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Developing a Cooperative Model Converging Both Convention and Medical Tourism Stakeholders: Based on Deutsch's Cooperation Theory

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Abstract: This study aimed to develop the cooperative model converging stakeholders in both the convention and medical tourism sectors. It was to derive factors representing collaboration toward common goals and values recognized by both sectors from the stakeholders' perspectives through qualitative research methods. The study applied Deutsch's cooperation theory, which states that cooperation is directed toward group goals and selected due to rational decision-making. For a systematic and reliable analysis of the collected data, Spradley's 12-stage technique was modified into seven stages, such as the domain, taxonomic, and component analyses, to fit this study's context. The convention-medical tourism cooperation model was aptly named "CON-MED" cooperation model.

Keywords: cooperation; convention industry; medical tourism; stakeholder

1. Introduction

Hospitality and tourism are mostly assembly processes, just like many modern industries [1]. Vertical integration is not a hallmark of most hospitality and tourism operations. Likewise, horizontal integration is relatively rare. The widespread and fragmented nature of hospitality and tourism has long been recognized. How to overcome the problems caused by fragmentation has also been pursued for a long time [1–3]. Hospitality and tourism have recently experienced the emerging convergence era with the value-based economy and collaborative economy [4]. The new form of hospitality and tourism has become a policy framework that emphasizes cooperation between diverse industries, such as entertainment, healthcare, MICE (meetings, incentive travel, conventions, and exhibitions), sports, ICT (information communication technology), and manufacturing.

Convergence has linked with collaboration among various stakeholders to create a high value-added effect. Recently, studies addressing collaboration or strategic alliances among enterprises in different sectors have been rapidly increasing. Along with changes in social and policy environments, the cooperation trend has diffused in the tourism industry. Specifically, cooperation has emerged as a policy measure to create demand in the supply system. Industrial cooperation is a way of creating new markets by combining independent technologies and services in different existing sectors. Therefore, academic consideration of cooperation among stakeholders is most necessary. However, despite the increasing interest in research on cooperation among various tourism sectors [5–7], studies addressing specific cases or empirical results are insufficient [8].

Airbnb customer experience as evidence of convergence across three countries [9], the role of CSR (corporate social responsibility) in the organizational identity of hospitality companies [10],

collaboration between the film and tourism industries [11], organic, incremental, and induced paths to sustainable mass tourism convergence [12], smart tourism as the convergence of information technologies [13], and collaborative commerce in tourism [14] are some of the existing literature.

In recent decades both convention and medical tourism sectors in the hospitality and tourism industry have become popular and rapidly evolving tourism trends [15–17].

The convention industry generates a significant economic impact and is rapidly diversifying. The convention industry is the most lucrative segment in the hospitality and tourism fields. Many different stakeholders are concerned with the convention industry because it is an essential factor in promoting inbound tourism in most countries. Regarding medical tourism, for which the areas of academic studies have been expanding recently, research has been mainly conducted on individual medical tourists from the viewpoint of behavioralism to find selection attributes and participation intentions [18]. Wernz et al. [19] explored service convergence and service integration in medical tourism. However, previous studies on cooperation between the convention industry and medical tourism stakeholders are quite scarce.

In order to fill the gap, the purpose of this study is to develop a cooperative model among stakeholders in both the convention industry and medical tourism sectors. It aims to derive cooperative factors reflecting common goals and values recognized by both sectors. The specific purposes of this study are as follows.

The study aims to draw the essential meanings of collaboration recognized by experts in both sectors. This goal is achieved by applying elements in cooperation processes. It would derive factors for cooperation among both sectors' stakeholders, including the categorization of the derived factors for cooperation, development of a networked cooperation model, and suggestion of policy and practical implications for intensifying partnerships among both sectors' stakeholders.

2. Theoretical Background

2.1. Stakeholders

The Stanford Research Institute began to use the term “stakeholder” in 1963, defining groups that are indispensable for organizations' operation. “Stakeholder” refers to significant groups that act for the continuing existence and maintenance of enterprises' functions and management activities in a limited sense. It also includes individuals or groups that affect or are affected by enterprises' functions and management activities in a broad sense [20].

Freeman [21] and Gray [22] expanded the range of stakeholders to individuals or groups that influence the purpose and activities of organizations and are in turn affected by the results, that is, individuals or groups affected by or have interest in a particular organization or action [23]. Accommodating Freeman's [21] viewpoint, Davis et al. [24] defined corporate stakeholders as those who have the right to participate in decision making for management activities.

Regarding tourism, the United Nations World Tourism Organization (UNWTO) defined stakeholders as experts and public institutions related to tourist agencies and mass media that are firmly related to tourism [25].

2.2. Convention and Medical Tourism Stakeholders

Convention-related stakeholders are diversely defined and classified. Jamal and Getz [2] identified convention industry-related stakeholders as local governments, public institutions, the Chamber of Commerce and Industry, the Convention and Visitors Bureau Convention (CVB), local tourism authorities, and resident and social organizations. The medical tourism stakeholders include the central government that establishes medical tourism policies, medical tourism businesses, and related organizations. Related central government departments include the respective ministries of Health Welfare, Culture, Sports and Tourism, Strategy and Finance, Justice, Foreign Affairs and Trade, Labor, and Education. The organizations include the Korea Tourism Organization and the Korea Health

Industry Development Institute that have come to play some roles and the growth of the medical tourism industry in Korea. Panasiuk et al. [26] identified the internal network of travel organizers, specialized sale agencies, human capital companies, firms promoting knowledge, recipients of services, accommodation providers, and insurance agencies.

2.3. Deutsch's Cooperation Theory

Deutsch [27] presented a cooperation selection theory applied with the utility theory [28] or the aspiration-level theory [29]. Deutsch's [30] cooperation theory also indicates that individuals or people cooperate toward group goals connected to individual goals and select cooperation due to rational and cognitive decision-making. Although most studies related to this model have been conducted on interpersonal relationships, the cooperation theory is also suitable for studies on the relationships between departments in an organization and other groups [31].

Deutsch's cooperation theory could apply in several situations. One is when the appropriateness of the moment of cooperation can be checked, based on prospective cooperators' desirability and reciprocity in the stage before cooperation to minimize conflicts in the process of cooperation. Another is when it is possible to concretely observe what cooperation and competition processes are performed by the factors for cooperation in achieving common goals [32]. A third situation is when the intensities of cooperation among individuals, enterprises, and industries are established [33].

Deutsch pointed out that groups also perceive competition and cooperation based on goal dependence, leading to social interaction differences. The contents of cooperation and competition processes in Deutsch's cooperation theory are shown in Table 1.

Table 1. Cooperation and competition processes in Deutsch's cooperation theory.

Domain	Cooperation Process	Competition Process
Communication	Facilitate communication. Provide accurate and frank communication. Provide mutually beneficial communication.	Provide the wrong information. Mislead others and avoid communication. Spy on the information.
Perception	Be sensitive to similarities and common understandings. Accommodate others' viewpoints.	Be sensitive to differences and threats. Stimulate opposing sentiments. Avoid others' viewpoints.
Attitudes toward each other	Demonstrate friendly attitudes. Give cooperative responses. Establish mutual trust.	Show doubt and hostility. Increase the intention to exploit others. Exhibit mutual distrust.
Work orientation	Improve the division of labor and productivity. Share and adjust resources. Settle conflicts in a constructive manner. Adjust to each other's interests. Reduce the range of conflicting relationships. Improve each other's power and resources.	Hinder the division of labor. Hinder resource sharing. Hinder activity adjustment. Stimulate unilateral settlements of conflicts. Increase the power of one party. Use coercion, threats, and deception.

Source: Deutsch [27].

3. Study and Data Analysis Methods

3.1. Study Method

Deutsch's cooperation theory was applied to achieve this study's purposes, figuring out factors for cooperation between convention and medical tourism stakeholders, and developing a cooperation model. In this regard, several qualitative methods were also used. With the focus on Deutsch's cooperation theory, factors for cooperation between the convention industry and medical tourism sectors were derived through in-depth interviews and questionnaire surveys conducted with sector experts. Spradley's analysis technique [34] was used for categorizing convention-medical tourism cooperation factors. By applying Chen's [35] program logic theory, a convention-medical tourism cooperation model was developed.

3.2. Utilization of Spradley's Analysis Technique

In his book *Participant Observation*, Spradley presented a 12-stage, qualitative analysis for participatory observation. The 12 stages were modified and newly constructed into 7 stages to fit this study, which reflected methodological differences in data collection. These seven stages included selecting the subjects of analysis, recording expert survey results, domain analysis, taxonomic analysis, component analysis, system organization, and content preparation.

4. Derivation of Cooperation Factors of Convention-Medical Tourism

4.1. Overview of In-Depth Expert Interviews

The in-depth interviews with experts were conducted first to explore the validity of Deutsch's cooperation theory and the possibility of deriving the four domains of the cooperation theory (communication, perception, attitudes toward each other, and work orientation), but also other domains of cooperation. The interviews were carried out from January 4 to 18, 2018, with four experts in the convention and medical tourism sectors. Table 2 shows the interview questions.

Table 2. The in-depth interview questions.

No.	Questions
1	How do you understand Deutsch's cooperation theory?
2	Do you understand the four domains (communication, perception, attitudes toward each other, and work orientation) in Deutsch's cooperation theory?
3	Do you think that the four domains of Deutsch's cooperation theory are sufficient for cooperation between convention and medical tourism stakeholders?

The interview results indicate that most experts' overall understanding of Deutsch's cooperation theory was high. Based on their broad understanding of the four domains of cooperation, these could be perceived as necessary for cooperation among the convention industry and medical tourism stakeholders.

4.2. Overview of the First Expert Questionnaire Survey

The study prepared an initial list of survey subjects, consisting of experts with higher education and long-term practical experience in the convention industry and medical tourism. Thirty experts were selected from convention bureaus, convention centers, local tourism organizations, the Korea Tourism Organization, the PCO, professors, doctors, persons involved in medical institutions, and experts in other related areas from the Republic of Korea. Survey subjects were stakeholders among both the convention industry and medical tourism sectors in Korea. Tables 3 and 4 show the expert survey panels.

Table 3. Institutional affiliations or occupations of the expert survey panels (unit: person).

Convention Bureau	Convention Center	Local Tourism Organization	Korea Tourism Organization	PCO	Professor	Doctor	Persons in Medical Institutions	Others	Total
3	3	3	4	1	3	5	5	3	30

Table 4. General status of the expert survey panels (unit: person).

Gender		Age				Service Tenure				Academic Background		
Male	Female	30s	40s	50s	60s	10–14 Years	15–19 Years	20–24 Years	25 Years or over	Bachelor	Master	Doctor
21	9	4	15	8	3	5	14	5	6	4	14	12

This first survey was conducted from February 12 to 28, 2018, by sending questionnaires to and requesting responses from the 30 experts; 27 of the questionnaires were returned. The respondents' opinions on 346 subfactors for cooperation under the four domains of Deutsch's cooperation theory were extracted. The subfactors were classified into 89 under communication, 84 under perception, 76 under attitudes toward each other, and 97 under work orientation.

Some subfactors were integrated into items, using the domain analysis by Spradley's technique. Based on the understanding of semantic contents (the same/similar), the subfactors were grouped under the representative words to derive 17 factors for cooperation (4–5 per domain of cooperation). To review each domain's details, factors for 'cooperation under communication' were derived as 'communication', 'information sharing', 'exchange activation', and 'knowledge sharing'. Factors under 'perception' were derived as 'goal sharing', 'responsibility awareness', 'vision sharing', and 'environmental analysis'. Factors under 'attitudes toward each other' were derived as 'mutual trust', 'mutual understanding', 'mutual dependence', and 'mutual binding'. Factors under work orientation were derived as role sharing, problem-solving, customer management, resource sharing, and outcome orientation (Table 5).

Table 5. Status of factors for cooperation derived under the four domains of cooperation.

Communication (89)		Perception (84)		Attitudes toward Each Other (76)		Work Orientation (97)	
Communication	20	Goal sharing	19	Mutual understanding	20	Problem-solving	23
Information sharing	23	Responsibility awareness	21	Mutual trust	18	Problem-solving	23
Exchange Activation	25	Vision sharing	21	Mutual Dependence	18	Customer Management	22
Knowledge sharing	21	Environmental analysis	23	Mutual binding	20	Resource sharing	17

4.3. Overview of the Second Expert Questionnaire Survey

The second expert questionnaire survey was conducted by presenting 17 factors for cooperation under the four domains in Deutsch's cooperation theory and formulating questions about the factors for cooperation. This second survey was held from May 6 to 26, 2018, by distributing the questionnaires to 27 experts, and 25 questionnaires were collected. In total, 193 specific elements of cooperation were presented under the 17 factors for cooperation under the four domains, comprising 56 under 'communication', 47 under 'perception', 26 under 'attitudes toward each other', and 64 under 'work orientation' (Table 6).

4.4. Identifying Factors for Cooperation between Convention Industry and Medical Tourism

Spradley's 12-stage technique was modified into seven stages for a systematic and highly reliable analysis of the questionnaire survey results to identify factors for cooperation among the convention industry and medical tourism stakeholders.

4.5. Domain and Taxonomic Analyses

Based on the subfactors and individual elements of cooperation derived through the processes of the first and second questionnaire surveys, factors among the convention industry and medical tourism stakeholders were verified by domain and taxonomic analyses.

Domain analysis is to categorize the semantic relationships among cooperation factors. The domains of the extracted factors regarding cooperation were identified by using their relationships, such as the same/similar, attributes/the same dimension, and inclusion. Based on the results, general terms were derived, and their semantic relationships were figured out to find included terms.

4.6. Component Analysis, System Organization, and Content Preparation

A component analysis found individual categories' attributes by classifying control points based on the outcomes of the domain and taxonomic analyses. The examined contents systematically categorized the factors for cooperation among the convention industry and medical tourism stakeholders into large, medium, and small classifications.

Table 6. Detailed elements under the four domains of cooperation.

Domain (Each)	Subfactors for Cooperation	Detailed Elements of Cooperation
Communication (56)	Communication	10. Including video conferences held
	Information sharing	15. Including the development of information-sharing campaigns
	Exchange activation	18. Including the promotion of convention-medical tourism human resources interchanges
	Knowledge sharing	13. Including the production of knowledge-sharing manuals
Perception (47)	Goal sharing	10. Including goal setting for universal cooperation
	Responsibility awareness	12. Including the promotion of educational programs for reinforcement of responsibilities
	Vision sharing	11. Including visions for convention-medical tourism cooperation by region
	Environmental analysis	14. Including demand forecast for convention-medical tourism products
Attitudes toward each other (26)	Mutual understanding	8. Including field trips to each other's industries
	Mutual trust	5. Including the establishment of trust processes
	Mutual dependence	5. Including the development of shared growth programs
	Mutual binding	8. Including the promotion of social gatherings
Work orientation (64)	Role sharing	8. Including the implementation of role-sharing education
	Problem-solving	14. Including the selection of the priorities of problems
	Customer management	13. Including the preparation of customer-evaluation indexes
	Resource sharing	9. Including the construction of resource-sharing portal sites
	Outcome orientation	20. Including the preparation of criteria for outcome measurement
Total		193

Under the 'communication' domain, the components of factors for cooperation between convention industry and medical tourism sectors divided into four under the broad classification (such as 'promoting online communication'), nine under the medium classification (including 'communication quickness'), and 27 under the small classification (including 'hold online conferences'). The details are shown in Table 7.

Under the 'perception' domain, the components of factors for cooperation between convention industry and medical tourism were divided into four under the broad classification (such as 'pursuit of cooperation goals'), ten under the medium classification (including 'inspiration for goal consciousness'), and 30 under the small classification (including 'share goal consciousness'). Table 8 presents the details.

Under the 'attitudes toward each other' domain, the components of factors for cooperation between convention industry and medical tourism sectors were divided into four under the broad classification (such as 'expansibility of mutual understanding'), six under the medium classification (including 'adequacy of mutual understanding'), and 18 under the small classification (including 'understand the culture and practice of each other's industry'). The details are shown in Table 9.

Under the 'work orientation' domain, the components of factors for cooperation between convention industry and medical tourism were divided into 5 under the large classification (such as 'establishment of cooperative work'), 14 under the medium classification (including 'concreteness of cooperative work'), and 42 under the small classification (including 'produce a cooperative work manual'). Table 10 presents the details.

Table 7. Contents of detailed classification under the ‘communication’ domain of cooperation.

General	Large Classification	Medium Classification	Small Classification
Communication	Promoting online communication	Communication quickness	1. Hold online conferences.
			2. Communicate by utilizing messengers.
			3. Communicate by utilizing e-mails.
			4. Communicate by utilizing SNS.
	System of information exchanges	Systematization of DB construction	1. Construct medical DBs of tourism-convention linked events.
			2. Construct cooperation-related DBs (centering on cooperation cases).
			3. Construct medical institution DBs by treatment (plastic surgery, dermatology).
			4. Construct convention-hosting history DBs.
		Timeliness of information sharing	1. Develop information-sharing campaigns.
			2. Conduct online-information (SNS) sharing.
		Promotion of information exchanges	3. Conduct offline-information (newsletter) sharing.
			1. Provide rate information.
	Network upgrading	Network specialization	2. Operate information-exchange centers for convention-medical tourism.
			3. Construct a joint information system.
			1. Develop networks for hosting medical-convention institutions.
		Diversification of exchange activities	2. Build expert (domestic/foreign) networks.
			3. Form convention-medical tourism alliances (by wide area, by region).
			1. Exchange activities between convention and medical institutions.
		Friendship strengthening	2. Exchange activities with the tourism industry (airlines, travel agencies)
			3. Exchange activities with related societies.
Perception	The pursuit of cooperation goals	The joint production of knowledge	1. Hold joint events (culture/arts/sports).
			2. Conduct club (online/offline) activities.
		Knowledge accumulation	1. Hold idea contests.
			2. Hold debates and forums about convention-medical tourism knowledge.
			1. Establish a cooperation think-tank.
Perception	The pursuit of cooperation goals	Inspiration for goal consciousness	2. Produce knowledge manuals (to share work know-how, knowledge).
			3. Construct a knowledge system (KS) for convention-medical tourism.
		Goal planning	1. Set short-term/long-term (monthly/quarterly/yearly) cooperation goals.
			2. Establish roadmaps for annual goal achievements.
		Goal achievement analysis	1. Set key outcome indicators (KPIs) for goal achievements.
			2. Evaluate goals’ difficulties and validity.

Table 8. Contents of detailed classification under the ‘perception’ domain of cooperation.

General	Large Classification	Medium Classification	Small Classification
Perception	The pursuit of cooperation goals	Inspiration for goal consciousness	1. Share goal consciousness.
			2. Share information on goal setting.
			3. Set joint-cooperation goals.
		Goal planning	1. Set short-term/long-term (monthly/quarterly/yearly) cooperation goals.
			2. Establish roadmaps for annual goal achievements.
Perception	The pursuit of cooperation goals	Goal achievement analysis	1. Set key outcome indicators (KPIs) for goal achievements.
			2. Evaluate goals’ difficulties and validity.

Table 8. Cont.

General	Large Classification	Medium Classification	Small Classification
Perception	Promoting a sense of responsibility for cooperation	Formulation of cooperative work	1. Develop mutual agreements for cooperation. 2. Prepare cooperation guidelines and agreements. 3. Establish standards for cooperative work.
		Reinforcement of capabilities for responsibility	1. Reinforce capabilities for responsibility through learning (self-development). 2. Implement educational programs to strengthen capabilities for responsibility. 3. Analyze core capabilities for responsibility.
		Representative-ness of responsibility	1. Select representatives of each other (by business type, region). 2. Designate project managers (PMs) for cooperation projects.
	Sympathy for future visions	The system of vision establishment	1. Establish visions as new growth engine industries. 2. Establish visions based on customer needs. 3. Discover the core-value vision for the promotion projects.
		Vision diffusivity	1. Develop vision-sharing activities (symposiums). 2. Prepare vision statements. 3. Conduct questionnaire surveys on the degree of vision sharing. 4. Publish and share casebooks on vision practice.
	In-depth situation analysis	Analysis diversity	1. Conduct internal/external needs analysis. 2. Conduct environmental analysis (internal/external, microscopic/macrosopic). 3. Conduct SWOT analysis. 4. Conduct related-sector, policy trend analysis
		Analysis concreteness	1. Forecast demand for convention-medical tourism products. 2. Benchmark similar cases in domestic/foreign markets. 3. Survey recognition of Korea as a medical-tourism destination country. 4. Survey recognition of Korea as a convention-host country.

Table 9. Contents of detailed classification under the ‘attitudes toward each other’ domain of cooperation.

General	Large Classification	Medium Classification	Small Classification
Attitudes toward each other	Expansibility of mutual understanding	Adequacy of mutual understanding	1. Understand the culture and practice of each other’s industry. 2. Develop programs for mutual understanding. 3. Organize field trips to each other’s industry.
			4. Construct e-survey systems for mutual understanding.
		Participation in mutual understanding	1. Hold mutual understanding workshops, dinner parties, and seminars. 2. Derive measures for mutual understanding through conferences.
	The certainty of mutual trust	The pursuit of mutual trust	1. Develop educational programs to enhance mutual trust. 2. Exert mutual efforts to maintain good relationships. 3. Establish trust processes.
	Fidelity in mutual accompaniment	Systematization of shared growth	1. Introduce a mentoring system. 2. Introduce a coaching system. 3. Develop shared-growth programs.

Table 9. Cont.

General	Large Classification	Medium Classification	Small Classification
Attitudes toward each other	Mutually binding orientation	Commitment to mutual binding	1. Execute memorandums of understanding (MOU) (local governments-medical institutions/convention industry-medical institutions).
			2. Secure regional MICE alliance members.
		Bilateral friendship exchanges	3. Form a consultative group for the medical tourism agency.
			4. Establish sisterhood relationships between convention-medical tourism enterprises.
			1. Hold friendship events (rallies to strengthen unity, athletics meetings)
			2. Promote social meetings.

Table 10. Contents of detailed classification under the ‘work orientation’ domain of cooperation.

General	Large Classification	Medium Classification	Small Classification
Work orientation	Establishment of cooperative work	Concreteness of cooperative work	1. Produce a cooperative work manually.
			2. Set the degrees of importance and contribution by cooperative work.
			3. Implement role-sharing education.
	Problem-solving expertise	Joint responsibility for cooperative work	1. Designate persons formally responsible for cooperation programs.
			2. Organize a joint project working group (PWG).
		In-depth problem analysis	1. Figure out problem areas and establish the counter measures.
			2. Figure out factors obstructing the implementation of cooperative work.
		Neutrality of problem-solving	1. Solve problems through central government departments (Ministry of Culture and Sport, Ministry of Health Welfare).
			2. Solve problems through the Korea Tourism Organization.
			3. Solve problems through local governments.
	Optimization of customer satisfaction	Concreteness of problem-solving	1. Implement problem-solving consultations.
			2. Hold problem-solving forums/workshops/seminars.
			3. Produce problem-solving manuals.
	Rationality of resource construction	Maximization of customer satisfaction	1. Produce customer satisfaction manuals.
			2. Organize customer satisfaction teams (regular/temporary).
			3. Develop customer satisfaction campaigns.
		Fidelity in customer management	1. Conduct customer analysis (characteristics, tendency, trends, requirements, etc.).
			2. Prepare customer evaluation indexes.
			3. Build customer relationship management (CRM) systems.
		Awareness of resource situation	4. Schedule customer management weeks.
			1. Analyze capabilities and assets held (such as marketing capability).
			2. Establish mid-/long-term measures to secure financing for collaboration.
			3. Agree on the types, scales, and uses of resources.
		Construction of resource distribution systems	1. Develop manpower-pooling programs.
			2. Construct resource-sharing portal sites.
			3. Set up cooperation funds (win-win funds).

Table 10. Cont.

General	Large Classification	Medium Classification	Small Classification
Work orientation	Maximization of the outcome of cooperation	Adequacy of data analysis	1. Calculate convention-medical tourism-related statistics.
			2. Collect and analyze cooperation-related statistics.
			3. Analyze cooperation projects (I/O, B/C).
		Cooperation branding	1. Build convention-medical tourism cooperation brands.
			2. Select convention-medical tourism logos.
			3. Create convention-medical tourism slogans.
		Cooperation in marketing optimization	1. Construct public relations/marketing websites.
			2. Develop SNS public relations/marketing.
			3. Enable joint participation in exhibitions/expositions (domestic/overseas).
		Outcome feedback expertise	1. Construct outcome feedback systems.
			2. Evaluate and monitor cooperative projects.
			3. Conduct a satisfaction survey on convention-medical tourism products.
		Diffusivity of feedback on outcomes	1. Reinforce the linkage between cooperation outcomes and compensation.
			2. Share cooperation outcome measurements.
			3. Discover and diffuse success cases in cooperation.
			4. Prepare cooperation certification systems.

A comprehensive comparison of the questionnaire survey results regarding the large-classification factors for cooperation and Spradley's qualitative study is shown in Table 11.

Table 11. A comprehensive comparison of the large-classification factors for cooperation under the domains of cooperation.

Domains of Cooperation	Large-Classification Factors for Cooperation	
	Results of Expert Questionnaire Surveys	Results of Spradley's Qualitative Study
Communication	Communication	Promoting online communication
	Information sharing	System of information exchanges
	Exchange activation	Network upgrading
	Knowledge sharing	Knowledge as an asset
Perception	Goal sharing	The pursuit of cooperation goals
	Responsibility awareness	Promoting a sense of responsibility for cooperation
	Vision sharing	Sympathy for future visions
	Environmental analysis	Situation analysis deepening
Attitudes toward each other	Mutual understanding	Expansibility of mutual understanding
	Mutual trust	The certainty of mutual trust
	Mutual dependence	Fidelity in mutual accompaniment
	Mutual binding	Mutually binding orientation
Work orientation	Role sharing	Establishment of cooperative work
	Problem-solving	Problem-solving expertise
	Customer management	Optimization of customer satisfaction
	Resource sharing	Rationality of resource construction
	Outcome orientation	Maximization of the outcome of cooperation

4.7. Reliability Analysis

The derived factors for cooperation among the convention industry and medical tourism stakeholders were verified by conducting simple consistency reviews and participant, peer, and expert reviews. The reliability measurement (simple consistency), which was conducted by comparing

the factors for cooperation derived from the first and second questionnaire surveys, was shown to be at acceptable levels, with the average value exceeding 87% (Table 12).

Table 12. Results of reliability measurements.

Division	Large Classification (17)	Medium Classification (39)	Small Classification (117)
Number of consistent items	15	33	104
Number of inconsistent items	2	6	13
Degree of consistency	88%	85%	89%

5. Development of a Cooperative Convention-Medical Tourism Model

5.1. The Conceptual Framework for the Convention-Medical Tourism Cooperation Model

The conceptual framework of Chen's [35] program logic theory was applied to develop a cooperation model for convention-medical tourism (Figure 1). First, the construction of a cooperation system among the convention industry and medical tourism stakeholders was regarded as a program. Next, the essential resources and environments that affect the implementation the program involving the implementing organizations and implementers were considered. A causal logic between implementing the convention-medical tourism cooperation program considered the mutual relationship between an action model under prescriptive assumptions and a change model under descriptive assumptions (as discussed in the next section).

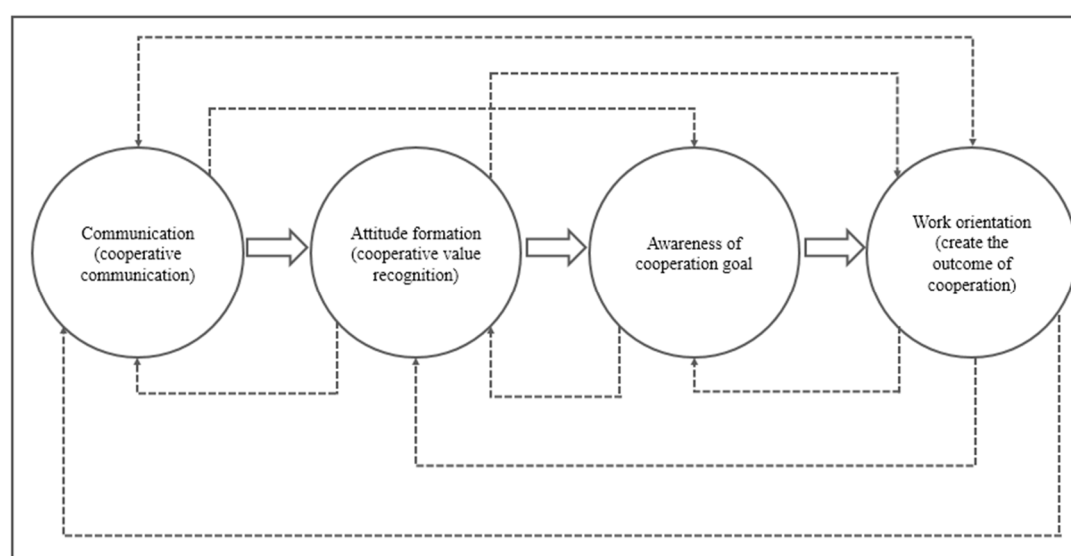


Figure 1. Establishment of causal relationships among the domains of convention-medical tourism cooperation.

5.2. Establishing Causal Relationships between the Domains of Convention-Medical Tourism Cooperation

Since prescriptive assumptions are preconditions for implementing and reinforcing cooperation programs, the activation of 'communication' with each other, and the formation of trusting and depending attitudes are necessary. These affect the 'perception' of the necessity and effectiveness of cooperation among the convention industry and medical tourism stakeholders as a descriptive assumption and create the intended outcomes. From the viewpoint of the action model, communication, and the formation of attitudes toward each other are implementing. From the viewpoint of the change model, the construction of cooperation systems under goal setting, and the creation of outcomes have causal relationships with each other as a virtuous cycle (Figure 2).

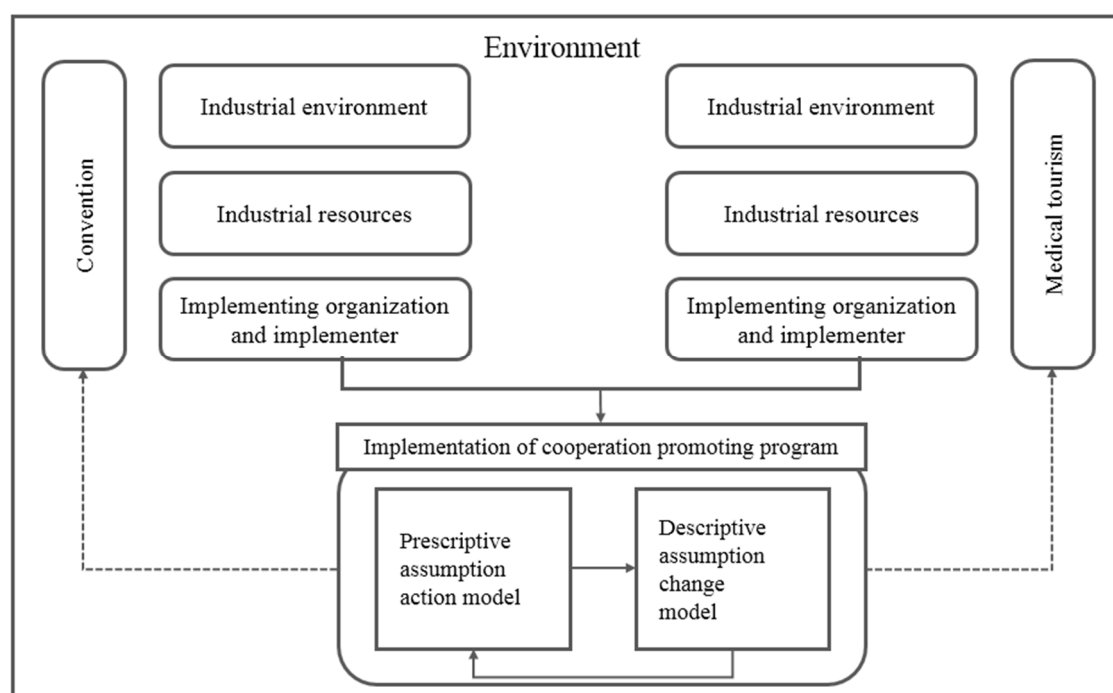


Figure 2. Conceptual frame for the development of a convention-medical tourism cooperation model.

5.3. Development of Convention-Medical Tourism Cooperation Model

This study developed a cooperative model, focusing on four domains regarding convention-medical tourism cooperation. This model includes the analysis of the relationships between large- and medium-classification factors by domains. The group discussions with six experts in the convention industry and medical tourism sectors accomplished these processes. The developed convention-medical tourism cooperation model was named the “CON-MED cooperation model”.

5.4. Communication: A CON-MED Information–Knowledge Connectivity Model

A domain process to acquire cooperation knowledge as an asset formed the network upgrading and systematization of information exchanges, based on the promotion of online communication through the setting of the relationships between the four large- and nine medium-classification factors for cooperation under the ‘communication’ domain. This process was called the “CON-MED information–knowledge connectivity” domain model.

5.5. Attitude: A CON-MED Cooperation Value Recognition Model

A domain process to achieve a mutually binding orientation was derived through fidelity in mutual accompaniment, based on the expansibility of mutual understanding and the certainty of mutual trust through the setting of the relationships between the four large- and six medium-classification factors for cooperation under the ‘attitudes toward each other’ domain. This process was named the “CON-MED cooperation value recognition” domain model.

5.6. Perception: A CON-MED Cooperation System Model

A domain process to attain situation analysis concretization, future vision system diffusion, reinforcement and formulation of responsibility for cooperation, and cooperation goal setting was derived through the setting of the relationships between the four large- and ten medium-classification factors for cooperation under the ‘perception’ domain. This process was labeled the “CON-MED cooperation system” domain model.

5.7. Work Orientation: A CON-MED Cooperation Outcome Model

A domain process realized the establishment of cooperative work, the optimization of customer satisfaction, and the maximization of the outcome of cooperation. Those factors derive from the problem-solving expertise and the rationality of resource construction derived the setting of the relationships between the five large- and 14 medium-classification factors for cooperation under the ‘work orientation’ domain. This process was named the “CON-MED cooperation outcome” domain model.

5.8. Development of an Integrated CON-MED Cooperation Model

A CON-MED cooperation model was derived from integrating the domain models, as mentioned above. The model expresses the setting of the causal relationships among convention-medical tourism cooperation domains, as shown in Figure 3.

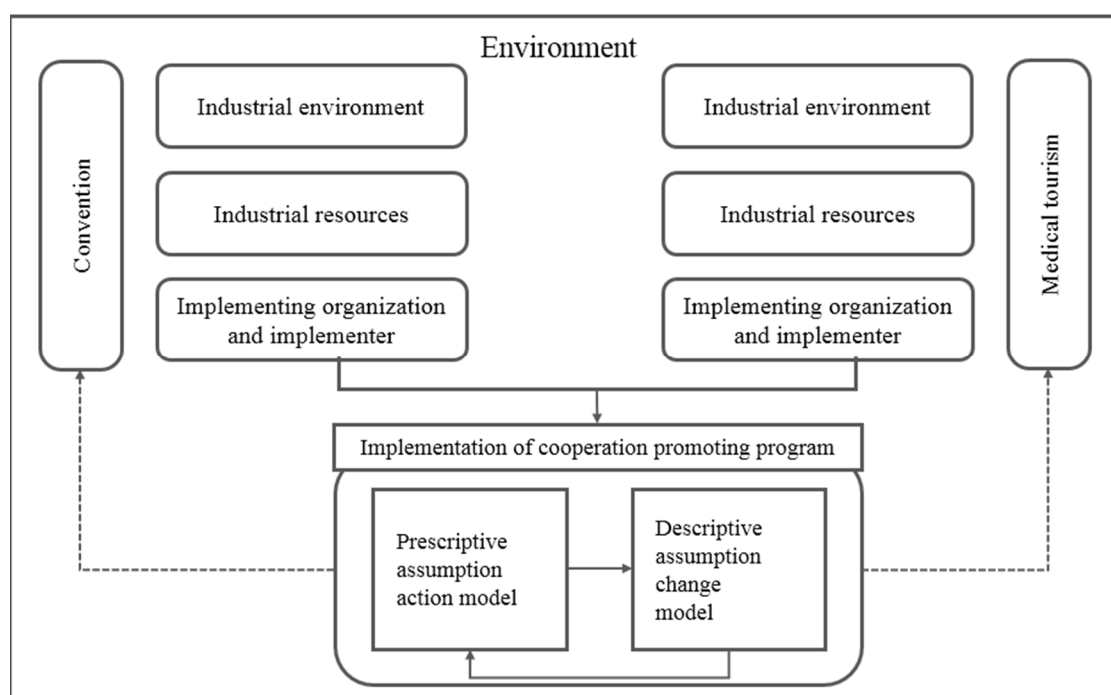


Figure 3. CON-MED (convention-medical tourism) cooperation model.

6. Conclusions

The twofold purpose of this study was to derive the factors for cooperation among the convention industry and medical tourism stakeholders and to develop an integrated cooperation model. Modified Spradley’s analysis technique was used and identified 193 specific factors regarding cooperation among the convention industry and medical tourism stakeholders. The results indicated that the factors for cooperation among the convention industry and medical tourism stakeholders could comprise of 17 large-, 39 medium-, and 117 small-classification items under four domains. A cooperation model was identified.

This study has the following significant outcomes. It can be claimed as academically significant since (to our best knowledge) it was the first to examine the relationships among convention industry and medical tourism stakeholders. This study derived the factors for cooperation and developed a realistic cooperation model. In contrast, previous studies on the relationships among convention stakeholders are scarce. Scientific studies on medical tourism have been recently increasing in volume. However, the studies are limited to certain areas, such as selection attributes and product development. Previous studies on medical tourism stakeholders are also extremely insufficient, and studies on cooperation among the convention industry and medical tourism stakeholders do not exist.

This study made practical implications in terms of developing both industries. The study implied a direction for cooperation among the convention industry and medical tourism stakeholders and the evaluation of cooperation and joint projects for future-oriented development of the two sectors. Also, in line with the stream of tourism 4.0 age, which creates synergy effects through convergence among different industries, the integrated cooperation model would significantly contribute to collaboration or convergence among various stakeholders. Both the medical and health tourism markets have high susceptibility to innovation [36]. This is due to the functioning of not only convention firms on the tourism market, but above all the providers of medical services. Convergence of both convention and medical tourism sectors should contribute to achieving sustainability through innovation of two markets characterized by high-development dynamics.

This study has several limitations and suggestions for future study. Since previous studies on cooperation among the convention industry and medical tourism stakeholders were in a vacuum, this study can argue the results' generalizability and transferability. Namely, although (to our best knowledge) this study was the first to present a cooperation model among convention industry and medical tourism stakeholders from an integrated viewpoint, it was not possible to reflect all the diversity of the two industries' environments. The model should be examined by a large-scale sampling survey to get reliability and validity.

Moreover, although the study derived factors and models for convention-medical tourism cooperation through integrated approaches, further research should also apply to various detailed areas, such as planning, marketing, and human resources operation.

Future studies must verify cooperation models at more detailed levels. Finally, although the synergy effects obtained through the two sectors' collaboration can be predictable later, the cooperation between them is still unclear. If such collaboration implements systematically, follow-up studies with high degrees of completion in deriving additional cooperation areas and their factors can be expected.

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