional fields and schools, establish professional cooperation within school discipline, and develop new mechanisms for collaboration between the school and business. It also proposes to carry out an approach.

(Suo, J. 2018) [25] As the Internet has grown in popularity, small and medium-sized businesses and consumers are taking centre stage and providing fresh momentum for international cross-border e-commerce, which is changing the nature of global commerce, the worldwide division of labour, and the structure of industries. This article describes and analyses the value chains and operating process of a cross-border exporter firm that was formed by students from Hangzhou Normal University's Alibaba Business School. The "C2F full link operation global value chain model" is concluded by this. The model realises product uniqueness, customisation, globalisation, and branding throughout the entire operation process. It begins with gathering the hot marketplace and ends up creating the user's image. It looks at how Chinese businesses might advance in the global value chain and offers guidance for small- and medium-sized Chinese cross-border exporters as well as for the modernisation and improvement of international trade companies.

(Ma, X., 2023) [26] The Chinese Ministry of Learning put up a number of demands and an advocacy plan in November 2020 to further the advancement of the new the humanities. The creation of new humanities is closely related to the construction of new finance. Building a new, modernised paradigm of talent training and higher education for the finance and economics disciplines is needed. Guangdong Province, a province with a significant educational privately owned sector, includes a few standard and illustrative features of private education. This article examines the present state of the development of fresh financial talent in Guangdong Province's private colleges, as well as the challenges faced and the causes behind them. It is discovered that the development of fresh financial talent in Guangdong Province's private institutions has significant challenges, including professional homogenisation, a shortage of teaching personnel, and a reliance on conventional cultivation techniques.

(Taneja, G., 2023) [27] The curriculum for marketing has to change to reflect the rapidly evolving technology landscape and the abilities that businesses are looking for. Graduates in management seek to acquire skills that will improve their work chances. This paper's primary goal is to assess the post-graduate management program curricula of e-commerce, electronic, and social media marketing management courses taught at the top 100 Indian managing schools and colleges recognised in the National Institutional Ranking Framework (NIRF). This study matched the curriculum to the competencies that employers were looking for in entry-level positions in internet advertising and electronic commerce. The syllabi and program structures for social media advertisement, e-business/e-commerce, and digital marketing were examined. Researchers used employment sites such as naukri.com, shine.com, indeed.co.in, fresherworld.com, and placementindia.com to identify the different talents that companies demand.

2.3 Talent for Cross-Border Electronic commerce

In 2014, the notion of cross-border e-commerce talent was introduced; however, it did not identify the particular professions associated with this idea [28]. Students majoring in e-commerce and possessing a strong theoretical basis and practical operating abilities are considered to be talented in cross-border e-commerce (Hua, 2014).

Mei Jiangqiao (2014) expanded on the idea by incorporating the characteristics necessary for the role. For example, being able to manage an online store, do business internationally, and comprehend the national cultures of clients [29].

Six common jobs—customer service, operator, art creator, website manager, buying agent, [30], and shipping manager—represent the three tiers of cross-border e-commerce talent depending on their level of expertise (Zhu, 2016).

Deficits in Competencies As the economy shifted to a service-based economic performance, the sector demanded an increasing amount of workplace cooperation. Therefore, it is required of employees to possess strong "soft" abilities like problem-solving and critical thinking, cooperation, teamwork, and timely and effective communication. Employers anticipate that their staff members will be able to combine information from several sectors. As a result, this shift creates a gap between the abilities that employers anticipate of their employees and the skills that they really possess (The Economist Intelligence Unit, 2014) [31]. The skill gap assessment has been used to determine the areas that the training organisation needs to improve in the near or long term, to pinpoint the critical skills that workers must develop, and to select the right applicants for the position.

(White, 1959) Model of Competency R.W. White was the first to propose competence as a performance motivator. A new conversation on the importance of competence was sparked by David McClelland's ground-breaking study, "Testing for

competence rather than for intellectual ability," which demonstrated the shortcomings of conventional intelligence tests (McClelland, 1973). The competence model serves as a framework to identify the knowledge and abilities that are necessary for a certain vocation [32].

III. METHODOLOGY

The author investigated the skill gaps that students have in order to work in transnational and cross-border e-commerce enterprises by reading a sufficient amount of information and researching human resources theories. This research will assess the present proficiency level of prospective e-commerce job seekers [33], analyse the benefits and drawbacks of industry-university research cooperation, and develop an ecosystem trail framework for cross-border e-commerce talent cultivation. While many prior studies have looked at the needs of cross-border e-commerce enterprises and the current training framework for international e-commerce skills cultivation, this research will go deeper Table 1.

Table 1 The frequency with which specific phrases are used in job descriptions. [35]

Word Frequency		
Foreign	English	14.54
Language	Communication	36.99
Communication	Mail.	15.96
Trade Practices Abroad	Service	51.25
	Market	36.21
	Sales	30.65
	Business	63.69
	Negotiation	22.65
	Trade	54.65
	Inquiry Management	21.65
	Delivery Management	54.63
	After Sales	55.63
	Document	18.96
	Declare	14.98
Product Management	Handle Platform	29.86
	Operation	77.89
	Evaluate	19.58
	Payment	28.96

3.1 Research Techniques and Processes

Four primary methodologies were used in the research: questionnaires, test analyses, quantitative analyses, and documentation techniques. In Hubei University of Science and Technology, a particular instance of cross-border e-commerce industry-university-research cooperation was investigated in the 2018 pilot study [35, 36]. Information on the requirements of firms, academies, and students for the new cooperation form is obtained through an independent third-party assessment of the cooperation structure. The study synthesises the competence model with professional and soft skills using the documentary technique in order to prepare it for formal research. Table 2. The information of 100 positions for cross-border e-commerce projects has been evaluated using test analysis on employment search engines [36].

Table 2 The fundamental data of businesses. [37]

Column	Type	No.	%
Number	<300	12.22	29.68%
	101-300	23.65	54.39%
	31-100>	19.22	18.96%
Main line	Cross-border import & export	63.5	11.24%
	e-business platform	60.54	45.65%
	Logistics	21.6	15.62%
Position	Rank and file	18	22.65%

	Grassroots managers	21.00	41.33%
	Middle and above managers	26.96	29.64%

In the meanwhile, more investigation into skill gap research is made possible by the ranking system for professional skills and soft skills created for employers' input [36]. Table 3. Additionally, the survey's input on incentive and barriers from businesses involved in industry-university-research cooperation lays a crucial basis for developing the ecosystem for cross-border e-commerce talent growth.

Table 3 The fundamental data of learners. [36, 37]

Column	Type	No.	%
Grade	Sophomore	102.66	16.56%
	Junior	81.26	22.36%
	Senior	96.22	16.56%
Major	International trade	25.96	11.59%
	Finance	26.65	22.36%
	Foreign language	39.66	14.26%
	E-commerce	19.99	54.99%
	Marketing	56.33	69.65%
University	1st tier university	16.26	41.33%
	2nd tier university	45.36	13.22%
	3rd tier university	84.32	69.64%
	4th tier university	88.33	54.99%

IV. RESULT AND DISCUSSION

4.1 Overview of Pilot Study Results

In 2018, a trial study was conducted to assess industry-university-research cooperation using data from a for-profit Guangdong online shopping firm as the third party. This start-up offered cross-border e-commerce training courses for majors and a platform for employers to locate candidates [38] Figure 3.

About half of the 88 students who responded to the company's training courses expressed dissatisfaction with them (Fig. 4).

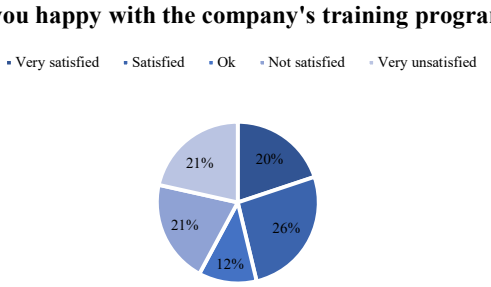

Fig. 3 Are you happy with the company's training programs? [38]

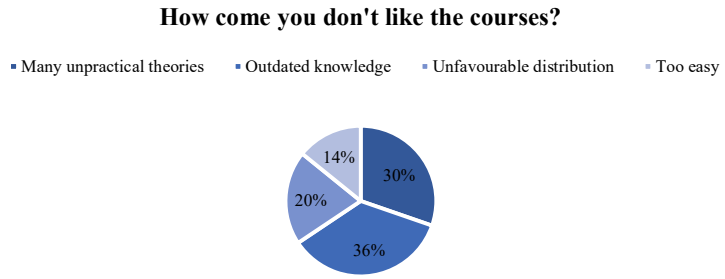

Fig. 4 How come you don't like the courses?

4.2 Skill Gaps in Professionals

Prior to evaluating the relative relevance of the various talents, a reliability test was performed on the seven aspects using the online data science application SPSSAU. Table 4 presents the analysis of the seven factors in the Cronbach's alpha reliability test. As per the standard protocol for the Cronbach's alpha reliability test, the obtained data exhibits high quality and reliability with a Cronbach α of 0.801 [38, 39].

Table 4 The relationship between the internal consistency and Cronbach's alpha. [40]

Cronbach's alpha	Internal consistency
$0.8 \leq \alpha$	Excellent
$0.5 \leq \alpha < 0.8$	Good
$0.9 \leq \alpha < 0.6$	Acceptable
$0.6 \leq \alpha < 0.2$	Questionable
$\alpha < 0.2$	Poor

The disparity highlights the skills divide when a sequence of results for the importance rate provided by the firms is compared [40]. Table 5. Thus, based on the difference in order, the most important talent that recent graduates need to develop is international trade, which is followed by market awareness and the ability to handle products on websites that sell goods electronically [40].

Table 5 The crucial level of expertise that businesses evaluate in professionals. [40], 41]

Choosing	1	2	3	4	5	A.V.
International Trade	5 (4.32%)	2(7.56%)	1(2.56%)	2(7.54%)	6(8.55%)	3(8.64%)
Foreign Language	1(5.25%)	2(5.86%)	1(5.78%)	3(4.52%)	5(5.52%)	6(7.58%)
Product Management	5(2.55%)	5(9.58%)	2(5.55%)	6(3.54%)	2(9.64%)	2(8.87%)
Network Technology	9(6.87%)	7(7.54%)	1(8.65%)	1(7.52%)	5(8.54%)	5(3.54%)
Market Acumen	6(7.85%)	2(6.89%)	9(5.74%)	5(3.56%)	9(4.25%)	4(4.78%)
Online Marketing	6(6.78%)	2(7.57%)	1(9.85%)	5(5.57%)	6(7.54%)	5(7.87%)
Team Work	9(9.86%)	2(8.52%)	1(8.89%)	9(7.56%)	8(3.87%)	9(6.25%)

When comparing the significance degree and targeted courses to the prior skills gap findings, there isn't much of a difference. Table 6. In the training courses, only network technologies have been prioritised [41].

4.3 The Context of Industry-University-Research Collaboration

4.3.1 The Students' Total Achievement

Table 6 The critical degree sequence in relation to the top four targeted abilities throughout the pre-employment training. [42]

Name	Sequence of Importance	Sequence of training
International Trade	1	2
Foreign Language	2	3
Product Management	6	1
Network Technology	2	5
Market Acumen	4	4
Online Marketing	5	6
Team Work	3	2

The order modifications showed how crucial it is to consider the mind-set difference, especially in relation to internet marketing and collaborative abilities. Table 7. People's lack of fundamental abilities will likely cause the skill gap to widen [42]. The assessment of skill importance levels from both the business and student perspectives.

Table 7 The ranking of critical degree in relation to the top four professional skills during pre-employment training. [42]

Name	Sequence of Importance	Sequence of training
International Trade	2	5
Foreign Language	3	6
Product Management	1	1
Network Technology	5	4
Market Acumen	6	2
Online Marketing	4	3
Team Work	1	4

Next, a comparison is made between the order in which students feel they can acquire the abilities and the top 4 professional skills that they lack [42]. It's unexpected to learn that students' skill sets might resemble the order of the talents that employers believe are in short supply.

4.4 Students' Needs for Collaboration Between Industry, university, and Research

Different majors also exhibit differing needs for collaboration between industry, academia, and research. Students majoring in finance prefer practice courses and case studies, but those majoring in global trade and e-commerce place greater value on opportunities to practice and research projects [44, 45] Table 8.

Table 8 The order of the top four simpler abilities as perceived by students and companies. [45]

Name	Order of under-capacity companies' viewpoints	The top skills that students found easy
International Trade	5	3
Foreign Language	4	1
Product Management	2	2
Network Technology	3	5

Market Acumen	1	4
Online Marketing	5	2
Team Work	3	5

The students majoring in foreign languages expect for greater chances to practice and practice instruction, whereas the students majoring in marketing hope for more practice opportunities, practice courses, and company lectures in comparison to those two groups [46, 47]. Figure 9. The differences across the groups suggest that cooperative activities should be planned according to the preferences of the majors. Every educational institution, from elite colleges to trade schools, has pros and cons. However, the criticism of the absence of incubators and practice opportunities revealed that industry and academia are still just beginning to work together. The majority of pupils still believe that getting practical experience in school is challenging [47].

Table 9 The prerequisites (percentage) for industry-university collaboration on research. [47]

X/Y	Practice Opportunities	Practices Courses	Case Studies	Lecture from Companies	Incubators	Others	Total
International Trade	16.56%	69.58%	32.66%	54.67%	06.32%	65.69%	50.69%
Foreign Language	25.64%	64.65%	24.65%	66.56%	26.66%	59.65%	05.62%
Product Management	55.69%	26.69%	68.96%	26.69%	05.36%	46.89%	06.56%
Network Technology	26.29%	22.69%	66.59%	21.65%	10.25%	54.96%	66.52%
Market Acumen	24.65%	36.59%	26.69%	69.54%	66.69%	26.32%	09.65%
Online Marketing	66.96%	65.98%	26.98%	69.21%	56.59%	21.56%	20.06%
Team Work	25.69%	36.69%	69.69%	32.69%	36.65%	65.65%	11.69%

V. CONCLUSION

The study indicates that students lack proficiency in international trade, market knowledge, and product management. However, since students place less value on teamwork and online marketing proficiency—two crucial skills that businesses look for—the gaps between their perceptions of the relative importance of various skills are likely to grow in the future. Additionally, although it is not often the focus of daily training among firms, companies nonetheless rank internet marketing proficiency as the second most critical talent. In the meantime, the majority of businesses think that students lack the capacity for multitasking and planning. Large to large variations exist in the rate of progress, but in comparison to business demands, students still lack competencies like product management, network technology appliance, and global commerce experience.

The majority of businesses today have partnered with academic institutions, yet over half of them had a neutral or unfavourable opinion of the outcome. Additionally, the majority of colleges don't work closely with other universities to provide practice chances and student incubators as compared to the results of the feedback from students. Companies are anxious to enhance their business image and broaden their talent pool through partnerships, but they are also concerned about the return on investment and the high turnover rate following training.

5.1 Limitation and Prospect for the Research

This study identified the incentives and barriers for cross-border e-commerce businesses and produced a quantifiable conclusion for the skill gaps. The following are still its limitations.

First, the majority of the ability test questions for pupils are based on their own assessments. Students may therefore overestimate or underestimate their abilities. Even with the inclusion of several objective possibilities in the questions, such as the precise specifications for network technology appliance skills, it is still impossible to prevent the disparate interpretations of competency among individuals. Second, because of time constraints, different groups of pupils are not assessed on the same competencies. As a result, this cannot represent the inclination of the same student body. In the meantime, the findings of the ability evaluation may be ruined by the sample's unpredictability. When the researcher examined the data from the students majoring in marketing and e-commerce, this flaw became apparent. Third, the

examination of skill gaps incorporates employer feedback regarding their workforce. Those two groups are directly related to one another. Nonetheless, the study concentrated on the comments received by all of the graduating students. Rather than particular comments, the disparity will result in broad feedback. This study may shed light on how student performance is evaluated in subsequent investigations. Future research endeavours may utilise the cross-border e-commerce abilities evaluation model, perhaps yielding a qualified student performance. Due to the study's limitations, a correspondent survey and a comprehensive tracking survey are required of the participants. Future research will be inspired by the industry-university-research partnership model's systematic analysis.

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