Factors Affecting Industry and University Collaboration in Education in the Hospitality Industry in Vietnam: A Business Perspective

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Received: December 01, 2019  Revised: December 11, 2019  Accepted: December 18, 2019

Abstract

This paper studies the factors affecting university and industry collaboration in education in the hospitality industry in Ho Chi Minh City (Vietnam) from a company perspective. The authors use qualitative method and quantitative research to study the matters, specifically using scales and data collected for Cronbach alpha reliability testing, analyzing the discovery factor of EFA, CFA and verifying the regression models through AMOS software with SEM linear modeling. The study proposes four factors: (1) organization factors, (2) contextual factors, (3) process factors, and (4) cooperation perspective impacting on the benefits factors and university and industry collaboration in education. In addition, it is also found that benefits factors has a direct and positive impact on the collaboration in education. The results suggest that the process factor had the strongest positive, followed by the contextual factor. The findings revealed that the benefit factors were significantly related to collaboration in education, which affects university and industry hospitality alliances. This finding confirm that the cooperation perspective (QD) and contextual factors (HC) are critical in collaboration between university and industry. A new point of interest is also identified that the benefits of training links are quite dependent on the linking perspective from tourism businesses.

Keywords: Collaboration in Education, Industry, University, Hospitality Industry, Vietnam.

JEL Classification Code: A13, A20, I23, I25, I28

1. Introduction

The hospitality industry is currently one of the fastest increasing industries in the world (Langviniene & Daunoraviciute, 2015). According to World Tourism Organisation (UNWTO) in 2009, the world-wide international tourist arrivals would increase, especially in Asia Pacific and the Americas, to 1.6 billion by 2020 (UNWTO, 2009; Mohammed & Rashid, 2016). In the context of Vietnam, tourism has been a large contributor to gross domestic product (GDP) (World Travel and Tourism Council [WTTC], 2019); the number of international tourism arrivals to Vietnam has nearly quadrupled during this period, from 4.2 million in 2008 to 15.5 million in 2018. There has also been a marked acceleration in international visitor growth in the last three years, from an average of around 9% per annum in 2008–2015 to an average of 25% in 2016–2018. Domestic tourism in Vietnam, which is significantly greater in volume than inbound tourism from abroad, has experienced a similar surge, with a four-fold increase in the number of domestic traveller-trips, from 20.5 million in 2008 to 80 million in 2018 (World Bank [WB], 2019). Nominal GDP in 2018 was estimated to reach €208.1 billion (6.7% growth rate) and is forecasted to reach about €248.8 billion in 2020 (EU-Vietnam Business Network [EVBN], 2018).

To ensure efficiency and success in the development of the hospitality industry, hospitality companies are always focused on and looking for a professional workforce to provide the best service (Harris & Jago, 2001; Breen, 2002). Due to the rapid development of hospitality, the hospitality industry’s labour demand is too large compared to the supply, so hospitality enterprises have been employing a large number of young, low-skilled workers, with low capacity and this has led to inefficient results (WB, 2019).
Hospitality enterprises are thus expected to retain excellent staff and skillful employees, while recruiting additional professional labour from universities (Ogbeide, 2006; Green & Erdem, 2016). On the side of university training for the hospitality industry, the number of students studying for the hospitality industry has increased rapidly, but there has been a shortage of lecturers with a sufficient academic background and practical business experience, which, combined with a shortage of facilities, especially practice rooms, has led to students not meeting the quality requirements of hospitality businesses (Bosselman, 1999; Green & Erdem, 2016).

To overcome this limitation, many solutions have been implemented, but the solutions linking hospitality enterprises and universities have been most often chosen and implemented because of the benefits of such cooperation. This study seeks to identify factors that have a positive impact on training links between hospitality businesses and universities in Ho Chi Minh City (Vietnam). This leads to the proposal of policy implications to promote the development and implementation of joint training activities between academia and the hospitality industry to achieve the highest efficiency.

2. Literature Review and Hypotheses

2.1. Literature Review

2.1.1. Collaboration in Education

In the context of this paper, collaboration in education means a practical curriculum developed between hospitality companies and universities to provide practical work experience related to the training industry (Wang, 2015). More precisely, this is an associate programme that aims to provide real-world learning experiences (Martin, Fleming, Ferkins, Wiersma, & Coll, 2010; Wang, 2015). Through this programme, students will be able to approach reality and close the gap between theory and career (Wang, 2015).

2.1.2. Academic Cooperation in the Hospitality Industry

University and industry alliances in the hospitality industry are one a kind of association based on mutual benefit, which means that students at universities gain both theoretical knowledge at the university and practical experience at the enterprise, while the enterprises have more qualified and reputable human resources. Currently, the link between hospitality enterprises and universities is one of the most widely used training methods for the sector (Wu, Zhou, Xie, & Cheng, 2017) and is an integral part of the hospitality industry training programmes around the world (Solnet, Robinson, & Cooper, 2007; Baker, Caldicott, & Spowart, 2011; Wood & Roberts, 2017). According to Wang, Kitterlin-Lynch, and William (2018) linked training in the field of hospitality is a programme combining practical and theory – that is, it is an integrated method of learning and work, internships and theoretical knowledge.

Previous studies have presented many approaches on training links, including stakeholder partnerships (Solnet et al., 2007; Wood & Roberts, 2017), or managing relationships (Solnet, 2004; Wood & Roberts, 2017). These previous studies are, however, disorganised, lack focus and require greater commitment and resources (Solnet, 2004; Busby, 2005; Solnet et al., 2007; Wood & Roberts, 2017).

2.2. Development of Hypotheses

The previous studies – such as Cederholm (2015), Langviniene and Daunoraviciute (2015) and Wang (2015) – have highlighted several factors that make successful business–university collaboration in the hospitality industry. The following sections will summarise those factors.

2.2.1. Organisational Factors

Organisational factors are related to organisational structure, such as whether the cooperation if formal or informal and intended for the short or long term (Cederholm, 2015). The research issues for this factor include the following: resources and skills, including financial resources (Bender, Cedeno, Cirone, Klaus, Leahey, & Menyhert, 2000; Cederholm, 2015); infrastructure (Chen, Reilly, & Lynn, 2012; Cederholm, 2015); human resources (Thune, 2011; Cederholm, 2015); commitment (Barnes, Pashby, & Gibbons, 2006; Lee, Ohtab, & Kakehib, 2010; Cederholm, 2015); trust and especially the reputation of the partner (Abbasnejad, Baerz, Rostamy, & Azar, 2011). These criteria can be used maximise the advantages of joint training. The process of implementing these criteria has a positive impact on training links. We can therefore expect organisation factors can have a positive impact on the benefits of collaboration in the hospitality industry. We can formulate this as follows:

H1: Organisational factors have a positive impact on the benefits of collaboration.

H2: Organisational factors have a positive impact on cooperation in education.

2.2.2. Contextual Factors

According to Cederholm (2015), contextual factors are essential for the success of the links between business and university. These factors focus on the following variables: objectives; choose the right partners; and geographical proximity (Barnes No Reference 2002; Mora-Valentine, Montoro-Sanchez, & Guerras-Martin, 2004; Cederholm, ...
According to Bender et al. (2000) and Cederholm (2015), the linkage goals of each unit are different, so being able to link well requires that the two parties cooperate and work together to determine how to achieve their goals. They can also choose to find common goals to support business–university linkages, such as increasing competitive advantage (Dooley & Kirk, 2007; Cederholm, 2015). Thune (2011) has suggested that, when choosing an affiliate partner, it is necessary to choose reputable partners who have experience with such connections and are suitable for the corporate culture (cf. Barnes et al., 2006). The geographical distance between enterprises and universities is also a matter of concern. Thune (2011) has suggested that close geographical proximity between the two partners would bring higher efficiency. Laursen, Reichsten, and Salters (2011) and Pertuzé, Calder, Greitzer, and Lucas (2010) have argued that the two partners can still be highly effective despite long distances, and some studies have mentioned that distance has little effect on link efficiency (Cederholm, 2015). Therefore, it can be expected that:

**H3:** The contextual factors have a positive impact on the benefits of joint training.

**H4:** The contextual factors have a positive impact on the training link between enterprises and universities.

### 2.2.3. Process Factors

Process factors reflect the interaction between enterprises and universities in joint training. According to Lakpetch and Lorsuwannarat (2012), these processes include coordinating activities, and carrying out responsibilities and tasks that have been assigned by the two parties. The criteria of the development factor studied included, for instance: cultural compatibility (Lakpetch, 2009; Zheng, Yang, & McLean, 2010; Abbasnejad et al., 2011); flexible policies (Lewis, 1990; Lakpetch, 2009); and operational compatibility (Madhok, 1995; Lakpetch, 2009). Based on studies by Gordon and Ditomaso (1992) and Lakpetch (2009), culture is an important issue that significantly influences the activities of the organisation’s members. Culture is expressed through four characteristics when connecting organisations, including joining the units during the linking process, adaptation to the linked environment, consistency in the implementation of terms and compliance of orders when making associated contracts. The two sides must support each other and supplement missing resources so they can overcome partner limitations or weaknesses during the linking process (Geringer, 1988; Madhok, 1995; Lakpetch, 2009). Finally, successful linkage requires flexibility in the process of solving emerging issues and adjusting policies to suit the actual situation of joint training (Burns & Stalker, 1961; Lewis, 1990; Lakpetch, 2009). It can thus be expected that process factors can also be positively associated with cooperation:

**H5:** Process factors have a positive impact on the benefits of joint training.

**H6:** Process factors have a positive impact on the training link between enterprises and universities.

### 2.2.4. Cooperation Perspective

The point of enterprise association in training links is to reduce costs, increase labour productivity and improve service quality; it can also change business processes (Chang, Kivela, & Mak, 2011; Langviniene & Daunoraviciute, 2015) or result in corporate social responsibility training (Gawel, 2014). We can therefore expect that the following hypotheses will be relevant:

**H7:** Cooperation has a positive impact on the benefits of joint training.

**H8:** The cooperation perspective has a positive impact on collaboration.

### 2.2.5. Benefit Factors

There are many benefits to establishing university and industry collaboration, including access to additional employees. The firm gains employees without having to hire any of them directly, while the burden of hiring capable students rests on the faculty. Industry thus gains capable workers without having to go through the search and interview process. The students who work on these projects are also monitored by industry personnel, providing insight into their capabilities as potential full-time employees (Raghavan & Towhidnejad, 2006). Such collaboration would develop students' professional skills and affect their performance (Schoffstall, 2013). Industry also tends to gain ownership of final product: in addition to gaining expertise and the additional employees, companies usually retain the copyright and patent for any final products the students produce (Raghavan & Towhidnejad, 2006).

**H9:** Benefits have a positive impact on the training link between enterprises and universities.

Based on the information from the literature review, five assumptions will be analysed in this study. See Figure 1 for an overview of the development of the hypotheses regarding the five factors of potential interest in university–industry collaboration for training in the hospitality industry.
3. Research Methods

This study applied a three-stage approach. In the first stage, documents were reviewed regarding related research on training links in the field of hospitality, which suggested the factors affecting such joint training activities. Next, using the expert method, a scale was completed and a questionnaire was designed before the preliminary survey. A preliminary survey was then conducted with 50 people working in a hospitality business to examine the clarity of the survey before the official survey. In the second stage, the authors conducted preliminary quantitative research with 171 samples, and after running preliminary quantitative analysis, the authors continued to adjust the questionnaire before the official study. The questionnaire for the official study contained 25 observed variables. Sample selection was undertaken according to the calculation method of Hair, Black, Babin, and Anderson (2010), who suggested that the minimum sample size must be $\geq m \times 5$, where $m$ is the number of observed variables.

With 25 variables observed in this study, the minimum sample size must be $\geq 150$ samples. In the third stage, the author conducted an official survey with the participants involved, which included general managers, department directors, and others in the hospitality industry. To ensure reliability, the number of questionnaires issued was 350; the number collected was 331. After excluding questionnaires with errors and uncompleted samples, the remaining sample of was 307, which was larger than the minimum sample size of 150. Data were analysed using SPSS 20.0 and SPSS AMOS 20.0 software and based on a 5-point Likert scale. The authors then conducted reliability tests of the scale with Cronbach’s alpha coefficient ($\alpha$), followed by exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and tests of structural equation modelling (SEM).

4. Results

4.1. Demographic Characteristics of the Respondents

As shown in Table 1, the total number of survey samples given to hospitality businesses in Ho Chi Minh City was 350, and collected 331 surveys were collected (respectively 94.57%). After cleaning the data, the author used and analysed 307 surveys (including 233 surveys from the four- or five-star hotels; 61 surveys from luxury restaurants; and 13 surveys from travel companies). Training links in the field of hospitality were being implemented in restaurants and hotels due to the large size of these organisations and the objective needs of the business sector, with 75.90% of respondents coming from hotels (including 4- and 5-star hotels), followed by 19.87% from the famous restaurant system in Ho Chi Minh City, such as White Palace and Gem Centre (belonging to the PQC hospitality group) and
the Adora system (belonging to the Dongphuong group), while 4.23% of responses came from travel companies.

Table 1: Respondents’ demographic information

| Forms of Business Organisation | Number | (%)  |
|-------------------------------|--------|------|
| 1.1 Hotels                    | 233    | 75.90|
| 1.2 Restaurants               | 61     | 19.87|
| 1.3 Travel Firms              | 13     | 4.23 |
| Total                         | 307    | 100.00|
| Types of businesses           |        |      |
| 2.1 State-owned enterprises   | 136    | 44.30|
| 2.2 Private enterprises       | 102    | 33.22|
| 2.3 Corporation               | 69     | 22.48|
| Total                         | 307    | 100.00|

The respondents from the hospitality enterprises were heavily drawn from the positions of the team leader (52.44%), hotel division heads (9.45%) and the management of ministries or department heads in restaurants (18.24%). In addition, tourism businesses included state-owned enterprises (hotel businesses) and private enterprises (restaurants and travel businesses). Large enterprises accounted for 74.59% of respondents.

4.2. Exploratory Factor Analysis

EFA is appropriate when the conditions are satisfied: $0.5 \leq \text{Kaiser–Meyer–Olkin (KMO)} \leq 1$ and sig $<0.05$ (observed variables correlate with each other in factor). The value of KMO must be at least 0.5 or more to qualify for the analysis and the closer the KMO value is to 1, the more appropriate factor analysis would be (Meyers, Gamst, & Guarino, 2013).

Table 2: Exploratory Factor Analysis of Variables

| Code | 1 | 2 | 3 | 4 | 5 | 6 | α | Corrected Item-Total Correlation | α if Item Deleted |
|------|---|---|---|---|---|---|---|-------------------------------|-----------------|
| TC3  | .936| .895 | .821| .685 | .533 | .895 | .887 | .837 |
| TC5  | .952| .842 | .793| .753 | .693 | .870 | .849 | .801 |
| TC6  | .867| .776 | .730| .693 | .683 | .807 | .718 | .730 |
| TC2  | .960| .915 | .527| .519 | .870 | .827 | .790 | .715 |
| TC1  | .527| .519 | .796| .786 | .750 | .832 | .546 | .827 |
| TC4  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| TK4  | .692| .650 | .692| .650 | .586 | .746 | .505 | .850 |
| TK1  | .545| .545 | .545| .545 | .532 | .789 | .532 | .789 |
| TK2  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| TK3  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD5  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD4  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD3  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD2  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD1  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD0  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| QD6  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |
| KMO  | .350| .401 | .505| .507 | .720 | .801 | .534 | .837 |

The results of the EFA for each factor are shown in Table 2, comparing the results of the variables with the criteria $0.5 \leq \text{KMO} \leq 1$, sig $<0.05$, FL $>0.3$ and variance extracted $>50\%$ revealed two variables that do not meet the conditions
and are thus excluded: the HC5 variable (contextual factor) and LI3 (benefit factor). After EFA analysis, the authors turned to CFA.

4.3. Confirmatory Factor Analysis

CFA was applied using Chi-square indexes (CMIN), Chi-square adjusted according to (CMIN/df), suitable index of comparison (CFI-comparative Fit Index), Tucker and Lewis Index (TLI-Tucker and Lewis Index) and RMSEA (root mean square error of approximation). For the model to be accepted requires that the Chi-square test value have P-value <0.05, GFI, TLI, CFI values > 0.9 (Bentler & Bonett, 1980), CMIN / df ≤ 2.0 (in some cases the value of CMIN/df ≤ 3.0 is temporarily acceptable; Carmines & McVcr, 1981) and RMSEA ≤ 0.08, RMSEA ≤ 0.05 (Steiger, 1990). A model received values of GFI, TLI, CFI ≥ 0.9, CMIN/df≤ 2.0, RMSEA ≤ 0.08 models were accepted (Tho & Trang, 2009). A GFI ≤ 0.9 is still acceptable (Hair et al., 2010).

![Figure 2: CFA result for full measurement model (standardised estimates)](image)

The model has the following values: Chi-square = 393.217; df = 260; P = 0.000; Chi-square / df = 1.512 <2.0; GFI = 0.910> 0.9; TLI = 0.963> 0.9; CFI = 0.968> 0.9; and RMSEA = 0.041 <0.05. The values are within the acceptable limits (Hair et al., 2010). The values of factor loadings (standardised) in the 0.504 to 0.970 range are within the allowed values. The results shown in Figure 2 confirm the convergence value of the components in the training links (tourism enterprise). The correlation between the concepts in the model are all <1 and the P values = 0.000, so the concepts in the training association scale gain distinct values.

4.4. Structural Equation Modelling

Researchers use SEM to evaluate the contribution of each scale, verify the relationship between conceptual scales and estimate the relationship between the dependent and independent variables (Kline, 2016). SEM also helps to explore measurement errors and in incorporating abstract and difficult-to-distinguish concepts (Anderson & Gerbing, 1988; Bagozzi & Foxall, 1996).

![Figure 3: SEM results for the theoretical model (standardised estimates)](image)

The values in Figure 3 show the SEM results from testing the theoretical (standardised) model as follows: Chi-square = 393.217; df = 260; P = 0.000; Chi-square / df = 1.512 <2.0; GFI = 0.910> 0.9; TLI = 0.963> 0.9; CFI = 0.968> 0.9; and RMSEA = 0.041 <0.05. The model is thus consistent with the research data. The values of the scale of organisational factors, context factors, deployment factors, benefits of training links, factors of the tourism business perspective and factors of training links between enterprises and universities are satisfying and achieve convergence value, unidirectional value, discriminatory value and reliability.

The results in Table 3 include the following: the mean, which is the regression coefficient of bootstrap estimates; bias, which is the difference between the mean regression column and the estimate regression value when running without bootstrap; and the SD-Bias, which is the standard deviation of the bias column. The calculated CR result is compared with the CR and 1.96 values (1.96 is the value of...
the standard distribution at 0.9750, meaning that one side is 2.5%, and two sides will be 5%). Combined with the P column value <0.005, the hypothesis conclusion that bias ≠ 0 has statistical significance. Due to hypothesis H0: bias = 0; Ha: bias ≠ 0; The results of CR > 1.96, so the p-value <5%, thus accepting the Ha hypothesis. The difference is thus statistically significant at the 95% confidence level; if CR <1.96, one can infer a p-value > 5%, reject Ha, accept H0 and conclude that deviation is different from zero, with no statistical significance at 95% confidence level, so the conclusion is that the estimated model quality can be trusted.

Table 3: Bootstrap in SEM

| Parameter | SD | SD-SD | Mean | Bias(A) | SD-Bias(B) | CR = A/B |
|-----------|----|-------|------|---------|------------|---------|
| LI ↔ TC   | 0.066 | 0.002 | 0.152 | 0.009   | 0.003      | 3       |
| LI ↔ HC   | 0.061 | 0.002 | 0.172 | -0.002  | 0.003      | -0.66667|
| LI ↔ TK   | 0.063 | 0.002 | 0.126 | -0.005  | 0.003      | -1.66667|
| LI ↔ QD   | 0.061 | 0.002 | 0.243 | 0.003   | 0.003      | 1       |
| LK ↔ TC   | 0.066 | 0.002 | 0.188 | 0.003   | 0.003      | 0.333333|
| LK ↔ HC   | 0.072 | 0.002 | 0.147 | 0.001   | 0.003      | -1      |
| LK ↔ TK   | 0.061 | 0.002 | 0.191 | -0.003  | 0.003      | -0.66667|
| LK ↔ QD   | 0.072 | 0.002 | 0.152 | -0.002  | 0.003      | -0.66667|
| LK ↔ LI   | 0.067 | 0.002 | 0.16  | -0.002  | 0.003      | -0.66667|

Comparison of CR values with 1.96 shows that the hypothesis TC and LI has a CR = 3 > 1.96, p = 0.015 <0.005, allowing the authors to accept the hypothesis that organising factors affect the benefit factor. The conclusions deviate from zero with statistical significance at the 95% confidence level; the remaining relationships have a value of CR <1.96 and p-values <0.005, so the model can be trusted.

Table 4: Summary of direct hypothesis testing results

| Structural relationships | Estimate | SD | CR  | P   | Hypothesis test |
|--------------------------|----------|----|-----|-----|----------------|
| Benefits ↔ Organisation  | 0.143    | 0.059 | 2.436 | 0.015 | H1: Supported |
| Benefits ↔ Contextual    | 0.228    | 0.082 | 2.776 | 0.006 | H3: Supported |
| Benefits ↔ Process       | 0.163    | 0.077 | 2.116 | 0.034 | H5: Supported |
| Benefits ↔ Perspective   | 0.279    | 0.074 | 3.785 | ***  | H8: Supported |
| Collaboration ↔ Organisation | 0.139  | 0.046 | 3.001 | 0.003 | H2: Supported |
| Collaboration ↔ Contextual | 0.144  | 0.065 | 2.228 | 0.026 | H4: Supported |
| Collaboration ↔ Process  | 0.181    | 0.061 | 2.980 | 0.003 | H6: Supported |
| Collaboration ↔ Perspective | 0.134 | 0.059 | 2.277 | 0.023 | H7: Supported |
| Collaboration ↔ Benefit  | 0.050    | 0.050 | 2.455 | 0.014 | H9: Supported |

Estimate (ML); SD: standard deviation; CR: Composite reliability

The results shown in Table 4 suggest that the necessary relationships are statistically significant (p value <0.5) for all variables affecting training links, namely: linkage benefits, which are affected by the factors of context, organisation, implementation and perspective of association; and joint training, which is affected by contextual factors, organisation, implementation, perspective and linkage benefits. Based on the estimation results, two points of view and linkage contexts have an impact that is statistical meaningful to the benefit factor: first, the cooperation perspective is the strongest (ML = 0.279, p = 0.000), second, the contextual factors have a strong effect on university and industry alliances (ML = 0.228, p = 0.006). The implementation and context factors also have a statistically significant impact on the training linkage variable. Of these two factors, the implementation factor has a stronger impact on the training link between enterprises and universities (0.181 > 0.144).

5. Discussion and Implications

5.1. Discussion

The purpose of this research is to study the factors affecting training links between enterprises and universities in the field of tourism in Ho Chi Minh City (Vietnam) from the perspective of business enterprises. Based on the results of the survey and analyses, the following conclusions can be drawn. First, all of the hypotheses in the proposed research model (Figure 1) can be accepted, concluding that all factors have a positive impact on the training link...
between enterprises and universities in the field of tourism. Second, training links are positively affected by three factors – implementation, context and organisation – according to a decreasing level of impact: account = 0.181; HC = 0.144; TC = 0.1139. This result is consistent with the research of Cederholm (2015) and Abbasnejad et al. (2011). It also identifies a new point, namely that the benefit factor translates into a positive impact factor linking training. Third, associated benefits are strongly influenced by two factors in descending order: QD = 0.279; HC = 0.228. This finding confirm that the cooperation perspective (QD) and contextual factors (HC) are critical in collaboration between university and industry, consistent with that in Govind and Kuttim (2016) and Cederholm (2015). A new point of interest is also identified, namely that the benefits of training links are quite dependent on the linking perspective from tourism businesses. Finally, the study reveals a causal relationship between the factors affecting training links. It is thus necessary to influence the viewpoint of linking so that this factor affects the benefits of linking following the principle of mutual benefit (win-win). When the link between the two parties brings about the desired benefits, this is the foundation and driving force to promote training links between enterprises and universities in the field of tourism development.

5.2. Implications

Based on the results of the above, the authors propose several policy implications to promote the integration of tourism in an increasingly developed industry and increase the effectiveness of this activity.

First, the research results show that the context factors positively affect the benefits of linking, so it is necessary to clarify the benefits that universities and tourism enterprises receive when participating in training links. On the university side, the main benefits received from the link include improvements to the quality of training and the reputation of the university, as well as quick access to practical knowledge for students, ensuring student output and soft training skills. On the business side, the benefits include recruiting high-quality, guaranteed and quick workers to the working environment, as well as practical workers at low cost and reductions to personnel shortage in the peak season. The principle of mutually beneficial cooperation helps this activity happen quickly over the long term.

Second, organisational factors including the prestige/reputation of the tourism businesses signing the agreement, the geographical distance between the two parties and the size of the business positively affect the training association. With the goal of promoting the quality of joint training, it is necessary to select the right partner to suit the quality of learning and experience of students at the enterprise. Finally, the implementation factor in training links has a positive impact on training links due to the flexibility in solving problems arising during contract implementation, support and facilitation. The two sides thus achieve the ultimate goal. This requires advanced views from the leaders in each unit in promoting training links in the field of tourism to achieve the highest efficiency.

6. Limitations and Suggestions for Future Studies

Training links were made between hospitality enterprises and universities with hospitality training, but research has only considered the perspective of universities with hospitality training programmes in Ho Chi Minh City. For a comprehensive view of tourism training in universities, an expanded survey sampling large cities with such training links such as Da Nang and Hanoi would be highly informative. There should also be more investigative research from the perspective of tourism enterprises to determine the factors that positively affect training cooperation, as well as which factors have a strong impact that could be combined and would offer the most suitable solutions for both participating units.

References

Abbasnejad, T., Baerz, A., Rostamy, A., & Azar, A. (2011). Factors affecting on collaboration of industry with university. African Journal of Business Management, 5(32), 12401–12407.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103(3), 411–423.

Bagozzi, R. P., & Foxall, G. R. (1996). Construct validation of a measure of adaptive innovative cognitive styles in consumption. International Journal of Research in Marketing, 13(3), 201-213.

Baker, L., Caldicott, J., & Spowart, J. (2011). Cooperative and work-integrated education in hospitality and tourism. In R. K. Coll & K. E. Zegwaard (eds.), International handbook for cooperative and work-integrated education: international perspectives of theory, research and practice (2nd ed., pp. 219–228). Lowell, MA: World Association for Cooperative Education.

Barnes, T. A., Pashby, I. R., & Gibbons, A. M. (2006). Managing collaborative R & D projects development of a practical management tool. International Journal of...
Project Management, 24, 395–404.

Bender, K., Cenedo, J., Ciron, J., Klaus, K. Leahey, L., & Menyhert, T. (2000). Process innovation case studies of critical success factors. Journal of Engineering Management, 12(4), 17–24.

Bentler, P. M., & Bonnet, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88, 588 – 606.

Bosselman, R. H. (1999). Graduate programs in hospitality management education. In C. W. Barrows & R. H. Bosselman (eds.), Hospitality management education (pp. 239–260). Binghamton, NY: The Haworth Hospitality Press.

Breen, H. (2002). An investigation of professional development education for tourism and the hospitality employees through university and industry cooperative education partnerships. Journal of Teaching in Travel & Tourism, 2(3), 1–22.

Busby, G. (2005). Work experience and industrial links. In D. Airey & J. Tribe (Eds.), An international handbook of tourism education (pp. 93–107). London, England: Routledge.

Burns, T., & Stalker, G. (1961). The management of innovation. London, England: Tavistock.

Carmines, E. G., & Mcver, A. (1981). Analyzing Models with Unobserved Variables: Analysis of Covariance Structures. Beverly Hill, CA: Sage Publications.

Cederholm, G. (2015). Success Factors in University-Industry collaborations: A comparison of a research and development project (Master’s thesis). University of Gothenburg, School of Business, Economics and Law, Gothenberg, Sweden.

Chang, R., Kivela, J., & Mak, A. (2011). Attributes that influence the Evaluation of Travel Dining Experience: When East meets West. Tourism Management, 32(2), 307–316.

Chen, J., Reilly, R., & Lynn, G. (2012). New product development speed: Too much of a good thing? Journal of Product Innovation Management, 29(2), 288–303.

Dooley, L., & Kirk, F. (2007). University – industry collaboration: Grafting the entrepreneurial paradigm onto academic structures. European Journal of Innovation Management, 10(3), 316–332.

EU-Vietnam Business Network (EVBN). (2018). Vietnam Hospitality Report. Edition 2018. Retrieved November 10, 2019, from https://evbn.org/vietnam-hospitality-report/

Gawel, A. (2014). Business collaboration with universities as an example of corporate social responsibility – A review of case study collaboration methods. Poznan University of Economics Review, 14(1), 20–30.

Geringer, J. M. (1988). Joint venture, partner selection: Strategies for developed countries. Westport, CT: Quorum Books.

Gordon, G., & Ditomaso, N. (1992). Predicting corporate performance from the strength of corporate culture. Journal of Management Studies, 29(6), 783–798.

Govind, M., & Kuttim, M. (2016). International knowledge transfer from university to industry: A systematic literature review. Research Economics and Business: Central and Eastern Europe, 8(2), 5-25.

Green, A., & Erdem, M. (2016). Bridging the gap between Academia and Industry in Hospitality: Using real life case studies. Developments in Business Simulation and Experiential Learning, 43, 43–46.

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). Multivariate data analysis (7th ed.). Upper Saddle River, NJ: Pearson Education.

Harris, R., & Jago, L. (2001). Professional accreditation in the Australian tourism industry; An uncertain future. Tourism Management, 22, 383–390.

Kline, R.B. (2016). Principles and Practice of Structural Equation Modeling (4th ed.). New York, NY: The Guilford Press.

Lakpetch, P. (2009). Knowledge transfer effectiveness of university-industry alliances (Doctoral dissertation). School of Public Administration, National Institute of Development Administration, Bangkok, Thailand.

Lakpetch, P., & Lorsuwannarat, T. (2012). Knowledge transfer effectiveness of university-industry alliances. International Journal of Organizational Analysis, 20(2), 128–186.

Langviniene, N., & Daunoraviciute, I. (2015). Factors influencing the success of business model in the hospitality service industry. Social and Behavioral Sciences, 213, 902–910.

Laursen, K., Reichsten, T., & Salters, A. (2011). Exploring the effect of geographical proximity and university quality on university-industry collaboration in the United Kingdom. Regional Studies, 45(2), 507–523.

Lee, K-J., Ohtab, T., & Kakehib, K. (2010). Formal boundary spanning by industry liaison offices and the changing pattern of university-industry cooperative research: The case of the University of Tokyo. Technology Analysis & Strategic Management, 22(2), 189–206.

Lewis, J. (1990). Partnerships for profit: Structuring and managing strategic alliances. London, England: The Free Press.

Madhok, A. (1995). Opportunism and Trust in Joint Venture Relationships: An Exploratory Study and a Model. Scandinavian Journal of Management, 11(1): 57-74.

Madhok, A. & Tallman, S. B. (1998). Resources, Transactions and Rents: Managing value through inter-firm collaborative. In L. S. Meyers, G. Gamst, & A. J. Guarino (2013), Applied multivariate research: Design
and interpretation. London, England: Sage Publications.
Martin, A., Fleming, J., Ferkins, L., Wiersma, C., & Coll, R.K. (2010). Facilitating and integrating learning within sport studies cooperative education: Exploring the pedagogies employed by students, academics and workplace supervisors. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 9(1), 24-38
Mohammed, A. A., & Rashid, B. (2016). The moderating influence of internship program on the relationship between undergraduates’ perception and their intention to join tourism and hospitality industry: A theoretical model. *International Review of Management and Marketing*, 6(2), 317–321.
Mora-Valentin, E. M., Montoro-Sanchez, A., & Guerras-Martín, L. A. (2004). Determining factors in the success of R & D cooperative agreements between firms and research organizations. *Research Policy*, 33(1), 17–40.
Ogbeide, G. (2006). Employability skills and students’ self-perceived competence for careers in hospitality industry (Doctoral dissertation). University of Missouri, Columbia, MO, USA.
Pertuzé, J., Calder, E., Greitzer, E., & Lucas, W. (2010). Best practices for university – industry collaboration. *MIT Sloan Management Review*, 51(4), 83-90. Retrieved from https://sloanreview.mit.edu/article/best-practices-for-industry-university-collaboration/
Raghavan, J., & Towhidnejad, M. (2006). Challenges/issues in an industry – academic collaboration. *American Society for Engineering Education*, 424, 113181–113188.
Schoffstall, D.G. (2013). The benefits and challenges hospitality management students experience by working in conjunction with completing their studies. (Doctoral dissertation). Iowa State University, Ames, IA, USA. Graduate Theses and Dissertations, 13029. https://doi.org/10.31274/etd-180810-4448
Solnet, D. (2004). Linking industry and education providers: A relationship management approach. In *CAUTHE 2004: Creating tourism knowledge*. Brisbane, Australia.
Solnet, D., Cooper, C., & Robinson, R. (2007). An industry partnerships approach to tourism education. *The Journal of Hospitality Leisure and Tourism*, 6(1), 66–70.
Steiger, J.H. (1990). Structural Model Evaluation and Modification: An Interval Estimation Approach. *Multivariate Behavioral Research*, 25(2), 173-180
Tho, N. T., & Trang, N. T. M. (2011). Brand value in the consumer goods market. In *Scientific research in marketing: The application of structure model of SEM* (2nd ed., pp 3–85). Ho Chi Minh City, Vietnam: Labour Publishing House (Vietnamese).
Thune, T. (2011). Success factors in higher education-industry collaboration: A case study of collaboration in the engendering field. *Tertiary Education and Management*, 17(1), 31–50.
UNWTO (2009). *Tourism Highlights, 2009 Edition*. Madrid, Spain: UNWTO.
Wang, Y. (2015). The hospitality cooperative education: What are the benefits for industry partners? (FIU Electronic Theses and Dissertations, 2221). doi:10.25148/etd.FIDC000078
Wang, Y., Kitterlin-Lynch, M., & William, J. (2018). Hospitality cooperative education: What are the benefits for industry partners. *Journal of Hospitality & Tourism Education*, 30(2), 127–133.
Wood, Y., & Roberts, M. (2017). Cooperative education in hospitality and tourism: Extending standard categorization systems for the classification of industry placements. *Asia-Pacific Journal of Cooperative Education*, 18(3), 269–292.
World Bank (WB). (2019). *Taking stock. Recent economic developments of Vietnam*. Hanoi, Vietnam: World Bank Group.
World Travel and Tourism Council (WTTC). (2019). *The economic impact of travel and tourism*. Retrieved December 1, 2019, from https://www.wttc.org/-/media/files/reports/economic-impact-research/regions-2019/world2019.pdf
Wu, J. L., Zhou, Z. Q., Xie, H. B., & Cheng, F. (2017). Exploring a new Chinese model of tourism and hospitality education: Lessons learned from American counterparts. Paper presented at the International Conference on Energy, Environment and Sustainable Development, EESS 2017, April 21-22, Phuket, Thailand (pp. 364–370).
Zheng, W., Yang, B., & McLean, G. N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. *Journal of Business Research*, 63, 763–771.