Sharia Compliant Smart City

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Abstract— The technology has evolved tremendously in recent years. This paper is generally aimed to describe, analyse, and study some of the best locations for the establishment of a model for Sharia Compliant tourism service locations in a Smart City, through the use of geographic information system and survey of questionnaires. This thesis includes four objectives: to identify Sharia compliant factors, to map Sharia Compliant factors with a Smart City factor, to validate the present model using experts' Smart City Sharia Compliant, to validate the present model using experts and make it Sharia Compliant via the Geographical Information Systems (GIS). A total of 804 locations for Sharia Compliant tourism services were studied and analysed. On the other hand, two types of questionnaires were conducted; the first questionnaire explained the administrative parts of locations of Sharia Compliant tourism services. The second questionnaire aims to determine the factors that help in creating a Maqasid Al-Sharia Smart City.

Keywords: Sharia Compliant, Smart City, Geographical Information Systems (GIS), Tourism service, .Spatial Data, Technology, ICT, spatial data and Maqasid Al-Sharia.

1 Introduction

Tourism is an important, necessary and supportive activity for any country's economic development. Especially in Islamic nations, Sharia Compliant tourism is characterized by many attractive factors in proportion to Islamic morals where tourism components are among the most important and prominent activities that help establish economic rules in addition to the speed of its activity and the increasingly diversified production. During the last part of the twentieth century, the phenomenal rapid developments in Geographical Information Systems (GIS) have invaded most areas of technological studies Smart in project management, science and research.

This activity resulting from information technology (IT) activity developments have been strongly stimulated competitive and innovative worked to dramatically change with new features, programs, speed and capabilities, moving away from the ancient uses era to strategic information systems [1]. GIS it is a tool with unique capabilities that helps to ascertain and make most effective and intelligent decisions because it relies upon collecting, sorting and analysing spatial Data. This has resulted in the provision of huge and varied information in addition to its accuracy and speed of arrival due to the revolution of the global internet.

Also, GIS provides successful maps that stimulate and differentiate views while attracting users to augment their ability to transmit and interpret. GIS technology makes it possible to develop modern tourism applications using maps, and modern mechanisms of analysis along with various types of Data [2].

2 STATEMENT OF THE PROBLEM

The flourishing of the local and global economic growth in general, has led into a plethora of quality human activities that are beyond the scope of Sharia Compliance in most cases.Muslims are faced with challenges such as adoption of technology that might be ethically forbidden in Islam]3]. Toppeta, [4] opines that the description of a Smart City needs both holistic and analytic approach. Examples include Smart mobility, Info-mobility and ITS (Intelligent Transport Systems), human resources and social capital, loGIStic, Smart people and Smart economy to boost competitiveness, sustainability; sustainable environment, renewable energy; E Smart government, e-democracy ,and e-Government. All these form part of the Smart City requirements where integration of Sharia Compliant features was unfortunately neglected Sharia Compliant tourism features are important for Muslims.
specifically because tourism is considered as the major feature of Smart City.
Despite the vitality and activity of Sharia Compliant tourism in Muslim countries, no detailed study has ever been conducted on it. Also, there is paucity of Smart City studies and its neglect of some important factors such as real time guidance for society, quality of life and City services. As it turned out, it has a strong and positive impact on building Sharia Compliant tourism in Smart City. Accordingly, most studies do not take them into consideration in various aspects.

3 RESEARCH OBJECTIVES

1- To identify Sharia Compliant factors.
2- To map Sharia Compliant factors with a Smart City factor.
3- To validate the present model using experts on Smart City Sharia Compliant.
4- To validate the present model using experts on GIS Sharia Compliant.

4 SCOPE OF THE RESEARCH

This research was conducted to study the influence of analysis of some Sharia Compliant tourism locations in Kuala Lumpur. It therefore focuses on GIS, which includes understanding the importance of Sharia Compliant tourism locations, what Sharia opines on Smart City, the elements that influence the trends of real-time guidance for society, such as Quality of life, City services as well as other macro and micro factors.

5 ORGANISATION OF THE THESIS

The thesis is divided into eight phases as follows: The first phase includes the introduction. The second phase is a literature review, whereas the third phase provides Maqasid Al-Sharia. Chapter Fourth Smart City. Whereas the fifth phase provides methodology. Whereas the Sixth one primarily pertains to results and discussions. The Seventh phase is the GIS Data Analysis. The final phase is entirely about the conclusions.

6 THE ISLAMIC MAQASID IN TOURISM IN THE ISLAMIC WORLD

Maqasid in Islam means achieving the desired goal. The meaning of the Maqasid Sharia is to achieve the basic the primary purpose of Islam: Mercy. In most discussions, the meaning of the word Maqasid is concealed, ignored or disabled [5]. The group of divine intents and moral concepts upon which the Islamic law is based, such as, justice, human dignity, free will, magnanimity, facilitation, and social cooperation, assumes importance [6]. The Maqasid al-Sharia in Islam can be defined as community works that include self-esteem, equity and justice for all categories of society as well as business facilities through mutual interest and cooperation]7].

6.1 COMPARISON BETWEEN THREE SMART CITIES

Through the previous information, a comparison can be made between three capitals of Islamic states competing for the title of Smart City, namely AL-Riyadh; it is the capital of the kingdom of Saudi Arabia, Abu Dhabi, the capital of the United Arab Emirates, and Kuala Lumpur the Capital of Malaysia. The most important thing for the these three countries is that they have worked to build a Smart base for economic development, not relying on a single source of development, such as petroleum and its derivatives, tourism and trade; each of the three countries operates on the diversification of the economic base, and works to collect the word of so as to establish strong relations between Islamic and world countries through political, economic, religious systems and all other areas of interdependence. It is actually a strong and effective foundation in the development of the so-called "Smart City". The following discussion will illustrate some points such as Location, Current Function, Religion, Contemporary architecture, Transportation, Communication networks, Infrastructure and Economics.

7 DISCUSSION

This part responds successfully to clarify the main points, which reflects consistency in the overall research process. Also, this study makes an important contribution to effective decision-making, and helps create new ideas to contribute and establish the foundation for Islamic tourism, because it allows to gradually narrow down the problem. It is evident from previous discussions that there is increasing awareness in terms of aspects Sharia Compliant tourism, Smart City, development of modern technology and diversification of the economic base, all of which are cornerstone of development. Figure 1 illustrates the main elements of the study, which are Sharia Compliant Tourism, GIS and Smart City.

Figure 1 The Conceptual framework of the main elements

7.2 RESEARCH GAPS

The Most of these studies mainly discussed various aspects of the study, such as Sharia Compliant Tourism see, [8], [9]. At a practical level, they covered GIS [10). Others encompassed Smart City see, [11[, [12]. On the other hand, real-time guidance for society see, [13],]14] was also provided. Other topics covered included quality of life see, [15], [16] and , City services see, [17], [18]. However, no similar study has been conducted that is specifically linked to Sharia Compliant tourism in Smart City. On the other hand, looking at the official tourist map for services in Kuala Lumpur, we find that there are many services that no one has explicitly touched on in extant studies. In addition, there are several basic factors that link the locations of Islamic tourism services and Islamic Smart Cities. Other components of this research, real time guidance for society, quality of life and City services have not been touched upon by previous studies. Through the analysis, it became clear that it has a direct impact on the elements of Islamic tourism sites and also on building Smart Cities in a strong manner. It was effectively focused on creating a model for Islamic Smart Cites through Islamic tourism services location.

7.3 Additional SUMMARY OF GEOGRAPHICAL INFORMATION SYSTEMS GIS AND QUESTIONNAIRE SURVEY

Additional Through the analysis of GIS and the questionnaire survey, the study concluded on several points:

1-The central region of the capital contains a concentration of tourist services, which is defined according to the division of study in zone 2, characterised by a majority of Sharia Compliant Tourism services.

2-Zone 2 is the heart of Kuala Lumpur and the main attraction area. It has a large number of distinctive, technological services with the total number of services accounting to 50 according to the study.

3-Ironically, it is the smallest capital in the southeast of Asia and

is considered one of the most economically successful and attractive tourist destinations [19].
4-Zone 2 contains a number of connecting stations between the main train stations and interconnects the railway networks with each other and other transport services.
5-It is an important area for the presence of Smart projects.
6-Through the analysis of GIS, the researchers discovered that the central region of the capital contains a concentration of tourist services, defined according to the division of study in zone 2.
7-Through the field survey it is found that there is a positive connection between the Sharia demands for a Smart City and real-time guidance for society, quality of life, and City services.

4 Conclusion

Although In general, what the previous discussions showed is that there is a clear link between respondents, technologies, networks and smart services.

-Smart services proves the extent of the power, effectiveness and development of smart technology in all life activities and it is an important part in building the individual and the society within the framework of the Smart City compatibility with the Sharia.

-Kuala Lumpur is considered as one of the most distinguished Cities in Islamic services. It has large and multiple development activities and distinguished, effective and coherent technological services.
Through the above analysis, the GIS survey questionnaires and various conclusions clearly show that the capital City of Kuala Lumpur has jumped to the highest level with regards to Smart City goals. It also has Smart development projects such as the Smart Tunnel and the recycling of waste mentioned earlier. Kuala Lumpur has a number of technological opportunities in modern design and innovation in its Smart architecture]20] .We conclude that Kuala Lumpur is a great attraction for business, tourism and development, and that it fulfils the Sharia demands for creating a Smart City. Based on all the above, researchers are recommended to carry out more studies related to the Sharia Compliant Smart City service from all economic, infrastructure, health, educational and other developmental aspects.

References

[1] Shah, S. A., & Wani, M. A. (2015). *Application of Geospatial Technology for the Promotion of Tourist Industry in Srinagar City.* International Journal of u-and e-Service, Science and Technology, 8(1), 37-50

[2] Jovanović, V., & Njeguš, A. (2013). *The application of GIS and its components in tourism.* Yugoslav Journal of Operations Research ISSN: 0354-0243 EISSN: 2334-6043, 18(2)

[3] Samori, Z., & Rahman, F. A. (2013). Establishing Shariah compliant hotels in Malaysia: Identifying opportunities, exploring challenges. West East Journal of Social Science, 2(2), 95-108

[4] Toppeta, D. (2010). The Smart City vision: how innovation and ICT can build Smart,"livable", sustainable Cities. The Innovation, Knowledge Foundation. Think

[5] Elissa, "An Overview of Decision Theory," unpublished. (Unpublished manuscript)

[6] Auda, J. (2008). Maqasid al-Shariah: An introductory guide. Herndon: International Institute of Islamic Thought (IIIT).

[7] Shafaei, F., & Mohamed, B. (2017). *Malaysia's branding as an Islamic tourism hub: An assessment.* Geografia-Malaysian Journal of Society and Space, 11(1)

[8] Kogan, N., & Lee, K. J. (2014). Exploratory research on success factors and challenges of Smart City Projects. Asia Pacific Journal of Information Systems, 24(2), 141-189

[9] Zakaria, S., Rey, G., Mohamed, E., Lavirotte, S., Abdelaziz, E. F., & Tigli, J. Y. (2015). Smart Geographic object: Toward a new understanding of GIS Technology in Ubiquitous Computing. arXiv preprint arXiv:1506.01943

[10] Saad, H. E., Badran, N., & Abdel-Aleem, M. (2016). *Sharia-compliant hotels in Egypt: Concept and challenges.* International Journal of Heritage, Tourism, and Hospitality, 7(2)

[11] Bajracharya, B., Cattell, D., & Khanjanasthiti, I. (2014). *Challenges and opportunities to develop a Smart City: A case study of Gold Coast,* Australia. Journal of Real Corp, 119-129

[12] Richards, R., O'Leary, B., & Mutsonziwa, K. (2007). Measuring quality of life in informal settlements in South Africa. Social indicators research, 81(2), 375-388.

[13] Viola, P., & Jones, M. J. (2004). Robust real-time face detection. *International journal of computer vision*, *57*(2), 137-154.

[14] Comaniciu, D., Ramesh, V., & Meer, P. (2000, June). Real-time tracking of non-rigid objects using mean shift. In *Proceedings IEEE Conference on Computer Vision and Pattern Recognition. CVPR 2000 (Cat. No. PR00662)* (Vol. 2, pp. 142-149). IEEE.

[15] Yau, K. L. A., Lau, S. L., Chua, H. N., Ling, M. H., Iranmanesh, V., & Kwan, S. C. C. (2016, February). Greater Kuala Lumpur as a Smart City: a case study on technology opportunities. In *2016 8th International Conference on Knowledge and Smart Technology (KST)* (pp. 96-101). IEEE.

[16] Noor, S. M., & Abdullah, M. A. (2012). Quality work life among factory workers in Malaysia. *Procedia-Social and Behavioral Sciences*, *35*, 739-745.

[17] Pincetl, S. (2010). From the sanitary city to the sustainable city: challenges to institutionalising biogenic (nature's services) infrastructure. *Local Environment*, *15*(1), 43-58.

[18] Tao, Z., & Wong, Y. R. (2002). Hong Kong: From an industrialised city to a centre of manufacturing-related services. Urban Studies, 39(12), 2345-2358.

[19] Areas - Kuala Lumpur. Retrieved 21th FEP 2019. Retrieved from http://www.kuala-lumpur.ws/klareas/

[20] El-Kasri, C., Hmamed, A., Alvarez, T., & Tadeo, F. (2012). Robust H∞ Filtering of 2D Roesser Discrete Systems: A Polynomial Approach. *Mathematical Problems in Engineering*, *2012*.