Tourism Competitiveness and the Role of Diversity: A Cross-Country Analysis

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Abstract: Several studies have empirically explored the determinants of tourism demand and supply as well as the factors that affect destination or tourism competitiveness; however, no prior study has considered the possible interaction effect between the degree of ethnic and linguistic diversity within a country and its level of economic development. Using the 2009 Travel and Tourism Competitiveness Index, a comprehensive measure of tourism competitiveness developed by the World Economic Forum, this study provides evidence that ethnic and linguistic diversity negatively impacts the level of tourism competitiveness across nations. Further, this study also finds that the negative effect of diversity on tourism competitiveness is mitigated in wealthier countries. In other words, higher levels of economic development can help off-set the negative impact of diversity on a country’s tourism competitiveness.

Key-Words: Tourism, Competitiveness, Diversity, Ethnic-Linguistic Fractionalization, Interaction Effect, Cross-Country Analysis

1. Introduction
Globalization has led to a boom in the tourism industry and many countries have become increasingly dependent on tourism as a major source of investment and revenue. International tourism currently makes up 10.4 percent of global GDP, 12.2 percent of world exports, and 9.5 percent of world investment (World Travel and Tourism Council, WTTC 2008-09). According to the WTTC 2008-09 report, the tourism industry employs more than 220 million people worldwide and generates more than 9% of global GDP. Given the growth of the international tourism industry and the reliance of many countries on tourism receipts, it is important to understand the underlying factors that drive a country’s competitiveness in this industry.

Economic and business tourism research, which has traditionally concentrated on modeling and forecasting tourism demand, has identified a multitude of factors such as income, population, price differentials, transportation costs, exchange rates, culture, among others, as important determinants of tourism demand (Song and Li, 2008; Crouch, 1994; Crouch 1996; Lim, 1997; Morley, 1998; Sinclair, 1998; Witt et al., 1994). Recently, a new stream of tourism research has emerged that focuses on tourism or destination competitiveness. This shift can be attributed to the recent changes in the tourism industry itself and the growing importance to
recognize the conditions and challenges of the industry in order to be competitive (Omerzel, 2006). Using trade theory developed by Smith (1776) and Ricardo (1817) and Porter’s (1990) theory of competitive advantage, Crouch and Ritchie (1999) provided the first conceptual model of tourism competitiveness. Crouch and Ritchie (1999) concluded that tourism competitiveness depends on a multitude of variables such as demand and factor conditions, the competitiveness of industries, firm strategy and structure, among others. In more recent research, such as Enright and Newton (2004), Trauer and Ryan (2005), Yoon and Uysal (2005), and Uysal et al. (2000), this basic model has been extended to consider the effects of destination marketing, customer satisfaction and destination loyalty, supply side factors such as resources, destination environment and infrastructure, and destination development, among other factors, on tourism competitiveness. Further, Enright and Newton (2004) and Dwyer and Kim (2003), suggest that tourism competitiveness also depends on the general business environment of the destination and these studies identify such factors as political stability, banking and financial systems, government policy, economic conditions, access to information, and transparency in policy making, among others as affecting the competitiveness of various tourist destinations.

In sum, tourism competitiveness research has found a significant relationship between a destination’s general tourism environment, its overall business environment, and its level of tourism competitiveness. Further, many studies such as La Porta, et al. (1999), Videras and Bordoni (2006), Annett (2001), Ritzen et al. (2001), Adelman and Morris (1968), Collier (1998) Alesina, et al. (2003), Rodrick (1999), and Svensson (1998) have found that ethnic and linguistic diversity has a negative effect on many factors that both directly and indirectly affect a country’s tourism competitiveness. In particular, these studies conclude that greater diversity is associated with a poor quality of government services and institutions, weaker legal infrastructure and political stability, bureaucratic and institutional inefficiency, and slows nation-building, among other societal and economic ills that weaken tourism competitiveness. It is argued in this literature that ethnically and linguistically fractionalized countries suffer from poor communication and lack social cohesion as the values across ethnic groups generally vary and these groups do not necessarily communicate effectively; a problem which can be compounded by linguistic differences. Such diversity can hamper a country’s ability to achieve large, nation-wide undertakings such as building government services, institutions, infrastructure, and economic systems and weaken its ability to compete in the global tourism industry.

Interestingly, while past research has identified the negative effect of ethnic and linguistic diversity on tourism competitiveness, to date, no study has considered how a country’s level of economic development can influence this effect. Specifically, if diversity weakens infrastructure, government institutions and services, and economic systems, high levels of economic development should theoretically mitigate the negative effect of diversity and low levels of economic development should exacerbate its effect. In other words, the possible interaction between ethnic and linguistic diversity and level of economic development is yet to be explored in the literature.

Using cross-country from 127 countries, the primary contribution of this study is to empirically examine the potential interaction effect between ethnic and linguistic diversity and economic development on tourism competitiveness at the country level. The interaction effect allows for the possibility that the effect of diversity on tourism competitiveness can vary depending on a country’s level of economic development. Considering many countries increased reliance on tourism receipts, the policy implications of such a finding are important as policy makers need to understand how ethnic and linguistic diversity impacts a country’s ability to compete in the global tourism industry and take these effects into consideration when focusing on economic development policies in general and at those aimed at enhancing tourism.

### 2. Diversity, Economic Development, and Tourism Competitiveness

As discussed, much research has found that ethnic and linguistic diversity negatively affect several economic, governmental, and business environment factors needed for a country to successfully compete in the global tourism industry. Specifically, Rodrick (1999) and Svensson (1998) find that ethnic diversity causes governments to marginalize investment in
legal infrastructure, and La Porta et al. (1999), Annett (2001), and Ritzen et al. (2001) show that high levels of ethnic fractionalization tend to be associated with poor quality of government services and institutions. These negative effects of ethnically fractionalized countries on legal infrastructure and government services and institutions are theorized to be a result of poor communication and weak social cohesion due to differences in ethnic groups’ value systems. Further, Grafton and Knowles (2004) posit that social divergence, as measured by ethno-linguistic diversity, creates barriers to communication between groups and lowers the collective action that is needed to address large-scale national endeavors, which includes building and enhancing a country’s tourism industry. Vigdor (2004) and Alesina et al. (1999) also find that communities that are racially and ethnically fractionalized tend to have difficulty engaging in cooperative efforts and marginalize spending on non-excludable, public goods such as the environment, which affects the tourism industry.

While past research has clearly identified the negative effects that ethno-linguistic diversity can directly or indirectly have on the tourism competitiveness, this research has not explored how this negative effect can be influenced by a country’s level of economic development. Considering that ethno-linguistic diversity weakens many governmental, business and economic factors, this negative effect should be exaggerated or mitigated by the level of economic development within a country as economic development also affects these factors. For example, Malawi and Belgium both have approximately the same moderately-high level ethno-linguistic diversity, but have significantly different levels of economic development. In regard to tourism competitiveness, the negative effect of ethno-linguistic diversity in Malawi is likely exacerbated by its low level of economic development, while the high level of economic development in Belgium should significantly alleviate the negative effect of its ethno-linguistic diversity. Thus, past research that has not allowed for the level of economic development and ethno-linguistic diversity to interact may have overlooked how these two variables interrelate and jointly affect a country’s tourism competitiveness. This study hypothesizes that:

**H1: The negative impact of ethno-linguistic diversity on a country’s tourism competitiveness is mitigated if the country has a high level of economic development relative to countries with low levels of economic development where the negative impact of diversity is exacerbated.**

### 3. Measuring Tourism Competitiveness and Diversity

The World Economic Forum’s (WEF) Travel and Tourism Competitiveness Index (TTCI) is used in this analysis to proxy tourism competitiveness at the country level. The 2009 TTCI is computed for 133 countries and is the broadest measure of tourism competitiveness available to date. It is designed to “…measure the factors and policies that make it attractive to develop T&T (Travel and Tourism) sector in different countries” and includes many of the variables indicated by past studies as affecting tourism competitiveness (Travel and Tourism Competitiveness Report, 2009; Executive Summary pg. 13). The TTCI measures 14 ‘pillars’ that drive tourism competitiveness: policy rules and regulations; environmental sustainability; safety and security; health and hygiene; prioritization of travel and tourism; air transport infrastructure; ground transport infrastructure tourism infrastructure; ICT infrastructure; price competitiveness in the travel and tourism industry; human resources; affinity for travel and tourism; natural resources; and cultural resources. Each country’s TTCI value is scaled on a range of 1 to 6 such that higher TTCI values indicate greater travel and tourism competitiveness.

According to the WEF report, Switzerland ranks the highest with a TTCI value of 5.68, suggesting that it is the most competitive in travel and tourism industry. The WEF notes that Switzerland scores highly in all sub-indices and is known for extreme safety, exceptional health and hygiene standards, outstanding hotel management, transport and tourism infrastructure, as well as its natural and cultural resources. Switzerland is followed by Austria, Germany, France, and Canada, which have TTCI values of 5.46, 5.41, 5.34, and 5.32, respectively.

The 1985 Ethnolinguistic Fragmentation (ELF) Index, originally developed by Taylor and Hudson (1974), is used in this study to proxy the degree to which a country is ethnically and linguistically diverse. The index measures the probability that two randomly selected individuals from a particular country will belong to different ethno-linguistic groups. Given that the index is a
probability measure, it ranges from 0 to 1 such that countries with values close to 0 are very homogeneous in regard to ethnic and linguistic diversity.

According to this diversity measure, countries in Sub-Saharan Africa show the highest degree of ethnic and linguistic fractionalization. Of the countries considered in this study, Uganda has the highest ethno-linguistic fractionalization value of 0.922, meaning that if two Ugandans are randomly selected from the population, there is a 92.2 percent chance that they will belong to different ethno-linguistic groups such that they would speak different languages and/or have different racial and physical characteristics. Other examples of highly ethno-linguistically diverse countries in Sub-Saharan Africa are Tanzania, South Africa, and Kenya with ethno-linguistic fractionalization index values of 0.919, 0.886, and 0.882, respectively. South Korea and Portugal are among some of the least ethno-linguistically fractionalized countries with ethnic fractionalization index values of 0.003 and 0.007, respectively, suggesting that there is less than a one percent chance that two randomly selected South Koreans or two randomly selected Portuguese citizens would come from different ethno-linguistic groups. Countries in western and southern Europe tend to reflect lower levels of ethno-linguistic diversity. For example, Germany and Italy have ethno-linguistic fractionalization index values of 0.111, and 0.114, respectively; however, there are exceptions such as Switzerland with an ethno-linguistic fractionalization index of 0.586. The United States (U.S.) is more ethnically diverse compared to most European countries with an ethno-linguistic fractionalization index of 0.575.

While other measures of diversity are available, the ELF index has been used in many studies, such as Easterly and Levine (1997), Mauro (1995), La Porta et al. (1999), Alesina et al. (2003), among many others, who have explored the impact of diversity on a variety of country factors. Newer measures of ethnic fractionalization such as those developed by Alesina et al. (2003) and Fearon (2003) have yet to be widely accepted and the ELF index is used almost universally in empirical literature to measure ethnic and linguistic diversity (Bossert, 2006).

4. Control Variables
Before a statistical analysis examining the relationship between country tourism competitiveness, ethno-linguistic diversity, and economic development can be performed, the other socio-economic and institutional variables identified as affecting tourism competitiveness in prior studies need to be controlled for in an effort to prevent model misspecification.

4.1. Economic Freedom
Several studies have found significant relationships between a country’s economic freedoms and the strength of its tourism industry. Knack and Keefer (1995), Mauro (1995), and Ali (2003) suggest that an economically free nation with an established and stable legal and monetary system, efficient labor and product markets, with open trade and investment opportunities, tends to have a more stable and competitive business environment, which Enright and Newton (2004) and Dwyer and Kim (2003) have identified as a critical component to tourism competitiveness. Further, Gooroochurn and Sugiyarto (2005) identify trade openness as a significant determinant of tourism competitiveness. These studies have generally found that tourism tends to thrive in stable economic and business environments where institutions and policies are open, consistent, and free and countries have greater levels of economic freedom.

The 2007 Index of Economic Freedom (EFI) is used in this study, to proxy economic freedom. The EFI considers 50 economic freedom variables that are divided into ten categories; trade policy, fiscal burden of government, government intervention in the economy, monetary policy, capital flows and foreign investment, banking and finance, wages and prices, property rights, regulation, and informal market activity. In calculating the EFI, each of the ten categories described above is assigned a score and then the scores are averaged and an overall economic freedom score between 100 (most economically free) and 10 (least economically free) is assigned to each country. The EFI has been employed in several studies such as Goel and Nelson (2005), Quazi (2007), and Baliamoune-Lutz (2003), among many others, to proxy country economic freedom.
4.2. Democracy
Several studies have also found that a stable democracy is needed to sustain and promote tourism competitiveness. Specifically, Giacomelli (2006) finds that repressive political regimes stable or not, negatively affect tourism development. Ritcher, (1992) and Gauci et al. (2002) find that autocratic and repressive regimes as well as politically unstable governments generally attract fewer tourists as they restrict the free movement of tourists and create fear for personal safety. Further, Commey (2002) notes that South Africa’s tourism sector began to flourish as the government became more stable and, Cothran and Cothran (1998) state that countries like Mexico would attract more tourists if they had greater regard for civil liberties, fairer elections, and a more stable democracy. These findings suggest countries with fewer democratic freedoms will be less competitive in the tourism industry.

The 2008 Economist Intelligence Unit’s (EIU) Index of Democracy is used to proxy the level of democracy in a country. Relative to other measures of democracy, such as the Political Rights and Civil Liberties indices created by Freedom House, the EIU is a broader measure as also captures government efficiency, political participation, and whether the political culture supports democracy. Specifically, the EIU index is based on five categories: electoral process and pluralism, civil liberties, the functioning of the government, political participation, and political culture and is available for 165 countries. For each of the five categories, each country is given a score on a 0 to 10 scale and a country’s EIU score is the unweighted average of the five scores. A country with an EIU score closer to 10 indicates greater levels of democracy and scores closer 0 suggest a highly repressed country.

5. Empirical Analysis

5.1. Descriptive Statistics
A sample of 127 countries is used to empirically explore the possible interaction effect between ethno-linguistic diversity and economic development on a country’s tourism competitiveness. GDP per capita (GDPPC) is used to proxy a country’s level of economic development. TTCI represents 2009 data and the control variables are lagged as their affect on TTCI cannot be expected to occur immediately. Specifically, EFI and GDPPC represent 2007 data, EIU represents 2008 data, and ELF represents 1985 data. The 1985 data for ELF is the most recent data available for ELF, however, this data is still considered accurate as ethno-linguistic diversity is relatively constant through time. Further, as previously discussed, this measure is used almost exclusively in empirical research to proxy ethnic and linguistic diversity. Table 1 provides a summary and descriptive statistics of the variables used in the analysis. The natural log of TTCI is used in this analysis as preliminary scatter plots and regression analyses suggested that the relationship between TTCI and the other variables was best described as log-linear in TTCI.

Table 2 provides the correlation matrix for all of the variables and, as seen in Table 2, LnTTCI is positively and significantly correlated with EFI, EIU, and GDPPC, indicating that countries with higher levels of economic freedom, democracy, and economic development tend to be more competitive in the tourism industry. LnTTCI is also negatively and significantly correlated with ELF suggesting that countries that enjoy greater tourism competitiveness tend to be more ethnically and linguistically homogeneous. The correlations between LnTTCI and the remaining variables provide initial support of the previously discussed relationships; however, to test the possible interaction effect between ethno-linguistic diversity and economic development on tourism competitiveness, a series of regression analyses are conducted.

5.2. Regression Analysis
To explore the relationships between ethno-linguistic diversity, economic development, and tourism competitiveness, two regression analyses are estimated. The first regression, or baseline model, is a regression of control variables on LnTTCI and is defined as:

\[ \text{LnTTCI} = \beta_0 + \beta_1 \text{EFI} + \beta_2 \text{EIU} + \beta_3 \text{GDPPC} + \beta_4 \text{ELF} + \epsilon \]  

(1)

As shown in Table 3, the regression results provide support for Model 1 with an Adjusted \( R^2 \) of 0.73 and a significant \( F \) at the 99% significance level. All of the coefficient estimates are significant and have the expected sign. Further, White’s (1980) general test for heteroscedasticity provides evidence that the residuals are homoscedastic and the Variance
Inflation Factor (VIF) for each of the explanatory variables is less than 10 (the VIF cutoff suggested by Field, 2005), indicating that multicollinearity is not a problem in the regression. Given the support for the baseline model, a second regression (Model 2) that includes an interaction term between ELF and GDPPC, is added to the regression:

\[ \ln \text{TTCI} = \beta_0 + \beta_1 \text{EFI} + \beta_2 \text{EIU} +
\beta_3 \text{GDPPC} + \beta_4 \text{ELF} + \beta_5 \text{ELF} \times \text{GDPPC} + \epsilon \]

(2)

As shown in Table 4, the Adjusted \( R^2 \) increases. White’s test for heteroscedasticity indicates that the residuals are homoscedastic and the VIFs remain less than 10. Further, all coefficients are significant at least 95% confidence and have the expected sign. Most importantly, the coefficient on the interaction term is significant and positive, which suggests that the higher levels of economic development mitigate the effect of ethno-linguistic diversity on tourism competitiveness. Thus, the greater the level of economic development, the weaker the overall negative effect of ethno-linguistic diversity on tourism competitiveness and vice versa. This finding empirically supports H1.

Further, by taking the first derivative of the estimated regression equation for Model 2 with respect to ELF and solving the first order condition, these results suggest that countries with a GDPPC greater than $29,514 can completely overcome the negative effect of ethno-linguistic diversity on their tourism competitiveness. In other words, the wealthiest countries will not experience a negative effect of diversity in regard to their tourism competitiveness.

6. Discussion

The results empirically support the hypothesis that a country’s tourism competitiveness is negatively affected by ethno-linguistic diversity, but that effect is mitigated by higher levels of economic development and countries with a GDPPC greater than $29,514 can completely off-set this negative effect. Thus, wealthier countries that are ethno-linguistically fractionalized can still aggressively compete in the global tourism industry. Switzerland and the United States are examples of countries with moderately high ethno-linguistic fractionalization values (0.586 and 0.575, respectively) with high GDPPC values ($37,591 and $38,138, respectively in 2007) that are also highly competitive in the tourism industry with TTCI values of 5.68 and 5.28, respectively. Interestingly, Belgium has a similar ethno-linguistic fractionalization index of 0.589, but has a relatively lower GDPPC ($24,965 in 2007) and also has a lower TTCI value of 4.92.

Past research that has not accounted for this interaction effect has over-estimated the negative effect of diversity on tourism competitiveness. The results of this study indicate that it is important to consider the level of economic development in conjunction with ethno-linguistic fractionalization when examining a country’s tourism competitiveness.

In summary, this finding suggest that if diversity were to increase in a country, the negative impact on tourism and travel can be mitigated if the country has a higher level of development. Alternatively if a country has a higher level of diversity or is more fractionalized then improving the level of development has a bigger impact on travel and tourism on such a country compared to a country with a lower level of diversity. In other words, development in general has a positive impact on increasing the travel and tourism competitiveness of any country; however it seems to have a bigger impact on a more diversified nation. The business and economic policy implications with regards to the travel and tourism industry are quite significant. Specifically, nations with high levels of ethnic and linguistic differences that may initially appear unattractive for travel and tourism, could market differently if they were to improve their level of development.

References:


[31] Uysal, M., Chen, J.S., and Williams, D.R., Increasing state market share through regional


### Table 1: Variable Summary and Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Proxy (Name, Year Reported)</th>
<th>Mean*</th>
<th>St. Deviation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Competitiveness</td>
<td>Travel and Tourism Competitiveness Index (\text{LnTTCI}, 2009)</td>
<td>1.389</td>
<td>0.175</td>
</tr>
<tr>
<td>Democracy</td>
<td>Economist Intelligence Unit’s Index (\text{EIU}, 2007)</td>
<td>6.130</td>
<td>2.050</td>
</tr>
<tr>
<td>Economic Development</td>
<td>GDP per capita (\text{LnGDPPC}, 2007)</td>
<td>9,032.54</td>
<td>12,019.73</td>
</tr>
<tr>
<td>Diversity</td>
<td>Ethno-linguistic Fragmentation Index (\text{ELF}, 1985)</td>
<td>0.4369</td>
<td>0.2660</td>
</tr>
</tbody>
</table>

*Sample size of 127

### Table 2: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>(\text{LnTTCI})</th>
<th>(\text{EFI})</th>
<th>(\text{EIU})</th>
<th>(\text{GDPPC})</th>
<th>(\text{ELF})</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\text{LnTTCI})</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\text{EFI})</td>
<td>0.74**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\text{EIU})</td>
<td>0.68*</td>
<td>0.62**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\text{GDPPC})</td>
<td>0.74**</td>
<td>0.68**</td>
<td>0.53**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(\text{ELF})</td>
<td>-0.43**</td>
<td>-0.21*</td>
<td>-0.25**</td>
<td>0.68**</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 3: Regression Results: Model 1

<table>
<thead>
<tr>
<th></th>
<th>Coefficient Estimate</th>
<th>Std Err</th>
<th>t Stat</th>
<th>p-value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.91276</td>
<td>0.06946</td>
<td>13.14*</td>
<td>&lt; 0.0001</td>
<td>0</td>
</tr>
<tr>
<td>(\text{EFI})</td>
<td>0.00567</td>
<td>0.00129</td>
<td>4.40**</td>
<td>&lt; 0.0001</td>
<td>2.26885</td>
</tr>
<tr>
<td>(\text{EIU})</td>
<td>0.02220</td>
<td>0.00520</td>
<td>4.27**</td>
<td>&lt; 0.0001</td>
<td>1.69915</td>
</tr>
<tr>
<td>(\text{GDPPC})</td>
<td>0.00000486</td>
<td>9.718824E-7</td>
<td>5.00**</td>
<td>&lt; 0.0001</td>
<td>2.04474</td>
</tr>
<tr>
<td>(\text{ELF})</td>
<td>-0.12653</td>
<td>0.03274</td>
<td>-3.86</td>
<td>0.0002</td>
<td>1.13696</td>
</tr>
</tbody>
</table>

Adj. \(R^2 = 0.7257\) \(F\) stat = 84.36** \(p < 0.05\); **\(p < 0.01\)

### Table 4: Regression Results: Model 2

<table>
<thead>
<tr>
<th></th>
<th>Coefficient Estimate</th>
<th>Std Err</th>
<th>t Stat</th>
<th>p-value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.94031</td>
<td>0.06988</td>
<td>13.46*</td>
<td>&lt; 0.0001</td>
<td>0</td>
</tr>
<tr>
<td>(\text{EFI})</td>
<td>0.00534</td>
<td>0.00128</td>
<td>4.17**</td>
<td>&lt; 0.0001</td>
<td>2.30365</td>
</tr>
<tr>
<td>(\text{EIU})</td>
<td>0.02418</td>
<td>0.00522</td>
<td>4.63**</td>
<td>&lt; 0.0001</td>
<td>1.75945</td>
</tr>
<tr>
<td>(\text{GDPPC})</td>
<td>0.00000291</td>
<td>0.00000135</td>
<td>2.15*</td>
<td>0.0336</td>
<td>4.05680</td>
</tr>
<tr>
<td>(\text{ELF})</td>
<td>-0.16823</td>
<td>0.03820</td>
<td>-4.40**</td>
<td>&lt; 0.0001</td>
<td>1.58766</td>
</tr>
<tr>
<td>(\text{ELF}) (\times) (\text{GDPPC})</td>
<td>0.00000557</td>
<td>0.00000272</td>
<td>2.05*</td>
<td>0.0426</td>
<td>2.90619</td>
</tr>
</tbody>
</table>

Adj. \(R^2 = 0.7327\) \(F\) stat = 70.09** \(p < 0.05\); **\(p < 0.01\)