BANKING EXPANSION IN EMERGING ECONOMIES

OPPORTUNITIES AND THREATS

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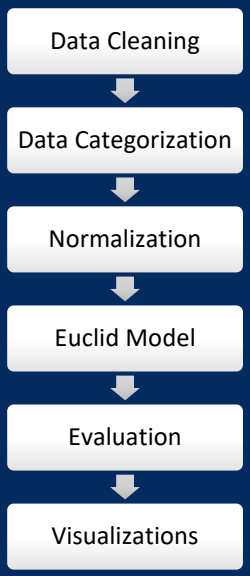
A diagram demonstrating the proposed methodology for examining banking expansion in emerging economies:



KEY HIGHLIGHTS

- Analysis considering 280 economic and social factors
- Balanced evaluation of threats and opportunities for each location
- Euclid Model: utilized to determine optimal country based on opportunity and threat scores
- China: high-opportunity, high-risk location
- Northern and Eastern Europe offer lower risks but fewer opportunities

SUMMARY

In this consulting report, our goal was to choose the best country from a list of 28 locations for the new bank branch, taking 280 economic and social factors into account. We tried to balance the threats and opportunities related to each place in our report.

To achieve this, we used the Euclidean Model to assess the countries according to how closely they adhered to the desired criteria. We used a variety of visualizations throughout the evaluation, such as globe heatmaps, scatter charts, radar charts, and bar charts, to fully comprehend the intricate correlations between the factors.

Country	Avg. Opportunity Score	Avg. Threat Score	Euclidean Distance	Rank
China	0,530995832	0,411401263	0,623871708	1
Estonia	0,406102362	0,234698558	0,638590493	2
Czech Republic	0,414953578	0,302672471	0,658703226	3

FINDINGS

Our findings suggest that a bank should be established in East Asia, specifically in the People's Republic of China. It is important to keep in mind that this presents both high threats as well as high opportunities. This implies that the bank would operate at significant risk while also having the potential to make a lot of profit. Although a bank branch in Northern or Eastern Europe may not offer as many prospects as one in China, the risk is far smaller.

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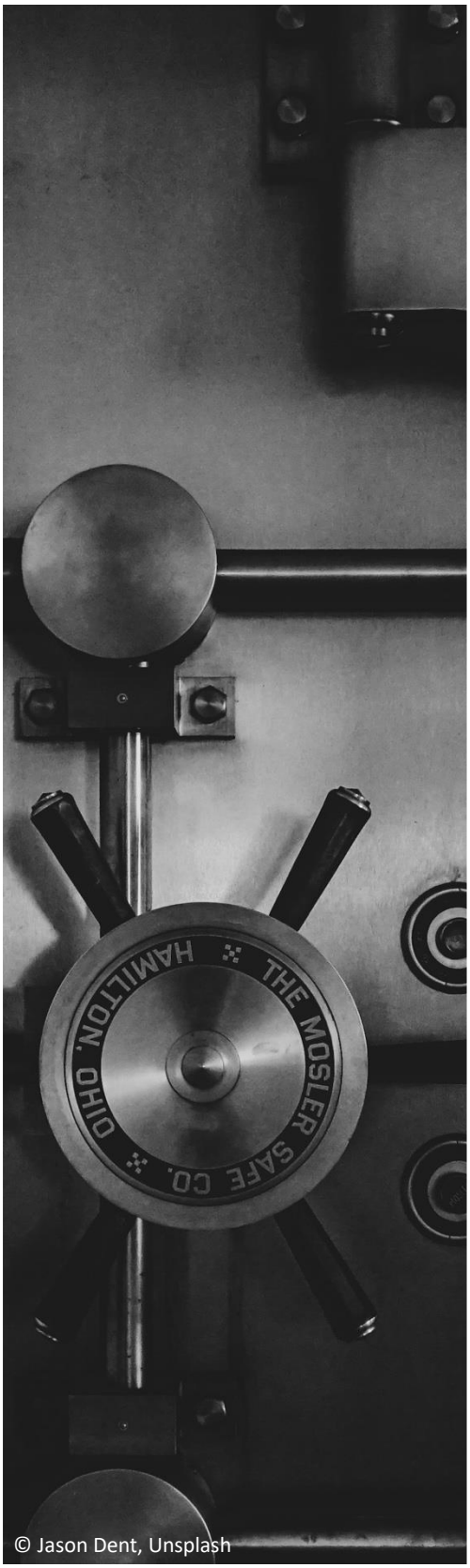
INTRODUCTION



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The banking industry plays a pivotal role in driving the economic prosperity of emerging nations. The rapid growth is spurred by millions of formerly destitute individuals exceeding the income threshold for banking services and the introduction of technology breakthroughs, such as mobile banking. Nevertheless, the momentum of this trend remains in its nascent stage, as the banking markets of most emerging economies are still in their infancy. In comparison to industrialized economies, developing markets have just a small percentage of the population with bank accounts and credit to consumers is limited. Consequently, the banking revenues in emerging nations continue to exhibit a minuscule share of their respective GDPs, while the per capita banking revenues remain modest. However, when compared to the saturated Western markets, the banking sector in emerging markets emerges as a fertile ground brimming with great opportunities for both existing firms and entrants. Essentially, emerging economies offer substantial prospects for expansion in the banking sector, driven by factors such as increasing incomes, enhanced educational attainment, and the potential for further institutional and infrastructural advancements. Despite inherent risks and hurdles, the trajectory of these emerging nations inspires confidence in their banking industry' potential future.

This consulting report dives into the complexities of the determinants underlying banking expansion in emerging economies. Our objective is to provide a complete overview of the many aspects that influence this process, including country characteristics, regulatory frameworks, and market forces. The goal is to provide strategic recommendations to aid in selecting the optimal location for the new bank.

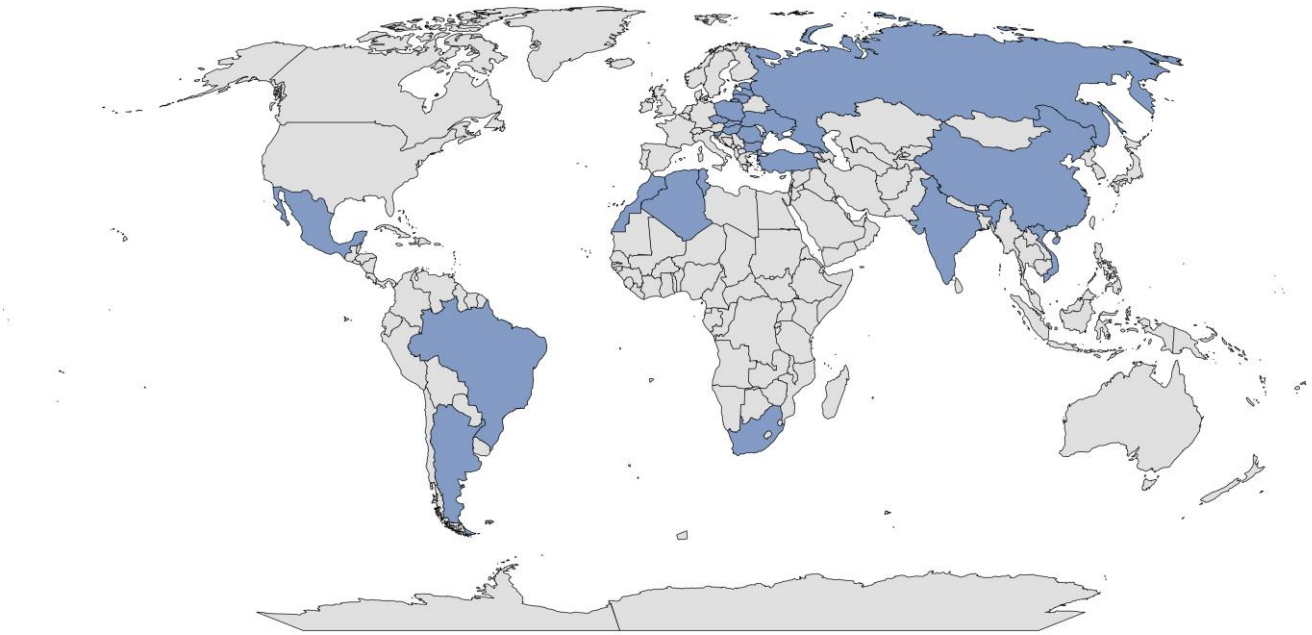
Problem Description

The internationalization of banking in emerging markets is influenced by a range of factors that have the potential to either facilitate or impede market entry and expansion. These factors encompass an array of aspects, such as country' characteristics, market dynamics, sociocultural components.

The report endeavors to conduct an analysis of the banking landscape in 24 selected countries spanning four continents. The heatmap below depicts only the countries from our dataset. Each of these countries presents a distinct set of opportunities and threats to the banking business. For this project, a total of 280 economics and sociocultural factors in these economies went through a cleaning process. Subsequently, these factors were categorized into two separate categories of opportunities (strengths) and threats (weaknesses).

Our methodology employs the Euclid model, which is combined with Excel calculations to create average opportunity and threat scores, Euclidean distances, and ranking for countries based on their proximity to the ideal point. Furthermore, to portray the findings visually, we use a variety of visualizations such as scatter charts, radar charts, bar charts and world heatmaps.

Country overview



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PROPOSED METHOD

This chapter outlines the proposed method that was utilized in this consulting report to evaluate the factors and determinants that underlie internationalization of banking in emerging nations. A step-by-step description of the approach will be presented, including da cleaning and categorization, the analytical framework, as well as visualizations to improve the result comprehension. The methodology uses Excel calculations and the Euclid model to examine 280 factors that pertain to both economic and social aspects across 24 selected nations. The goal is to determine the ideal site for establishing a new bank and to provide an understanding of the opportunities and threats inherent in each nation.

Data Cleaning and Categorization

The methodology begins with a data cleaning and categorization procedure to assure the accuracy of the dataset. The dataset was examined as part of the data cleaning process to spot and remove any discrepancies and duplicates. Following the completion of the data cleaning process, a total of 267 factors remain for the analysis.

Afterwards, the factors were divided into two categories: opportunities (strengths) and threats (weaknesses). This classification enables an in-depth analysis of the banking environment in each nation. The factors were evaluated to determine which ones, such as good market conditions, regulatory frameworks, or technical breakthroughs, favorably affect the opportunities category. Parallel to this, threats include factors, such as economic instability and high crime rates, that present difficulties or obstruct banking expansion. The foundation for further analysis and evaluation is laid out by this categorization.

Analytical Framework

The methods used to analyze the banking prospects of the selected countries are described in the chapter on the analytical framework. Our aim is to offer an organized approach for assessing and contrasting the banking potential in each of these nations. Through the application of this methodology, we hope to provide analytical data that may inform strategic decisions in selecting the best locations for growing banking operations. In the subsequent page, we delineate the process of data normalization and its application within the Euclid model.

Normalization

The initial step involves removing the unit of measurement from the data to facilitate meaningful comparisons of individual values. This is done by normalizing the data. To perform the normalization, the minimum and maximum for each factor is determined. After this the formula for normalization is applied on the data.

The application of the formula results in a standardized scaling of variables, so that the values fall within the range of 0 and 1, with 1 being the highest possible score and 0 being the lowest possible score. With this scaling, each variable is given a standardized and similar measurement throughout the chosen nations.

The normalized variables are then averaged for each country to create an average threat and opportunity score for every country.

Normalization Formula:

$$x_{new} = \frac{x - x_{min}}{x_{max} - x_{min}}$$

Euclid Model

Now that we have an average threat and opportunity score for each selected country, we can compare them by plotting them on a graph and calculating the Euclidean distance between each country and a theoretical “ideal point”. This point has an average opportunity score of 1 and an average threat score of 0. The Euclidean distance describes how close two points are to each other. It is calculated with this formula, in which “a” and “b” are the points that are being compared, while “x_a” and “y_a” are the coordinates of the point a.

By comparing the Euclidean distance between each point and the ideal point we can create a ranking of all selected countries, in which the country closest to the theoretical ideal point is the most optimal.

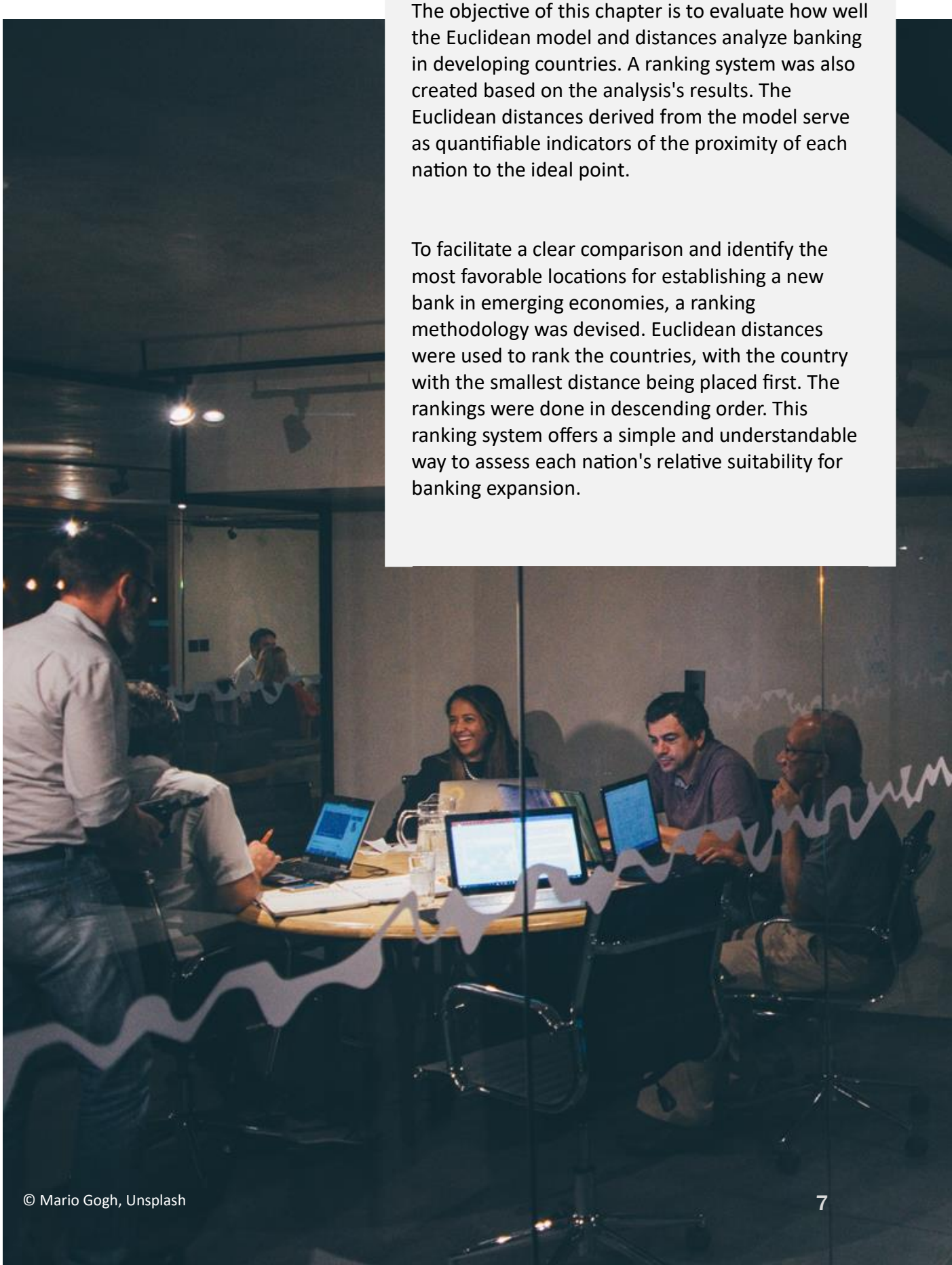
Euclidean Distance:

$$d(a, b) = \sqrt{(x_a - x_b)^2 + (y_a - y_b)^2}$$

Evaluation

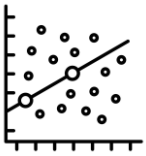
The objective of this chapter is to evaluate how well the Euclidean model and distances analyze banking in developing countries. A ranking system was also created based on the analysis's results. The Euclidean distances derived from the model serve as quantifiable indicators of the proximity of each nation to the ideal point.

To facilitate a clear comparison and identify the most favorable locations for establishing a new bank in emerging economies, a ranking methodology was devised. Euclidean distances were used to rank the countries, with the country with the smallest distance being placed first. The rankings were done in descending order. This ranking system offers a simple and understandable way to assess each nation's relative suitability for banking expansion.



Visualization

Several visualizations were used to improve the presentation and interpretation of the results. The report aims to portray the findings in a visually appealing and understandable way by utilizing the following different visualizations, promoting a deeper knowledge of the evaluation results, and assisting in strategic decision-making processes.



Scatter Chart

The connection between opportunity and threat scores for each nation was represented using a scatter chart, with the ideal point signifying the most favorable conditions for founding a bank.

World Heatmaps

World heatmaps were created to graphically illustrate how close each nation is to the optimum factors based on the evaluation metrics. These heatmaps offer a visual representation of the scores and feasibility of each country for banking expansion.

Radar Chart

A radar chart was utilized to give an overview of the average opportunity and threat scores for each nation.

Bar Chart

The presented bar chart depicts the 24 countries arranged in descending order based on their Euclidean distance and rank.

Visualized Methodology

A schematic diagram demonstrating the proposed methodology for examining banking expansion in emerging economies is provided below.

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RESULTS

The outcomes of the analysis carried out applying the proposed method from the previous chapter for examining banking expansion are presented in this chapter.

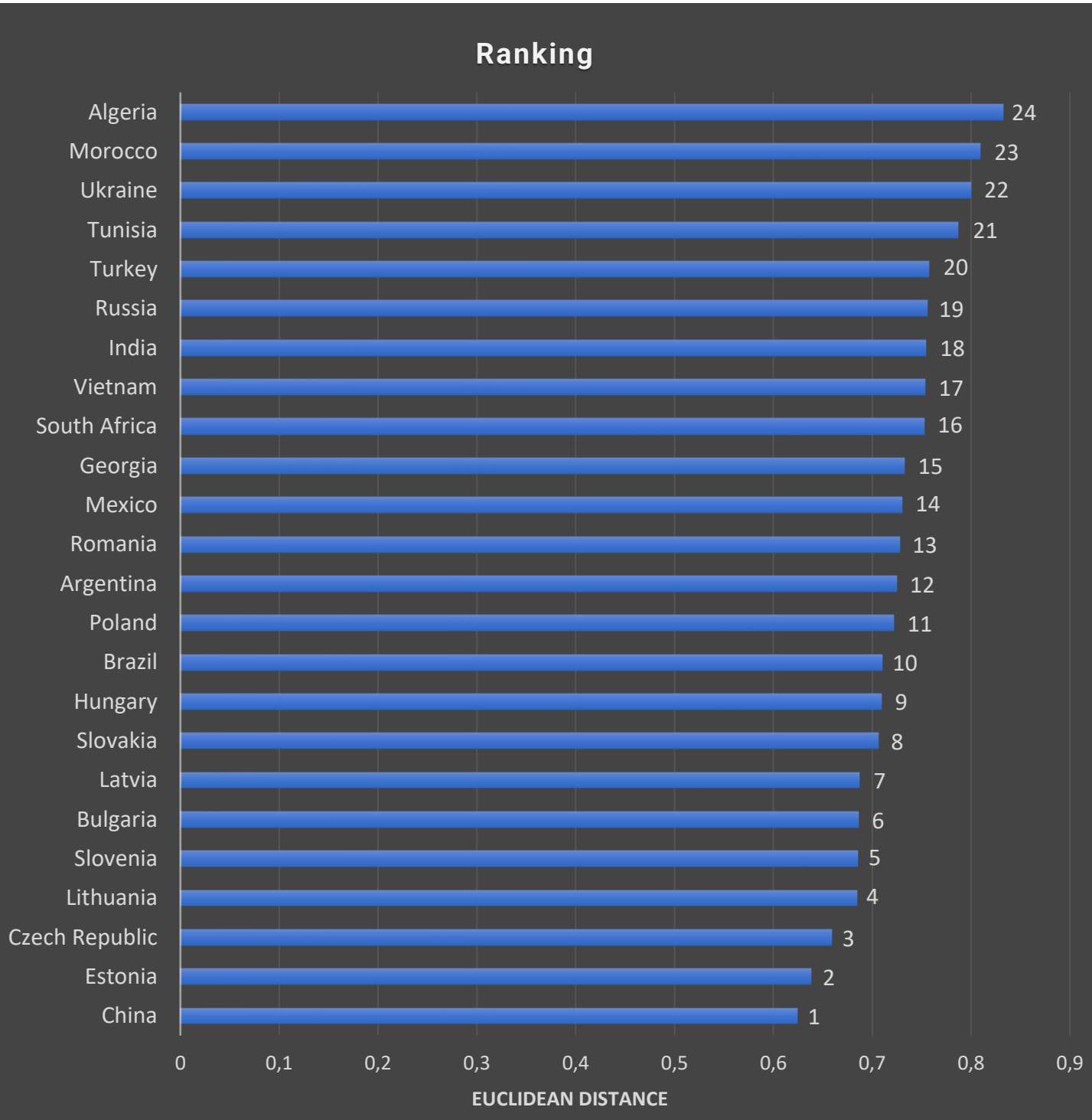
Several visualizations are used to present the results, including scatter plots, radar chart, world heatmaps, and rankings. These graphic representations offer a thorough comprehension of the opportunities and threats of the emerging nations for setting up a new bank.

Overall Ranking

This chapter unveils the overall ranking of the 24 analyzed nations based on their Euclidean distances. A bar chart that displays the countries in descending order of their Euclidean distances illustrates the rating. The countries with their names are represented on the y-axis. The Euclidean distance is presented on the x-axis and the rank of each country is on the right of each bar.

Description Bar Chart

The overall ranking is important to see where it might make the most sense to build a bank or consider building one in an emerging market. However, one cannot see a distinction between the threats and the opportunities. For example, China does not show that there is a very high chance to build a bank in the emerging market, but also a high threat due to the factors already mentioned. Thus, one can say that this chart is only useful for a rough overview.



Score Table

The table below presents a comprehensive overview of the analyzed countries, featuring their average opportunity and threat scores, Euclidean distances, and respective ranks.

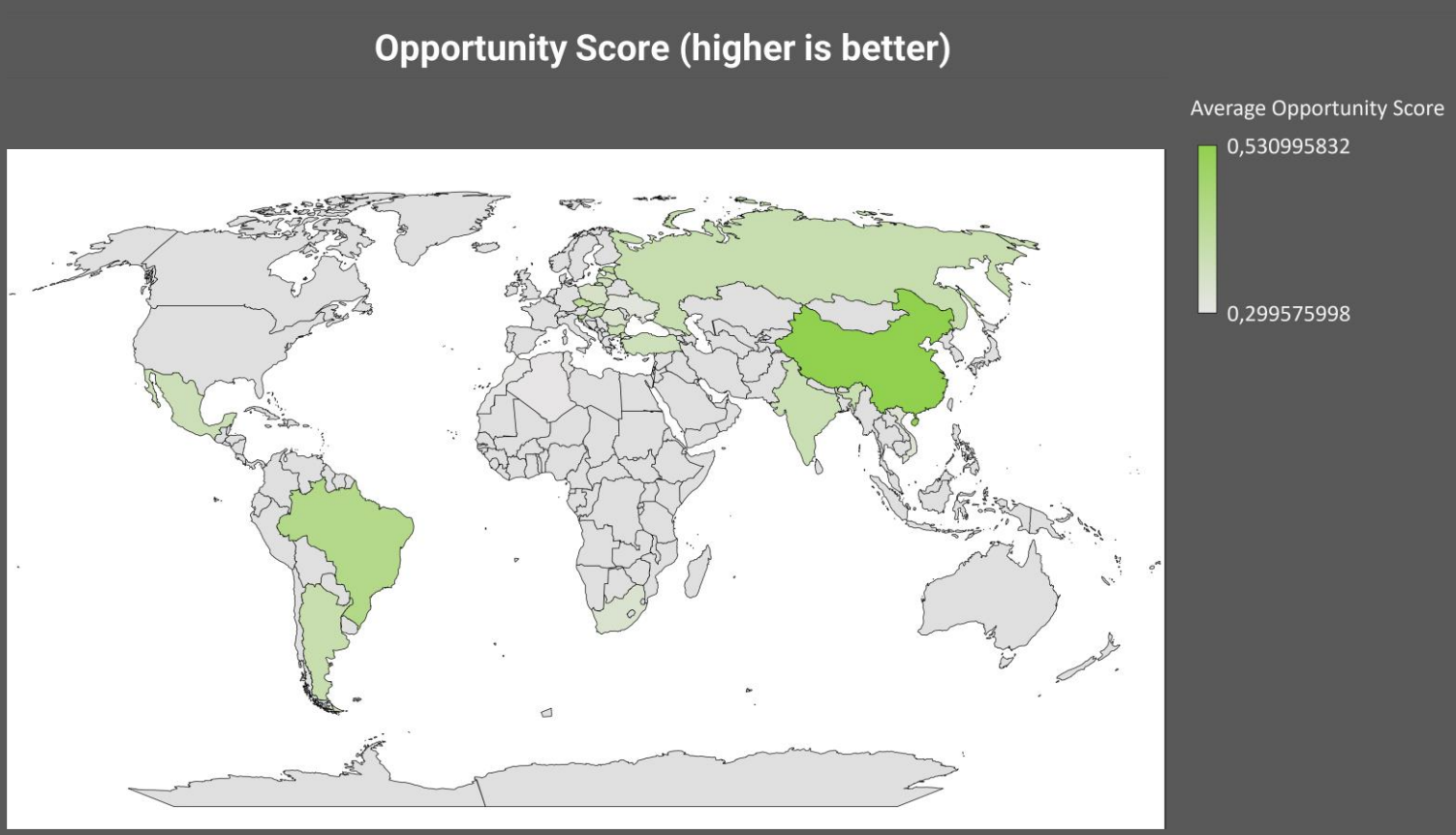
Country	Average Opportunity Score	Average Threat Score	Euclidean Distance	Rank
Algeria	0,299575998	0,449946306	0,83249352	24
Argentina	0,384437565	0,383383355	0,725189567	12
Brazil	0,43944514	0,435481148	0,709834897	10
Bulgaria	0,373486687	0,279637585	0,686087539	6
China	0,530995832	0,411401263	0,623871708	1
Czech Republic	0,414953578	0,302672471	0,658703226	3
Estonia	0,406102362	0,234698558	0,638590493	2
Georgia	0,311078142	0,250007942	0,732882867	15
Hungary	0,372233481	0,330572776	0,709485139	9
India	0,376830948	0,424275526	0,753889507	18
Latvia	0,35757305	0,242042728	0,686510793	7
Lithuania	0,358322278	0,237568908	0,684243586	4
Mexico	0,370511459	0,37042408	0,730390185	14
Morocco	0,30241671	0,409901912	0,809099515	23
Poland	0,347059051	0,308050095	0,721960348	11
Romania	0,338468244	0,30304348	0,727639756	13
Russia	0,383248709	0,436387895	0,755524023	19
Slovakia	0,371199222	0,320863844	0,705934859	8
Slovenia	0,403818952	0,337832898	0,685246605	5
South Africa	0,335374808	0,352713725	0,752418513	16
Tunisia	0,307076527	0,372832368	0,786858891	21
Turkey	0,365121431	0,412970915	0,757374263	20
Ukraine	0,314567587	0,412165423	0,799811183	22
Vietnam	0,323962516	0,333194008	0,753687553	17
Average	0,366160845	0,348002884		
Ideal	1	0		

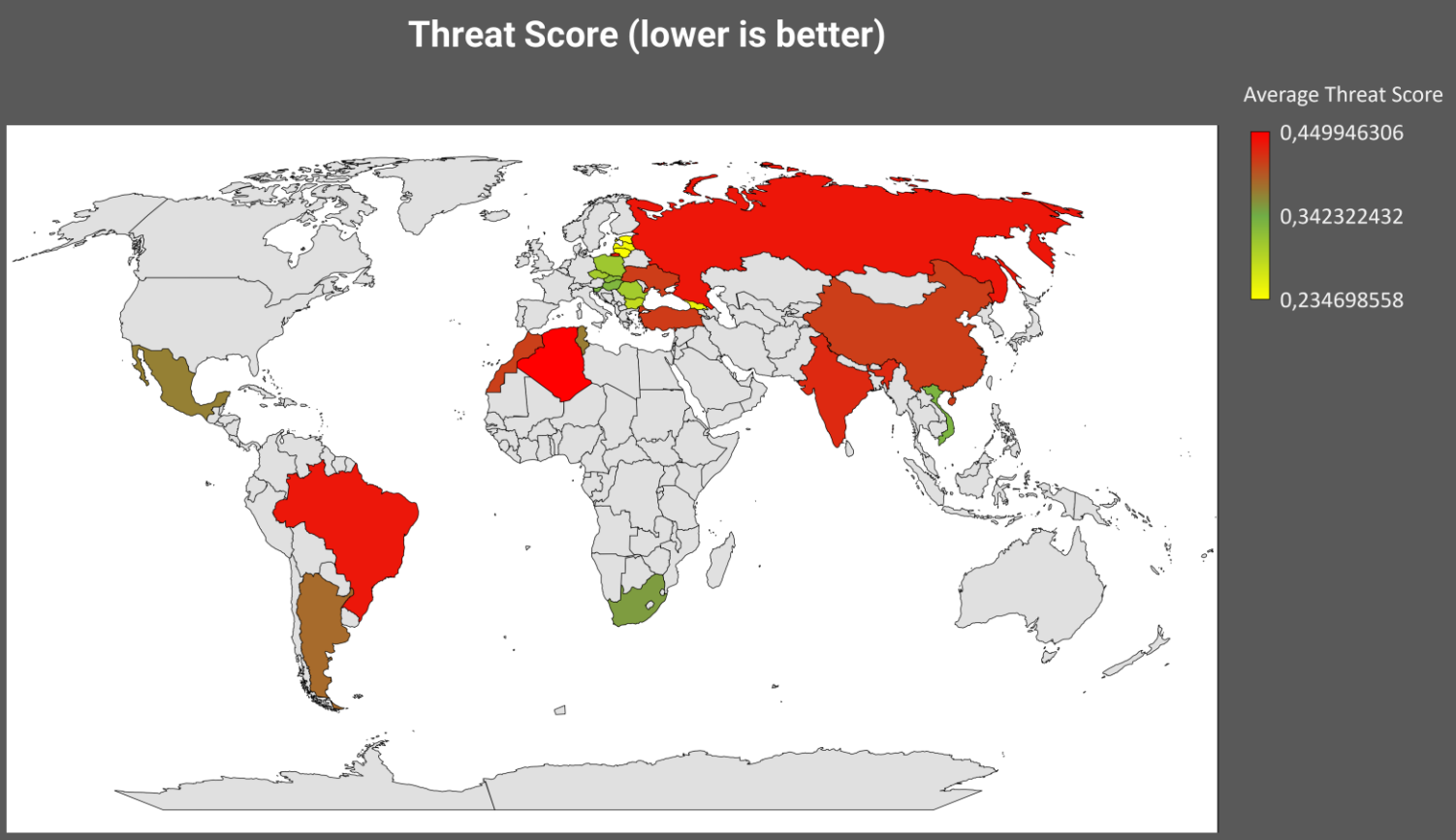
World Heatmaps

World Heatmap Opportunity

The heatmap presented in this section highlights the countries with the highest average scores of opportunities, providing valuable insights into potential markets for banking expansion.

Notably, Brazil, China, Czech Republic, Slovenia, and Estonia—countries with high average Opportunity Scores—appear as viable locations for the establishment of new banks.





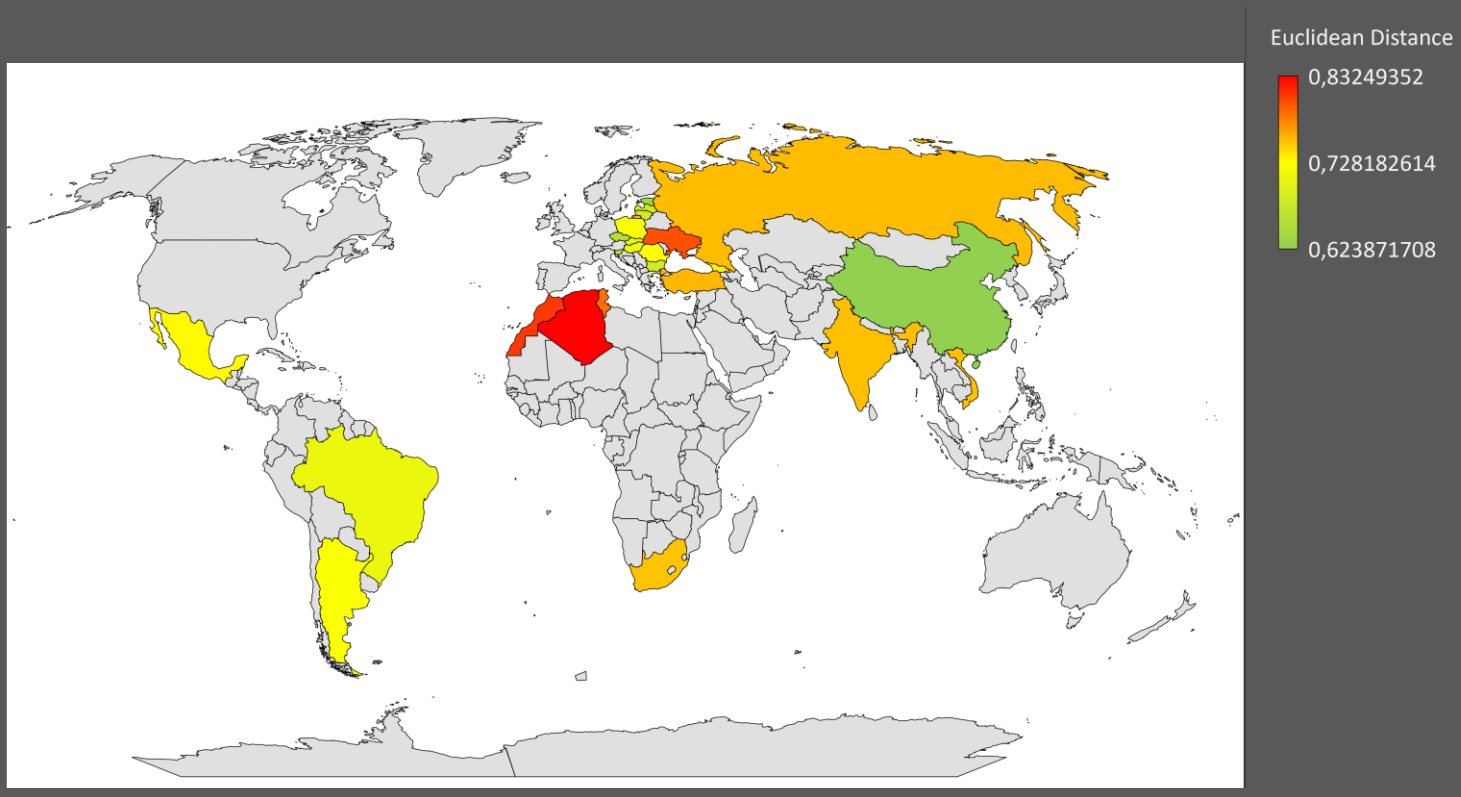
World Heatmap Threats

The heatmap above shows the countries with the highest average score of threats. Upon examination of the heatmap, it becomes apparent that Russia, China, and Algeria emerge as the countries with the highest average threat scores.

Matrix Table

The matrix table presented below showcases the countries with the lowest and highest opportunity scores, as well as the countries with the lowest and highest threat scores. Each quadrant of the table matrix features six countries, representing both ends of the spectrum in terms of opportunity and threat scores.

	Low Threat	High Threat
Low Opportunity	Lithuania, Latvia, Georgia, Romania, Poland, Vietnam	South Africa, Tunisia, Morocco, Ukraine, Turkey, Algeria
High Opportunity	Estonia, Bulgaria, Czech Republic, Slovakia, Hungary, Slovenia	Mexico, Argentina, China, India, Brazil, Russia



World Heatmap Euclidean Distance

The preceding world heatmap provides an overview of the Euclidean distances, which show how close each nation is to the ideal circumstances for banking expansion.

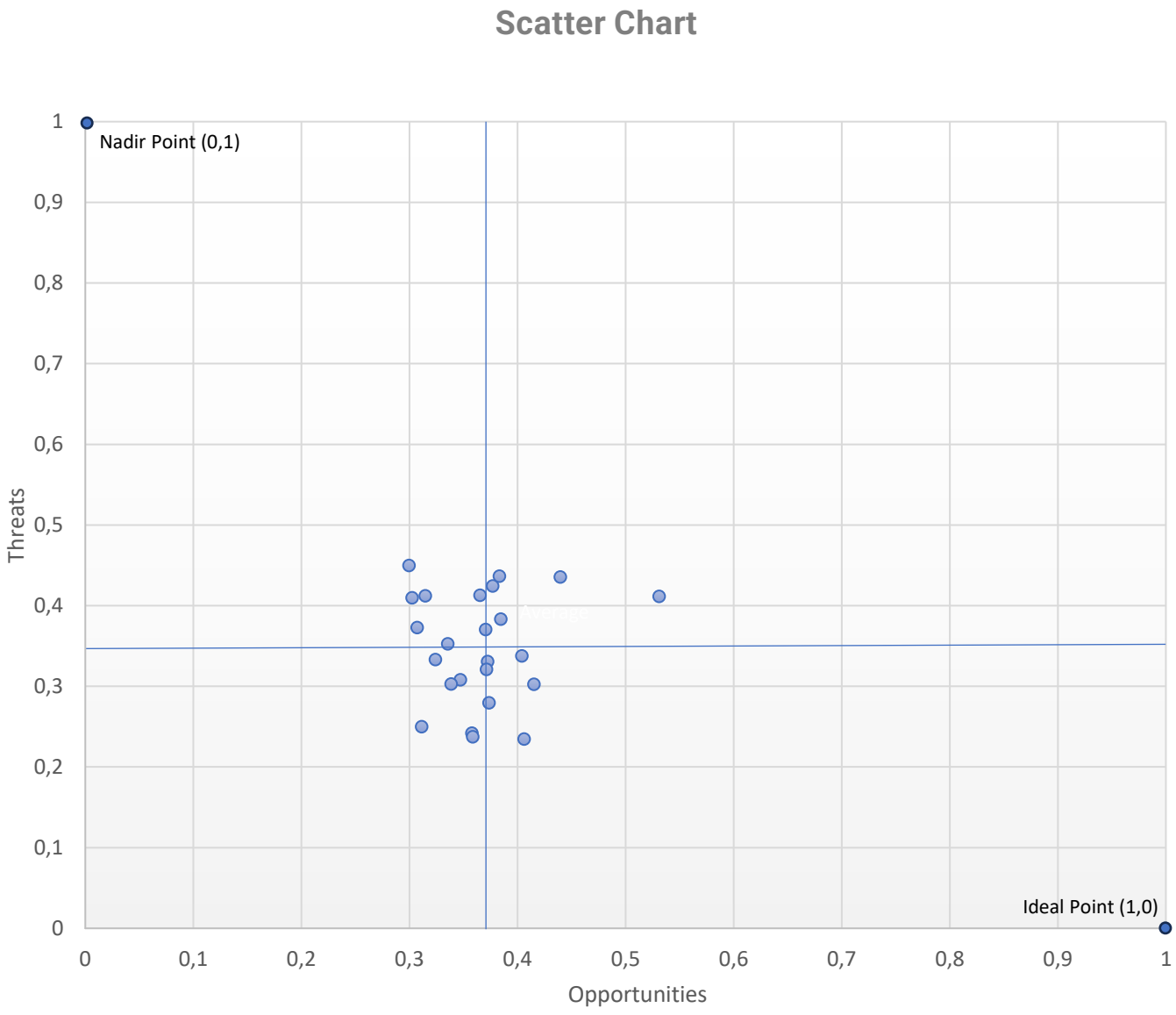
China, Estonia, and the Czech Republic stand out with the lowest Euclidean distances, demonstrating their close match with the intended objectives.

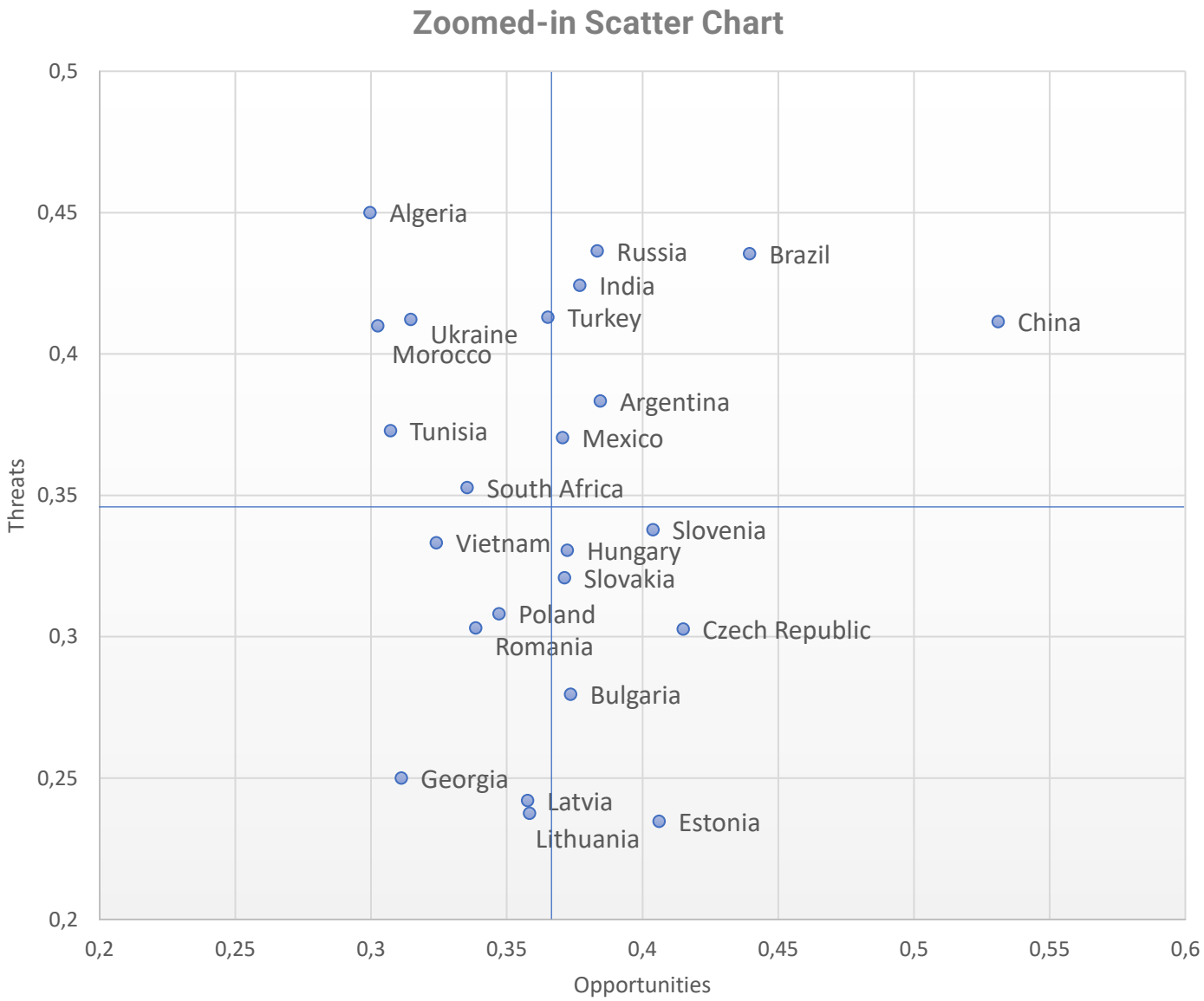
On the other hand, Algeria, Morocco, and Ukraine demonstrate the highest Euclidean distances.

Scatter Charts

After normalization, all influencing factors are now scaled between 0 and 1. Following the normalization process, the averages are calculated for both positive and negative criteria for each country. These two average form the basis for the score chart, which is depicted as a scatter chart.

Th scatter chart below depicts the opportunities of each country on the x-axis and their corresponding threats on the y-axis. The ideal country to investigate in would have the maximum opportunity score of 1 and a minimum threat score of 0. This point is also called the 'Ideal Point', which is located at the position (1,0). Conversely, the worst point is the 'Nadir Point', situated at position (0,1). The closer a country's data point is to the 'Ideal Point', the more favorable it is. For this reason, this country gets a higher chance to build a bank there. It combines low effort/risk with high chance for build a bank. The horizontal line shows the average threat score, and the vertical line shows the average opportunity score. The intersection of these two lines is the average point.





Description Scatter Chart

The scatter plot is typically divided into four quadrants.

In the lower left quadrant, countries with lower threats and lower opportunities are depicted. This implies that there are minimal threats or disadvantages to establishing a bank in those countries, but the opportunities for generating high profits are also limited or nonexistent. In any case, one should keep an eye on whether the opportunities improve over time. Examples of countries in this quadrant include Georgia, Vietnam, and Romania.

In the lower right quadrant, countries with low threats but high opportunity rates are presented. These include countries such as Estonia, Bulgaria, and Czech Republic.

The upper left quadrant showcases countries with high threats and low opportunities, such as Algeria, Tunisia, and Morocco.

The upper right quadrant exhibits countries that display both high threats and high opportunities. Notable countries situated in this quadrant include China, Brazil, and Russia.

Radar Chart

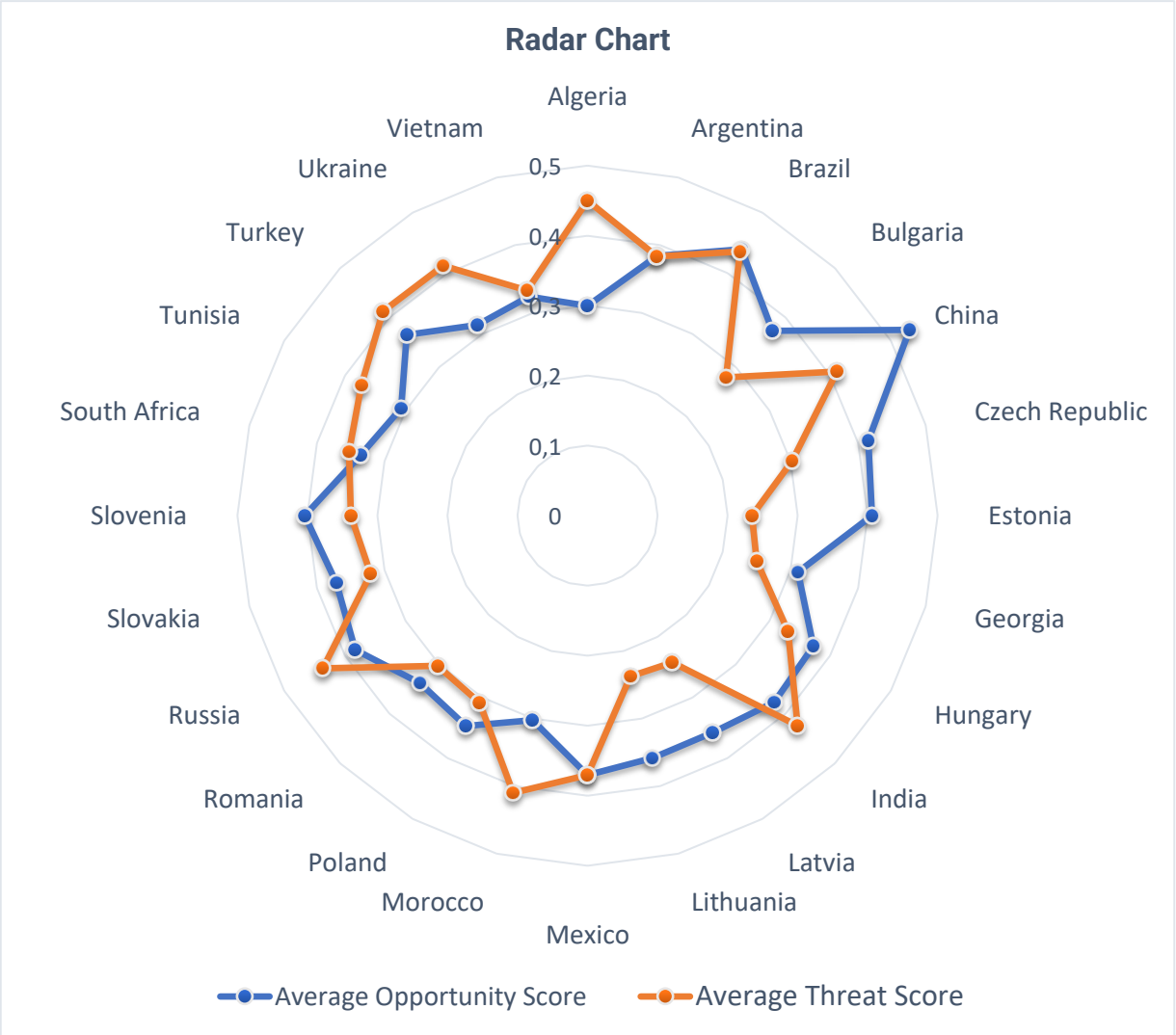
Another visualization method for assessing the decision is by using a radar chart. This provides a good overview of the different ratings of the countries. This is mainly used to go into the depth of the data and to clarify the opportunities and threats.

The radar chart provided below offers a visualization of the opportunity and threat score for each individual country and the corresponding values.

For instance, China demonstrates a notable confluence of high threat and opportunity score, indicating a simultaneous presence of significant opportunity and elevated risk.

Description Radar Chart

The radar chart displays that in some countries such as in Algeria, Ukraine and Morocco, the Threat Score is significantly higher than the average from the Opportunity Score. There are also countries where the threat and the opportunities average are both very high, such as China, Brazil, and India. Lastly, there are also countries where the opportunities outweigh the threats on average. This is the case, for example, for countries like Estonia, Romania, Slovenia, and Poland.



RECOMMENDATIONS AND CONCLUSIONS

The findings of our evaluation emphasize the suggestion to build a bank in East Asia, specifically in the People's Republic of China. This opportunity entails both significant risks and substantial rewards. China exhibits a balance between opportunities and threats, with an average opportunity score of 0.531 and an average threat score of 0.412.

It is noteworthy that among the examined nations, China stands out with the lowest Euclidean distance of 0.62387. Its close alignment with the ideal point further strengthens its position as an attractive location for a new bank branch.

Comparatively, establishing a bank office in Northern or Eastern Europe offer fewer prospects since but also poses fewer threats. This shows that these areas have more stable business environments.

In conclusion, our findings highlight the importance of carefully weighing the opportunities and threats of each proposed location. China has a tremendous profit potential, but it necessitates strict risk management. In contrast, Northern or Eastern Europe might offer a more secure environment with fewer risks, albeit with slightly constrained expansion potential.

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