GEOG 321: Research Project

The Most & Least Liveable cities in the world

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1. Introduction and background

The annual survey which was conducted by the Economist Intelligence Unit's (EIU) European city, which entails the 140 most liveable and least liveable cities ranking globally based on 30 combination factors, such as social, political, education, crime and quality access to health care (Prisco, 2018). Additionally, Barret (2015) contends to analyse the EIU liveability ranking index in more detail, whereby it is really interesting to discover that it covers 30 quantitative and qualitative indicators in 5 broad categories weighted as the following: Stability (25%), Education (10%), Healthcare (20%), Infrastructure (20%) and Culture and Environment (25%). This ranking was criticised for not considering the cities' cost of living even though ironically the EIU produced a cost of living survey worldwide. Liveable cities underpin the wellbeing, health as well as people's quality of life who work and live in them. How liveable cities are orchestrated, designed, managed and built can be detracted or enhanced from liveability. Land use, built form, natural environments, quality and conservation of public spaces, education, the efficiency of transport networks, health, accessibility of work, social and recreational opportunities and community services all contributes to the liveability of cities (Buckley, 2013).

According to Greenway (2010) less tangible then a city, liveability has broader cultural and societal characteristics of communities and places within cities. Cities' cultural characteristics reflect both on contemporary and historical ways of living, with their values and meaning attached to objects, places, events and activities, technological application as well as natural environment interaction in which cities can be located. These cities' social aspects include social cohesion and social capital that contribute to a sense of inclusion and trust. At the same time, the social, cultural and physical characteristics of these cities are what distinguish and define them, there is an increasing congruence about indicators of positive social outcomes that can be used to measure liveability (Greenway, 2010).

Furthermore, Daniela (2017) states that one of the three fundamental objectives of the National Urban Policy is to increase the liveability of the cities by promoting better urban design, affordability and equitable access to resources, planning, recreational opportunities, community and cultural facilities. The National Urban Policy sets out 4 broad objectives that contribute to liveability, which are as follow:

- Endorse living choices that are affordable.
- Facilitate the supply of suitable mixed housing income.
- Ameliorate accessibility of movement around cities and decrease the reliance on private motor vehicles.

- Support community wellbeing.

2. Research Problem

The concept of liveability is one that is to be regarded as some sort of a paradox. This is because a city would not develop or become a city if it was not liveable at one stage or liveable for a certain population. The problem has been identified to be what are the characteristics or domains used to measure the liveability of a city. There are a few domains/indicators used by some of the research indices, such as stability, culture and environment and access to healthcare. These indicators require further development, as Khomenko (2020) contends that some of them do not account for social justice and environmental quality. It must be noted that some of these indicators or the criteria used have advantages for high-income earning countries over low-income earning countries. It is these nuances that make it hard to define liveability and ultimately determine which countries are liveable and which are not. Essentially, cities face a myriad of problems to urban sustainability, such as population growth, rising murder rates and drug addiction among others. In defining the liveability of cities, it is therefore imperative to analyse the possibility of human society to develop in wholesome and healthy cities.

3. Research Questions

The following questions will be answered:

- What are the most liveable cities and the least liveable cities in the world?
- How will there be determined whether a city is less liveable?
- How will there be determined whether a city is more liveable?

4. Aim & Objectives

In response to the primary research question, the main aim of this study is to examine the concept of liveability and provide a detailed account and comparison of the conditions that are prevalent in the most liveable and least liveable cities in the world.

The primary research aim will be clarified by making use of the following research objectives:

- To investigate the criteria or the framework used to assess and determine liveability conditions in both liveable and least liveable cities in the world.
- To provide an analysis of the factors that affect living conditions and the quality of living.
- To identify the physical conditions and environmental issues that affect the liveability of cities.
- To evaluate the importance of urban planning in the development of a ‘liveable’ city.

5. Study Area

The area that we will research on, is all the cities of the world. We will make use of statistical information, as well as additional research to identify which cities are the most and least liveable cities in the world. Afterwards, we will identify from this study area the five most liveable cities as well as the five least liveable cities in the world and map them. Figure 1 below is a map we created by using ArcGIS software, whereby all the cities in the world are indicated as our study area.

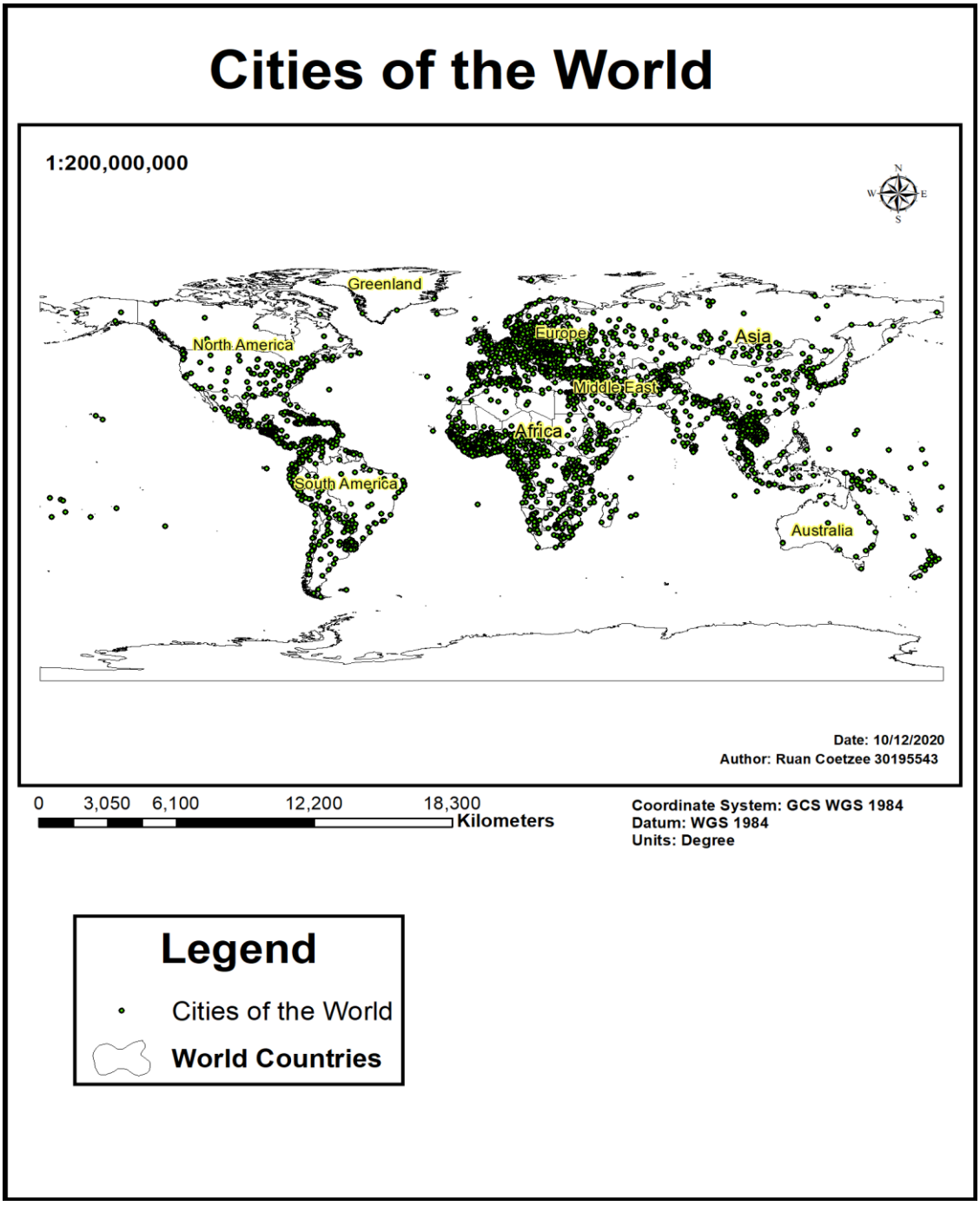

Figure 1: Map of the cities of the world.

6. Literature Review

The literature review conducted for this study arrived at a definition for liveability, to determine what makes a country liveable and ultimately provide a comparison of the most and least liveable cities. The concept of liveability is rather difficult to define but research on it has gained much fame and interest about it over the past few years. Rowley & Slack (2004:32), assert that a literature review makes it possible to identify areas in the literature which would require further research. The literature review comprises journals in the field of Geography, taking into consideration the various sub-disciplines (Particularly Urban and Environmental Geography) and liveability indexes. The literature review used in this research study provides an extensive account of liveability standards from about 140 cities in the world. The introduction and background, as well as the context that is related to the research problem, is provided by the literature review.

Liveability is a complex concept as supported by Alderton *et al*. (2019:2) who states that the guidance about what constitutes a liveable city is limited. Further, this article contends that the frameworks of liveability that are available are developed for high-income countries and that attributes such as informal settlements or access to drinking water and sanitation in low-income countries that impact liveability are not captured in the existing definitions. This statement is a stepping-stone in providing an overview of the current research on liveability. The literature review has captured that “liveable cities” as a concept is meaningful in “assessing the performance of cities in supporting the best or worst standard of living” (Adam *et al*., 2017:63). The challenge is therefore not what constitutes a liveable city but rather the development of an acceptance criterion that is to be used for the selection process of liveable and least liveable cities. To this end, the most prominent ranking process is the one used by the Economist, which is a five criteria process and includes the following.
Availability and quality of private and public:

1. Health indicators
2. Education
3. Infrastructure
4. Relative stability
5. Culture and environment (which includes climate and weather, corruption levels, sporting and cultural activities.

7. Data Collection

The data collection method that will be used focuses on secondary data collection through quantitative statistical analysis by making use of various liveability indexes. The various liveability indexes that were used for the study included the following:

- AARP Liveability Index https://livabilityindex.aarp.org/.
- Global Liveability Index https://www.eiu.com/topic/liveability.
- Urban Living Index https://urbanlivingindex.com/.
- Global Peace Index https://www.visionofhumanity.org/global-peace-index/.
- Quality of Life Index https://www.numbeo.com/quality-of-life/rankings_by_country.jsp.
- Liveable City Index https://www.cnbc.com/2019/09/04/global-liveability-index-2019-most-liveable-cities-in-the-world.html.
- Generic liveability index https://link.springer.com/referenceworkentry/10.
- Mercer's quality of living survey https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings.
- Monocle's most liveable cities index https://monocle.com/film/affairs/quality-of-life-survey-top-25-cities-2019/.

The above indexes are used to assess the different liveability conditions across different cities around the world. Mercer's quality of living survey evaluates cities in emerging markets, though challenged by political and economic turmoil, are catching up with top-ranking cities following decades of investing in infrastructure, housing and recreational facilities to attract and multinational businesses and talent (Mercer, 2018).

According to Mercer (2018), Economist Intelligence unit quality of life, the Generic liveability index and Monocle's most liveable cities index, these properties are usually based on data from subjective surveys of, for instance, well-being and life expectancy as well as on data yielding more objective determinants of quality of life such as assessments based on the economic climate, public statistics and as well political stability. A liveability ranking or score provided by such an index is the total account of the situation in a region, nation or a city that is stated to be valid to attain there over a given period annually. Quantitative data is any quantifiable data that can be utilized for numerical figuring or statistical analysis. Quantitative data helps in making a real-life decision based on numerical determinations, whereby it is used to respond to addresses like what number? How frequently? What amount? This data can be approved and checked (Kabir, 2018).

8. Methods of Analysis

In this study we will be using quantitative data provided by the Economic Intelligence Unit's Global Liveability Index, Generic liveability index, Mercer's quality of living survey and Monocle's most liveable cities index, AARP Liveability Index, Urban Living Index and Global Peace Index, whereby we will be able to determine out of 140 countries, the most liveable and least liveable, which ones are considered to have better living conditions and which ones have worse living conditions through statistical indexes and analysis. The additional indexes mentioned above will be used to further assist our study in choosing the most and least liveable cities in the world by taking all possible aspects into account. Additionally there we will also use visual data, whereby the cities chosen for the research with most liveability and least liveability, will be visually displayed as data on the map. In this map, the five most liveable, as well as the five least liveable cities in the world will be identified and mapped.

For Quantitative Data, raw information has to be presented in a meaningful manner using analytical methods. Quantitative data will be analysed to find evidential data that would help in the research process. Data can be entered into an excel sheet to organize it in a specific format. This will be done by selecting appropriate tables and creating an index to represent data and analyse the collected data of the most and least liveable cities. Software like ArcGIS or QGIS will also be used to create the map of the cities that have best or worse liveability conditions, in this way the data will be interpreted through the use of a map. The data will be entered using Windows software (Windows 10) and it will be analysed on the Statistical Package for Social Sciences (SPSS). The analysis support SPSS software will contribute to the findings as well as the accuracy of the SPSS results and the validation of the data. The software will compare and analyse the results of distinct variables of cities that will be used in our research (Thomes, 2018).

9. Results and Discussion

Liveable and least liveable cities in the world

The results that are found are based upon the research done, which consists of ten specific cities around the whole world, from which these ten cities, identified are the five cities that are the most liveable cities in the world and the five cities that are the least liveable in the world. The most liveable cities are identified as Vienna (Austria) scoring 99.1 0ut 100. Vienna developed great public transport systems, safety in the streets and affordable healthcare systems which are some of the reasons that make it the most liveable city. Mercer has also ranked Vienna the most liveable city for an entire decade from 2009 to 2019 (Mercer, 2018). This study has shown that Melbourne (Australia) as the country's capital has an impressive score of 98.4 out of 100 on the

Global Liveability Index. Sydney (Australia) has moved up places in the rankings due to improvements in its cultural and environment score. This rise has come as a result of efforts put into tackling the impact of climate change. Osaka (Japan) occupies fourth place because of its low crime rates and improved quality of transportation while Calgary (Canada) occupied fifth place in the Global Liveability Index but is still regarded as the most liveable city in North America due to its high quality of life. The least liveable cities in the world are identified as Lagos (Nigeria), Tripoli (Libya), Harare (Zimbabwe), Karachi (Pakistan) and Douala (Cameroon). Figure 2 below is a map we created by using ArcGIS software, whereby the most liveable cities are represented in our map by the colour green and the least liveable cities are indicated by the colour red.

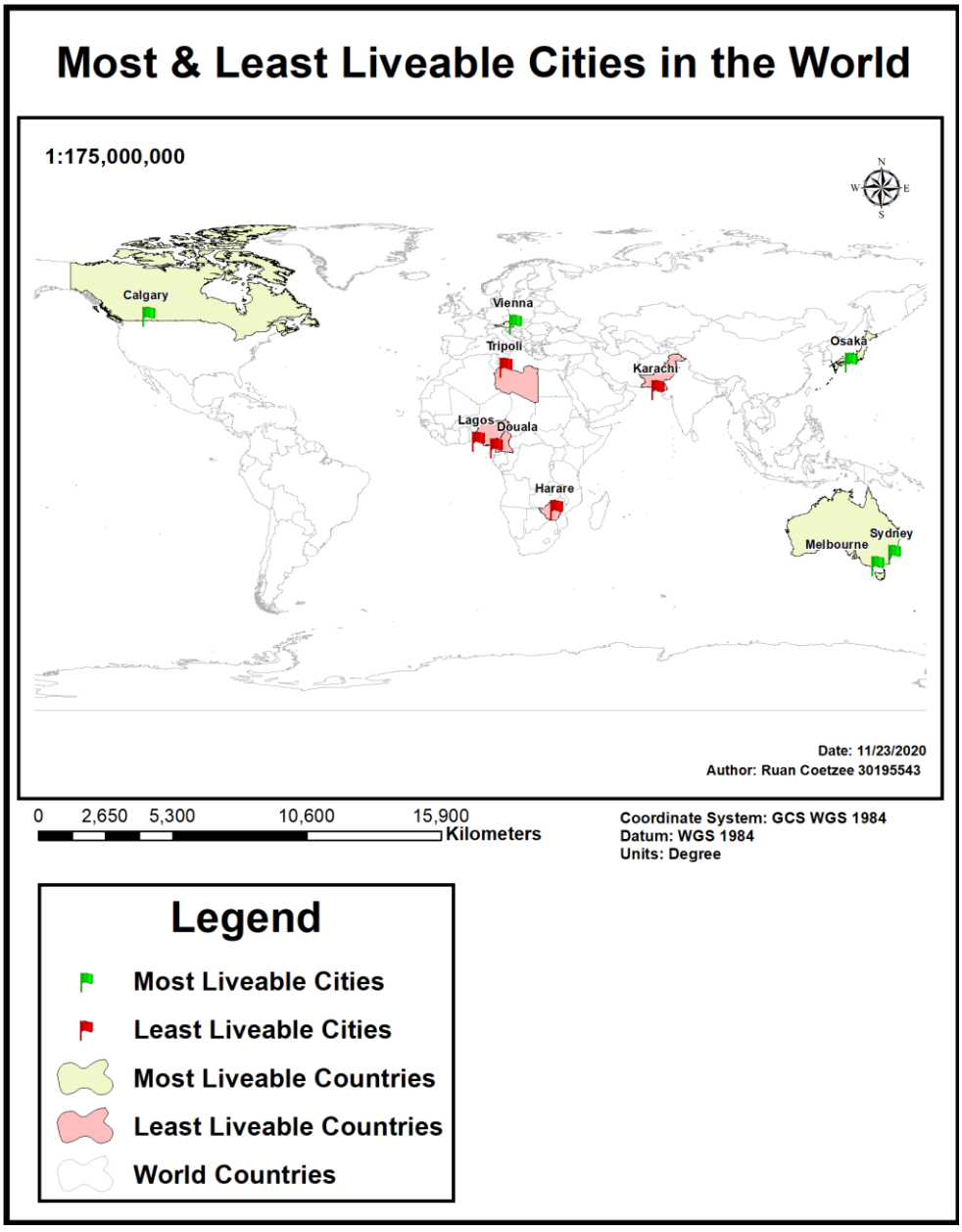

Figure 2: Map of the most & least liveable cities in the world.

Factors that influence liveability

This study has shown that multiple factors are ultimately related to the quality of life that influences liveability. For instance, Bangladesh was rated the second least liveable city in 2015 and this was due to its poor health care, dysfunctional public transport system, high levels of corruption and poor access to sanitation. The study also has shown that war-stricken cities are usually seen as the least liveable cities. This previous statement accentuates some of the factors that influence. Furthermore, it has been investigated that climate plays a big role in the liveability of a city, with the cities with mild climates scoring high and those with poor conditions scoring low. The quality of the environment also plays a key factor in determining how liveable a city is, ranging from the built environment to clean air and water. The study shows that cities with the least pollution and rubbish laying around are more liveable than those with higher levels of pollution and rubbish. Another key factor in determining liveability is the infrastructure, whereby the accessibility and availability of facilities and services such as roads, transport, water, airports, sewerage-treatment plants, emergency services, electricity and communication are essential. Nonetheless, the most crucial factors of liveability have been identified as being the safety and stability which a city can provide. This is the reason why Australian cities are ranked among the most liveable cities in the world, while the least liveable cities are in war-stricken countries, which have high crime rates and poor enforcement of rule and laws.

10. Conclusion

The research project aimed to investigate where the most liveable and least liveable cities are in the world. The project endeavoured to achieve this aim by providing a discussion of what makes a city more liveable and what makes a city less liveable. The study concluded that liveability is a very complex and complicated concept, whereby the study has also noted that there are multiple factors which influence the liveability of cities, such as peacefulness, crime rates, access to water and sanitation, safety and stability and many more, that subsequently determine the liveability of a city and ultimately the quality of life. Furthermore, the study determines the five most liveable and the five least liveable cities in the world. From which the results of the research project represented, it is clear that the five most liveable cities in the world are identified in chronological order as Vienna (Austria), Melbourne (Australia), Sydney (Australia), Osaka (Japan) and Calgary (Canada), whereas the five least liveable cities in the world are identified in chronological order as Lagos (Nigeria), Tripoli (Libya), Harare (Zimbabwe), Karachi (Pakistan) and Douala (Cameroon).

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