Institutional Types in Malaysian Medical Tourism Ecosystem

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ABSTRACT

As Malaysian medical tourism records an upward trend of medical travellers, the industry is challenged with low growth. This is manifested by the relatively small number of medical expenses from the total foreign tourist expenditure in Malaysia. Furthermore, literature review on medical tourism unveils that studies have mainly been conducted from the perspectives of medical travellers. This signifies the lack of insights from the supply-side stakeholders including private hospitals, medical doctors and medical tourism facilitators. Thus, mid-range theory of institutions and value co-creation from Service-Dominant (S-D) logic are adapted to assist in answering the problem by delineating the institutions that constrain the stakeholders from exchanging their services. This study conducted two direct observations. This was followed by a total of 13 semi-structured interviews with private hospitals, medical doctors and medical tourism facilitators from Malaysian medical tourism. Thematic analysis was done through ATLAS.ti version 8 by generating codes and group codes. Emerging themes were produced throughout the analysis. Findings are presented through cross-tabulation analysis to assist the researcher in tracing the sources of the codes. Hence, this study produced seven institutional types that constrain value co-creation in medical tourism ecosystem. This study emphasises on the level of collaboration and communication between stakeholders and how it could affect the co-creation of values in an ecosystem. The development of these institutions contributes to the mid-range theory of S-D logic, as they were empirically obtained from a medical tourism context. Nevertheless, this research lacks the perspectives of several stakeholders and the cross-sectional approach prevents the study from understanding the institutional trend. Thus, future research is suggested to embark on the institutions that encourage value co-creation and the work in creating, maintaining and disrupting the relevant institutions.

Keywords: medical tourism; institutional types; value co-creation; service ecosystem; service-dominant (SD) logic

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INTRODUCTION

Institutionalisation has been studied on several aspects such as actor engagement (Pengtao, Biljana, & Roderick, 2018), network strategising (Anna-Greta, Joachim, & Jan-Åke, 2017), and resource integration (Koskela-Huotari, Edvardsson, Jonas, Sörhammar, & Witell, 2016). Moving forward, institutionalisation is impactful in developing the Service-Dominant (S-D) logic mindset through institutional work and value co-creation (Vargo & Lusch, 2017).

With regards to medical tourism, Malaysia earned MYR1.5 billion revenue from the 1.2 million healthcare travellers in 2018 (Malaysia Healthcare Travel Council, 2019a) and targets for MYR2 billion revenue by 2020 (Malaysia Healthcare Travel Council, 2019b). However, medical travellers' arrival and receipts communicate very little about the industry's performance due to the unstandardised way of recording their arrival (Crooks, Ormond, & Jin, 2017).

Instead, focus should be made on the *medical* and *non-medical* spending of travellers (Crooks et al., 2017). Tourism Malaysia (2020) Annual Reports recorded that *medical* expenditure only contributed between 3.7% and 3.4% from the total expenditure by international tourists between 2017 and 2019 as shown in Table 1.

Table 1: Components of Foreign Tourist Expenditure in Malaysia between 2016 and 2018

Expenditure components							**Growth**	
ITEMS	**2017**		**2018**		**2019**		**2017/ 2018**	**2017/ 2018**
	(%)	**MYR ('MIL)**	**(%)**	**MYR ('MIL)**	**(%)**	**MYR ('MIL)**	**(%)**	**(%)**
Shopping	32.7	26,868.00	33.4	28,101.20	33.6	28,944.20	4.6	0.2
Accommodation	25.6	21,034.20	25.7	21,622.70	24.0	20,674.40	2.8	-1.7
Food & Beverages	13.3	10,927.90	13.4	11,274.10	13.3	11,457.10	3.2	-0.1
Local Transportation	5.8	4,765.60	6.1	5,132.20	7.6	6,546.9	7.7	1.5
Organised Tour	4.9	4,026.10	4.4	3,701.90	6.3	5,427.0	-8.1	1.9
International Airfares by Local Carriers	4.1	3,368.80	4.5	3,786.10	4.9	4,221.0	12.4	0.4
Entertainment	3.9	3,204.40	3.6	3,028.90	3.4	2,928.90	-5.5	-0.2
Medical	3.7	3,040.10	3.4	2,860.60	3.4	2,928.90	-5.9	0.0
Domestic Airfares	3.2	2,629.30	3	2,524.10	2.6	2,239.7	-4	-0.4
Fuel	0.7	575.2	0.7	588.9	0.3	258.40	2.4	-0.4
Sports	0.3	246.5	0.3	252.4	0.2	172.30	2.4	-0.1
Others	1.8	1,479.00	1.5	1,262.00	0.4	344.60	-14.7	-1.1

Source: Malaysia Tourism Key Performance Indicators 2019 (Tourism Malaysia, 2020)

As shown in Table 1, medical expenditure takes up a relatively small percentage of foreign tourists' expenditure in Malaysia between 2017 and 2019 in comparison with other expenses. In 2019, the largest pool of expenditure by foreign tourists is on shopping (33.6%), followed by accommodation (24.0%), food and beverages (13.3%), and local transportation (7.6%). As for medical expenditure, not only it contributed a small amount of percentage (3.4%), but the figures are also diminishing as compared to 2017 (3.7%). This signifies the need for the present study to delineate the barriers in developing the medical expenditure for Malaysian medical tourism. Hence, the emerging barriers are taken as the types of institutions that constrain value co-creation in medical tourism ecosystem.

Additionally, despite the continuous discussions on institutions (Pengtao, et al., 2018; Anna-Greta et al., 2017; Koskela-Huotari, et al., 2016), little is known on the present types of institutions, how they manifest in practice, and how organisations deal with them (Barile, Lusch, Reynoso, Saviano, & Spohrer, 2016; Pop, Leroi-Werelds, Roijakkers, & Andreassen, 2018).

In view of the gap, this paper addresses three research questions which are:
(a) what are the institutions constraining value co-creation from the perspectives of supply-side stakeholders?
(b) how do the institutions in medical tourism constrain the development of the industry?
(c) what is the prominent institution in Malaysian medical tourism?

This article is directed at meeting three objectives namely to (a) illustrate the institutions as derived from the stakeholders in the industry; (b) state the institutions that constrain value co-creation with examples from medical tourism; and (c) propose the prominent institution in a service ecosystem. This paper contributes to bridging the theoretical and empirical gaps in the mid-range theory of institutions, thus assisting medical tourism stakeholders to crafting their future strategies.

LITERATURE REVIEW

Service-Dominant (SD) Logic

Vargo and Lusch (2017) highlighted that S-D logic is meta-theoretical that extends of from present knowledge such as co-production (Ramirez, 1999), co-creation (Prahalad & Ramaswamy, 2000) and service exchange (Bagozzi, 1974). S-D logic stands on five Axioms which posit that, (a) services is the fundamental basis of exchange; (b) value is co-created by multiple actors with the frequent inclusion of the beneficiary, usually the customers; (c) beneficiary frequently determines the value; (d) all social and economic actors including firms, employees, customers, stockholders, government agencies and other entities related to any given exchange, are seen as resource integrators; and (e) value co-creation is coordinated by actor-generated institutions and typologies of institutions (Vargo & Lusch, 2017).

S-D logic perceives zooming in and zooming out based on the level of aggregation and abstraction. Aggression involves the scope of study being macro- (national, global, society), meso- (industry, market), and micro-level (transactions, sharing). Meanwhile, abstraction relates to theoretical discussion which are meta-theoretical (S-D logic, co-creation of value), midrange-theoretical (engagement, co-production) and micro-theoretical (law of exchange, decision-making) (Vargo & Lusch, 2017). While S-D logic is applicable to all levels of aggregation, Vargo and Lusch (2017) called for more focus towards the midrange level of abstraction to link S-D logic with practice (Vargo & Lusch, 2017). A summary on the level of aggregation and abstraction is tabulated below.

Table 2: Level of Abstraction and Aggregation in S-D logic

Levels		**Aggregation**		
		Macro level (e.g. societal, national, global)	Meso level (e.g. industry/ market, cartel)	Micro level (e.g. transactions, sharing)
Abstraction / Theory	Meta-theoretical (e.g. SD-Logic, value co-creation)			
	Midrange-theoretical (e.g. communication, coproduction)		Increasing future attention	
	Micro-theoretical (e.g. law of exchange, decision-making)			

Source: Service-Dominant Logic 2025 (Vargo & Lusch, 2017)

Value Co-creation

S-D logic stands from the narrative of value co-creation which emphasises that actors' resource integration and value co-creation practices are enabled and constrained by institutions (Vargo, 2019). Value co-creation occurs through the integration of existing resources, such as knowledge and skills that are available from a variety of services that can contribute to the betterment of one's condition (Vargo, Maglio & Akaka, 2008). Co-creation of value emphasises on the importance of processes which could occur through procedures, tasks, mechanisms, activities and interactions (Payne, Storbacka, & Frow, 2008). Hence, value co-creation is an integration of various actors that conducts exchange of services.

Institution

Institution differs from organisation as the former is a term to describe individual and collective behaviour of following things as the way they usually are (Scott, 2013). Meanwhile, the latter describes a group of persons that are assembled to achieve specific goals (Etzioni, 1961; as cited in Otley & Berry, 1980).

Institutionalisation stems from Institutional Theory which seeks to delineate the reasons behind why organisations are behaving and looking the same (DiMaggio & Powell, 1983). Instead of looking at the economics justification of firm behaviour, the main interest of institutional theorists lies on how the organisational structure and processes became institutionalised over time (Oliver, 1997; Scott, 1987).

For instance, a firm that chooses to retain its suppliers despite their poor performance may continue this institutionalised activity. It is translated into a habit, or that everyone else does it this way, or this is how things are done here. Firms and managers perpetuate the same activities and decisions as they became institutionalised, thus overlooking the rationale or aptness of these activities (Miles, 2012).

While institutions are a critical component of the environment due to its power to shape the stability and meaning of the society, it is also worth noting that institutions put forth isomorphic pressure to organisations and individuals which shape their tendency to behave homogenously over time (Scott, 2014). This is so because firms and individual choices are not only constrained by information, income limits and technology, but also norms, customs and habits (Oliver, 1997).

Institutional arrangements are shared institutions serving as a set of value assumptions, cognitive frames, rules, and routines that guide actors to exchange services with each other (Hartmann, Wieland, & Vargo, 2018; Vargo & Lusch, 2016). It is an interrelated assemblage of institutions, which could be barriers or enablers for value co-creation (Vargo, 2019).

S-D logic emphasises that actors' resource integration and value co-creation practices are enabled and constrained by typologies of institutions (Vargo, 2019). Institutions can be observed at multiple levels of aggregation which are macro-, meso-, and micro (Hartmann et al., 2018; Vargo & Lusch, 2017; Lawrence & Suddaby, 2006; Vargo & Lusch, 2016). Nevertheless, Vargo et al. (2016) believed that these assignments are arbitrary owing to the indefinite separation between them. Hence, a summary of the levels of institutions are provided below:

1. Micro-level institutions such as individuals, groups, and firms; at individual level, institutionalised activities happen due to employees following the habits, norms and traditions consciously and unconsciously. At firm level, shared culture, belief systems and political processes shape the institutionalised activities.
2. Meso-level institutions such as those associated with professions, markets, or industries, which occur due to industry alliance pressure and social expectations.
3. Macro-level institutions including society and national government; these institutions happen due to the government alliances pressure and expectations from society. Consequently, these pressures define what is socially expected and acceptable for organisations thus pressuring them to look and act homogenously

Within the context of this article, barriers to the development of medical tourism are taken as institutions. This is due to the stakeholders' uniformed behaviour surrounding the barriers. For instance, Vargo and Lusch (2016) classified laws and regulations as institutions as it imposes regulative pressure for organisations and individuals to act in certain ways.

Service Ecosystem

Service ecosystem is an environment that encourages the stakeholders to exchange their resources as they undergo shared institutional arrangements (Vargo & Lusch, 2017). Such mutual exchange allows for values in the services to be co-created and coherent. Research on service ecosystem perspectives has been conducted towards explaining innovation (Koskela-Huotari et al., 2016). Extant studies have applied S-D logic in several ecosystems such as primary sector (Nenonen, Gummerus, & Sklyar, 2018), healthcare sector (Pop, et al., 2018) and tourism management (Cabiddu, Lui, & Piccoli, 2013; FitzPatrick, Davey, Muller, & Davey, 2013).

Nevertheless, current research lacks empirical findings that explore S-D logic in medical tourism ecosystem. Therefore, the present study aspires to bridge the gap by offering in-depth understanding on the barriers to the development of Malaysian medical tourism. These barriers are presented through the proposed institutions that constrain value co-creation in Malaysian medical tourism ecosystem.

Medical Tourism in Malaysia

Malaysia ventured into medical tourism during the 1997 Asian economic crisis as private hospitals had to resort for foreign patients in order to utilise the existing capacities (Chee, 2007). At the time, Malaysia's annual Gross Domestic Product (GDP) growth dropped to -7.4% in 1998 from 7.3% in the year before and rose up to 6.13% in 1999 (The World Bank Group, 2019) indicating severely deteriorating business activities. Due to the decreased purchasing power, local patients shifted their preferences to public healthcare, leaving the private hospitals with low occupancy rates. Private hospitals began reaching for patients in Indonesia to have their treatments undergone in Malaysia (Yeoh, Othman, & Ahmad, 2013).

Since 2009, Malaysian medical tourism is facilitated by Malaysia Healthcare Travel Council (MHTC), an agency under the Ministry of Health (MOH). Malaysia's main draw health travellers are cardiology and fertility (Malek, 2018). To the best of our knowledge, studies on the barriers to Malaysian medical tourism development have been performed from the demand side. Survey questionnaires were conducted to study on medical travellers' satisfaction in service quality, customer service (Sarwar, 2013) and hospital services (Musa, Doshi, Wong, & Thirumoorthy, 2012).

Additionally, barriers to the development of Malaysian medical tourism are only presented as a result of medical travellers' intention to visit Malaysia (Seow, Choong, Moorthy, & Chan, 2017), motivational factors, and perceptions of Malaysia's destination image (Cham, Lim, Sia, Cheah, & Ting, 2020; Lim, Cham, & Sia, 2018). It signifies the lack of empirical findings from the service providers.

Therefore, this study offers an understanding from the supply-side stakeholders that are prominent in affecting medical travellers' decision-making process (Shahrokh, Brojeni, Nasehifar, & Kamalabadi, 2017). Specifically, the stakeholder are (a) private hospitals (The Star Online, 2017), (b) medical doctors (Shahrokh et al., 2017; Khan, Chelliah, & Haron, 2016), (c) medical tourism facilitators (Medhekar, 2019; Kaewkitipong, 2018; Heung et al., 2010), and (d) government agencies (Kamassi, 2020; Kaewkitipong, 2018).

METHOD

Sampling

The list of private hospitals that fall under the sample of the study is obtained from MHTC website. There were 74 private hospital members during the time of data collection. Nevertheless, MHTC does not provide the list for medical tourism facilitators. Hence, the researchers obtained the details of medical tourism facilitator 1 (MTF1) and medical tourism facilitator 2 (MTF2) during a conference coded as Conference 1 (C01). Other medical tourism facilitators were approached through phone calls and emails but the request were rejected. This study then settled for only two medical tourism facilitators. The relatively small size of medical tourism facilitator and medical doctors are in resemblance with Tham (2018).

Data Collection Process

Through non-contrived study setting, a cross-sectional single case study was conducted in reference to Yin (2017). It is important to note that this article is part of a bigger research project. For the actual work, data collection began with a preliminary group interview to obtain the current challenges in Malaysian medical tourism challenges. This interview was conducted to assist in the direction of the study in reference to the present challenges faced by the industry players. In relation to the findings, the researchers refined the problem statement. Data collection then proceeded with Phase 1: Direct Observations and Phase 2: Semi-structured Interviews.

Direct observations were aimed at; (a) obtaining primary information on the current challenges and strategies in medical tourism and private healthcare; (b) refining the scope of the interview questions; and (c) obtain contact details of the representatives of private hospital who were later approached to participate in the semi-structured interviews. The aim of semi-structured interviews was to allow for the emerging worldview of the participant and new ideas relating to the topic being asked (Merriam & Tisdell, 2015). Moreover, interviews allow for targeted and insightful explanation on the case study topics (Yin, 2017). The preliminary group interview offered current situations and challenges in medical tourism industry. The researchers participated in two direct observations named as Conference 1 (C01) and Workshop 1 (W01) which took place in September and October 2018, respectively.

C01 was held by a government agency to discuss about the current issues and challenges in Malaysian medical tourism. On the other hand, W01 was a workshop conducted by another government agency that focuses on the same concern for private healthcare in Malaysia. Due to their relevance in medical tourism, these events were chosen to conduct the direct observations. Field notes were taken on the current issues in medical tourism and private hospital. Participants at these events were coded as "Participant 1 at Workshop 1 (P1 at W01)" or Participant 1 at Conference 1 (P1 at C01).

Additionally, PowerPoint slides were provided by the organisers which were later taken as supporting documents to assist in data triangulation process. This is further explained in the next section. Moreover, the researchers exchanged name cards with other participants and it was one month later that the researchers began contacting them in request for a semi-structured interview.

Hence, the semi-structured interviews were held between December 2018 and April 2019. Prior to the interviews, participants were emailed with an interview protocol stating the objectives of the study as well as the list of interview questions which served as a guideline for the interview session. A semi-structured interview structure was designed for all participants enquiring about the organisation's background, the strengths of Malaysian medical tourism, barriers to develop the industry, and their expectations towards other stakeholders. Most of the sessions were conducted at participants' office for their convenience, except for MTF1 which was done through an online video call due as they are located in Jakarta, Indonesia.

Table 3 summarises the two direction observations which are coded as Conference 1 (C01) and Workshop 1 (W01). Additionally, 13 semi-structured interviews were held consisting of seven private hospitals Private Hospital 1-Private Hospital 7 (PH1-PH7), Government Section (GS), medical tourism facilitator 1 (MTF1), medical tourism facilitator 2 (MTF2) and three medical doctors (D1, D2, D3).

Table 3: Summary of Research Participants and the Assigned Codes

Phase 1: Direct observations		
Conference 1 (C01)		
Workshop 1 (W01)		
Phase 2: Semi-structured interviews		
Participants	Number of organisations/ individuals	Codes
Government Section	1	GS
Private hospitals	7	PH1, PH2, PH3, PH4, PH5, PH6, PH7
Medical tourism facilitators	2	Medical Tourism Facilitator 1 (MTF1) Medical Tourism Facilitator 2 (MTF2)
Medical practitioners	2	Doctor 2 (D2), Doctor 3 (D3)
Medical academic	1	Doctor 1 (D1)

(a) **Private hospitals**

The seven private hospitals are located in Kuala Lumpur (PH1, PH4), Selangor (PH3, PH5), Melaka (PH2), Penang (PH6), and Johor (PH7). The criteria of choosing private hospitals are that they must be a member of MHTC and have experiences in serving medical travellers. While most of the organisation were derived from the researchers' encounter at C01 and W01 (PH1, PH2, PH4, PH5), the remaining hospitals were snowballed throughout the data collection (PH3, PH6, PH7). This condition justifies the variety of states involved in the study.

Interview participants range from the Chief Executive Officer (CEO), marketing director, group chairman, operation manager, and marketing executive in the respective hospital. Each interview was held for around one hour. Participants were asked to provide their signature indicated their voluntary participation in the study. Aside from PH1 and PH2, the remaining participants agreed for the interview to be audio-taped. A summary of the seven private hospitals is summarised in Table 4 below.

Table 4: Summary of Private Hospitals from the Semi-structured interviews.

Organisation	Location (State)	Individual(s)	Position	Interview session
PH1	Kuala Lumpur	1	Marketing Director	21st December 2018 Location: Hospital Premise
PH2	Melaka	1	Marketing Director	13th January 2019 Location: IOI Mall, Puchong
PH3	Selangor	1	CEO	18th January 2019 Location: Hospital premise
PH4	Kuala Lumpur	1	Marketing Director	23rd January 2019 Location: Hospital premise
PH5	Selangor	1	Group Chairman	15th January 2019 Location: Hospital premise
PH6	Penang	2	CEO, Operation Manager	Date: 20th February 2020 Location: Hospital premise
PH7	Johor	1	Marketing Executive	Date: 30th April 2020 Location: Hospital premise

(b) **Government Section**
On the other hand, GS is a Government Section that is conducts surveillance for private healthcare practices in Malaysia. A representative from GS was interviewed at their office located at the Federal Government Administrative Centre, Putrajaya, Malaysia. GS was approached due to their imminent role as unveiled during the direct observation at W01. An hour of semi-structured interview was conducted on 19th February 2019 at 10 a.m. The aim of this interview was to enquire their expectations on private hospitals in developing medical tourism industry. Thus, the interview session is coded as GS.

(c) **Medical Tourism Facilitators**
Medical tourism facilitators consist of MTF1 and MTF2. The former is based in Jakarta bringing Indonesian medical travellers to Malaysia. Meanwhile, the latter caters for medical travellers upon arrival and departure at airports. However, the location of MTF2 is enclosed in the study.

In February 2019, the researcher texted MTF1 in request to for a semi-structured interview session. Due to geographical barriers, an online interview was conducted and the session was held on 22nd February 2019 via WhatsApp video call. The session took place for approximately 45 minutes. A semi-structured interview was conducted with a representative of MTF2 on 4th March 2019 at 12 p.m. at one of the international airports. The session took approximately 30 minutes. A summary on the interview participants is shown in Table 5 below.

Table 5: Summary of Medical Tourism Facilitators from the Semi-structured Interviews

Individual	Position	Interview session	Location
MTF1	Company founder	22nd February 2019	Online
MTF2	Staff at MTF2	4th March 2019	Company premise

(d) **Medical Doctors**
Three individual doctors were approached in this study. Throughout the interviews held with private hospitals, the participants frequently mentioned about the role of medical doctors in developing medical tourism industry. This emerging theme then brought the researcher to approach medical doctors to obtain their insights on their motivations to participate in medical tourism thus understanding their role in developing the industry.

D1 is an academician in a public university in Malaysia teaching dentistry and pharmacy students. D1 was also a medical doctor at a public hospital prior to teaching. A perspective of an academician was sought after due to the frequent mention of *service culture* by private hospitals thus indicating the possible role of tertiary education centres to overcome the concern.

Nevertheless, only a single interview was conducted with medical academic as findings on *service culture* from D1 has resonated to the existing information obtained from private hospitals. An interview with D1 was held on 12th January 2019 at 10 a.m. As requested by D1, the session was held at her home for approximately 45 minutes. Meanwhile, D2 is a physician doing sub-speciality in cardiology and has been a medical doctor for over 13 years. An interview session was held at her home on 5th February 2019 at 10 a.m. On the other hand, D3 is a consultant cardiologist who has been practicing for over 20 years with 13 years of experience in cardiology. D3 was met on 27th February 2020 at 3 p.m. at his clinic.

The criteria for selecting the practicing medical doctors are that D2 and D3 practice at two different private hospitals in Malaysia that are listed as MHTC members. Apart from that, both of them have experiences in treating medical travellers. The present study decided to discontinue collecting data from medical doctors because the responses provided on their *motivations to participate in medical tourism* as well as *the role of stakeholder groups in developing the medical tourism industry* have reached similarities to the responses obtained from private hospitals. A summary of medical practitioners and academic are presented below.

Table 6: Summary of Medical Doctors from the Semi-structured Interviews

Individual	Position	Interview session	Location
D1	Senior lecturer in a public university	12th January 2019	Participant's house
D2	Physician doing sub-speciality in cardiology	5th February 2019	Participant's house
D3	Consultant cardiologist	27th February 2020	Clinic, at hospital premise

DATA ANALYSIS

The audio recordings were transcribed in verbatim and uploaded on ATLAS.ti version 8. Analysis was done through thematic by firstly assigning codes and grouping the similar codes together. Throughout the process, several themes were inducted which then brought about the seven institutions as discussed in the following section. Although frequency is not the major determinant of inducing themes, it is still taken as among the criteria of selecting emerging findings from the data. To build validity of the findings, *member validation* was conducted by emailing the participants with a summary of the interview findings to obtain their feedbacks. Majority of the participants reverted by saying that they do not have any more comments about the findings while other participants replied with minor amendments. *Method triangulation* occurred between *Phase 1: Direct Observations* and *Phase 2: Semi-structured Interviews*.

Information from these sources is compared to produce inductive findings. Data is presented through cross-tabulation data analysis as shown in Table 8 which compares the emerging codes across all participants. *Data triangulation* was done by corroborating the primary findings with the PowerPoint slides obtained from the direct observations coded as Note1 and Note 2, and annual reports from Ministry of Tourism. Table 7 below summarises the mentioned documents.

Table 7: Details on the PowerPoint slides and Annual Reports

Code/ Document type	Document Title
Note 1	Welcoming Speech by CEO of MHTC
Note 2	Concluding Speech by CEO of MHTC
Annual report	Malaysia Tourism Key Performance Indicators 2018

Ethical Considerations

The criteria for ethical considerations are made in reference to National Research Council (2003). *Informed consent* was achieved by issuing official letters from the university which confirmed the researcher's present study. Moreover, the interview protocol stated an overview of the present study, research objectives and the list of interview questions. Participants were requested to provide their signature on the Consent Form and Audio Recording sections as an agreement to participate in the interview voluntarily and to be audio-taped.

Minimal risks were catered as participants were given the liberty to refuse answering any of the interview questions that they are not comfortable with. Additionally, the direct observation at W01 was not recorded as it was prohibited by the organiser. The researcher adhered to this request thus only took written notes throughout the event. As for *confidentiality*, each hospital and medical doctor was interviewed individually instead of gathering them together in a group interview. Further, participants were assigned with codes to ensure their anonymity.

FINDINGS AND DISCUSSION

During the preliminary group interview, it was found that the industry is challenged by low foreign demand. Specifically, the participants described about the need for a study to look into how the industry should perform to maximise industrial growth and foreign demand for medical services.

> *"...Maybe one of your propositions would be to give a model like how our industry should shape?...How do we want then to increase our foreign demand?"(P1 at Preliminary Group Interview, Line 3:4)*

Hence, among the objectives of direct observations and semi-structured interviews are to explore the barriers to develop Malaysian medical tourism. Six codes were generated as shown in Table 8. The findings are presented in a cross-tabulation analysis table that compares the responses from direct observations (W01, C01), PowerPoint presentation slides (Note 1, Note 2), and semi-structured interviews.

Table 8: Barriers to the Development of Medical Tourism

Codes	Phase 1: Direct Observation				Phase 2: Semi-structured Interviews												
	W01	**C01**	**Note 1**	**Note 2**	**PH1**	**PH2**	**PH3**	**PH4**	**PH5**	**PH6**	**PH7**	**D1**	**D2**	**D3**	**GS**	**MTF2**	**MTF1**
Advertisement restrictions	✓	✓		✓	✓	✓	✓	✓		✓				✓			
Expertise/ manpower	✓						✓		✓	✓		✓					
Communication with non-English speaking patients					✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
Overseas marketing hindrances						✓	✓				✓						
Low service culture		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Operational matters: Licensing & regulations	✓				✓	✓	✓	✓	✓	✓				✓	✓		

Hospital Expenses

Hospital expenses is derived as an institution due to the needs to comply with the licensing requirements to establish a new hospital and renew it in every five years. Hospitals have to bear MYR150 million of unproductive expenses to hire health professionals and staff for 100-bed hospitals as required in the licensing application. While extant literature described costs for inbound medical travellers in South Korea (Eom et al., 2019) and Hong Kong (Heung, Kucukusta, & Song, 2011), the current study offers insights about Malaysian private hospitals' costs as part of the barriers.

Infrastructure

Infrastructure pertains to the absence of a standardised reporting system. PH5 explained their effort to establish an online benchmarking system that compares Malaysian hospitals with international counterparts in terms of (a) treatment cost; (b) length of stay; (c) recovery period; and (d) success rates.

The system would provide comparisons across various treatments and criteria thus assisting patients in attaining more information about a country's medical tourism services. However, low participation from hospitals is seen as a hindrance. Without stating the reasons, PH6 said that they are unable to provide the desired report.

> *"We are encouraged to develop some sort of indicators in terms of doctors' performance, the performance of each discipline, success rate like in the U.S....patients can access doctors for knee replacement, what is the percentage of their success rate, like that. We are not there yet. Even though we have our data" (PH6, Line 8:127)*

Recent studies found that Chinese medical travellers demand information on quality of medical services and reputation to encourage their intention to revisit Malaysia (Cham et al., 2020; Lim et al., 2018). However, the present findings add to the knowledge by depicting on the low readiness of Malaysian hospital to respond to such demand.

Communication between Stakeholders

Direct observation at C01 recorded that hospitals are encouraged to reach for farther countries that are beyond Asian region. However, the idea was not well-received by majority of private hospitals. PH1 believed that target should be placed on countries with distance of four-to-five travel hours from Malaysia because geographical proximity is a huge consideration for ill travellers.

> *"MHTC does the market mapping, the targeted countries. They propose their suggestions but if I want to take up their suggestions, I do. If not, I do not… I would say countries within 4 to 5 hours of travel time." (PH1, Line 2:22)*

Loose cooperation between private hospitals, government agencies, travel agents, hotel and transportation providers are also found in Thailand (Kaewkitipong, 2018). Private hospitals prefer to conduct their own marketing activities through online channels (Kaewkitipong, 2018) instead of collaborating with the Thai Medical Tourism Association. These stakeholders only contacted each other when requested by medical travellers (Kaewkitipong, 2018). Thus, the real level of cooperation between the stakeholders differs from what they are expected to be.

On another perspective, PH4 and PH6 opined that information about the needs of medical tourism is not cascaded to all parties. This is seen when their intention of offering premium services is hindered by the requirements of several governmental bodies. For instance, PH6 expressed their disappointment with the Road Transport Department Malaysia (RTDM) that declined their vehicle licensing for the use of Multi-Purpose Vehicle (MPV) such as Toyota Alphard for airport pickups. PH6 perceived that they could offer more to escalate patient experience during their health trip.

During the launch of MHTC in 2009, medical tourism-hospitals would be allowed to ferry patients to ease their connectivity with airports or seaports and hotels (Razak, 2009; cited in Manaf, 2010). Nevertheless, the current study inducted that such allowance is only limited to vans that are designated to transport workers.

MTF2 perceived their communication with the Tourist Information Counter (TIC) to be more of a referral than bonding. Referral is when MTF2 could not assist tourists that dropped by the Lounge to enquire on tourism matters. Hence, they only refer them to TIC to be catered for. Had there been a bond between MTF2 and TIC, more assistance could have been offered.

> *"If we know more about tourism, we can help them (tourists)...So if it is just being a referral, it is different than if we are bonded. We really have to be a bonded thing there." (MTF2, Line 16:65)*

Past studies established communication barriers through the different cultural background and preferences between medical travellers and health professionals (Eom et al., 2019; Momeni et al., 2018; Rokni et al., 2017; Roy et al., 2018). However, the current findings have successfully described communication barriers that occur between the supply-side stakeholders.

Policies and Regulations

Private hospitals are bound by the Private Healthcare Facilities and Services Act 1998 (Act 586). Nevertheless, lengthy and repetitive hospital licensing procedure is classified as a barrier to Malaysian medical tourism development. As licensing is fundamental for hospital operationalisation, it affects their ability for expansion. On the other hand, Duplication illustrates the condition where private hospitals would have to make the same submissions to GS at the Federal and their respective State offices.

Additionally, P6 at W01 explained that Malaysian healthcare services are bound by old age acts that were established even before independence in 1957 such as Nurses Act 1950 (Act 14), Registration of Pharmacist Act 1951 (Revised 1989) (Act 371), and Medical Act 1971 (Act 50) This circumstance suggests the need to mend the relevant regulations to suit the present situations in healthcare. There is also an issue on discrepancy between the Acts such as the permission to offer online prescription for patients.

> *"Differences of laws, online prescription is not allowed under Pharmacy Act 1955 but the Private Healthcare Facilities and Services Act 1998 allows it. This shows that there is no standardisation meaning that there is a need to revisit the law*." *(P3 at W01, Line 5:44)*

Similar instance is found in Iran's East Azerbaijan province (Momeni et al., 2018) when laws and policies were not updated to establish a concept called hospital hotels. Moreover, the present study is in line with Vargo and Lusch (2016) who classified laws and regulations as part of institutions. Further, current findings add to the knowledge by explicating several examples of health-related Acts that are lengthy, discrepant and outdated thus impinging the development of medical tourism.

Marketing Activities

Several foreign governments and associations for doctors ban Malaysian hospitals from conducting marketing activities in their country. PH3 explained that in order to counter this problem, private hospitals need to prepare the necessary documents which include a business visa and a letter of approval from the country's Ministry of Health. Otherwise, they could be put behind bars.

Nevertheless, PH2, PH6, and PH7 asserted that despite coming with relevant document, they could still get arrested due to what is claimed as improper marketing activities. Moreover, Malaysian medical doctors are prohibited to practice such as providing health screenings and consultations.

In relation to literature, barriers to develop medical tourism in Iran described marketing activities through branding and communication with media (Momeni et al., 2018). However, this study posits that the constraints in Malaysian marketing activities relate to the advertising restrictions and overseas marketing barrier. Furthermore, the latter should be expected as foreign governments wish to reduce their patient outflow to medical tourism destination countries.

Expertise/manpower

Scarcity of doctors and nurses are mentioned in past studies (Heung et al., 2011; Rokni et al., 2017; Crooks et al., 2017). Therefore, the current findings add to extant knowledge by unveiling the causes for scarcity of doctors and nurses. In reference to Table 8, expertise/manpower was mentioned at W01 and by four interview participants. The observation at W01 has captured three causes for the scarcity of specialists which are: (a) long study period, (b) failing professional examinations, and (c) receiving better offer in overseas or other hospitals.

Furthermore, high turnover rate among nurses is due to: (a) failing the Post Basic Training, (b) relocation that is far from family, (c) marriage and pregnancies, and (d) receiving better offer in overseas and other hospitals. PH6 mentioned that losing their nurses to other newly established hospitals is common in their business.

Hospitability

Non-medical aspect includes the hospitability at hospital premises, appointment booking and accommodation services. Despite being competitive in affordability, accessibility and quality (Nisha, 2017), Malaysia lacks service culture in non-medical needs.

> *"Our 'Sciences' are excellent, but we are hindered by the 'Arts' of our services. This happens due to the diminishing service culture of greeting and welcoming in our society." (PH1, Line 2:34)*

PH1 asserted that the service offerings are not delivered from the heart but only driven by monetary purposes.

> *"It is inconsistent in here because we only greet patients for work and not from within. We are only doing this for work and money..." (PH1, Line 2:10)*

Additionally, MTF1 expressed their concern over the way some hospitals handle their medical travellers' appointment booking facilities. Instead of having their session scheduled beforehand, patients had to arrive early at the hospital and queue for their turn. This is inconvenient for medical travellers who have to travel while being ill. Private hospitals frequently made comparison between Malaysia and Thailand services. PH4 and PH1 described that poor services are frequently given to medical travellers from underdeveloped countries.

> *"Immigration (officers) will stop the passengers from (country name censored) at the gate... not at the immigration counters...Once they stepped out of the plane (the officers will say) Okay, line up here!' I do not care whether you are in business class or whatever...Thailand does not do that." (PH4, Line 12:62)*

Institutions that Constrain Value Co-creation in Malaysian Medical Tourism

As Mills and Margulies (1980) put forward, validated typologies is an essential element in theory development because they offer a general set of principles for scientifically classifying events or things. Comparison was made with extant literature which produces seven institutions constraining value co-creation in Malaysian medical tourism ecosystem. Table 9 summarises that the institutions are (a) hospital expenses; (b) infrastructure; (c) communication between stakeholders; (d) policies and regulations; (e) marketing activities; (f) expertise/manpower; and (g) hospitability.

Table 9: Institutions Constraining Value Co-creation in Malaysian Medical Tourism Ecosystem

Institutions	Status	Items	Item Status
Hospital expenses	Confirming	Regulatory compliance cost	*Contributing*
		Rising salary for nurses	*Contributing*
Infrastructure	Confirming	Unstandardised reporting system	*Contributing*
Communication between stakeholders	*Contributing*	Disparity on marketing strategies	*Contributing*
		Lack of mutual understanding to develop medical tourism	*Contributing*
		Poor bond between MTF2 and Tourist Information Counter (TIC)	*Contributing*
Policies and regulations	Confirming	Lengthy and repetitive hospital licensing procedures	*Contributing*
		Outdated acts	Confirming
Marketing activities		Overseas marketing	*Contributing*
Expertise/ manpower	Confirming	Causes for the scarcity of specialists	*Contributing*
		Causes for the scarcity of nurses	*Contributing*
Hospitability	Confirming	Lack of non-medical service culture	*Contributing*
		Poor treatment at Immigration Counter	*Contributing*

In reference to Table 9, *communication between stakeholders* is a contributing institution while the remaining institutions confirm to extant literature. For instance, medical tourism studies in South Korea (Eom, Yu, & Han, 2019; Rokni, Turgay, & Park, 2017) and Iran (Momeni, Janati, Imani, & Khodayari-Zarnaq, 2018) delineated that *policies and regulations* are the prominent barriers to develop the countries' medical tourism.

Similarly, *marketing activities* are found to be the second most influential barrier, followed by *scarcity of expertise* (Momeni et al., 2018; Rokni et al., 2017). Further, India's medical tourism barriers are found to be related to *infrastructure* (Roy, Mukherjee, & Bhattacharya, 2018) and *hospitability* (Eom et al., 2019; Momeni et al., 2018; Rokni et al., 2017; Roy et al., 2018). Nevertheless, the current study offers in-depth understanding on Malaysian context as majority of the *items* are contributing to the body of knowledge.

CONCLUSION

This study offers narratives on the institutions that *constrain* value co-creation in Malaysian medical tourism ecosystems. Contrary to past research (e.g. Eom, et al., 2019; Rokni, et al., 2017; Momeni, et al., 2018), this paper proposes that *Communication between stakeholders* is the prominent institution due to its large influence on other institutions. Findings in this study reciprocate to the call towards the midrange-theoretical abstraction which includes *communication* between stakeholders (Vargo & Lusch, 2017).

Future studies are suggested to embark on the institutions that *encourage* value co-creation in medical tourism ecosystem. The findings could reflect the strengths of Malaysian medical tourism. Additionally, the *institutional work* in creating, maintaining and disrupting these institutions is a strong avenue to endeavour. The study could offer evidence on how stakeholders react and expect from each other in relation to the institutions described above. Moreover, the findings would delineate the means for the stakeholders to improve their communication, thus contributing to the midrange theoretical abstraction in S-D logic.

This study is not free from limitations. Methodologically, the cross-sectional study barricades the understanding of these institutions over a period of time. Furthermore, the study does not include Immigration Department and RTDM in the data collection. Therefore, it creates an opportunity for future exploratory research to obtain their perspectives thus enriching the understanding of institutions in Malaysian medical tourism ecosystem.

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