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STRATEGIES FOR ENHANCING THE COOPERATIVE MANAGEMENT OF TOURISM AND HOSPITALITY STUDENTS OF CHANGCHUN CITY IN CHINA

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Abstract
This research examined the factors of successful university-industry partnership in Changchun City, China, on the basis of the quality of communication, sharing of resources, curriculum and policy facilitation. The mixed-methods approach was used to collect and analyze quantitative data (368 respondents). Descriptive statistics, correlation, and multiple regression were used to analyze the results, whereas qualitative data was collected using open, axial, and selective coding. The quantitative findings showed that the communication quality ($\beta = 0.41$, $p < .001$) and resource sharing ($\beta = 0.35$, $p < 0.001$) turned out to be the most powerful predictors of the cooperation effectiveness ($R^2 = 0.492$), then came curriculum alignment ($\beta = 0.22$, $p = .001$) and policy support ($\beta = 0.15$, $p = .004$). These findings were supported by qualitative results whereby five broad themes were identified that included communication and coordination, shared cooperation goals, policy and regulatory support, trust and organizational culture, and access to resources. According to the participants, collaboration was impeded by informal communication, unequal policy implementation, and unequal distribution of resources. On the other hand, common learning, openness, and trust were considered to be drivers of the success of long-term partnership. The results indicate that sustainable university-industry collaboration should be facilitated by optimal communication systems, equal distribution of resources, and strengthening of policy frames. The research adds to the overall comprehension of collaborative governance and provides effective suggestions to policymakers and institutional leaders that would like to enhance academic-industrial relationships in the context of emerging innovation ecosystems.

Keywords: University–industry cooperation; tourism and hospitality management; cooperative management; Changchun City; talent development

1. Introduction
1.1 Global Context and Industry Transformation

Tourism industry is among the most active and strong industries in the world. 10% of the global GDP is from tourism and employed one out of every ten employees (UNWTO, 2024). The integration of Artificial intelligence (AI), virtual reality (VR), and big data analytics have changed the process of marketing, service delivery, and customer engagement (Gretzel and Koo, 2021). The emergence of green, cultural, and digital tourism models is the demand of sustainability of the industry. The changing trends in the global context have increased the necessity of innovative, interdisciplinary specialists, competent in technologies, and cross-cultural skills (Santos et al., 2022).

The tourism sector in China is following this trend in the global context, with digital innovation, increasing domestic consumption as well as policy support for integration of cultural-tourism. The China Tourism Research Institute (2023) states that domestic travel had 2.53 billion trips in 2022, with USD 291.4 billion in revenues. The post-pandemic recovery has made the implementation of the smart tourism, where AI and big data maximize the experiences of tourists, environmental management and the effectiveness of marketing (Li & Li, 2023). As a result, there

is an urgent demand among tourism education to revise the curricula, teaching methods, and models of partnership to suit the changing market demands.

1.2 The Regional Setting: Changchun City

Changchun is the capital of the Jilin Province that has become an attractive tourist destination in Northeast China. The large scale contributing factors to make Changchun the tourist hub are flourishing ice and snow festival, ecotourism and cultural tourism. In 2023, Changchun Culture and Tourism Bureau (2024) indicated that the city welcomed 147 million tourists and earned 34.4 billion USD with a 208 percent growth per year. Some of the main places of tourist attraction are Puppet Manchurian Palace Museum, Changchun Ice and Snow Festival, and Jingyuetan National Forest Park (Zhang et al., 2023).

The city has no skilled or competent professionals in spite of the different tourism destinations and tourism contribution to the national GDP because there are 150,000 workers in the tourism sector versus the required 180,000 employees (Changchun Tourism Bureau, 2024). To bridge this gap, it is necessary to collaborate between learning institution and tourism industry to generate qualified specialist in ecotourism planning, digital tourism management as well as in the promotion of cultural heritage. This collaboration has significance in skill development and injecting innovation in the practices in the sphere of tourism.

1.3 Talent Mismatch and Educational Gaps

In China the operational management and service provision are the key areas of the conventional tourism and hospitality courses. These conventional education ignored the courses for enhancing skills such as data analytics, effective planning, how to promote sustainability and inter-sector collaboration (Ma et al., 2021). This gap in the educational courses causes a skills gap between graduates and the expectations of employers. Therefore, collaboration between educational institution and tourism industry becomes one of the strategic options to bridge this gap. This collaboration will helped in designing educational courses according to the requirements of the technological era and will also create internships opportunities for students to, and will improve the employability and innovation potential (Herrera and Ramirez-Montoya, 2022).

According to Pinto et al. (2023) the main hurdles in establishing this academia and tourism industry partnership are lack of mutual trust, poor institutional motivation, and lack of collaborative policy frameworks. In order to strengthen the partnership between these academia and tourism industry a structured model of collaboration is needed that would be founded on dual education systems by integrating modern tourism courses in educational curriculum and policy-supported internships.

1.4 Importance of Cooperative Management

Cooperative management is the partnership between academia and industries to reach the common goals (Rossoni et al., 2023). Effective cooperative management resulted in good exchange of resources, shared governance arrangements, and assessment of the performance. This model is useful as students enrolled in higher education at colleges and universities get the internship opportunities in these industries where they learn practically by doing. This partnership is necessary to produced skillful, experienced and innovative man power (Decter, Bennett, and Leseure, 2021).

The industry-college partnership programs with Ctrip and Marriott International have been launched by the Changchun University and the University of Finance and Economics. This initiative is launched to address the local economic agendas by involving students in different initiatives such as cultural creativity, smart tourism as well as sustainable hospitality. However,

these types of programs are often autonomous and do not respond to standard management templates and long-term evaluations (Liu & He, 2022).

1.5 Policy Context and Strategic Significance

The Chinese government has defined policy frameworks i.e. the National Plan of Vocational Education Reform (2019) and the 14 th Five-Year Plan (2021-2025) that clearly indicate the collaboration of universities with industries, in order to create high quality of workforce. The Double High ministry project of the Ministry of Education encourages the higher vocational educational establishments to develop the paradigm of cooperative governing that is concentrated on applied study and developments (Ministry of Education, 2021). As it is seen in the case of Changchun, the development of tourism education and these policies not only assists in the resolution of the local issue of employment, but also contributes to the competitiveness within the national tourism market.

On this basis this study aims at discussing the current state, challenges, and ways in which collaborative operations between universities and businesses in the tourism and hospitality sector in Changchun may be improved. It is useful in theory and practice scientifically: it theorizes the cooperation as the models of Synergy, Stakeholder and Resource Dependence; it suggests the practical approaches to the management which are not rigid in relation to the educational ecosystems on the regional level. This work is timely as post-pandemic tourism continues to shift its digitalization and sustainability modes, so the research should reevaluate collaboration of education with the industry in China and other nations.

1.6 Theoretical Framework

It is most appropriately understood that the university-industry cooperation in tourism and hospitality education is integrated in terms of multiple theoretical viewpoints that can be used to explain inter-organizational collaboration, interdependent relationships, and innovation-driven relationships. The five theoretical lenses that are interrelated and applied in this investigation are the social exchange theory, change management theory, resource dependence theory, synergy theory, and stakeholder theory. When used together, these theories provide a complete insight into the concept of cooperative management with regards to the tourism and hospitality industry of Changchun.

According to the systems science, the synergy theory emphasizes that the outcome of a cooperative system is larger than the total of the individual contributions (Ackoff, 1971). When academic institutions and businesses join their resources, knowledge, and skills, the collective benefit is referred to as synergy, which takes place when it comes to university-industry collaboration. Whereas businesses provide practical setting, technology and market orientation, universities provide theoretical information, research, and human resource. The interaction encourages creativity, development of skill and competitiveness when the interaction is well-coordinated (Bozic & Dimovski, 2019).

Where businesses and the organisations collaborate to create the curricula, construct the training facilities, and perform applied research, synergy is created in the education of tourism in Changchun. With this type of integration, on top of enhancing the employability of students, educational goals and needs of industrial innovation are aligned. Recent research shows that synergistic partnerships can help tourism schools improve their teaching quality, stimulate the development of the local economy, and respond dynamically to the changes in the market (Bertello et al., 2021).

However, the stakeholder theory provides a moral and practical framework of managing conflicting interests in cooperative relationships. Freeman (1984) defines stakeholders as individuals or organisations that are affected or can affect the objectives of an organization. University-industry collaboration is a stake of universities, businesses, students, governmental organizations, as well as local communities. A clear system of governance is required to deal with the distinct resources and demands that every group brings on board.

The Changchun environment would entail business that depends on the highly qualified graduates and products of research and universities that depend on the government to aid policies. The Stakeholder Theory suggests that long-term cooperation requires mutual responsibility, trust, and ethical involvement of people (Nguyen et al., 2021). Empirical research recommends that stakeholder alignment enables innovation ecosystems in which the industrial and educational players create social and economic value together (Phillips et al., 2020). In this way, in the context of collaborative management systems, this theoretical prism provides an ethical foundation to balance between industrial productivity and quality of education.

The Resource Dependence Theory (RDT) by Pfeiffer and Salancik, (1978) also holds that organizations rely on external sources to get the essential resources that they need to survive and thrive. This dependence influences inter-organization behavior in strategic decision making, power and collaboration. Colleges in the postsecondary education regularly count on businesses to fund them, provide internships and platforms, and universities to depend on businesses to provide pipelines of talent, research, and innovation.

The interdependence is particularly evident in the sectors of tourism and hospitality in Changchun. When the tourism businesses are experiencing skills shortages and should always be innovative, universities do not have the exposure and resources required to have advanced training. The two parties are able to reduce uncertainty, reduce costs and increase competitiveness through resource sharing partnerships. To become resilient under changing market conditions, financial institutions actively reorganize partnerships as one of the modern extensions of RDT in which the focus on dynamic dependency management is established (Aversa et al., 2021).

The theory of cooperation is based on the Social Exchange Theory (Homans, 1958; Blau, 1964), the principles of which are reciprocity and mutual benefit. Based on this model, the relations persist as long as the benefits are perceived to exceed the expenses associated with it. In the case of the university-industry collaboration, every partner evaluates tangible and intangible benefits such as research funding, the access to expertise, or brand building. The relationships thrive when justice and trust are preserved (Molm, 2020).

The effective partnerships with businesses of the educational institutions in Changchun are based on the establishment of long-term and fair transactions. As much as businesses benefit due to the transfer of knowledge and access to talented employees, universities benefit due to relevance of their curriculum and employability of the graduate. As per the research, to remain, such types of partnerships need frequent communications, a common set of values, and transparent evaluating processes (Cropanzano et al., 2017). Therefore, social exchange theory elucidates the rationality in the behavior of micro-level that promotes cooperative management.

Change management theory deals with the process of organizational adjustment to the new internal and external conditions. It is based on the three-stage model of structural reforms (unfreezing-change-refreezing) proposed by Lewin (1947) that we gain grounds to understand how institutions implement structural changes. Recent models such as the Eight-Step Model by Kotter (2012) emphasize change agents such as communication, leadership, and vision.

In the context of tourism education reform, universities and businesses need to adapt to the digitalization, technological development, and evolving student expectations. Matos Marques Simoes and Esposito (2019) discovered that Change Management Theory focuses on the importance of strategic planning, stakeholders' interest, and feedback loops in the adoption of cooperative education systems. Changchun holds that the implementation of this theory ensures that businesses and institutions of learning make a smooth transition between the traditional systems that are compartmentalized and integrated systems that are oriented towards innovation.

1.7 Integrative Theoretical Model

All five theories are interdependent to provide a comprehensive model of understanding the concept of cooperative management as applied in tourism education. The stakeholder theory ensures moral governance whereas the synergy theory describes the advantages a performance gains with integration. The Social Exchange Theory can explain the motivation process, Resource Dependence Theory can underline the necessity of cooperation, and Change Management Theory can provide a plan of how to sustain the change. The combination of the perspectives allows obtaining a more precise picture of how the cooperative mechanisms can promote the advancement of human capital in the tourism industry of Changchun. Besides guiding the research design and analysis, this theoretical synthesis comes with a transferable model that may be applied in other fields that adopt similar educational reforms.

1.8 Research Questions

The study aimed to explore the aspects, the strategies and approaches to enhancing the collaboration between a university and businesses in the tourism and hospitality sector in Changchun. In connection with reviewed literature and theoretical framework, the following research questions were developed:

1. What is the current situation of industry-university partnership in the tourism and hospitality education in Changchun? (This question explores the level and quality of existing collaboration patterns and is premised on the stakeholder and synergy theories.)

2. What are the key factors that influence the effectiveness of the university-travel agency partnerships in management? (This question determines enabling and inhibiting factors according to the social exchange and resource dependence theories.)

3. What strategic models are useful to enhance tourism and hospitality education at Changchun by means of sustainable cooperative management? (The question aims at providing practical frameworks according to the dynamic industry needs, and is supported by Change Management Theory).

2. Literature Review
2.1 Industry-University Collaboration

The relationship between universities and industries has established as one of the pillars of contemporary education policy and innovation regimes worldwide. It requires a structured movement between academic research and industry application that provides exchanged knowledge and human capital (Etzkowitz and Leydesdorff, 1995). The Triple Helix Model conceptualizes it as the interaction between academia, industry and government as the basis of regional innovation ecosystem. In tourism and hospitality, such partnerships allow keeping the curricula up to date with the market and increase the employability and practicality of the students (Bercovitz and Feldman, 2020).

2.2 Advocacy of Cooperative Education in the World

Emergent work-integrated learning (WIL) and dual-education models, which are composite classroom training and training on the job, have become increasingly popular in higher education institutions worldwide. Innovation performance and retaining talents are encouraged by long-term cooperation according to the research studies in European situations (Klofsten et al., 2019). Rowe and Zegwaard (2017) also report that co-designed curricula with industry professionals also had a positive effect on graduates in regard to critical thinking and job readiness in Australia and New Zealand. These findings indicate that cooperative education is universal to satisfy the needs of the labour market.

2.3 The Background in China

The university-industry interaction became strategically significant in the Chinese Ministry of Education programs of the twofold first-class and the twofold high. In a bid to improve the capacity of being innovative and nurturing their talents, such reforms are driving universities to cooperate with companies (Xu, 2020). The combination of the business practice and academic theory has proven to be very profitable; producing some remarkable success stories- only one has to look at the success stories of the tremendous tourism partnership in Shanghai and Guangdong. However, this development is not even. There are still major gaps, particularly in the northeast, where talent drainage and other fundamental economic changes have posed serious challenges (Liu and He, 2022).

2.4 Challenges of Teaching Tourism and Hospitality

The nature of problems the tourism and hospitality industry passes through is what distinguishes it, in comparison to more well-established industries. Professional competence among graduates is not acceptable because of the instability of the industry, the service level, and the reliance on the customer experience (Sparks and Browning, 2018). Nevertheless, still, a lot of the programs remain to be more theoretical rather than practical (Gu et al., 2023). The needs of the employers and the skills of the graduates are not in good line, in particular, in the areas of digital marketing, planning events, and sustainable operations (Gupta and Dash, 2018). The study indicates that there is a definite way to bridge this gap, that is, by establishing better links between universities and businesses. They have the ability to make it happen through addition of real world projects, internships and mentorships. An example of this is the study by Al-Youbi, Massoud, and El-Sayed (2017), who demonstrated that collaborative research and internship are very effective in enhancing employability and creativity among Saudi Arabian hospitality education.

2.5 Cooperative Governance and Management

To have a successful partnership, there must be a systematic plan of action to ensure that all people are engaged, responsible, and geared towards growth. Rossoni et al. (2023) refer to this type of governance as cooperative governance, it relies not less on mutual trust than it is on signed agreements. There are already good models that are being used in China and they include: innovation hubs, advisory boards input on industry and dual role teaching systems. However, long term partnership is more likely to be disrupted by institutional incompatibility, lack of incentives and barriers to communication (Pina and Tether, 2021). An important challenge that is vital to Changchun is the formation of governance structures that can guarantee a balance of corporate and university autonomy. The literature is in favor of a multi-level strategy to counter the issue of mutuality building, alignment of policies, and leadership commitment (Herrera and Ramiz Montoya, 2022).

2.6 New Aspects: Sustainability and Digitalization

Digitalization and sustainability are two transformative forces that are changing university-industry cooperation, according to recent literature (2020–2025). AI, big data, and virtual learning are examples of digital technologies that improve collaboration effectiveness and make remote internships possible (Li & Li, 2023). In line with the global Sustainable Development Goals (SDGs), sustainability education also highlights the moral and environmental obligations of the travel industry (Santos et al., 2022).

In summary it was concluded that few studies look at the governance and efficacy of university-industry cooperation in regional Chinese contexts, despite the fact that a large body of research highlights its advantages. The tourism and hospitality sectors in Changchun provide a strong argument for investigating how collaboration can be strategically managed to satisfy changing labour needs. This study adds to theory and practice by combining local and global insights and suggesting adaptive strategies based on contextual realities and recent empirical data.

3. Methodology

3.1 Research Design

The research design in this study was a mixed-methods research design, which incorporated both the quantitative and the qualitative research methods in order to fully explore the collaborative management of the tourism and hospitality education in Changchun, China. The mixed method was decided due to the possibility to triangulate the data and increase its validity and depth of interpretation (Creswell and Plano Clark, 2021). Patterns and relationship among variables were determined using quantitative methods and in depth perceptions and institutional contexts of the participants were determined using qualitative interviews.

3.2 Population and Sample

The sample was a group of stakeholders engaged in the field of tourism and hospitality education, including university teachers (n = 318) and the representatives of the companies (n = 50) based on 12 universities and 22 organizations of the industry in Changchun. The sample has been chosen on the basis of the purposive sampling technique that ensures the selection of the group of the participants that are actually engaged in the university industry cooperation programmes, i.e. internship supervisors, academic administrators, and enterprise managers.

The research population size of 368 was enough to perform a regression analysis, and it is higher than the suggested minimum population size of 10 people per predictor variable (Hair et al., 2022).

3.3 Instruments

Two data collection tools were involved:

3.3.1 Structured Questionnaire

The study was to use a structured questionnaire as the means of gathering quantitative data. The tool was created with reference to the validated scales that were in place in earlier studies by Herrera and Ramírez-Montoya (2022) and Liu and He (2022) and guaranteed theoretical relevance and measurement reliability. The questionnaire was divided into five main sections, which focused on a particular construct of institutional collaboration and management effectiveness.

The former included the first section that evaluated Communication Quality, which included five questions that considered the clarity, frequency, and openness of the information exchange between cooperating institutions. Resource sharing in the second section had also five

items, which aimed at the degree to which institutions shared financial, technological and human resources to pursue common agenda. The third part was Curriculum Alignment and five questions were used to assess congruency of educational programs/trainings among partner organizations. Policy Support was measured in the fourth section, which had five items to represent the perceived degree of institutional and governmental support of cooperative initiatives. Lastly, the fifth part analyzed Cooperation Effectiveness, which has five items that determined the general results of collaborative activities, including goal attainment, satisfaction, and sustainability.

Each of the scale comprised of five-point Likert scale, which included 1 (strongly disagree) and 5 (strongly agree). The scaling technique enabled the respondents to make different levels of agreement about the same issue, making it easy to carry out statistical analysis of the respondent perceptions. The questionnaire was structured so that there was consistency, comparability and easy interpretation of all the responses.

3.3.2 Semi-Structured Interviews; 12 respondents were interviewed (8 of them were university students and 4 were enterprises). The interviews covered the issues of cooperation, the best practices, and the strategic improvements.

3.4 Reliability and Validity

Alpha was calculated in order to have internal consistency. It has been shown in Table 1 that all the constructs were greater than the suggested value of 0.70, which shows satisfactory reliability (Nunnally and Bernstein, 1994). Expert review and pilot testing were used to guarantee construct validity.

3.5 Data Collection Procedures

The data was gathered in the period of February to April 2024. Institutional networks were used to pass questionnaires both in hardcopy and through email. Participants gave informed consent and confidentiality was assured. The interviews were carried out online and transcribed verbatim to be analysed thematically.

Table 1: Reliability and Validity

Variable	Cronbach's Alpha
Communication Quality	0.88
Resource Sharing	0.84
Curriculum Alignment	0.86
Policy Support	0.83
Cooperation Effectiveness	0.90

3.6 Data Analysis

The SPSS 27.0 was used to analyze quantitative data. Mean and standard deviation were the descriptive statistics used to determine perceptions of effectiveness of cooperation. Pearson correlation analyzed the relationship between variables and multiple regression was used to predict the predictors of successful cooperation. The thematic coding was applied to the qualitative data to analyze the data according to the six steps of the framework proposed by Braun and Clarke

(2021). The codes were categorized into themes that included the five predominant themes were identified, which are associated with the coding framework, the themes consisting of communication and coordination, clarity of cooperation goals, policy and regulatory support, culture and trust relationships, and resource support and practical opportunities. The qualitative reasoning centered around barriers, enablers and strategic directions.

3.7 Ethical Considerations

The research followed the ethical standard created by the Changchun University Research Ethics Committee (Approval ID: EDU-CHC/2024/07), and it was also consistent with the ethical principles provided by the American Psychological Association (APA, 2017). All research participants were considered as volunteers in the study with informed consent obtained by all the participants before the data gathering process. Anonymity and confidentiality were strictly observed with the use of non-personal codes and storage of all data in password-protected encrypted files open to the research team. The participants were well made to know that they have the right to withdrawing along the way without penalty. The study included no coercion, deception or harm and respected the autonomy and well-being of the participants. The above ethical measures facilitated impartiality, honesty, and openness of all research activities which enhanced the credibility of the study and bolstered adherence to the generally accepted ethical conduct in research, as practiced internationally.

4. Results

4.1 Descriptive statistics

Table 2 reveals the descriptive statistics of the five important variables as far as responses of 368 subjects are concerned. The results demonstrate that the highest score based on mean score (M = 4.32, SD = 0.52) was communication quality that was interpreted as very high relying on the good and consistent flow of information between the universities and industry partners. The degree of collaboration was also high (M = 4.21, SD = 0.51) meaning that the collaboration and mutual understanding in the sphere of collaboration was successful. The resources sharing rating (M = 4.18, SD = 0.49) and the curriculum alignment rating (M = 4.05, SD = 0.60) are high, and that implies that the resource sharing is good and can be improved. The one that registered the lowest mean (M = 3.87, SD = 0.55), however, was that of policy support, which is a moderate, indicating that the institutional and governmental structures may not be strong enough to support long-term partnerships.

Table 2: Descriptive statistics of key variables (N = 368)

Variable	Mean	SD	Interpretation
Communication Quality	4.32	0.52	Very High
Resource Sharing	4.18	0.49	High
Curriculum Alignment	4.05	0.60	High
Policy Support	3.87	0.55	Moderate
Cooperation Effectiveness	4.21	0.51	High

4.2 Pearson correlation among variables

Table 3 showed that all correlations are positive and significant at the 0.01 level, suggesting that improvements in communication, resource sharing, and curriculum alignment lead to higher cooperation effectiveness.

Table 3: Correlation Matrix

Variables	1	2	3	4	5
1. Communication Quality	1				
2. Resource Sharing	0.76**	1			
3. Curriculum Alignment	0.72**	0.69**	1		
4. Policy Support	0.65**	0.63**	0.67**	1	
5. Cooperation Effectiveness	0.81**	0.76**	0.73**	0.69**	1

Note: p < 0.01

4.3 Multiple Regression analysis
4.3.1 Model summary

Multiple regression analysis was performed to identify the predictors of cooperation effectiveness among the key variables. Table 4 highlighted that the overall model was statistically significant, $F(4, 363) = 46.25$, $p < .001$, explaining 49.2% of the variance ($R^2 = 0.492$) in cooperation effectiveness

Table 4: Model Summary for Predictors of Cooperation Effectiveness (N = 368)

Model	R	R²	Adjusted R²	Std. Error of the Estimate	F	df	p-value
1	0.702	0.492	0.486	0.365	46.25	(4, 363)	

4.3.2 Beta (β) Coefficient

Table 5 revealed that the strongest positive predictors were communication quality (**β** =.41, p =.001) and resource sharing (**β** =.35, p =.01), which indicated that effective communication and shared resources were very important in improving collaborative performance. Curriculum alignment (**β** =.22, p =.05) also demonstrated a positive, but less strong impact, whereas policy support (**β** =.15, p =.08) also had a less strong, marginal impact, which means that institutional frameworks have a moderate impact on cooperation.

Table 5: Beta *(β)* coefficient

4.2

Predictor	Beta (β)	SE	t	p
Communication Quality	0.41	0.05	8.40	.000**
Resource Sharing	0.35	0.06	7.10	.000**
Curriculum Alignment	0.22	0.07	3.57	.001**
Policy Support	0.15	0.06	2.89	.004**

Qualitative Results

Based on the qualitative data, processed with the assistance of the open, axial and selective coding, one can observe that five dominant themes were identified that could be related to the coding framework, which was suggested in the previous section, methodology: communication and coordination, clarity of cooperation goals, policy and regulatory support, culture and trust relationships and resource support and practical opportunities.

The effectiveness of the university connection with industries has always been accompanied by the fact that, according to the respondents, the lack of effective communication systems led to the ineffectiveness of such relationships. As much as the large organizations indicated that they were satisfied with the organized liaison, most interviewees articulated the informality or unplanned communication founded on personal relationship. The absence of information exchange and inconsistent follow-ups also played a role in setting up of the misunderstandings within the possibility to synchronize academic and industrial schedules. The administrators of the universities were emphasizing on bureaucratic obstacles and the corporate officials were emphasizing on the need to have one point of contact where the operations of the company can be carried out efficiently.

Both participants of the university and enterprise also reported the lack of mutual vision in the goals of partnerships. Many projects were initiated without the specification and quantifiable results and this created confusion in priorities. Some respondents argued that collaboration was often short-sighted on the basis of the student internship as opposed to long-term skills development or innovativeness. The thematic analysis also suggested that the project might grow more sensible and responsible through having the expectations set simultaneously and holding regular review meetings.

Some of the challenges that were perceived by the interviewees were poor implementation of policies and disjointed governance. Though the country and local policy incentives on academic-industry collaboration are present, the respondents felt that the policy was not implemented equally. Specifically, small and middle-sized businesses asserted they had bad access to government subsidy or support opportunities. It also did not have a standard procedure and legal defense of the rights of intellectual property that will not stimulate profound cooperation.

The growth of trust between both of them especially between the partners who have been working together in the long-run was a consistent route of optimism. The respondents glorified the brand new culture of shared learning and respect. However, there were instances where institutional values did cause a tension because universities emphasized more on academic rigor and companies emphasized more on efficiency and profitability. The perception of open-mindedness and openness seemed to be the key to the guarantee of trust and reconciliation of these differences.

It is a theme that has pointed to the worst area of cooperation. Most of the cited respondents cited deficiency in investment in the training infrastructure, lack of funds and inequality in the availability of good learning conditions. Small business also lamented on the presence of allocation of resources favoring larger institutions. The people wanted the concept of common investment in training plants, co-innovation centers and digital resources to get an equal distribution of resources. The general findings of the qualitative research indicate that despite the fact that the university-industry partnership of Changchun is getting more mature and committed, there are still structural and procedural flaws. It is also necessary to improve the standard of institutional processes, transparency, and the added structures of shared resources to achieve higher and deeper collaboration.

5. Discussion

The results of this research represent a complete knowledge of the dynamics that play an impact on the university-industry partnership in Changchun. The combination of the quantitative findings with the qualitative themes helps prove that the quality of communication, resource sharing, and alignment of the curriculum are essential factors determining the effectiveness of cooperation, and policy support is a moderate but important factor in enhancing institutional partnerships.

5.1 Communication as underlying Process

The mean (M = 4.32) and the best predictor ($\beta = 0.41$, $p < .001$) of cooperation effectiveness were found to be the highest and the strongest in the quantitative results of communication quality. This observation is in line with prior studies that underline the importance of transparent, consistent, and structured communication routes as the focus of ensuring trust and coordination between universities and industries (Ankrah and Al-Tabbaa, 2015). This fact was also supported by the qualitative data, which showed that, in most cases, ineffective or informal communication resulted in misunderstandings, conflict of schedule, and lower efficiency during the operations.

Respondents recommended having one point of contact and institutionalized feedback controls as a means of maintaining long lasting collaboration. These results highlight the point that besides conveying information, communication also constitutes the social capital that is needed to sustain a partnership in the long term (Baba et al., 2009).

5.2 Sharing of Resources and Collaborative Synergies

The second most powerful predictor of cooperation effectiveness ($\beta = 0.35$, p =.001) and a high rating (M = 4.18) was resource sharing as per respondents. This observation shows that the effectiveness of the collaboration between universities and industries is greatly boosted by the joint use of infrastructure, financial resources, and technical expertise. These findings are consistent with the findings of Etzkowitz and Leydesdorff (2000) who noted that resource co-creation is a critical component of the Triple Helix model of innovation that encompasses academia, industry, and government. Nonetheless, the qualitative data showed that there were differences in the distribution of resources with the small firms in most cases found to be disadvantaged to the larger corporations, restricting them to be involved in innovation. To handle such inequities, the respondents suggested that joint investments in common facilities, co-innovation centers, and digital learning settings can be used as effective measures to ensure inclusivity and maximization of resource utilization (Perkmann et al., 2013).

5.3 Goal Congruence and Curricular Coherence

Curriculum alignment had a positive but less significant impact ($\beta = 0.22$, p =.001) on effectiveness in cooperation. Although the respondents admitted to some positive advances in the opportunities to align the curricula with the needs of the market, the qualitative data showed that most partnerships remained quite limited when it comes to the role of internships instead of learning by skill and innovations. This result is consistent with the existing research that states that constant communication between academic institutions and industry is essential to co-design responsive curricula to changes in technology and the market (Barnett et al., 2019). By introducing frequent joint assessments and joint curriculum development, it is possible to make sure that education programs create graduates with the competencies, which suit the industry requirements.

5.4 Governance and Policy Support Problems

The policy support had the least mean (M = 3.87) and a comparatively less strong predictive power ($\beta = 0.15$, p =.004). The results indicate that despite the existence of supportive structures, they are not applied uniformly. Access to government incentives and weak protection of intellectual property was also cited by respondents especially those in the small and medium-sized enterprises (SMEs). These problems are similar to those revealed in other regional research that states that collaboration and transfer of knowledge can be derailed due to gaps in the policy and bureaucratic inertia (Muscio and Vallanti, 2014). Improving the legal system, administrative procedures, and providing fair access to funding may also improve the overall climate of governance of university-industry cooperation (Bozeman et al., 2015).

5.5 Trust in the Culture and Institutional Fit

The qualitative analysis showed that effective collaboration consists of trust and cultural compatibility. The long term relationships led to a culture of respect and learning between the partners but at times, tensions existed because of different institutional concerns such as academic rigor and commercial efficiency. It is already established in the previous studies that trust can be considered a vital mediator that exists between innovation impacts and structural collaboration mechanisms (Bruneel et al., 2010). The process of building an open-minded, flexible partnership

culture to achieve a balance between academic and industrial goals can consequently reinforce institutional cohesion and performance of innovation.

5.6 Combining Quantitative and Qualitative Inspirations

Combined quantitative and qualitative findings suggest that structural factors, including communication, resources, and so forth are important, but the relational and cultural aspects, including trust, mutual vision, and shared resources are important as well. The general model predicted 49.2% of cooperation effectiveness ($R^2 = .492$), which is a significant effect. This helps to prove the statement that effective collaboration involves a complex approach that includes organizational, relational, and institutional aspects (Ankrah and Omar, 2015).

Overall, the results demonstrates that university- industry collaboration in Changchun is still at the maturity stage and is limited by the lack of equal policy implementation, effectiveness of communication, and resources allocation. Such partnerships can be made deeper and sustainable by: strengthening the governance structures, institutionalizing communication channels and encouraging collective resource investment. Efforts in future must also center on the development of a culture of trust, life-long learning and adaptive governance in a bid to maintain long-term academic-industrial partnership and innovation.

6 Conclusion

This research examined the concept of cooperative management between universities and enterprises in the tourism and hospitality education industry of Changchun with a mixed-methods research design. The findings confirm a new but positive partnership with effective communication, active exchange of resources and small, yet, necessary policy assistance. The findings contribute to the research on the role of synergy, stakeholder involvement, and resource dependence in the effective education-industry relationship. The quality of communication was proved to be the most significant predictor of cooperation effectiveness, which revealed the significance of open communication, frequent feedback, and decision-making. This was supported by qualitative information which showed that open communication builds trust and reduces misunderstandings, which is important in preserving viable partnerships. The fact that the academia and the industry depend on each other was also shown through resource sharing. Universities are a source of research knowledge and innovative capabilities whereas; firms are a source of training and technology. This two-way flow brings about alignment of skills, innovation and value creation, which are the principal attributes of Resource Dependence Theory.

Nevertheless, policy implementation flaws were also found to be weak in the study. Although national plans like the Double High and Fourteenth Five-Year plans favor cooperation, their implementation at local levels is not very reliable because of bureaucracy and unpredictable financial resources. This further requires strengthening of coordination between government agencies, universities and enterprises to institutionalize the cooperation and also to make the policy coherent. The research has a theoretical and practical contribution. It confirms the combination of Synergy Theory, Stakeholder Theory, Social Exchange Theory, and Resource Dependence Theory in a unified framework to describe multi-level collaboration. In principle, it advises that it should improve communication systems, broaden the common infrastructure, and introduce long-term sustainability monitoring mechanisms.

Finally, university-industry partnership of Changchun has great potential but requires more in-depth policy alignment, digitalization, and work ethos in collaborative culture to realize sustainable effectiveness and competitiveness in tourism and hospitality education.

7. Theoretical implications

This work is theoretically useful because it incorporates various frameworks that explain university-industry collaboration. Synergy Theory focuses on the potential change of collaboration as a transformative force, whereas Stakeholder Theory underlines the issue of shared responsibility between the academic sphere, industry, and government. Resource Dependence Theory describes the effect of mutual reliance to create stability and value and Change Management Theory describes the process of institutional adaptation based on trust, communication, and learning. The combination of these views creates an image of cooperative management as the adaptive system that is conditioned by the strategic, structural, and social factors. The research is therefore a holistic approach that connects organizational and educational theory in innovation, talent development, and institutional sustainability in tourism and hospitality education.

8. Practical Implications

The research provides important practical insights on enhancing university-industry relationships in tourism study. Transparency and trust can be established by improving communication by holding frequent meetings, sharing dashboards and feedback systems. Sharing of resources and resources will be mutual and equal when jointly investing in digital learning platforms, training centers, and innovation hubs. Collaboration and accountability can also be encouraged with policy integration such as government-supported so-called University-Enterprise Cooperation Funds. Such interventions will allow universities to match the market demands in their curricula and allow industries to access quality labor force. When combined, these efforts will be able to turn disjointed partnerships into viable, result-oriented alliances that will enhance the quality of education and regional economic growth.

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