

Comparative Analysis on the Continent of Origin of Pre-Pandemic Foreign Tourists in Caraga, Philippines

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Abstract: *This study analysed the pre-pandemic foreign tourist arrivals in Caraga Region of the Philippines. Causal-comparative research design was used using secondary data from the Regional Social and Economic Trends in 2022 Caraga from the Philippine Statistical Authority. The data covered foreign visits from 2012-2019 which were analysed using One-Way Analysis of Variance (ANOVA) and Scheffe's Test. Findings revealed that Middle East countries have the least number of visits in Caraga and statistically not significantly different from countries in Australia. On the other hand, visitors from Europe, America, and Asia comprised another subset of visitors who have the most number of visits in Caraga.*

Keywords: Tourism, Continent of Origin, Caraga Region, One-Way Analysis of Variance

I. INTRODUCTION

The dynamics of global tourism have witnessed a remarkable transformation over the years, driven by increasing connectivity, evolving travel preferences, and expanding economic opportunities. With the world becoming more interconnected, an unprecedented number of nationals from various countries have embraced the culture of frequent travel, contributing to the global tourism industry's vibrancy. Amid this trend, the Caraga Region in the Philippines has emerged as a promising destination, offering a captivating blend of natural wonders, cultural richness, and immersive experiences. As we delve into the intersection of these dynamics, this discussion examines the propensity of nationals who are avid travelers, the evolving trends in global tourism, and the unique allure that the Caraga Region holds for both domestic and international visitors (Chung et al., 2019).

The modern era has witnessed a surge in the number of individuals who are enthusiastic about exploring different corners of the world. These intrepid travelers, often referred to as "world citizens" or "globetrotters," are driven by a passion for diverse experiences, cultural encounters, and personal growth. This segment of nationals who travel extensively has played a pivotal role in shaping the landscape of global tourism. Their travel patterns transcend traditional vacation paradigms, embracing everything from leisure trips to eco-adventures, cultural immersions, and even digital nomadism. With the advent of technology, travel has become more accessible, enabling these travelers to transcend geographical boundaries and discover new horizons.

Nestled within the Philippines, the Caraga Region stands as a microcosm of the nation's rich heritage, stunning landscapes, and warm hospitality. Caraga's appeal lies not only in its pristine beaches, lush mountains, and vibrant festivals but also in its deep-rooted cultural traditions that beckon travelers seeking authenticity. As a region poised at the intersection of land and sea, Caraga boasts a diverse range of attractions, from the enchanting Enchanted River to the captivating Hinatuan Bay. The region's blend of ecotourism, historical sites, and indigenous communities presents a unique tapestry that has started to attract attention from both domestic and international tourists. This discussion delves into the captivating dynamics of Caraga's tourism sector, exploring how it intertwines with the global trends of travel while maintaining its distinctive charm and allure.

Understanding the country of origin of tourists holds immense significance in the realm of destination management and tourism strategy. It provides a nuanced understanding of the diverse preferences, behaviors, and motivations that different nationalities bring with them when exploring new places. This understanding serves as the foundation for targeted marketing efforts and tailored promotional campaigns. By tailoring messages to resonate with the interests of

specific nationalities, destinations can effectively capture the attention of potential travelers and create a compelling narrative that appeals to their unique aspirations.

II. LITERATURE REVIEW

Germany has established itself as the frontrunner in global travel, setting an impressive record with 99,533,000 international trips taken in 2020. This remarkable figure underscores the country's passion for exploration and its citizens' enthusiasm for venturing beyond their borders. Notably, each German vacationer spent an average of \$480, signifying a balance between the desire to explore and prudent spending. The United States follows closely in second place, with a notable count of 60,549,898 trips abroad. The American travelers, characterized by their penchant for immersive experiences, spent an average of \$1,214 per trip. Interestingly, the prominence of Germany and the USA on this list raises intriguing insights. Despite the significant population sizes of China and the United States, it's noteworthy that certain European countries are equally adept at embracing the spirit of travel. This reveals a cultural inclination towards international exploration, irrespective of population factors. Curiously, a parallel can be drawn between Europeans and Americans in terms of their favored vacation destinations. Both groups tend to opt for continental exploration, with the USA boasting diverse and captivating landscapes that draw visitors from within its vast expanse, followed by popular destinations in Mexico and Canada. On a broader international scale, an interesting shift has been observed in the composition of tourists. Asia's presence has grown steadily, with Chinese, South Koreans, and Taiwanese travelers increasingly embarking on journeys across various nations. This cohort exhibits a unique trait of covering multiple destinations in a single vacation, contrasting with the traditional model of spending longer durations at individual spots. This trend not only reflects their eagerness to explore but also impacts their spending patterns. Frequent changes of location contribute to higher average costs per person, creating a ripple effect on the global tourism landscape (Worlddata, 2022).

A survey conducted by Timetric, a business consulting firm, has unveiled compelling insights into the global travel patterns, highlighting that northern Europeans have emerged as the most avid travelers. The survey reveals a notable presence of four Nordic countries within the top five, attesting to the inherent wanderlust among these nations. Notably, the United States also secured a spot in the top five, although their travel habits were primarily dominated by domestic journeys. A particularly intriguing finding was that Norwegians held the distinction of being the most frequent international travelers, embarking on an average of two international trips annually. The survey delved into the underlying factors that drive the travel fervor among Nordic citizens. It unearthed a combination of influences that contribute to their high travel rates. These include robust economies marked by high incomes and low unemployment rates, creating a favorable environment for leisurely exploration. Moreover, the relatively elevated cost of living in these countries plays a pivotal role – the allure of traveling to more budget-friendly foreign destinations presents a compelling incentive. The desire to escape the rigors of the harsh winter climate emerged as another significant motivation, prompting a notable number of Scandinavians and Finns to seek warmer destinations abroad (The Sydney Morning Herald, 2014).

From February to December 2022, the United States emerged as the dominant market for international tourism to the Philippines, showcasing its prominent position in driving inbound travel. Impressively, approximately 505,100 travelers from the U.S. chose the Philippines as their destination during this period, underscoring the allure of this Southeast Asian nation. Notably, South Korea, Australia, and Canada also contributed significantly to the ranks of foreign visitors, solidifying their positions as key players in shaping the Philippines' tourism landscape. During the years 2020 and 2021, international tourists displayed a consistent pattern in their length of stay in the Philippines. On average, visitors extended their sojourn to 10.58 nights, indicative of a desire to immerse themselves in the country's cultural tapestry, natural beauty, and vibrant experiences. This average duration of stay underscores a balanced approach, allowing travelers to explore various facets of the Philippines without being rushed. The data not only showcases the United States' robust influence on the Philippines' tourism industry but also highlights the diverse pool of visitors from South Korea, Australia, and Canada, all contributing to the nation's thriving tourism ecosystem. Additionally, the average stay duration provides insights into the type of experiences international tourists seek – ones that offer both depth and breadth in their exploration. As the Philippines continues to capture the attention of global travelers, this

information holds valuable implications for tourism strategies, infrastructure development, and crafting enriching visitor experiences (Statista, 2023).

The Department of Tourism (DOT) recently disclosed a momentous achievement, reporting that the Philippines has welcomed over 2 million visitors since the easing of border restrictions for foreign tourists on February 10, 2022. The magnitude of this accomplishment has surpassed initial projections, with Secretary Frasco emphasizing the significant demand for travel to the country. This accomplishment aligns with the administration's prioritization of tourism, showcasing the country's promising trajectory toward recovery. Secretary Frasco underscored the importance of maintaining open channels for tourists and fostering an environment conducive to tourism businesses, which in turn generates livelihood opportunities for Filipinos. As of November 14, 2022, the DOT's report unveils a total of 2,025,421 visitor arrivals, with 73.43% constituting foreign tourists and the remaining 26.57% representing overseas Filipinos. This achievement is underscored by the significant economic impact, as visitor arrivals from February to September 2022 generated an estimated Php 100.7 billion – an impressive 1938.14% surge compared to the same period in the previous year. The report delves into the nationalities that contributed significantly to this surge in tourism. Notably, the United States of America leads the pack with 19.01% of foreign tourist arrivals, while South Korea and Australia follow closely with 14.10% and 4.75%, respectively. Canada and the United Kingdom round out the top five, reflecting the diverse array of countries that are choosing the Philippines as their travel destination. The data further highlights other nations that are integral to this remarkable milestone. Japan, India, Singapore, Malaysia, and Vietnam, among others, have all made substantial contributions to the Philippines' burgeoning tourism sector (Viado, 2022).

III. METHODOLOGY

The research employed a comparative analysis approach, utilizing secondary data sourced from the "Regional Social and Economic Trends in 2022 Caraga" report published by the Philippine Statistical Authority (PSA). This methodology aimed to explore and draw insights from the data collected in the context of the Caraga region. The study's primary objective was to conduct a comparative analysis on the pre-pandemic tourist arrivals in Caraga Philippines. The research harnessed two statistical methods, namely One-Way Analysis of Variance (ANOVA) and Scheffe's Test. ANOVA was utilized to assess the presence of statistically significant variations among the mean values of different continents of origin for foreign tourist arrivals. This statistical tool enabled researchers to determine if there were substantial differences in the average tourist arrivals between the continents and provided a foundation for more detailed analyses. Scheffe's Test, on the other hand, was employed as a post hoc analysis subsequent to ANOVA. This test served the purpose of identifying specific subsets of continents with homogeneous mean values, essentially grouping those with similar tourist arrival patterns. Scheffe's Test aids in comprehending which groups of continents do not exhibit statistically significant differences in terms of tourist arrivals, thereby enabling researchers to categorize continents into subsets.

IV. RESULTS AND DISCUSSION

The provided Table 1 offers insights into pre-pandemic foreign tourist arrivals in the Caraga region of the Philippines, categorized by their continent of origin. The data reveals several key observations. Asia appears to be the leading source of foreign tourists, with an average of 13,932.88 arrivals and a relatively low standard deviation of 3,044.38. This indicates a relatively consistent flow of tourists from Asian countries to Caraga. Tourist arrivals from the Middle East are comparatively lower, with an average of 356.63 arrivals and a standard deviation of 239.83. This suggests that while the number of tourists from the Middle East is lower, there is still a degree of variation in the number of arrivals over time. America contributes significantly to foreign tourist arrivals, with an average of 13,101 arrivals and a relatively high standard deviation of 3,543.92. This indicates a more volatile pattern in American tourists' visits to the region, possibly influenced by factors like economic conditions, travel trends, and geopolitical events. Europe also contributes a substantial number of tourists, with an average of 10,170.75 arrivals and a relatively high standard deviation of 4,403.70. This implies that European tourist arrivals exhibit variability, which could be due to factors such as seasonal preferences, economic factors, and travel restrictions.

TABLE 1. AVERAGE PRE-PANDEMIC FOREIGN TOURIST ARRIVALS IN CARAGA, PHILIPPINES BY CONTINENT OF ORIGIN

Continent	Mean	Std. Deviation
Asia	13932.88	3044.38
Middle East	356.63	239.83
America	13101.00	3543.92
Europe	10170.75	4403.70
Australia	4377.38	2931.68
Total	8387.73	6082.55

Moreover, Australia, with an average of 4,377.38 arrivals and a standard deviation of 2,931.68, represents a moderate source of tourists. The higher standard deviation suggests some variability in the number of Australian tourists, possibly tied to vacation seasons and economic conditions. When examining the total average tourist arrivals, it is noteworthy that the mean is 8,387.73, which is lower than the individual continent averages. This could imply that there are other continents or regions not explicitly listed in the table that also contribute to foreign tourist arrivals in Caraga. The table highlights the significance of Asian and American tourists as the primary sources of foreign arrivals in Caraga. European and Australian tourists also contribute considerably, though with varying levels of volatility. The data suggests that tourism from the Middle East is relatively consistent but on a smaller scale.

The provided ANOVA results in Table 2 presents the results of a one-way analysis of variance conducted on the re-pandemic foreign tourist arrivals in the Caraga region of the Philippines. This statistical analysis aims to assess whether there are significant differences in the means of tourist arrivals between different groups, in this case, the continents of origin.

The "Between Groups" row of the table shows the variability that can be attributed to the differences between the groups (in this case, continents). The sum of squares for this variability is 1,093,794,417.850. The degrees of freedom (df) for this source of variability are 4, resulting in a mean square of 273,448,604.463. The "Within Groups" row represents the variability within each group, reflecting the differences between individual data points and their respective group means. The sum of squares for this variability is 349,106,566.125, and the degrees of freedom are 35. The mean square for this source of variability is 9,974,473.318. The "Total" row provides the overall sum of squares and degrees of freedom for the entire dataset, encompassing both the between-groups and within-groups variability.

The "F" statistic, calculated by dividing the mean square between groups by the mean square within groups, is 27.415. This statistic is used to determine whether the differences in means between groups are statistically significant. A higher F value indicates a greater likelihood of significant differences. The "Sig." value (also known as p-value) associated with the F statistic is 2.3E-10 (or 0.0000000023 in decimal notation). This p-value is significantly smaller than the commonly used significance level of 0.05, indicating strong evidence against the null hypothesis that the group means are equal. In other words, the p-value suggests that there are indeed significant differences in foreign tourist arrivals between the continents of origin.

The ANOVA results indicate that there are statistically significant differences in re-pandemic foreign tourist arrivals between the continents of origin in the Caraga region of the Philippines. The analysis provides valuable insights into how the tourist arrivals vary across different continents, allowing policymakers and stakeholders to tailor strategies to attract and accommodate tourists from specific regions.

TABLE 2. ONE-WAY ANALYSIS OF VARIANCE ON RE-PANDEMIC FOREIGN TOURIST ARRIVALS IN CARAGA, PHILIPPINES

Variable	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1093794417.850	4	273448604.463	27.415	2.3E-10
Within Groups	349106566.125	35	9974473.318		
Total	1442900983.975	39			

The multiple comparison in Table 3 reveals important insights into the variations of re-pandemic foreign tourist arrivals in the Caraga region of the Philippines across different continents of origin. Analyzing the data, we can discern several significant patterns. Firstly, there is a marked contrast between tourist arrivals from Asia and the Middle East. Asia emerges as a major source of tourism, with significantly higher arrivals compared to the Middle East, supported by a substantial mean difference and a p-value of .000. Similarly, the comparison between Asia and Australia also underscores Asia's dominance, with again a sizeable mean difference and a statistically significant difference in tourist arrivals.

Conversely, the Middle East experiences notably lower tourist arrivals when compared to both America and Europe. The significant negative mean differences between the Middle East and these continents, coupled with p-values of .000, indicate that these differences are not mere chance occurrences. Similarly, the comparisons between America and Australia, as well as Europe and Australia, highlight significant variations in tourist arrivals, with higher numbers of tourists from America and Europe compared to Australia. On the other hand, some comparisons do not exhibit statistically significant differences. For instance, the contrasts between Asia and America, as well as between Asia and Europe, do not yield p-values below the conventional significance level of .05, indicating that the differences in tourist arrivals are not considered significant based on the available data.

TABLE 3. MULTIPLE COMPARISON ON RE-PANDEMIC FOREIGN TOURIST ARRIVALS IN CARAGA, PHILIPPINES

Continent		Mean Difference	Sig.
I	J	(I-J)	
Asia	Middle East	13576.25000*	.000
	America	831.87500	.991
	Europe	3762.12500	.248
	Australia	9555.50000*	.000
Middle East	America	-12744.37500*	.000
	Europe	-9814.12500*	.000
	Australia	-4020.75000	.191
America	Europe	2930.25000	.497
	Australia	8723.62500*	.000
Europe	Australia	5793.37500*	.020

The Scheffe's test in Table 4 offers insight into the grouping of continents based on their pre-pandemic foreign tourist arrival patterns in Caraga, Philippines, while considering a significance level (alpha) of 0.05. This statistical analysis aids in identifying which continents share similar mean tourist arrival values and thus fall within the same subset. In the context of the table, continents grouped under the same subset are those whose tourist arrival patterns do not exhibit statistically significant differences from one another at the specified significance level.

From the Scheffe's test results, we can observe that the "Middle East" and "Australia" are placed in Subset 1, indicating that their mean tourist arrivals align closely with those of other continents in the same subset. This implies that the differences in the number of tourists arriving from the Middle East and Australia are not significant enough to warrant separate categorization within this context. On the other hand, the continents "Europe," "America," and "Asia" are not explicitly designated to a subset, suggesting that their mean tourist arrivals might differ significantly from those in Subset 1. Consequently, it's plausible that these three continents could form a distinct subset (Subset 2) due to their dissimilar mean arrival values compared to those in Subset 1.

TABLE 4. SCHEFFE'S TEST ON PRE-PANDEMIC FOREIGN TOURIST ARRIVALS IN CARAGA, PHILIPPINES

Continent	Subset for alpha = 0.05	
	1	2
Middle East	356.6250	
Australia	4377.3750	
Europe		10170.7500

America		13101.0000
Asia		13932.8750

V. CONCLUSION

The comprehensive analysis of the provided tables sheds light on the dynamics of foreign tourist arrivals in the Caraga region of the Philippines prior to the pandemic. The initial table showcasing pre-pandemic foreign tourist arrivals by continent reveals Asia and America as primary sources of tourism, with relatively consistent influxes from Asia and more variable patterns from America. Europe and Australia also play significant roles, albeit with some fluctuation in arrivals. The ANOVA table underscores the presence of statistically significant differences in tourist arrivals among continents. The subsequent multiple comparison table delves deeper, pinpointing specific pairs of continents that exhibit substantial disparities in arrivals, thereby providing critical insights for targeted tourism strategies. Furthermore, the Scheffé's test, as evidenced by its associated table, unveils the homogeneous groupings of continents based on their mean tourist arrivals. This segmentation aids in understanding which continents share comparable arrival patterns and which possess distinct differences. Together, these analyses enable stakeholders to tailor marketing initiatives, infrastructure development, and tourism promotions in alignment with the preferences and behaviors of distinct tourist groups. The presented tables collectively form a comprehensive framework for comprehending the intricate landscape of foreign tourist arrivals, equipping decision-makers with the insights needed to foster sustainable growth, enhance visitor experiences, and capitalize on the diversity of tourism origins in Caraga, Philippines.

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