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Difference in the Perception of Aesthetic Labour of Airlines and High-speed Rail Cabin Occupants between Industry and Academia: Discussion on Cross-Curricular Credit Programs

Cheng-Hua YANG¹, Chih-Yun YANG², Chung-Kai CHENG³

Abstract

This study took airlines and high-speed rail cabin occupants as subjects to explore their occupational competency profile under the casual role enactment script. Then, the Analytic Network Process (ANP), which cross-examined the perception of aesthetic labour of those cabin occupants from the academic and industrial perspectives. The results show, first, for the main criteria of the high-speed rail attendants, industry and academia both agreed that professional competencies were more important than aesthetic competencies. With regard to the subcriteria, professional attitude was the most important among the aesthetic competencies, while problem-solving ability was the most important among the professional competencies. Second, for cabin attendants of full-service airlines, industry and academia both held that aesthetic competencies were more important than professional competencies in terms of the main criteria. With respect to the subcriteria, professional attitude was the most important among the aesthetic competencies. The academic community stated that problem-solving ability was the most important professional competency, while industry believed that the importance of teamwork ability prevailed.

Keywords: aesthetics, cabin occupants, professional competencies, cross-curricular credit programs, analytic network process, education.

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Introduction

Science and technology have progressed rapidly, leading to the rise of new higher-level skill requirements, the change of the skill and competence composition of occupations, the necessity of multitasking and multiskilling employees, and the growth of new and hybrid occupations (Slingenberg *et al.*, 2008). These changes have continually accelerated educational development. Education and training systems must generate new skills, including the basic skills and learning that are pre-requisites for both entering the labour market and for the further updating of skills, to improve the adaptability and employability of youth in the labour market (Torres-Coronas *et al.*, 2014). In the past few years, the world has witnessed a renaissance of education. For example, Finland's National Board of Education promulgated a new core curriculum in December 2014 and implemented it in August 2016 to develop seven competence areas. This new curriculum highlights multidisciplinary learning modules and interdisciplinary phenomenon-based learning to replace single-disciplinary learning (FNBE, 2016). Given the fact that the development of talents in Taiwan's higher education has been mostly limited to a single field, there is little room for exchanging heterogeneous ideas or learning about heterogeneous knowledge. In order to increase students' competitiveness, a second specialty must be expanded. In addition to the existing minor and double-major systems, the Ministry of Education revised the University Act in 2005. After the revision, universities were able to offer interdepartmental, inter-institute, or intercollege credit courses to establish a flexible multi-disciplinary mechanism that could replace the single-speciality framework. This allows students to have a transversal competence to face a complex and changing world. This ability is an entity consisting of knowledge, skills, values, attitudes and will, as well as the ability to apply knowledge and skills as required in a given situation. The main difference between cross-curricular credit programs and double majors or minors is that the former is a task group that requires fewer academic credits. In addition, schools can to integrate relevant course knowledge at any time in response to changing trends and give students a second degree of cross-field expertise. This system does not grant a degree directly, but when a student completes the credits required for a course, the university shall award the credit certificate of the course to the student. It is necessary to obtain more credits than what is needed for a double major. In short, cross-disciplinary courses mainly serve to cultivate the T-type talents of one speciality and multiple capacities rather than the π -type talents of multiple specialties and multiple capabilities.

Due to the service industry's emphasis on practical experience, poor operational skills, and lower threshold requirements for different professions, (Zhang, 2009; Hsieh & Zhuang, 2010; Li *et al.*, 2011), the young find it attractive to enter this field. Michalski (2015) pointed out that the late twentieth and early twenty-first centuries were marked by an explosion of experiential, emotional, and intimate commodities, and new markets that tapped into the extensible realm of sense and

feeling. The service industry emphasizes the management of people and service processes. The resource base is built on invisible and dynamic intellectual capital. The key to brand differentiation resides in qualia. Style and aesthetics have prevailed in the consumption orientation and have surpassed price, quality, and services to become the most prominent factor for market segmentation (Postrel, 2003; Yang, 2017^b). Tsaur *et al.* (2015) pointed out that the aesthetic labour of front-line employees positively and significantly influences the positive emotions and behavioural intentions of customers. Thus, the aesthetic labour of front-line employees is not only shown in each service encounter but also is an important element of differentiation (Warhurst *et al.*, 2000). Warhurst & Nickson (2007) pointed out that aesthetic labour is experienced by interactive service employees in the retail and hospitality industries. The issues examined were recruitment and selection, image and appearance, uniforms and dress codes, and skills and training. By extending the awareness of aesthetic labour so that employee attitude and appearance were both empirically and conceptually revealed, the article extended the understanding of the job demands made of employees in interactive services.

Services sectors, including the transportation sector, attach great importance to the detailed management of the host–guest interactional relationship. In particular, employees in service organizations are expected to perform physical, emotional and aesthetic labour as they seek to create a competitive advantage for the organization (Crick, 2007). Employees are increasingly seen not simply as “software” but also as “hardware”, in the sense that they too can be corporately moulded to portray the organizational aesthetic in a manner similar to the way in which the identity of an organization is portrayed through its marketing material, product design, and physical environment (Witz *et al.*, 2003). More evidence suggests that the potential power of the emotional and aesthetic labour shown by front-line employees can be easily detected in the workplace (Bolton, 2000). Therefore, how schools formulate proper cross-curricular programs that fit in career holds the key to this study. According to the study on the competitive advantage and customer value of the transportation sector by Morash & Ozment (1996), great customer experiences can fuel surprising “wow” moments of truth and magic moments. In fact, customer experience is destined to act as a tool for differentiation strategies. Wan (2014) argued that cabin attendants are not only the first line to contact with passengers at check-in and on the aircraft; they also display and transmit the airline’s image when traveling through airports and hotels. Despite the service features of high repetition and limited technical content, the positions play a vital role in the positive maintenance of the host–guest interactional relationship (Yang, 2017^a).

This study took airline and high-speed rail cabin occupants as the subjects to explore their occupational competency profile under the casual role enactment script. Then, the Analytic Network Process (ANP), which cross-examined the perception of the aesthetic labour of the cabin occupants from the perspectives of academia and industry. It also clarified the relationship between evaluation criteria

and evaluation indexes and explored management implications and practical recommendations.

Literature review

Cross-curricular Programs

Due to the increasingly complex social structure in recent years, life and environmental problems must be solved by using a different kind of manpower and technology. Therefore, colleges and universities are being encouraged to improve the curriculum design so that students have transversal competences, which have largely replaced the previous transferable skills. Torres-Coronas *et al.* (2014) defined transversal competence as a set of competences related to attitudes and values (knowing how to be) and procedures (know how). They can be transferred from one specific professional field to another. Professional knowledge is mostly proprietary and is applicable only to specific products, services and processes, or attachments embedded in these specific processes. However, Cohen & Levinthal (1990) pointed out that if employees have absorptive competences and their own intrinsic experience and expertise, they can identify, externalize, and extract new and useful information, and then transform it into knowledge available to the organization. This helps build or enhance a commercial niche.

When employees have diverse and abundant cross-industry knowledge, they can use their knowledge among various sub-sectors within the organization and between different companies to create their own competitive edges. This concept has caused absorptive competences to become a core concept in some academic fields, such as organizational learning, knowledge transfer, strategic alliances, and innovative management. Wang & Han (2011) called for a more rapid integration of various cores if employees within the organization have diverse and abundant transversal competences. Such integration is important to organizations that are highly sophisticated and have a strong demand for cross-industry knowledge applications.

Airlines and High-speed Rail Cabin Occupants

In the Oxford Dictionary, the word “cabin” refers to a private room or compartment on a ship or the area for passengers in an aircraft. Su (2017) defined a cabin as a space for passengers where there are seats, restrooms, and lighting equipment. This study took airlines and high-speed rail cabin occupants as the target occupation for case analysis. The operational definition of cabin occupants (train attendants of the high-speed railway and airline cabin attendants) was as follows:

High-speed rail train attendants. Train attendants are the onboard service staff in the train. The Taiwan High-Speed Rail Company has a different number of configurations for each trip, depending on workdays, holidays, and peak hours. Usually, a train will be equipped with two to three attendants. They are expected to handle multiple tasks at the same time, including but not limited to counting the inventory of in-vehicle equipment, checking the catering status, in-vehicle merchandising, providing passenger consultation and services, welcoming and caring for passengers, business car services, in-vehicle maintenance for order and safety, assisting passengers with difficulties in moving, monitoring the operation of various service equipment on the train, and helping the train conductors evacuate passengers in case of an emergency.

Full-service airline cabin attendants. The working lives of cabin attendants represent a source of popular and academic fascination (Baum, 2012). Hochschild (1983) argued that cabin attendants are the best representative of an airline company due to their frequent contact with customers. The International Civil Aviation Organization (ICAO) defined the term of cabin attendant as: "A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member". The cabin crew is primarily responsible for passenger safety during the flight. Other duties include providing customer service products (meals, entertainment, etc.) and assistance with boarding. Cabin attendants receive specialized training in aircraft emergencies, evacuation procedures, medical issues and health hazards, care of special needs passengers, flight regulations, and meal service (Midkiff *et al.*, 2009). This study used the term "cabin attendant" to prevent the ambiguity caused by the comparison with train attendants of the high-speed rail.

Aesthetic Education

As an independent discipline, aesthetics was created when Baumgarten expressed the following content in 1750: "Aesthetics, namely the theory of liberal arts, falls in the lower cognitive levels. The art of aesthetic thinking is the science of sensual cognition." Baumgarten regarded the perception of feelings as the cognition of beauty and used aesthetics to refer to cognitive research about beauty. Before this time, aesthetics and beauty had not been incorporated into modern vocabulary. Friedrich Schiller was the first person to propose aesthetic education. He advocated that apart from feeling, understanding, and will, the human race also has an aesthetic function. Education for the aesthetic function is called aesthetic education. Schiller held that aesthetic education can promote the hand-in-hand development of human rationality and sensibility to cultivate a perfect personality. He also pointed out "only through Beauty's morning-gate, dost thou penetrate the land of knowledge" (Reese, 1980). Broudy (1972) regarded aesthetic education as a general education. He emphasized that aesthetic education can develop positive

emotions and build values, especially through the study of artistic paradigms. Broudy believed that aesthetic studies provide the student with associative and interpretive experiences and develop the capacities for interpretation and informed criticism, as well as a richer vocabulary for self-expression.

The most important aims and goals of aesthetic education could be described as the following: developing the aesthetic sense for the beautiful and a sense of proportion; developing aesthetic perception; experiencing, creating, evaluating and expressing the beautiful; and developing a relationship toward nature and toward the beautiful in interpersonal relationships. Modern pedagogy teaches that each child should have the opportunity to develop his/her abilities to observe, experience, evaluate and create that which is beautiful. This can only be achieved if we offer children a healthy living environment and an active artistic education; in other words, curricula that is designed to include all of the above (Olga, 2014).

Aesthetic Labour

The meaning of aesthetics was once narrowed to art and criticized as the source of different tastes among social classes. However, the current concept of aesthetics is not confined to this, but instead emphasizes that it can make people feel tranquil and happy (Veblen, 2007). Aesthetics has received increasing yet still limited attention in the business management literature, with scholarly interest centred on aesthetic products and experiential consumption (Charters, 2006). Aesthetic consumption and consumers' ability to judge the aesthetic qualities of a product are related to the idea of product design. In saturated markets, an aesthetically appealing product is a way of gaining buyers' attention, communicating information, and providing aesthetic pleasure to both sellers and users (Bloch, 1995). Enterprises have integrated aesthetics into the details of economic activities in the hope of upgrading the value of products from use value or exchange value to symbolic value and experience value (Kotler *et al.*, 2010).

Against this backdrop, the aesthetic skills of front-line employees include physical looks, sympathetic body language, dress sense/style, voice/accent, and manner (Gustafsson *et al.*, 2005; Yang, 2017^a). Thus, the aesthetic labour of front-line employees is not only shown in each service encounter but is also an important element for differentiation and business interests (Warhurst *et al.*, 2000). The term 'aesthetic labour' captured popular imagination when a short research monograph was released in 1999 (Warhurst *et al.*, 2000). Aesthetic labour is experienced by interactive service employees in the retail and hospitality industries. The examined issues are recruitment and selection, image and appearance, uniforms and dress codes, and skills and training, which extend the awareness of aesthetic labour so employee attitudes and appearances are empirically and conceptually revealed (Warhurst & Nickson, 2007). Butler (2014) also pointed out that aesthetic labour has largely been confined to "looking good". However, aesthetic labour also includes "sounding right", and excellent communication skills are a near-

mandatory component of job advertisements. Hence, companies want employees with the right look or who are just good looking, or both, in the belief that such employees help create a distinct corporate image on crowded streets or, more prosaically, attract more and repeat customers (Warhurst & Nickson, 2007).

Data Collection

Building the ANP Assessment Structure

Through a literature review, this study proposed the following questions: (1) What aesthetic characteristics do you think should be focused on to show corporate image when cabin occupants are on duty? (2) What training projects do you think a company can offer to improve their employees' employability? (3) What do you think is the social role that cabin occupants are expected to play in the cabin service process? (4) Do you think the employability of the interaction between cabin occupants and passengers can be improved? (5) For freshmen in current colleges and universities, what is the difference between their employability and that required in the cabin working culture? This study selected 20 target interview groups covering the industry and academia who were selected with the purposive sampling method. After the semi-structured in-depth interview, the recordings were re-organized and converted into text files. Without losing the original meaning, it was converted to specific concepts and then the characteristics of specific concepts were classified based on their similarities and differences. The target facet and the hierarchical layer between the evaluation criteria and evaluation indexes are stated as follows:

Hierarchy 2 included aesthetic competencies (A1) and professional competencies (A2).

Hierarchy 3 included: (1) five evaluation criteria under A1, including apparel specification (B1), suitable behaviour (B2), presentation style (B3), professional attitude (B4), and interpersonal interaction (B5); and (2) six evaluation criteria under A2, including teamwork ability (B6), problem-solving ability (B7), organizational loyalty (B8), customer service orientation (B9), emotional management ability (B10), professional knowledge, and technology (B11).

Hierarchy 4 covered: (1) seven evaluation indexes under B1, including wearing uniforms conforming to the corporate image (C1-1), wearing uniforms while on duty (C1-2), hair, face, and hands always kept neat, refreshing, and clean (C1-3), hair, face, and hand-wearing accessories that are based on company standards (C1-4), not revealing tattoos on body parts that are not covered by clothes (C1-5), fully understanding the service standards of the company (C1-6), and complying with company service standards (C1-7); (2) five evaluation indexes under B2, including paying attention to your own behaviour (C2-1), having a polite attitude (C2-2), being neatly dressed (C2-3), focusing on each assignment (C2-4), and

walking posture (C2-5); (3) five evaluation indexes under B3, including having a friendly and warm smile (C3-1), tolerance (C3-2), being flexible and agile (C3-3), moderate communication and expression skills (C3-4), and friendliness (C3-5); (4) seven evaluation indexes under B4, including helping to satisfy the passengers (C4-1), friendly attitude (C4-2), empathy for passengers (C4-3), having a calm and sober service attitude (C4-4), a flexible and appropriate service attitude (C4-5), thoughtful and appropriate observation (C4-6), and well-planned coordination (C4-7); (5) six evaluation indexes under B5, including being customer-oriented (C5-1), caring for special passengers (C5-2), understanding the different needs of passengers (C5-3), being able to explain and solve passenger problems and requirements one by one (C5-4), having good on-the-spot reactions (C5-5), and patiently explaining problems (C5-6); (6) three evaluation indexes under B6, including interpersonal coordination (C6-1), support within the group (C6-2), and time control (C6-3); (7) four evaluation indexes under B7, including case handling (C7-1), crisis management (C7-2), handling disturbing behaviour (C7-3), and compliance with the company's standard operating procedures (C7-4); (8) four evaluation indexes under B8, including being able to cooperate with scheduling (C8-1), taking into account the company's image when dealing with problems (C8-2), compliance with company discipline (C8-3), and workplace ethics (C8-4); (9) six evaluation indexes under B9, including properly completing the services that should be provided (C9-1), being familiar with the operations of related equipment and services (C9-2), completing service quickly (C9-3), communication and coordination ability (C9-4), service terms (C9-5), and service consistency (C9-6); (10) three evaluation indexes under B10, including high emotional intelligence (C10-1), empathy (C10-2), and mental strength (C10-3); and (11) seven evaluation indexes under B11, including being familiar with cabin equipment (C11-1), passenger transportation knowledge (C11-2), having skilled safety measures (C11-3), checking cabin clearance (C11-4), emergency escape ability (C11-5), first aid ability (C11-6), and language ability (C11-7).

Establishing a Network-Relationship Based Conceptual Framework

The study invited the above-mentioned 20 experts to compare the ANP questionnaires. The relative importance of the evaluation criteria in each hierarchy and its sub-hierarchy received a pair-wise comparison. After the data was sorted, questions with elements marked as ≥ 10 by the experts were selected. That is, more than half of the questions were preserved or measured according to the degree of dependency. The results of the check are shown in Table 1. The aesthetic competencies (A1) and professional competencies (A2) had dependencies, and the evaluation criteria of the relevant facets also had interactions.

Table 1. Analysis results of the main criteria and sub-criteria

Main Criteria	Dependency relationship
A1 aesthetic competencies	A2 professional competencies
A2 professional competencies	A1 aesthetic competencies
Sub-criteria	Dependency relationship
B1 apparel specification	B2 suitable behaviour, B3 presentation style, B4 professional attitude
B2 suitable behaviour	B1 apparel specification, B3 presentation style, B4 professional attitude, B5 interpersonal interaction, B10 emotional management ability
B3 presentation style	B1 apparel specification, B2 suitable behaviour, B4 professional attitude
B4 professional attitude	B1 apparel specification, B6 teamwork ability, B7 problem-solving ability, B9 customer service orientation, B10 emotional management ability, B11 professional knowledge and technology
B5 interpersonal interaction	B6 teamwork ability, B7 problem-solving ability, B9 customer service orientation, B10 emotional management ability
B6 teamwork ability	B4 professional attitude, B5 interpersonal interaction, B7 problem-solving ability, B8 organizational loyalty, B10 emotional management ability, B11 professional knowledge and technology
B7 problem-solving ability	B4 professional attitude, B5 interpersonal interaction, B6 teamwork ability, B9 customer service orientation, B10 emotional management ability, B11 professional knowledge and technology
B8 organizational loyalty	B6 teamwork ability
B9 customer service orientation	B4 professional attitude, B5 interpersonal interaction, B7 problem-solving ability, B10 emotional management ability, B11 professional knowledge and technology
B10 emotional management ability	B2 suitable behaviour, B4 professional attitude, B5 interpersonal interaction, B6 teamwork ability, B7 problem-solving ability, B9 customer service orientation
B11 professional knowledge and technology	B4 professional attitude, B6 teamwork ability, B7 problem-solving ability, B9 customer service orientation

Methodology

Assessment of Relative Importance and Consistency among Evaluation Criteria

This study had four ANP selection modes for different scenarios, including: (i) the labour aesthetics perception of academia on high-speed rail train attendants; (ii) the labour aesthetics perception of industry on high-speed rail train attendants; (iii) the labour aesthetics perception of academia on full-service airline cabin attendants; and (iv) the labour aesthetics perception of industry on full-service airline cabin attendants.

Another group of 26 experts were invited to form a decision-making group for selection and built a pairwise comparison matrix using the questionnaire responses of every expert, calculated the arithmetic mean using Microsoft Excel, and input it to the super decisions software to check the consistency of the judgments. The consistency ratio (CR) of the 26 questionnaires of the ANP experts was all less than 0.1, indicating that all of them passed the examination. Afterwards, this study divided the data into four groups according to the ANP selection mode for the above four different scenarios, and then used the response levels selected by each expert on the questionnaire to calculate the arithmetic mean. The super decisions software was then imported to calculate the supermatrix.

Importance Ranking of Weights among Evaluation Criteria

After the above steps, the facet was organized and the convergence values of the evaluation criteria and evaluation indexes in a *limiting supermatrix* were as shown in *Table 2 and Table 3*. In *Table 2*, Scenarios *i*, the importance of five evaluation criteria rated by academia regarding the employability of the aesthetic competencies (A1) of high-speed rail train attendants were as follows: professional attitude (B4) (0.0893), interpersonal interaction (B5) (0.0477), apparel specification (B1) (0.0170), suitable behaviour (B2) (0.0160), and presentation style (B3) (0.0052). The importance of six evaluation criteria rated by academia regarding the employability of the professional competencies (A2) of high-speed rail train attendants were as follows: problem-solving ability (B7) (0.0818), professional knowledge and technology (B11) (0.0721), emotional management ability (B10) (0.0661), teamwork ability (B6) (0.0545), customer service orientation (B9) (0.0377), and organizational loyalty (B8) (0.0123).

In scenarios *ii*, the importance of five evaluation criteria rated by industry regarding the employability of the aesthetic competencies (A1) of high-speed rail train attendants were as follows: professional attitude (B4) (0.1027), interpersonal interaction (B5) (0.0328), suitable behaviour (B2) (0.0179), apparel specification (B1) (0.0163) and presentation style (B3) (0.0029). The importance of six evaluation criteria rated by academia regarding the employability of the professional competencies (A2) of high-speed rail train attendants were as follows: problem-solving ability (B7) (0.0850), professional knowledge and technology (B11) (0.0762), teamwork ability (B6) (0.0586), emotional management ability (B10) (0.0560), customer service orientation (B9) (0.0472), and organizational loyalty (B8) (0.0048).

In *Table 3*, Scenarios *iii*, the importance of five evaluation criteria rated by academia regarding the employability of the aesthetic competencies (A1) of full-service airline cabin attendants were as follows: professional attitude (B4) (0.1010), interpersonal interaction (B5) (0.0336), suitable behaviour (B2) (0.0105), apparel specification (B1) (0.0098), and presentation style (B3) (0.0022). The importance of six evaluation criteria rated by academia regarding the employability of the professional competencies (A2) of full-service airline cabin attendants were as follows: problem-solving ability (B7) (0.1063), professional knowledge and technology (B11) (0.0811), teamwork ability (B6) (0.0584), emotional management ability (B10) (0.0548), customer service orientation (B9) (0.0416), and organizational loyalty (B8) (0.0091).

In scenarios *iv*, the importance of five evaluation criteria rated by industry regarding the employability of the aesthetic competencies (A1) of full-service airline cabin attendants were as follows: professional attitude (B4) (0.1004), interpersonal interaction (B5) (0.0381), apparel specification (B1) (0.0082), suitable behaviour (B2) (0.0076), and presentation style (B3) (0.0012). The importance of six evaluation criteria rated by industry regarding the employability

of the professional competencies (A2) of full-service airline cabin attendants were as follows: teamwork ability (B6) (0.0949), professional knowledge and technology (B11) (0.0904), problem-solving ability (B7) (0.0798), emotional management ability (B10) (0.0425), customer service orientation (B9) (0.0330), and organizational loyalty (B8) (0.0043).

Discussion

Difference on the labour aesthetics perception of high-speed rail train attendants between academia and industry

In *Table 2*, scenarios *i* and scenarios *ii* show that in terms of the two facets of the main criteria, namely the aesthetic competencies (A1) and the professional competencies (A2), academia and industry both agreed that the professional competencies were more important than the aesthetic competencies.

In terms of the subcriteria, regarding the importance of the five criteria for assessing employability under the aesthetic competencies (A1), both academia and industry agreed that professional attitude (B4) was the most important. However, academia ranked apparel specification (B1) fourth and suitable behaviour (B2) third, while industry ranked the former third and the latter fourth. This phenomenon could be interpreted as meaning a train attendant should show appropriate behaviour to improve the company's service or use the company's service to regularize the appropriate behaviour of the staff on duty. Regarding the importance of the six criteria for assessing employability under the professional competencies (A2), academia and industry both agreed that problem-solving ability (B7) was the most important. However, academia ranked teamwork ability (B6) fourth and emotional management ability (B10) third, while industry ranked the former third and the latter fourth. This phenomenon could be interpreted as meaning a train attendant should work with the team to perform tasks and should develop the ability to control emotions when interacting with others.

Difference on the labour aesthetics perception of full-service airline cabin attendants between academia and industry

In *Table 3*, Scenarios *iii* and scenarios *iv* show that in terms of the two facets of the main criteria for cabin attendants, both academia and industry agreed that the aesthetic competencies (A1) were more important than the professional competencies (A2). In terms of the sub-criteria, regarding the importance of the five criteria for assessing employability under the aesthetic competencies (A1), academia and industry both agreed that professional attitude (B4) was the most important. However, academia ranked apparel specification (B1) fourth and suitable behaviour (B2) third, while industry ranked the former third and the latter

fourth. Regarding the importance of the six criteria for assessing employability under the professional competencies (A2), academia and industry both agreed that problem-solving ability (B7) was the most important. However, industry believed that teamwork ability (B6) was the most important. This study found that full-services airlines attach importance to the achievement of group results instead of that from individual star employees. *Table 2*. Difference in the perception of high-speed rail cabin occupants between industry and academia

Conclusions

Suggestions for planning cross-curricular credit programs in training high-speed rail attendants

In the developing expertise that affects the training of attendant aesthetic competencies, professional attitude is a key success factor. Attitudes are related to habits. Many attitudes of people mirror their habits. It is recommended that schools assist students in testing their occupational orientation and foster career interest and understanding of the career world before promoting cross-disciplinary credit courses aimed at cultivating train attendants. Enterprises can also adopt effective aptitude tests, personality tests, and from the source of employee selection. Aptitude tests, personality tests, and situational judgment tests could provide a more comprehensive assessment of the personality and social insight of job seekers. After new employees enter the business, enterprises should provide various types of training to strengthen their internal cognition or explicit behaviour regarding professional attitude.

Among the evaluation criteria that affect the professional competencies needed by train attendants in service encounters, the problem-solving ability to meet the needs and wants of passengers is the most influential factor, reflecting the reliability of task execution as required. Schools are suggested to introduce industrial experts to jointly plan and coordinate teaching, strengthen the practical techniques of teachers and students, promote the common improvement of industry experts and teachers, and combine theory and practice to enhance the value of vocational education. Enterprises can adopt a contextual training strategy to provide employees with detailed guidance on how to deliver proper services in all situations when they are at the forefront of contact with customers, and to assist employees in mastering solutions in case of conflict, even though reasonable discretionary empowerment and organizational support.

Table 2. Difference in the perception of high-speed rail cabin occupants between industry and academia

(scenarios i) Weight of the labour aesthetics of high-speed rail train attendants assessed by academia																			
Dimension	Professional competencies (AZ)																		
ANP weighting	0.5323																		
Position ANP	1																		
Evaluation Criteria	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11								
ANP weighting	0.0170	0.0160	0.0052	0.0893	0.0477	0.0545	0.0818	0.0123	0.0377	0.0661	0.0721								
Position ANP	3	4	5	1	2	4	1	6	5	3	2								
Evaluation Index	C1-1	C1-2	C1-3	C1-4	C1-5	C1-6	C1-7	C2-1	C2-2	C2-3	C2-4	C2-5	C3-1	C3-2	C3-3	C3-4	C3-5	C4-1	C4-2
ANP weighting	0.0035	0.0029	0.0020	0.0012	0.0007	0.0019	0.0051	0.0036	0.0041	0.0038	0.0032	0.0017	0.0014	0.0006	0.0003	0.0015	0.0014	0.0049	0.0104
Evaluation Index	C4-3	C4-4	C4-5	C4-6	C4-7	C5-1	C5-2	C5-3	C5-4	C5-5	C5-6	C6-1	C6-2	C6-3	C7-1	C7-2	C7-3	C7-4	C8-1
ANP weighting	0.0159	0.0129	0.0077	0.0219	0.0151	0.0028	0.0059	0.0112	0.0120	0.0095	0.0062	0.0204	0.0230	0.0110	0.0147	0.0412	0.0111	0.0146	0.0012
Evaluation Index	C8-2	C8-3	C8-4	C9-1	C9-2	C9-3	C9-4	C9-5	C9-6	C10-1	C10-2	C10-3	C11-1	C11-2	C11-3	C11-4	C11-5	C11-6	C11-7
ANP weighting	0.0043	0.0049	0.0019	0.0125	0.0041	0.0067	0.0059	0.0053	0.0029	0.0368	0.0166	0.0126	0.0151	0.0146	0.0089	0.0041	0.0170	0.0058	0.0052
(scenarios ii) Weight of the labour aesthetics of high-speed rail train attendants assessed by industry																			
Dimension	Professional competencies (AZ)																		
ANP weighting	0.5109																		
Position ANP	1																		
Evaluation Criteria	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11								
ANP weighting	0.0163	0.0179	0.0029	0.1027	0.0328	0.0586	0.0850	0.0048	0.0472	0.0560	0.0752								
Position ANP	4	3	5	1	2	3	1	6	5	4	2								
Evaluation Index	C1-1	C1-2	C1-3	C1-4	C1-5	C1-6	C1-7	C2-1	C2-2	C2-3	C2-4	C2-5	C3-1	C3-2	C3-3	C3-4	C3-5	C4-1	C4-2
ANP weighting	0.0026	0.0034	0.0018	0.0010	0.0009	0.0018	0.0049	0.0023	0.0057	0.0046	0.0028	0.0025	0.0008	0.0003	0.0002	0.0009	0.0007	0.0026	0.0144
Evaluation Index	C4-3	C4-4	C4-5	C4-6	C4-7	C5-1	C5-2	C5-3	C5-4	C5-5	C5-6	C6-1	C6-2	C6-3	C7-1	C7-2	C7-3	C7-4	C8-1
ANP weighting	0.0178	0.0157	0.0078	0.0235	0.0201	0.0075	0.0076	0.0075	0.0039	0.0027	0.0031	0.0122	0.0243	0.0221	0.0163	0.0269	0.0114	0.0302	0.0004
Evaluation Index	C8-2	C8-3	C8-4	C9-1	C9-2	C9-3	C9-4	C9-5	C9-6	C10-1	C10-2	C10-3	C11-1	C11-2	C11-3	C11-4	C11-5	C11-6	C11-7
ANP weighting	0.0010	0.0021	0.0013	0.0159	0.0094	0.0038	0.0057	0.0070	0.0050	0.0176	0.0289	0.0094	0.0251	0.0117	0.0090	0.0044	0.0121	0.0072	0.0065

Table 3. Difference in the perception of full-service airline cabin occupants between industry and academia

Dimension		Aesthetic competencies (A1)										Professional competencies (A2)										
ANP weighting		0.6461																				
Position ANP		1										2										
Evaluation Criteria	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11											
ANP weighting	0.0098	0.0105	0.0022	0.1010	0.0336	0.0584	0.1063	0.0091	0.0416	0.0548	0.0811											
Position ANP	4	3	5	1	2	3	1	6	5	4	2											
Evaluation Index	C1-1	C1-2	C1-3	C1-4	C1-5	C1-6	C1-7	C2-1	C2-2	C2-3	C2-4	C2-5	C3-1	C3-2	C3-3	C3-4	C3-5	C4-1	C4-2			
ANP weighting	0.0017	0.0018	0.0034	0.0008	0.0036	0.0014	0.0021	0.0024	0.0034	0.0015	0.0024	0.0007	0.0004	0.0002	0.0002	0.0007	0.0006	0.0099	0.0092			
Evaluation Index	C4-3	C4-4	C4-5	C4-6	C4-7	C5-1	C5-2	C5-3	C5-4	C5-5	C5-6	C6-1	C6-2	C6-3	C7-1	C7-2	C7-3	C7-4	C8-1			
ANP weighting	0.0068	0.0141	0.0281	0.0171	0.0158	0.0025	0.0029	0.0089	0.0052	0.0096	0.0046	0.0071	0.0268	0.0244	0.0144	0.0168	0.0337	0.0003				
Evaluation Index	C8-2	C8-3	C8-4	C9-1	C9-2	C9-3	C9-4	C9-5	C9-6	C10-1	C10-2	C10-3	C11-1	C11-2	C11-3	C11-4	C11-5	C11-6	C11-7			
ANP weighting	0.0006	0.0008	0.0010	0.0106	0.0089	0.0046	0.0070	0.0043	0.0044	0.0195	0.0154	0.0199	0.0172	0.0045	0.0120	0.0045	0.0150	0.0149	0.0129			
(scenarios iv) Weight of the labour aesthetics of full-service airline attendants assessed by industry																						
Dimension		Aesthetic competencies (A1)										Professional competencies (A2)										
ANP weighting		0.5026																				
Position ANP		1										2										
Evaluation Criteria	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11											
ANP weighting	0.0082	0.0076	0.0012	0.1004	0.0381	0.0949	0.0798	0.0043	0.0330	0.0425	0.0904											
Position ANP	3	4	5	1	2	1	3	6	5	4	2											
Evaluation Index	C1-1	C1-2	C1-3	C1-4	C1-5	C1-6	C1-7	C2-1	C2-2	C2-3	C2-4	C2-5	C3-1	C3-2	C3-3	C3-4	C3-5	C4-1	C4-2			
ANP weighting	0.0013	0.0024	0.0008	0.0004	0.0014	0.0008	0.0011	0.0011	0.0024	0.0016	0.0018	0.0007	0.0005	0.0001	0.0001	0.0002	0.0003	0.0047	0.0110			
Evaluation Index	C4-3	C4-4	C4-5	C4-6	C4-7	C5-1	C5-2	C5-3	C5-4	C5-5	C5-6	C6-1	C6-2	C6-3	C7-1	C7-2	C7-3	C7-4	C8-1			
ANP weighting	0.0167	0.0158	0.0141	0.0204	0.0176	0.0012	0.0040	0.0086	0.0091	0.0075	0.0047	0.0243	0.0486	0.0221	0.0094	0.0289	0.0135	0.0279	0.0010			
Evaluation Index	C8-2	C8-3	C8-4	C9-1	C9-2	C9-3	C9-4	C9-5	C9-6	C10-1	C10-2	C10-3	C11-1	C11-2	C11-3	C11-4	C11-5	C11-6	C11-7			
ANP weighting	0.0009	0.0012	0.0011	0.0065	0.0103	0.0020	0.0056	0.0025	0.0063	0.0165	0.0163	0.0097	0.0130	0.0042	0.0084	0.0055	0.0336	0.0213	0.0045			

Suggestions for planning cross-curricular credit programs for full-service airline cabin attendants

In the developing expertise that affects aesthetic competencies, professional attitude is not only a key success factor for cultivating competent high-speed rail train attendants but also for fostering full-service airline cabin attendants. Enterprises should both convey their corporate philosophy through apparel specifications and suitable behaviour demonstrated by the front-line employees on duty. A recognizable style cue and brand identity could help target customers have an emotional connection to the company's products, services, or organizations.

Schools should consider factors such as cross-curricular credit programs, attribute orientation, and professional characteristics of the workplace and manpower needs, while promoting students' understanding of professional attitudes through routine classroom teaching. Schools can also offer internships on campus courses that teach students to develop a professional attitude in the workplace through role simulation, professional skill display, social practice services, and good model demonstration. In doing so, students can learn etiquette and appropriate behaviour, foster self-discipline, gain empathy and skills in communication with others, and enhance their professionalism.

For enterprises, the employee's attitude is a major factor in determining employee behaviour. It is not only a key factor in determining whether an organization can successfully implement service initiatives or service reforms (Cheng, 2018) but also directly determines service quality and organizational performance (Bell & Menguc, 2002). Huang (2012) pointed out that employees' perceptions of human capital investment practices have a positive relationship with employees' attitudes and performance, and that economic incentives also have a positive relationship with employees' attitudes. Employees' altruistic inclination to help other insiders, willingness to fulfil duties, or ability to voluntarily go out of their way to help customers, as well as other organizational citizenship behaviours, all can improve the effectiveness of organizational functions. Therefore, it is recommended that industry adopt a performance appraisal and accountability system as a means of reward or management, supplemented by psychological encouragement. Such acts can shape a healthy organizational culture that becomes the values and beliefs carried forward and inherited by members of the organization.

To develop expertise that affects professional competencies, the two evaluation criteria, namely problem-solving ability and teamwork ability, are equally important. Strategy building and practice in service must follow a two-pronged approach. Since organizations are socially complex groups, employees need to interact constantly, because members also affect other individual's construction of self. It is recommended that companies use management to integrate the concept of working together and being responsible for team performance into the brand

image and human resource practices, so that corporate values and insider values are consistent (Vallaster & de Chernatony, 2006). Su (2017) put special emphasis on the industrial characteristics of the aviation industry focusing on teamwork. He pointed out the manpower of each flight. The manpower configuration of attendants belongs to the temporary grouping of tasks, so there is no direct affiliation after the task is completed. Therefore, on-the-job training or group recreation activities can be performed for team building and cooperation, as well as training for team members meeting each other for the first time to rapidly grasp the work execution, which will help the cabin attendants to complete tasks quickly and improve passenger satisfaction. Schools can set up a service learning course coupled with social service activities and structured design to form a collaboration mechanism, teach students to be interdependent and promote each other, and cultivate students' sense of social responsibility.

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