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Establishing Bahrain as a Competitive Medical Tourism Hub in the Region: a Directive Study

Your global future begins here

College of
Business & Finance

MBA program

Ahmed Ebrahim

Significance of Research/Statement of Problem

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Oil-based economy → **> 80% of government income**

Bahrain's Economic Vision 2030

↓

Economic Diversification

↓

Long-term Economic Growth

Investment & Development → **high-potential sectors /economic opportunities**

Tourism Sector

Significance of Research/Statement of Problem

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A segment of tourism sector

↓

Medical Tourism

Bahrain's Economic Vision 2030 → **BH a leading center for modern medicine.**

- **Lack of clear policy guidelines**
- **Absence of strategy**
- **Lack of research**

Significance of Research/Statement of Problem

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Especially that:

- **MT industry is a fast growing global niche market**
- **Market value of USD 55 billion / CAGR 15% to 25% a year** (Patients Beyond Borders, 2014)
- **About over 50 countries around the globe have recognized medical tourism as a national industry and sought competitive position within that industry** (Gahlinger, 2008).

So what about Bahrain ?

Which is facing economic challenges in general and healthcare challenges in particular.

Significance of Research/Statement of Problem

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There is a need to consider economic opportunities of MT

National Interests & Economic Vision Inspirations

Research Objectives

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Purpose- to study the factors that can establish Bahrain as a competitive medical tourism hub in the region.

- **Medical Tourism Potentiators (MTPs)**

- **Medical Tourism Enablers (MTEs)**

Research Objectives

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Objectives:

- To assess Bahrain's potentiality for developing its medical tourism sector based on its general characteristics, economy, healthcare sector, and tourism market

- To study Singapore’s medical tourism model and its relevance for realizing Bahrain’s medical tourism potential

- To suggest policy recommendations to support decision making of government and various sector stakeholders in order to attain medical tourism prosperity.

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Literature Review

Literature Review

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- REVIEW OF LITERATURE: **THE KINGDOM OF BAHRAIN**

  - REVIEW OF BAHRAIN'S ECONOMY
  - REVIEW OF BAHRAIN'S HEALTH SECTOR
  - REVIEW OF BAHRAIN'S TOURISM SECTOR

Literature Review

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Despite the brilliant profile of Bahrain to encourage medical tourism,

the perspective of key stakeholders is crucial

to generalize qualitative findings

Literature Review

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MEDICAL TOURISM ENABLERS (MTES) – SINGAPORE'S MODEL

Why Singapore ?

1- Previous Researchers' Recommendations

(Lunt, Horsfall and Hanefeld, 2015; Medhekar, 2014a,b; Lim, 2005).

2- Singapore's Profile and Model of Excellence

3- Bahrain-Singapore Free Trade Agreement

Rater/Index	Global Ranking	Year	Key Area of Assessment	Source
Index of Economic Freedom	2nd out of 178 countries	2015	Economic Freedom	The Heritage Foundation (2015)
The World Bank	1st out of 189 countries	2015	Ease of Doing Business	World Bank (2014)
Medical Tourism Index	4th out of 25 countries	2014	Attractiveness for Medical Tourism	Medical Tourism Index (2014)
Bloomberg's 2014 ranking	1st out of 51 countries	2014	Healthcare System Efficiency	Bloomberg (2014)
Global Innovation Index 2014	7th out of 143 countries	2014	Innovation Performance	Cornell University, INSEAD and WIPO, (2014)
The World Economic Forum	2nd out of 148 countries	2014	Global Competitiveness	World Economic Forum (2014)

Literature Review

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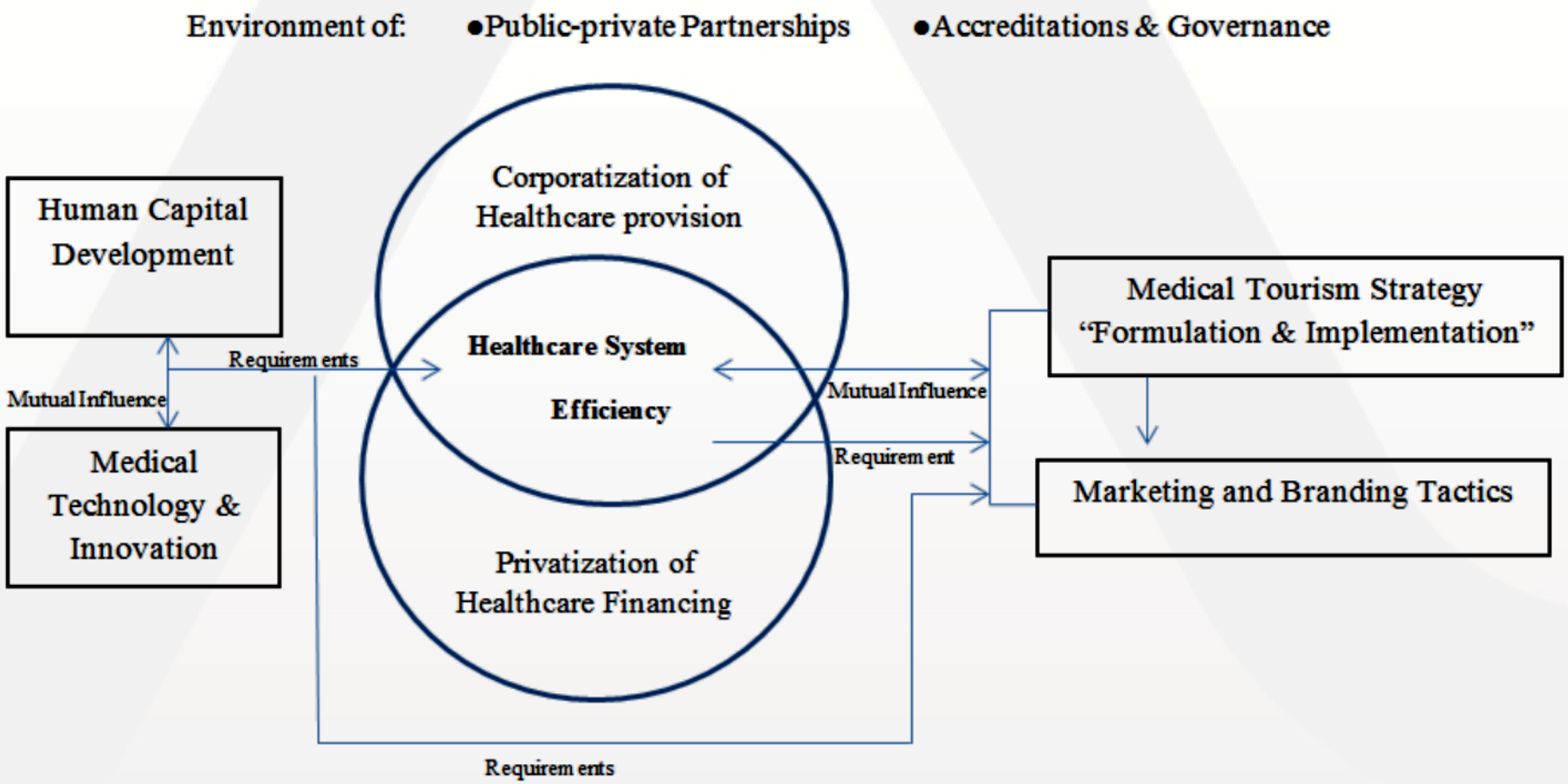
MEDICAL TOURISM ENABLERS (MTES) – SINGAPORE'S MODEL



Literature Review

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Medical Tourism Potentiators (MTPs)

- **MTP1 The national vision "strategy" of the country.**
- **MTP2 The economic openness**
- **MTP3 The general tourism sector competitiveness**
- **MTP4 Reputation & trustworthiness of provided medical services.**
- **MTP5 The physical resources in private medical sector**
- **MTP6 The human resources in private medical sector**
- **MTP7 The management competency in private medical sector**
- **MTP8 The level of investment in medical tourism related projects**
- **MTP9 The level of cooperation between public and private medical sectors**
- **MTP10 The level of government support to the organizations of private medical sector.**
- **MTP11 The level of medical services quality in private medical sector.**
- **MTP12 The level of price "cost" affordability of medical services in private medical sector.**
- **MTP13 The market size of medical tourists in the region.**
- **MTP14 The healthcare cooperation schemes with neighbor countries.**

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Research Methodology

Research Methodology

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Mixed approach –
quantitative and qualitative research design

Directive Research

Descriptive Research

Sampling Techniques

Disproportionate Stratified Random Sampling

Research Methodology

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Sort of Medical Entity	**Hospitals**			**Centers**		**Clinics**	
Sub-classification	General	Specialized	Dental	Medical	Dental	General	Dental
Population Size[a]	11	4	2	33	20	99	45
	17			53		144	
	Total: 214						
≈Percentage in population	5.1%	2%	0.9%	16%	9%	46%	21%
Recommended sample Size[b]	**138**						
≈Percentage in Sample	8%	3%	1.5%	14.5%	9 %	44%	20%
≈Numbers in Sample	**11**	**4**	**2**	**20**	**12**	**61**	**28**

Sampling Plan Intended by the Researcher.

[a] Data is obtained from NHRA annual report (2013).

[b] Calculated by Sample Size Calculator available online via Raosoft, Inc. 2004 (Accessed on 6th Nov, 2015 via: http://www.raosoft.com/samplesize.html) - Statistical parameters were fixed as following: (5% margin of error, 95% level of confidence, 50% response distribution).

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Data Collection Techniques

<u>Self-administered questionnaires</u> **=**

in-person drop-off "paper questionnaires" 100

+

e-mail questionnaires 80

Research Methodology

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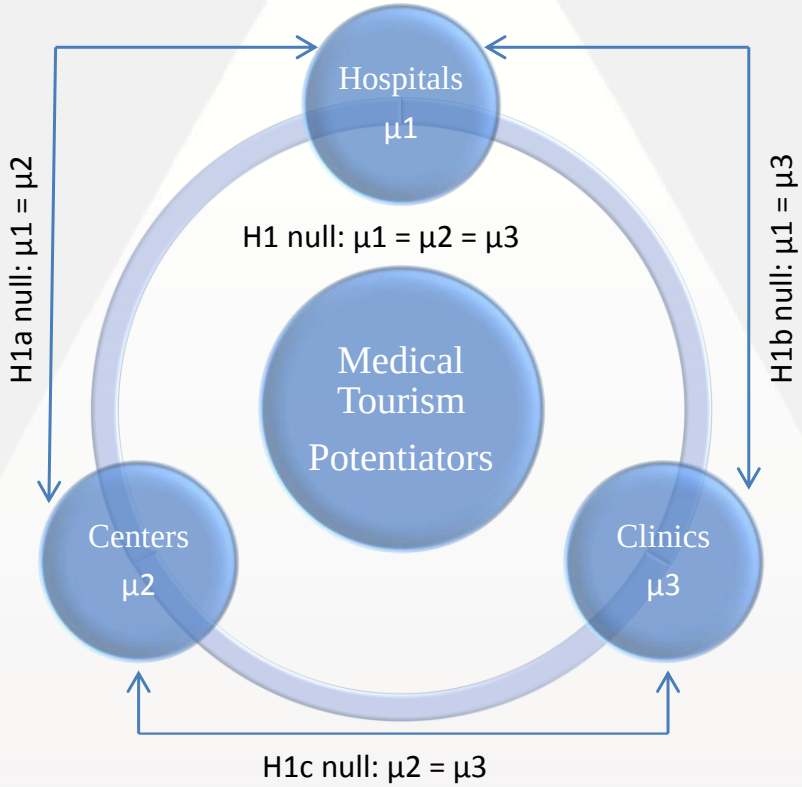
1- Hypotheses (MTPs)



Theoretical framework of main hypothesis and sub-hypothesis for the domain of medical tourism potentiators (MTPs).

Research Methodology

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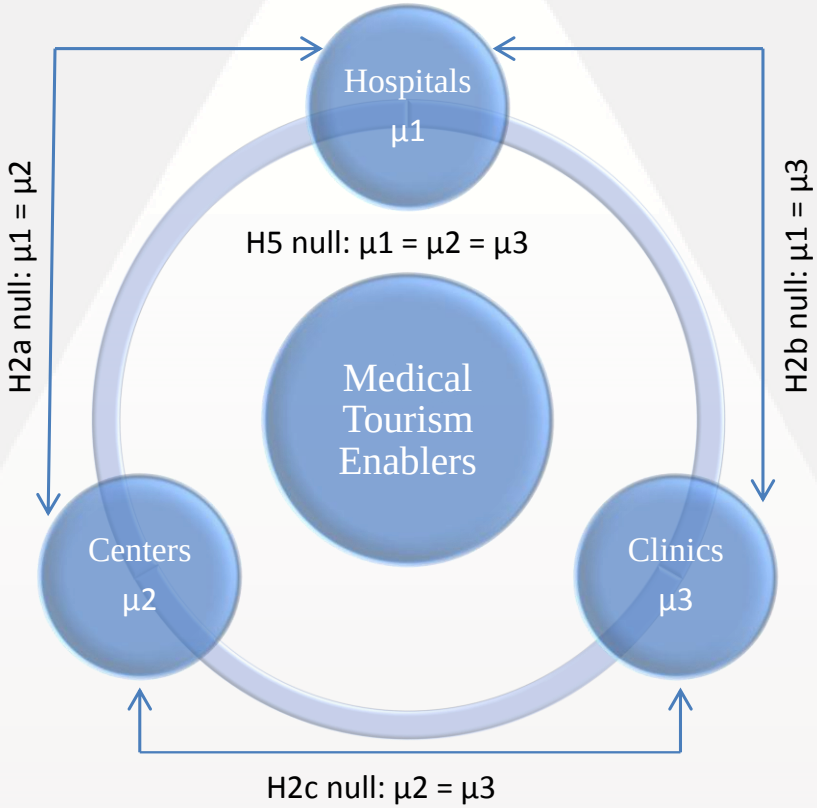
2- Hypotheses (MTEs)



Theoretical framework of main hypothesis and sub-hypothesis for the domain of medical tourism enablers.

Research Methodology

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Gathering, Processing & Analyzing Data

Microsoft Excel Worksheet 2010

Basic Data analysis

Central tendency measures (mean, median, and mode) and variability measures "dispersion" represented through standard deviation, kurtosis, skewness, and histogram.

Statistical Software Package for Social Sciences (SPSS) Version

Inferential statistics analysis

One-way (ANOVA) test
Bonferroni test
Pearson product-moment correlation coefficient

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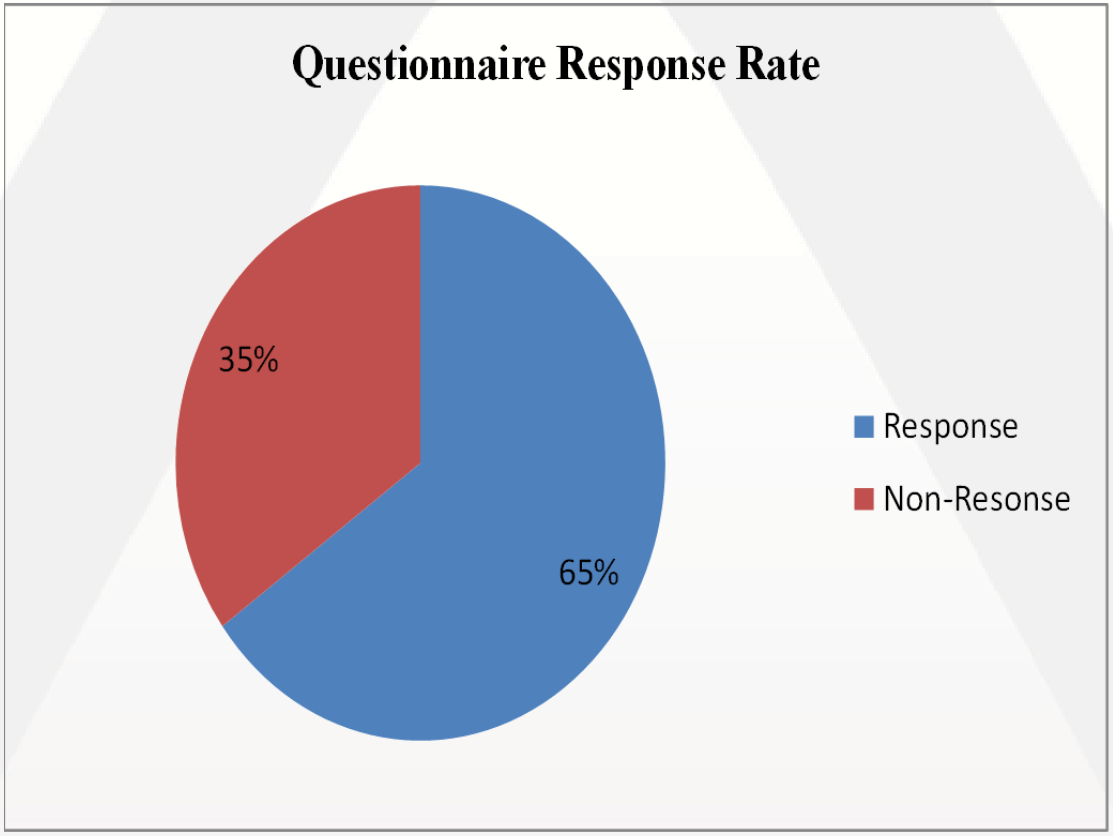
Results & Interpretations

Results & Interpretations



Questionnaire response rate versus non-response rate.

Results & Interpretations

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DEMOGRAPHIC PROFILE

Variable		Frequency	Percentage %
Specialization	Medical	32	27.4
	Surgical	29	24.8
	Dental	31	26.5
	Diagnostic	8	6.8
	Healthcare Administration (H.A)	9	7.7
	Other	8	6.8
		117	100
Education Level			
	Bachelor	20	17.1
	Master	37	31.6
	PhD or Equivalent	50	42.7
	Other	10	8.5
		117	100
Years of Experience			
	5 years or less	4	3.4
	6-10 years	4	3.4
	11-15 years	13	11.1
	16-20 years	49	41.9
	+ 20	47	40.2
		117	100
International Work Experience			
	Yes	89	76.1
	No	28	23.9
		117	100
Nationality			
	Bahraini	85	72.6
	Non-Bahraini	32	27.4
		117	100

Demographic information of respondents (N = 117).

Results & Interpretations

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DESCRIPTIVE ANALYSIS

Medical Tourism Potentiators	Mean		S.D.	Rank*
P13: Market size of medical tourists in GCC	4.128	Grand Mean for all 14 potentiators = 3.409 S.D = 0.545	0.93	1
P11: Medical services quality of private sector	3.966		0.84	2
P1: Bahrain Economic Vision 2030	3.880		1.00	3
P4: Reputation & trustworthiness of medical services	3.803		0.93	4
P5: Physical resources in private medical sector	3.803		0.82	4
P2: Economic openness	3.650		0.92	5
P6: Healthcare human resources in private medical sector	3.615		0.94	6
P12: Cost affordability of medical services in private sector	3.590		1.08	7
P7: Management competency in private medical sector	3.385		1.07	8
P3: General tourism sector competitiveness	3.333		0.93	9
P8: Investment in medical tourism related projects	3.085		0.91	10
P10: Government support to private medical sector firms	2.624		1.13	11
P9: Cooperation level between public and private medical sectors	2.547		1.04	12
P14: Healthcare cooperation schemes between GCC	2.316		1.08	13

Results & Interpretations

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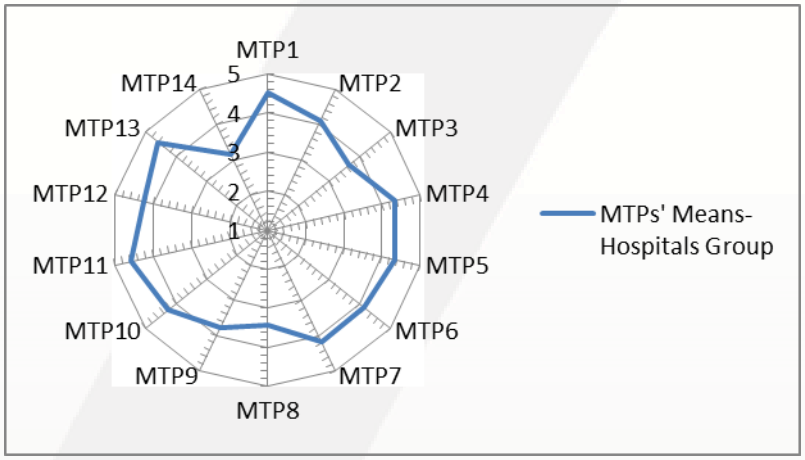
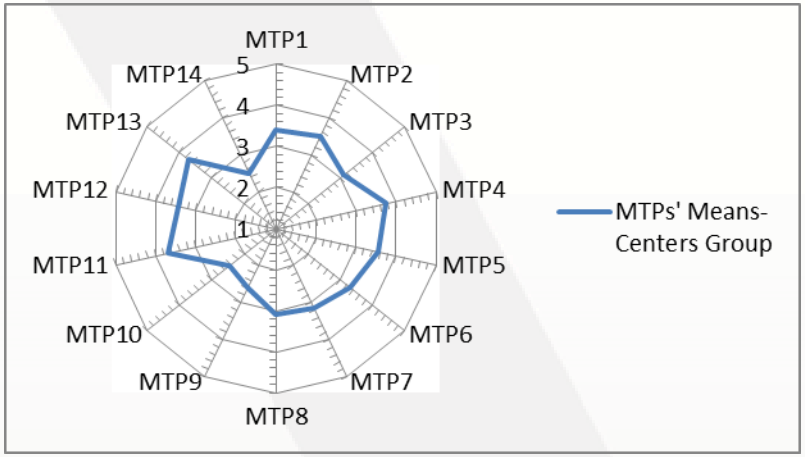
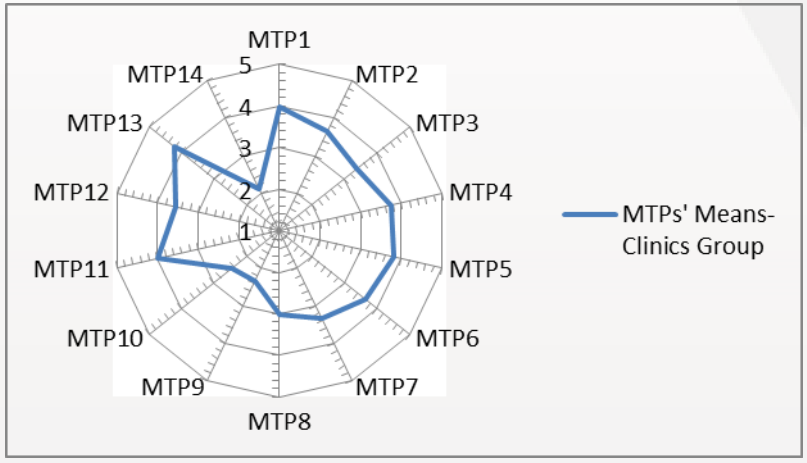
DESCRIPTIVE ANALYSIS







Results & Interpretations

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DESCRIPTIVE ANALYSIS

Medical Tourism Enablers	**Grand Means**		**S.D.**
Strategic Planning related MTEs	4.607	Mean for all 20 variables = **4.472**	0.606
Marketing and Branding related MTEs	4.432		0.721
Technology & Innovation related MTEs	4.410		0.660
Human Capital Development related MTEs	4.568		0.572
Healthcare System Efficiency related MTEs	4.342		0.840

Results & Interpretations

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VALIDITY & RELIABILITY

Reliability Statistics		
Cronbach's alpha	**N of Items / Domain**	**Interpretation**
0.895	14 / MTPs	Very good reliability
0.905	20 / MTEs	Very good reliability

Results & Interpretations

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VALIDITY & RELIABILITY

- External validity: face validity and content validity techniques.
- Internal validity:

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.794**
	Approx. Chi-Square	**2232.993**
Bartlett's Test of Sphericity	df	**561**
	Sig.	**.000**

Results & Interpretations

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HYPOTHESES TESTING

		Sum of Squares	df	Mean Square	F.	Sig.
MTPs	Between Groups	6.677	2	3.338	9.456	.000
	Within Groups	40.248	114	.353		
	Total	46.925	116			
MTEs	Between Groups	.467	2	.234	1.492	.229
	Within Groups	17.855	114	.157		
	Total	18.322	116			

Results of one-way (ANOVA) test, output by SPSS.

Results & Interpretations

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HYPOTHESES TESTING

Dependent Variable	(I) type	(J) type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence	
						Lower Bound	Upper Bound
MTPs	Hospital	Centre	.86348*	.20201	.000	.3726	1.3543
		Clinic	.71380*	.18491	.001	.2645	1.1631
	Centre	Hospital	-.86348*	.20201	.000	-1.3543	-.3726
		Clinic	-.14968	.12712	.724	-.4586	.1592
	Clinic	Hospital	-.71380*	.18491	.001	-1.1631	-.2645
		Centre	.14968	.12712	.724	-.1592	.4586
MTEs	Hospital	Centre	.21478	.13455	.340	-.1121	.5417
		Clinic	.20495	.12316	.296	-.0943	.5042
	Centre	Hospital	-.21478	.13455	.340	-.5417	.1121
		Clinic	-.00983	.08467	1.000	-.2156	.1959
	Clinic	Hospital	-.20495	.12316	.296	-.5042	.0943
		Centre	.00983	.08467	1.000	-.1959	.2156

Multiple Comparisons by Bonferroni test – Output of SPSS.

Results & Interpretations

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HYPOTHESES TESTING

Domain: Medical Tourism Potentiators (MTPs)		**Domain: Medical Tourism Enablers (MTEs)**	
Hypotheses	Statistical Evidence	Hypotheses	Statistical Evidence
H1 *null*	Reject	H2 *null*	Fail to Reject
H1 *alternative*	Accept	H2 *alternative*	Reject
H1a *null*	Reject	H2a *null*	Fail to Reject
H1a *alternative*	Accept	H2a *alternative*	Reject
H1b *null*	Reject	H2b *null*	Fail to Reject
H1b *alternative*	Accept	H2b *alternative*	Reject
H1c *null*	Fail to Reject	H2c *null*	Fail to Reject
H1c *alternative*	Reject	H2c *alternative*	Reject

Results summary of hypotheses testing.

Results & Interpretations

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CORRELATIONAL ANALYSIS

		MTPs	MTEs
MTPs	Pearson Correlation	1	.216*
	Sig. (2-tailed)		.019
	N	117	117
MTEs	Pearson Correlation	.216*	1
	Sig. (2-tailed)	0.019	
	N	117	117
***. Correlation is significant at the 0.05 level (2-tailed).**			

Results of Correlation Pearson Test – Output by SPSS

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Conclusion & Recommendations

Conclusion & Recommendations

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Overall, the findings of the study indicated that Bahrain has a high potential to attain a paradigm shift in its medical tourism competitiveness mainly through:

- sector wide-approach management
- establishing effective public-private partnerships
- reinventing healthcare legislation
- encouragement of investment in medical tourism infrastructure.

Conclusion & Recommendations

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The analyzed model of Singapore's medical tourism ***is relevant***

and

of **strategic value** to establish a competitive and sustainable medical tourism sector in Bahrain.

Recommendations

Strategic Planning

- Distinctive national medical tourism strategy - a competitive edge.
- Public-Private Partnerships (PPPs).
- Strategic quality advancement program aimed at upgrading the quality of healthcare.
- To implement tactics of triggering economic competition

Recommendations

Marketing and Branding

- Medical tourism wide sector awareness and national brand
- MICE (Meetings, Incentives, Conventions, Exhibitions) industry
- To advertise medical services to vacation tourists
- To create patients referral networks in key target markets in the region

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Recommendations

Technology and Innovation

- Investment in health informatics and national e-Health system integration
- Projects of Telemedicine
- Establishment of a biomedical research council
- Facilitations for a bio-cluster community

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Recommendations

Human Capital Development

- To form channels for sharing knowledge and world-class medical expertise
- To invest more intensively in the training of domestic medical and healthcare workforce
- To create a motivating and rewarding environment
- To develop medical leadership training programs

Conclusion & Recommendations

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Recommendations

Healthcare System Efficiency

- Obtaining local and international accreditations
- Advancement of healthcare governance
- Systemic reforms of healthcare system in terms of financing and services provision
- Project of National Health Insurance Program

Conclusion & Recommendations

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Suggested Future Research Areas

- Studying the sector from the perspective of medical tourists
- Intra-bound medical tourism schemes between members of GCC
- studying the influence of healthcare policies on different sized organizations
- Sport Tourism

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-End of Presentation-

Questions ?

Thanks for Listening

Special Thanks to Forum Organizing Committee