# Factors Influencing Patronage Of Medical Tourism In Metropolitan Lagos, Nigeria

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**Abstract:** Since medical tourism attract patient from various origin to seek medical services at different destinations, it is paramount to consider the factors that motivate patrons' decision on medical tourism. Hence, this study assesses the factors influencing patronage of medical tourism in Lagos metropolis, Nigeria. Lagos State is situated in the southwestern corner of Nigeria, it lies within Latitudes 6°2'N to 6°4'N of the Equator and Longitudes 2°45'E to 4°20E of the Greenwich meridian. Metropolitan Lagos is a statistical division, and not an administrative unit, it extends over 16 of the 20 LGAs of Lagos State, it contains 88% of the population of Lagos State, and includes semi-rural areas. Data were collected from primary source. Primary data collection was carried out through the use of structured questionnaire. Systematic sampling technique was employed to select 15 specialized private hospitals and 14 Public hospitals in the study area, resulting to a sample size of 29 hospitals. Ten (10) patrons were contacted in each of the selected hospitals; consequently, 290 patrons were sampled. The study revealed three factors influencing patronage of medical tourism in the study area to be service related, economic, and facilities. These were further established by factor analysis result which combine service related/ economic factor as factor one with (29.5% variance explained and Eigen value of 5.605), Facility factor as factor two with (28.6% variance explained and Eigen value of 5.435), Service related factor as factor three with (14.7% variance explained and Eigen value of 2.788) and Economic factor as factor four with (9.2% variance explained and Eigen value of 1.754). The relevant authority in charge of health facilities in the study area would have to employ adequate manpower in-terms of doctors and other healthcare personnel across the public hospital, while also regulating the scale of charges of the registered private hospitals in the study area. There is need to improve upon the state of facilities and equipment in both public and private hospital in the study area and orient these towards meeting patrons' needs and wants for improved health care services. The study therefore concluded that the factors influencing patronage of medical tourism are service related, facilities and economic.

**Key words:** Medical Tourism, Factors, Patronage, Tourism, Health facilities, Healthcare

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## 1.0 INTRODUCTION

Tourism refers to the broad framework that identifies tourism's essential characteristics and distinguishes tourism from similar, often related but different phenomena The two terms 'travel' and 'tourism' can be used in isolation or together to describe three concepts: (i) The movement of the people, (ii) A sector of the economy or an industry, (iii) A brad system of interacting relationships of people, their needs to travel outside their communities and services that attempt to respond to these needs by supplying products. The Tourism industry has developed through the years and presently is one of the most diversified, largest and extensively growing industries in the world. The share of tourism and travel industry comprises 11% of the global export of commodities and services, 50% international tourists go to foreign countries for holidays, 16% go on business trip and 34% go to visit friends and relatives, religious, and for medical purposes (Travel Exhibitions, 2007). Since the purpose of travel determine the form of tourism, tourism has been classified into various forms by different authors according to the activities carried out at the country of destination.

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Such classification as leisure tourism (Cox and Kings 2011), culinary tourism (Wolf and Erik 2006, Allen et al 2007, and Mckercher et al 2008), cultural tourism (Richards 1996, Hans 2006, and William 2011), religious tourism (Matti et al 2011, and Benson 2013), extra-legal tourism (Taylor 2000, Hannum and Barger 2002, Hughes 2008, and El kaidi et al 2013), dark tourism (Foley et al 1996, and Rami et al 2013), sport tourism (Hall 1992, Gibson 1998, and Gammon and Robinson 2003), and medical tourism (Horowitz et al 2007). However, among these various forms of tourism, the interest of the study is on medical tourism. Medical tourism is the process of patients travelling abroad for medical care and procedures, usually because certain medical procedures are unavailable or unaffordable in their own country (Voigt et al., 2010). Rowley (2008), described Medical tourism as a process of attracting foreign patients to overseas countries which can offer hospital or medical services at fees considerably less than the patient's home country and usually combining an element of post-operative tourism (recovery) for the patient'. Additionally, Deloitte, (2009) categorized medical tourism as outbound where patients travel abroad for medical care, inbound where foreign patients travel to the host country for care and intra-bound where patients travel domestically for medical care. Tourism Research and Marketing (TRAM) (2006) concludes that there is no definite definition for medical tourism but it is generally accepted that the term "Medical Tourism" is used to refer to travel activity involving more than one night away from the tourist country of residence to a destination seeking medical procedure, or activities that promote the wellbeing of the tourist. Tourism Research and Marketing (TRAM), suggested the combination of two terms "medical treatments" and "healthcare treatments" would create a new sector of the medical healthcare sector entitled "medical and healthcare tourism (Lee & Spisto, 2007)." TRAM"s report explains and places the components of medical and healthcare treatments into four categories: treatment of illnesses, enhancement, wellness, and reproduction.

According to Lee and Spisto (2007), the treatment of illness represents a wide range of services that vary from a simple healthcare service that can be provided by local health professionals, such as vaccines, therapy treatments, and nutrition to a complex surgical procedure such as a heart transplant. Enhancement procedures represent procedures that are non-disease related, (unless some diseases have caused a change in the formation of the human body). However, these kinds of procedures require the work and ability of a skilled and qualified physician who will, for example, conduct a cosmetic procedure such as, breast surgery, facelift, liposuction and cosmetic dental work (Lee and Spisto, 2007). Wellness falls under the heading "alternative healthcare services" such as, spas, acupuncture, aromatherapy, beauty care, facials, exercise and diet, herbal healing, homeopathy, massage, and yoga. These healthcare products are usually operated by professionals who are accredited by local or international organizations and health associations. However, these healthcare activities cannot be determined as medical tourism activities, because most of wellness procedures do not require skilled medical practitioners (Lee & Spisto, 2007). Reproduction is a new area in medical tourism. Some patients travel offshore in search of fertilization procedures. Hence, this study assesses the factors influencing patronage of medical tourism in Lagos metropolis.

## 2.0 STUDY AREA

Lagos State is situated in the southwestern corner of the Nigeria as show in fig 1 and fig 2, Lagos State lies within Latitudes 6°2'N to 6°4'N of the Equator, and Longitudes 2°45'E to 4°20E of the Greenwich Meridian. The State is flanked from the north and east by Ogun State, in the west by the Republic of Benin and the south by the Atlantic Ocean/Gulf of Guinea. The total landmass of the State is about 3,345 square kilometers, which is just about 0.4% of the total land area of Nigeria. Most of the land in Lagos State has an elevation of less than 15m above sea level. (See Fig. 1).
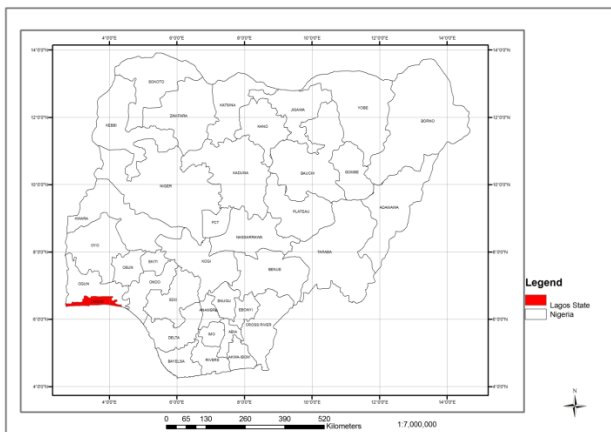


**Figure 1:** *Map of Nigeria indicating Lagos State.*
**Source:** *National Airspace Research and Development Agency (NASRDA) (2015)*
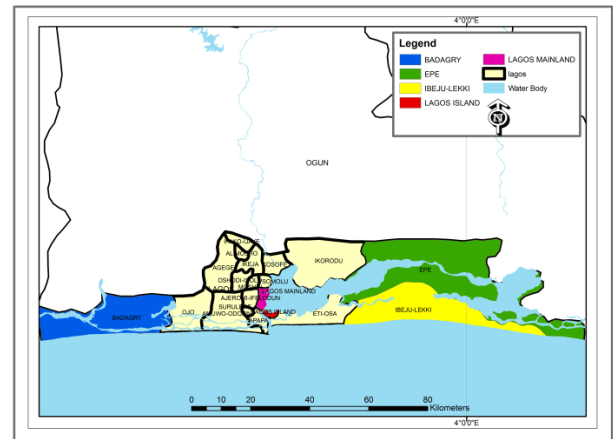


**Figure 2:** *Map of Lagos state indicating Lagos Metropolis.*
**Source:** *National Airspace Research and Development Agency (NASRDA) (2015)*

## 3.0 THEORETICAL FRAMEWORK

Medical tourism is a process of attracting patients from one origin to destination which can offer hospital/medical services at fees considerably less than the patient's usual environment and usually combining an element of post-operative tourism (recovery) for the patient (Rowley 2008). Medical industry practitioners described medical tourism as the act of travelling to receive a healthcare treatment that is either less expensive or more accessible (Kim, Leong, Heob, Anderson, and Gaitz, 2009). However, this study views medical tourism from the domestic perspective and to bridge the gap between origin and destination. This study considered Spatial Interaction Theory (Ullman, 1956) has appropriate. The spatial interaction theory was postulated by Ullman (1956). In propounding this theory, Ullman advanced three principles to explain the interaction involving transportation. These are complementarily, intervening opportunities and transferability. Complementarily means a real differentiation and the existence of supply and demand in different areas. That is, for two spatially separated points, there must be a demand in one point (A) and supply in the other point (B) and that the demand and supply be complementary. That is, the goods or services demanded must be the one that are available or being supplied. Intervening opportunities set up constraints as to the possibility of interaction taking place. The argument is that, even when there is a supply in an area, and a demand in another, interaction would only take place, if there are no alternative sources of the same material (Ayeni, 1979, Oyesiku, 1990). This means that, if there are alternative sources of supply in point (C) which satisfy the demands of people in point A, interaction between A and B through complementarity may not take place. Interestingly, the principles of intervening opportunities and complimentarity to a great extent explain why interaction takes place between two spatially separated points. How this is achieved is explained by the principle of transferability which is the case with which demand is met. Transferability is a distance issue measured in terms of transfer and time costs. For instance, if the cost (in monetary and time sense) required to make a trip between two points (A) and (B) is too much, interaction may be impossible even without an intervening opportunity in

between them. Hence, complementarily may generate interaction and the factor of intervening opportunities brings about a real substitution. Regardless of how complementary two areas may be, there will be complete absence of an interaction if the cost incurred to overcome the friction of distance exceeds the ability and desire of the people to pay, thus resulting into substitution of products. This reveals the significance of costs (money and time) of travel in urban travel study and as such should be considered. The relevance of this theory is that it explains the consequence of spatial separation of points of origin and destinations as well as the characteristics of the travelers (Barber, 1995, Oyesiku, 1995a, 2003). However, medical tourism is guided by four elements which are the origin where people resides, the destination where people seeks medical procedure, the movement which is the act of travel and the factors where are the attraction components for their destination choice. All this four elements are guided by the spatial interaction theory. Hence, this theory is relevant and considered as frame work for this study.

## 4.0 LITERATURE REVIEW

Tourism assumed a recognized status in Nigeria in 1962. According to Okpoko and Okpoko (2002), In 1962, the Nigeria Tourist Association was founded by a group of interested tourism practitioners in the country. They had among their objectives the following; to encourage the creation and development by all possible means, plans, facilities and tourist interests which could be offered to the international and domestic visitors; and to project the image of Nigeria as a country in which tourists and holiday makers will find abundant attractions. In 1963, Nigeria became registered as a full member of the International Union of Official Travel Organization (IUOTO) now World Tourism Organization (WTO). In 1976, Nigerian Tourist Board was established under Decree 54 of 8 August to assume the rights, obligations and activities of the Nigerian Tourist Association. (Aremu, 2001). Included in the function of the Board are to encourage domestic tourism among Nigerians and people from outside to visit Nigeria, encourage speedy provision of tourist facilities in Nigeria including the building

of hotels and other ancillary facilities, to render financial assistance in the field of tourism and to assist in the development of museums and historic sites, parks, game reserves, beaches, natural beauty spots, holiday resorts and souvenir industries. (Olokesusi 1987). The Federal government realized over 12 million US dollars from tourism between 1999 and 2001 (Agbu, 2002). Over the decades, concentration has been placed on heritage, recreation and leisure tourism, other forms of tourism has been neglected, most especially medical tourism. Medical tourism creates national wealth and remains an economic activity of immense global importance. However, It is expected that all other forms of tourism should be given adequate attention and be included into the tourism policy and the development plan of the NTDC. Medical tourism according to Deloitte, (2009) is categorized as outbound where patient travel abroad for medical care, inbound where foreign patients travel to the host country for care and intra-bound where patients travel domestically for medical care. Tourism Research and Marketing (TRAM) (2006) concludes that there is no definite definition for medical tourism but it is generally accepted that the term "Medical Tourism" is used to refer to the travel activity involving more than one night away from the tourist country of residence to a destination seeking medical procedure, or activities that promote the wellbeing of the tourist. TRAM, suggested that combining the two terms "medical treatments" and "healthcare treatments" would create a new sector of the medical healthcare sector entitled "medical and healthcare tourism". TRAM's report explains and places the components of medical and healthcare treatments into four categories: treatment of illnesses, enhancement, wellness, and reproduction (See Fig. 3). According to Lee and Spisto (2007), the treatment of illness represents a wide range of services that vary from a simple healthcare service that can be provided by local health professionals, such as vaccines, therapy treatments, and nutrition to a complex surgical procedure such as a heart transplant. Enhancement procedures represent procedures that are non-disease related (unless some diseases have caused a change in the formation of the human body).

*Figure 3:* *Medical and Health Tourism*

Source: Adopted By The Author From TRAM 2006.
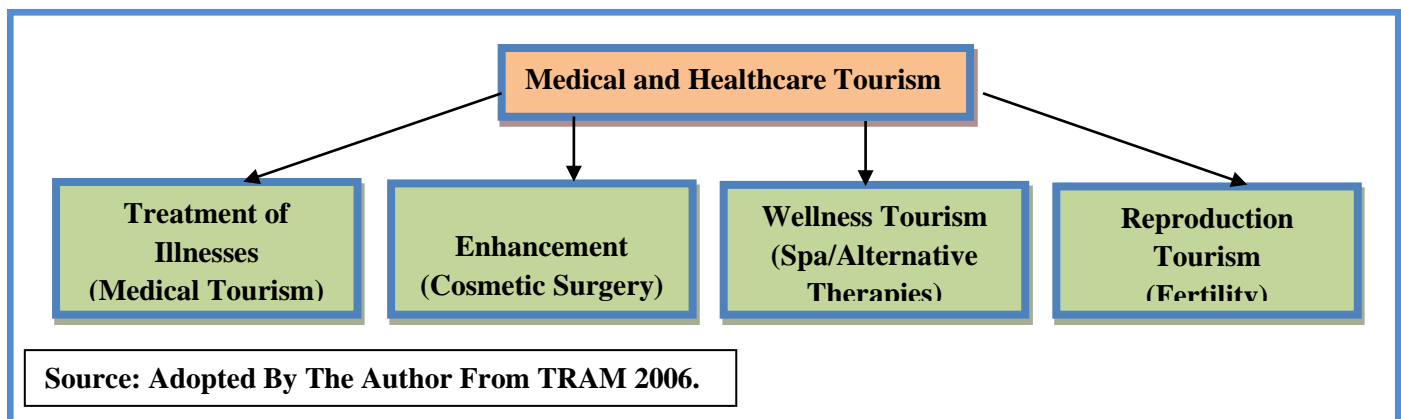
**Treatment of Illnesses:** This generally includes medical check-ups, health screening, dental treatment, joint replacements, heart surgery, cancer treatment, neurosurgery, transplants and other procedures that require

qualified medical intervention. These can range from healthcare services that can be provided by a local general practitioner to complex surgical procedures such as transplants.

**Enhancement (Cosmetic Surgery):** These procedures are carried out mainly for aesthetic purposes. Some of these procedures require qualified medical personnel but much of this work is non-disease related (unless disfigurement is caused by disease). Examples of such procedures include all cosmetic surgery, breast surgery, facelifts, liposuction and cosmetic dental work.

**Wellness (Alternative Therapy)**: This segment of medical and healthcare tourism promotes healthier lifestyles (Bennett, King and Milner, 2004). Therefore, these products can include treatment in spas, thermal and water treatments, acupuncture, aromatherapy, beauty care, facials, exercise and diet, herbal healing, homeopathy, massage, spa treatment, yoga and other similar products. There is normally no need for a qualified doctor to provide these services, although many professionals providing these services are often accredited members of the various associations.

**Reproduction (Fertility):** This is an increasing and growing area of medical tourism travel. Under this component, there are patients who seek fertility-related treatments such as in vitro and in vivo fertilization and other similar procedures. In some situations, the travel is motivated and influenced by the legislation in the country of origin and host country. Some fertility procedures are illegal in some countries. Furthermore, 'birth tourism' is also included in this category (TRAM 2006). This category involves a pregnant mother who travels to another country to give birth to her baby in order to utilize the services, which are often free. In addition, a further advantage for her is to have her child gain citizenship of the new country and thus be able to reside permanently in the new location. At times, potential parents travel for the purposes of adopting children because the legislation and supply of babies for adoption is easier in host countries.
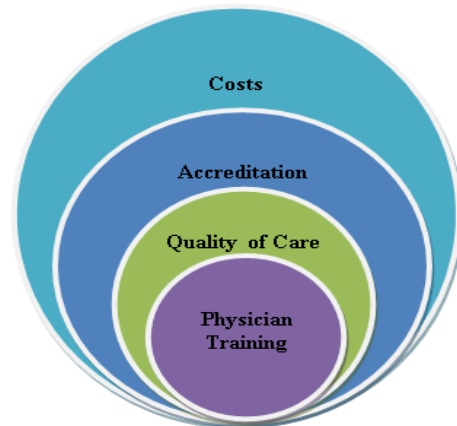
### Factors of Medical Tourism

There are several factors that force patients to pursue medical tourism as an alternative medical treatment. These factors have been categorized into internal and external factors, (Forgione, and Smith 2007).

*Fig 4: External Factors*
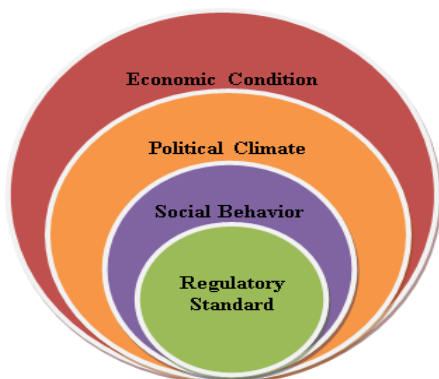


***Source:** (Smith and Forgione, 2007)*

*Fig 5: Internal Factors*



***Source:** (Smith and Forgione, 2007)*

External factors represent economic conditions, political climate, social behavior and regulatory standards (See figure 4). Internal Factors represent four factors affecting a patient's choice of an international facility. These factors are identified as costs, accreditation, quality of care, and physician training (see figure 5).

## 5.0 RESEARCH METHODOLOGY

This section discusses the methodology adopted in data collection, description of the sampling procedure, sample frame and sample size, and the methods of data analysis. Data for this study were collected from primary sources. Primary data were derived from fieldwork, through the administration of questionnaire. The questionnaire was administered on the patrons of the selected hospital. Information obtained through the use of questionnaire includes the attraction components that influence patronage. Pilot survey reveals that there are 956 registered private hospitals and 20 public hospitals in metropolitan Lagos, out of which there are 50 top rated specialized registered private hospitals (ratenigeriahospital.com). However, 30% of the rated specialized registered private hospitals were systematically selected for the study, in this case the first 3 hospitals was selected at random and every subsequent 3rd hospital on the list were selected, while 14 Public Hospital were selected; these were the public hospitals that are rendering specialized medical services in the study area. Patrons were sampled through the use of purposive sampling technique in this case 10 patrons was contacted in each of the selected hospitals, making a total 290patrons as presented in table 1a.

*Table 1a: Sample Frame and Sample Size*

| Hospital Selected for the Study | Sample Size | Patrons Sample Size |
|---|---|---|
| Public | 14 | 140 |
| Private Hospital | 15 | 150 |
| **TOTAL** | **29** | **290** |

***Source:** Authors field survey, 2015.*

The target respondents were the medical out patrons in each of the selected hospitals. Data collected were coded

into Statistical package for social sciences (SPSS Version 16). Processing of data was through the use of quantitative methods of analyses. These include correlation and factor analysis. Factor analysis was used to analyze the attraction components that influence patronage of selected medical tourism sites in the study area.

## 6.0 FINDING AND RESULT

Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of Sphericity was carried out to test the suitability of data set factor analysis. The result indicated the sufficiency of the 19 variables loaded for factor analysis, as presented in table 1. The KMO value of 0.846 which is greater than minimum 0.5, Bartlett's test of shericity chi-square value of 8.245E3 and significant value of 0.000 (p≤ 0.05) agree with Field (2005). Therefore factors analysis is considered relevant and possible for this study.

**Factor Analysis on Attraction Components of Patronage across the Selected Hospitals**

*Table 1: KMO and Bartlett's Test*

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .846 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 8.245E3 |
| | Df | 171 |
| | Sig. | .000 |

*Source: Author's field survey, 2015*

Correlation matrix on attraction component of patronage across the selected hospital as presented in table 2. The table contains person correlation coefficient between all pairs of variables. It is important to eliminate multicollinerity (Variables that are highly correlated with other variables) and singularity (variables without correlation other

variables) in the data set. Therefore all variables in this data set correlated fairly well and only few among the correlation coefficient are relatively large and those cannot create multicolliniarity and singularity in the dada. Also the determinant which is a good measure of determining the level of multicolliniarity and singularity is 0.0020 as presented in table 2, which is far greater than the value of 0.00001 suggested by Field (2005). Furthermore, Table 3 presents the initial communalities of the factors before extraction through principal component analysis with an initial assumption that all variables are common with 1.000 each. After extraction, it was observed that each variable reflects common variance in the data set, which is evident in the proportion of the variance explained by the underlying factors. For instance, variable such as *shorter waiting time for medical services, high standard of medical staff, low cost of treatment, and easy assembled and transmitter of medical record* have associated variation of 0.971(97.1%), 0.968 (96.8%), 0.959 (95.9%), and 0.959 (95.9%) respectively. Other variable with lower associated variation are good public relation among staff*, patients privacy, confidentiality and disclosure protection and family hospital with 0.510(51.0%), 0.513(51.3%) and 0.569(56.9%).* It is expected that the communalities after extraction must be high for a reasonable representation. The average communality as computed from table 3 is 0.821 (82.1%) with is substantial to perform principal component analysis. According to Kaiser's criterion, four factors are to be extracted (Gorsuch, 1983). However it is important to note that this criterion is accurate when there are less than 30 variables and the communalities after extraction is greater than 0.7 or when the sample size exceeds 250 and average communality is greater than 0.6 (Field, 2005). This study satisfies the condition where 19 variables are loaded for analysis with average communality vale of 0.821 after extraction and 290 sample size.

**Table 2: Correlation Matrix of the Loaded Factors**

| | | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | 1 | | | | | | | | | | | | | | | | | | |
| | B | .029 | 1 | | | | | | | | | | | | | | | | | |
| | C | .105 | .704 | 1 | | | | | | | | | | | | | | | | |
| | D | .107 | .349 | .527 | 1 | | | | | | | | | | | | | | | |
| | E | -.135 | -.067 | -.123 | -.080 | 1 | | | | | | | | | | | | | | |
| | F | -.651 | -.031 | -.093 | -.050 | .024 | 1 | | | | | | | | | | | | | |
| | G | -.992 | -.026 | -.108 | -.103 | .128 | .649 | 1 | | | | | | | | | | | | |
| | H | -.980 | -.037 | -.105 | -.120 | .130 | .635 | .968 | 1 | | | | | | | | | | | |
| | I | .168 | -.041 | -.026 | .028 | -.025 | -.089 | -.174 | -.162 | 1 | | | | | | | | | | |
| Correlation | J | .018 | -.040 | -.045 | .023 | .059 | .013 | -.020 | -.026 | .667 | 1 | | | | | | | | | |
| | K | -.202 | -.056 | -.100 | -.110 | .913 | .038 | .194 | .199 | -.041 | .058 | 1 | | | | | | | | |
| | L | -.209 | -.057 | -.112 | -.098 | .919 | .053 | .200 | .205 | -.019 | .073 | .875 | 1 | | | | | | | |
| | M | -.188 | -.098 | -.122 | -.074 | .838 | .066 | .184 | .191 | -.036 | .029 | .845 | .808 | 1 | | | | | | |
| | N | -.128 | -.077 | -.132 | -.064 | .988 | .024 | .121 | .122 | -.018 | .052 | .874 | .911 | .830 | 1 | | | | | |
| | O | -.142 | -.063 | -.104 | -.052 | .941 | .032 | .135 | .133 | -.029 | .059 | .864 | .909 | .794 | .932 | 1 | | | | |
| | P | .620 | .074 | .094 | .082 | -.070 | -.448 | -.613 | -.613 | -.069 | -.216 | -.133 | -.114 | -.119 | -.063 | -.086 | 1 | | | |
| | Q | -.851 | -.030 | -.055 | -.114 | .121 | .501 | .837 | .866 | -.140 | -.067 | .171 | .193 | .156 | .120 | .132 | -.510 | 1 | | |
| | R | -.980 | -.050 | -.101 | -.107 | .119 | .627 | .972 | .971 | -.154 | -.021 | .187 | .196 | .181 | .111 | .127 | -.605 | .860 | 1 | |
| | S | .153 | .395 | .604 | .952 | -.095 | -.075 | -.148 | -.166 | .041 | .044 | -.121 | -.110 | -.097 | -.085 | -.066 | .096 | -.152 | -.149 | 1 |

| Sig. (1-tailed) | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | | | | | | | | | | |
| B | .313 | | | | | | | | | | | | | | | | | |
| C | .037 | .000 | | | | | | | | | | | | | | | | |
| D | .034 | .000 | .000 | | | | | | | | | | | | | | | |
| E | .011 | .127 | .018 | .087 | | | | | | | | | | | | | | |
| F | .000 | .302 | .057 | .197 | .344 | | | | | | | | | | | | | |
| G | .000 | .328 | .033 | .041 | .014 | .000 | | | | | | | | | | | | |
| H | .000 | .264 | .036 | .020 | .013 | .000 | .000 | | | | | | | | | | | |
| I | .002 | .245 | .331 | .317 | .336 | .065 | .001 | .003 | | | | | | | | | | |
| J | .379 | .246 | .222 | .345 | .160 | .409 | .369 | .329 | .000 | | | | | | | | | |
| K | .000 | .172 | .044 | .031 | .000 | .262 | .000 | .000 | .244 | .163 | | | | | | | | |
| L | .000 | .165 | .028 | .047 | .000 | .186 | .000 | .000 | .372 | .106 | .000 | | | | | | | |
| M | .001 | .048 | .019 | .105 | .000 | .132 | .001 | .001 | .270 | .312 | .000 | .000 | | | | | | |
| N | .015 | .097 | .012 | .139 | .000 | .345 | .020 | .019 | .379 | .189 | .000 | .000 | .000 | | | | | |
| O | .008 | .143 | .038 | .188 | .000 | .296 | .011 | .012 | .312 | .157 | .000 | .000 | .000 | .000 | | | | |
| P | .000 | .104 | .056 | .083 | .117 | .000 | .000 | .000 | .122 | .000 | .012 | .026 | .021 | .143 | .071 | | | |
| Q | .000 | .305 | .177 | .027 | .020 | .000 | .000 | .000 | .009 | .127 | .002 | .000 | .004 | .021 | .012 | .000 | | |
| R | .000 | .199 | .043 | .034 | .022 | .000 | .000 | .000 | .004 | .361 | .001 | .000 | .001 | .030 | .016 | .000 | .000 | |
| S | .004 | .000 | .000 | .000 | .054 | .101 | .006 | .002 | .244 | .227 | .020 | .030 | .050 | .074 | .131 | .051 | .005 | .005 |

*Determinant= 0.0020*
**Source:** *Author's field survey, 2015*

**Please Note:**
A = shorter waiting time for medical service
B = Good Public relation among staff
C = Coordination between patent, hospital and insurance (NHIS)
D = High standard level of medical facilities and equipment
E = High standard level of medical staff
F = Patents' privacy, confidentiality and disclosure protection
G = Ease assembled and transmitted of medical record
H = Low Cost of Treatment
I = Quick and Simple Payment Procedure
J = Package Pricing with Price Transparency
K = Proximity to National Health Insurance Scheme
L = The Hospital is Clean and hygienic
M = The space outside the hospital is clean and hygienic
N = The Hospital Enjoys Good Reputation
O = Medical help In case of emergency is available
P = My family Hospital
Q = The level of awareness of the Hospital
R = Based on Recommendation

**Table 3:** *Communalities before and after Extraction Process*

| | Initial | Extraction |
|---|---|---|
| shorter waiting time for medical service | 1.000 | .971 |
| Good Public relation among staff | 1.000 | .510 |
| Coordination between patent, hospital and insurance (NHIS) | 1.000 | .715 |
| High standard level of medical facilities and equipment | 1.000 | .762 |
| High standard level of medical staff | 1.000 | .968 |
| Patents' privacy, confidentiality and disclosure protection | 1.000 | .513 |
| Ease assembled and transmitted of medical record | 1.000 | .959 |
| Low Cost of Treatment | 1.000 | .959 |
| Quick and Simple Payment Procedure | 1.000 | .804 |
| Package Pricing with Price Transparency | 1.000 | .833 |
| Proximity to National Health Insurance Scheme | 1.000 | .889 |
| The Hospital is Clean and Hygienic | 1.000 | .908 |
| The space outside the hospital is clean and hygienic | 1.000 | .802 |
| The Hospital Enjoys Good Reputation | 1.000 | .947 |

| | | |
|---|---|---|
| Medical help In case of emergency is available | 1.000 | .914 |
| My family Hospital | 1.000 | .569 |
| The level of awareness of the Hospital | 1.000 | .780 |
| Based on Recommendation | 1.000 | .953 |
| The Quality of Services | 1.000 | .828 |

**Extraction Method:** *Principal Component Analysis.*
**Source:** *Author's field survey, 2015*

Findings as presented in Table 4 reveal that four factors with the initial eigen values of between 1.735 and 6.540 were extracted with 82.01% as total variance explained. Factor 1 accounted for 34.42% of the total variance explained in the original set of data; factor 2 accounted for 24.43% while factor 3 and 4 accounted for 14.03% and 9.13% respectively.

**Table 4:** *Total Variance Explained on Attraction Components of Patronage across the Selected Hospitals*

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 6.540 | 34.421 | 34.421 | 6.540 | 34.421 | 34.421 |
| 2 | 4.642 | 24.433 | 58.854 | 4.642 | 24.433 | 58.854 |
| 3 | 2.665 | 14.026 | 72.880 | 2.665 | 14.026 | 72.880 |
| 4 | 1.735 | 9.133 | 82.014 | 1.735 | 9.133 | 82.014 |
| 5 | .906 | 4.770 | 86.784 | | | |
| 6 | .557 | 2.931 | 89.715 | | | |
| 7 | .516 | 2.718 | 92.433 | | | |
| 8 | .325 | 1.710 | 94.143 | | | |
| 9 | .269 | 1.416 | 95.558 | | | |
| 10 | .254 | 1.336 | 96.895 | | | |
| 11 | .177 | .931 | 97.825 | | | |
| 12 | .124 | .654 | 98.479 | | | |
| 13 | .102 | .536 | 99.015 | | | |
| 14 | .075 | .395 | 99.410 | | | |
| 15 | .042 | .219 | 99.629 | | | |
| 16 | .031 | .164 | 99.793 | | | |
| 17 | .026 | .138 | 99.931 | | | |
| 18 | .007 | .038 | 99.969 | | | |
| 19 | .006 | .031 | 100.000 | | | |

**Extraction Method:** *Principal Component Analysis.*

Findings as presented in Table 5 revealed the rotated component matrix showing the types of variable loading highly on each factor. Factor 1 accounted for 29.50% variance, factor 2 accounted for 28.61% variance while factor 3 and four accounted for 14.68% and 9.25% variance respectively. This study agree with Adeyinka (2007) who adopted 0.55 and above, therefore any variable loading with value that is greater than 0.55 will be interpreted in line with Adeyinka (2007). Accordingly, component 1 has five (5) variables loading highly on it, these are *Patents' privacy, confidentiality and disclosure protection (0.715)*, *Ease assembled and transmitted of medical record (0.971)*, *Cost of Treatment (0.970)*, *The level of awareness of the Hospital (0.872)*, and *Based on Recommendation (0.969)*. by the nature of these variable loading on factor 1, it is named **Services related/ Economic factors.** Component 2 have 6 variable loading, they are: *High standard level of medical facilities and equipment (0.867), Proximity to National Health Insurance Scheme (0.953), The Hospital is Clean and hygienic (0.944), The space outside the hospital is clean and hygienic (0.888), The Hospital Enjoys Good Reputation (0.971), and Medical help In case of emergency is available (0.954).* This variable is referred to as **Facility factors** Component 3 has 4(four) variables loading which are: *Good Public relation among staff (0.706), Coordination between patent, hospital and insurance (NHIS) (0.837), High standard level of medical staff (0.982)* and *The Quality of Services (0.898).* These variables falls within **Service rendered factors** The last component 4 has just 2 (two) variable loading. Which are: *Quick and Simple Payment Procedure (0.888) and Package Pricing with Price Transparency (0.911).* These variables fall within **Economic Factors**

***Table 5:*** *Rotated Component matrix*

| ROTATED COMPONENT MATRIX | COMPONENT | | | |
|---|---|---|---|---|
| | **1** | **2** | **3** | **4** |
| shorter waiting time for medical service | -.977 | -.102 | .047 | .069 |
| Good Public relation among staff | .000 | -.039 | **.706** | -.096 |
| Coordination between patent, hospital and insurance (NHIS) | -.055 | -.078 | **.837** | -.067 |
| High standard level of medical staff | -.065 | -.035 | **.867** | .076 |
| High standard level of medical facilities and equipment | .035 | **.982** | -.049 | .007 |
| Patents' privacy, confidentiality and disclosure protection | **.715** | -.022 | -.025 | .006 |
| Ease assembled and transmitted of medical record | **.971** | .095 | -.044 | -.072 |
| Cost of Treatment | **.970** | .098 | -.058 | -.072 |
| Quick and Simple Payment Procedure | -.117 | -.029 | -.014 | **.888** |
| Package Pricing with Price Transparency | .030 | .052 | -.003 | **.911** |
| Proximity to National Health Insurance Scheme | .106 | **.935** | -.056 | .000 |
| The Hospital is Clean and hygienic | .113 | **.944** | -.050 | .018 |
| The space outside the hospital is clean and hygienic | .102 | **.888** | -.057 | -.008 |
| The Hospital Enjoys Good Reputation | .029 | **.971** | -.046 | .009 |
| Medical help In case of emergency is available | .048 | **.954** | -.024 | .011 |
| My family Hospital | -.698 | -.044 | .058 | -.278 |
| The level of awareness of the Hospital | **.872** | .092 | -.041 | -.102 |
| Based on Recommendation | **.969** | .088 | -.051 | -.065 |
| The Quality of Services | -.104 | -.048 | **.898** | .090 |
| **Eigenvalue** | **5.605** | **5.435** | **2.788** | **1.754** |
| **% variance explained** | **29.502** | **28.607** | **14.675** | **9.229** |
| **Cumulative % variance explained** | **29.502** | **58.109** | **72.785** | **82.014** |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

*a.* *Rotation converged in 5 iterations.*
**Source:** *Author's field survey, 2015*

***Table 6:*** *Summary of Factors Influencing Patronage of Medical Tourism Site*

| Factors | Eigen value | % variance explained | Cumulative % variance explained |
|---|---|---|---|
| 1 (Services related / Economic) | **5.605** | **29.502** | **29.502** |
| 2 (Facility) | **5.435** | **28.607** | **58.109** |
| 3 (Services related) | **2.788** | **14.675** | **72.785** |
| 4 (Economic) | **1.754** | **9.229** | **82.014** |

**Source:** *Author's field survey, 2015*

## 7.0 CONCLUSION AND RECOMMENDATION

The study examined the factors influencing patronage of medical tourism in metropolitan Lagos. The study revealed that **Services Related Factors with 29.50% variance explained** (Patents' privacy, confidentiality and disclosure protection, Ease assembled and transmitted of medical record, level of awareness of the Hospital, Quality of Services, Good Public relation among staff, Coordination between patent, hospital and insurance (NHIS), High standard level of medical staff, and Based on Recommendation), **Economic Factor with 28.61%** (Cost of Treatment, Quick and Simple Payment Procedure, and Package Pricing with Price Transparency) and **Facility Factors with 14.68%** (High standard level of medical facilities and equipment, Proximity to National Health Insurance Scheme, The Hospital is Clean and hygienic, The space outside the hospital is clean and hygienic, The Hospital Enjoys Good Reputation, and Availability of

Medical help In case of emergency is available) are the factors influencing patronage of medical tourism in the study area. This study had revealed that patrons express their dissatisfaction towards the time spent in the hospital, package pricing of the hospitals, attention gotten from the doctors and access to hospital facilities and equipment across the hospitals which they consider as challenges. It is therefore recommended that the Lagos State ministry of health in conjunction with Lagos State Healthcare Facilities Monitoring and Accreditation Agency (HEFAMAA) and Local government healthcare monitoring agency in the study area should ensure adequate manpower in-terms of doctors and other healthcare personnel across the public hospital, while also regulating the scale of charges of the registered private hospitals in the study area. Similarly, effectiveness of services rendered depends on the standard and quality of facilities and equipment present in each hospital as revealed by the study. Therefore, it is important

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to equip both public and private hospital with adequate and effective top quality facilities and equipment such as well-equipped laboratory, top quality surgical equipment, experienced manpower, and Good communication network among others. This can be done by formulate policy that will enhanced the upgrading of the existing hospital in the study area. It is also apposite to include these requirements before approval to establish a hospital will be granted.

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