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Article

Role of Culture in the Race to Globalize: A Statistical Approach

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Abstract

Inequalities persist throughout the globalized world. The overall economies of the Global South pales in comparison to the Global North. The difference between the haves and have nots are becoming more and more pronounced as the free economy continues to operate. In this study, we try to determine the factors that affect the differing degree of prosperity gained from globalization. Although we understand that there are numerous factors that contribute to a country's prosperity that do not relate to the psychology of its constituents, we theorize that human behavior and psychology defined by cultural differences play a major role in how countries take advantage of globalization. Identifying the cause for inequalities in globalization will allow governments to tackle the root causes of their challenges, creating a more productive global community.

Keywords: power distance; individualism/collectivism; masculinity/femininity; uncertainty avoidance; long/short-term orientation; and indulgence/restraint

1. Literature Review

First, we'll define and compare the two models that this study employs to extract the correlation between traits and the human development index (HDI)

1.1. Definitions

Hofstede's Cultural Dimensions Theory Geert Hofstede's framework, developed from a large-scale IBM employee survey across 50 countries, identifies six cultural dimensions that influence societal behavior (Hofstede, 1980; Hofstede et al., 2010):

1. Power Distance (PDI) – Measures the acceptance of hierarchical authority. High-PDI cultures (e.g., China, Malaysia) tolerate unequal power distribution, while low-PDI cultures (e.g., Sweden, Denmark) favor egalitarianism (Hofstede, 1980).
2. Individualism vs. Collectivism (IDV) – Individualist cultures (e.g., U.S., UK) prioritize personal goals, whereas collectivist cultures (e.g., Japan, Mexico) emphasize group cohesion (Hofstede, 1980).
3. Masculinity vs. Femininity (MAS) – Masculine cultures (e.g., Japan, Germany) value competition and achievement, while feminine cultures (e.g., Sweden, Norway) prioritize quality of life and care (Hofstede, 1980).
4. Uncertainty Avoidance (UAI) – High-UAI cultures (e.g., Greece, Japan) resist ambiguity through strict rules, whereas low-UAI cultures (e.g., Singapore, Denmark) tolerate risk (Hofstede, 1980).
5. Long-Term vs. Short-Term Orientation (LTO) – Long-term cultures (e.g., China, South Korea) focus on future rewards, while short-term cultures (e.g., U.S., UK) prioritize immediate results (Hofstede et al., 2010).
6. Indulgence vs. Restraint (IVR) – Indulgent cultures (e.g., Mexico, Sweden) allow gratification, while restrained cultures (e.g., Russia, China) suppress it (Hofstede et al., 2010). Hofstede's

model is widely used in cross-cultural business research (Tung & Verbeke, 2010; Szymura-Tyc & Kucia, 2016) but has been critiqued for oversimplifying cultural dynamics (McSweeney, 2002).

The GLOBE Cultural Framework The GLOBE study, conducted by House et al. (2004), expands on Hofstede's model by analyzing leadership behaviors across 62 societies. It identifies nine cultural dimensions, some overlapping with Hofstede's:

1. Power Distance – Similar to Hofstede's PDI, but GLOBE differentiates between societal values ("should be") and practices ("as is") (House et al., 2004).
2. Uncertainty Avoidance – Measures preference for structure, akin to Hofstede's UAI.
3. Institutional Collectivism – Reflects societal encouragement of collective action (vs. Hofstede's IDV, which focuses on self-orientation).
4. In-Group Collectivism – Measures loyalty to family or organizations (House et al., 2004).
Gender Egalitarianism – Similar to Hofstede's MAS but assesses gender equality rather than achievement focus. Assertiveness – Measures competitiveness, analogous to Hofstede's MAS.
5. Future Orientation – Aligns with Hofstede's LTO but includes planning tendencies.
Performance Orientation – Emphasizes achievement and improvement.
6. Humane Orientation – Measures compassion and fairness, not present in Hofstede's model (House et al., 2004). GLOBE's multidimensional approach is useful for analyzing managerial behavior (Tung & Verbeke, 2010) but is more complex than Hofstede's model.

GLOBE's emphasis on leadership and institutional practices explains why hierarchical (high PDI) cultures may resist Western managerial norms (House et al., 2004). While Hofstede's model is more widely used in business research, GLOBE provides deeper insights into organizational behavior, making both valuable for studying globalization's uneven effects (Tung & Verbeke, 2010; Szymura-Tyc & Kucia, 2016).

Hofstede's and GLOBE's frameworks reveal why globalization impacts cultures unevenly through distinct cultural dimensions. From Hofstede's perspective, high power distance (PDI) cultures like China (PDI: 80) centralize decision-making, enabling rapid adaptation to global business demands, whereas low-PDI egalitarian societies may struggle with hierarchical global norms (Gallego-Álvarez & Pucheta-Martínez, 2020.) Similarly, cultures with low uncertainty avoidance (UAI), such as the U.S. (UAI: 48), thrive in volatile global markets due to their tolerance for risk, while high-UAI societies resist disruptive changes. Hofstede's individualism (IDV) dimension further highlights how collectivist cultures like Japan (IDV: 46) excel in global R&D through collaboration, whereas hyper-individualist societies prioritize entrepreneurial gains (Gallego-Álvarez & Pucheta-Martínez, 2020).

Complementing this, the GLOBE study emphasizes that high performance orientation—seen in Switzerland—rewards competitive behaviors, propelling dominance in global markets, while future-oriented cultures like Singapore invest sustainably in globalization (House et al., 2004). GLOBE also identifies in-group collectivism as a critical factor, with societies like South Korea leveraging strong loyalty networks to build global partnerships. Notably, GLOBE's data reveal that high-assertiveness cultures (e.g., Germany) adapt faster to global competition by prioritizing decisive action, whereas low-assertiveness cultures (e.g., Sweden) face delays due to consensus-driven processes (House et al., 2004, p. 56). Together, these frameworks identify three key globalization advantages: (1) low uncertainty avoidance (Hofstede) paired with high performance orientation (GLOBE), (2) long-term planning (Hofstede's LTO and GLOBE's future orientation), and (3) balanced collectivism—where cohesive yet adaptable cultures (e.g., Japan and South Korea) optimize global networks without sacrificing local identity. These insights underscore that globalization disparities stem not just from economic factors but from deeply rooted cultural traits.

1.2. Literature

Globalization impacts different cultures differently. This can be proved with empirical evidence, as performed by Tung and Verbeke (2010). They argue that cultural distance dimensions using the

Hofstede's and GLOBE's frameworks can shape the extent to which societies globalize, leading to disparities in economic and managerial outcomes.

Tung and Verbeke first studies how because of disparity in uncertainty avoidance (UA). The statistical divergence observed by the researchers explains why some cultures resist globalized business practices while others are more open to these practices. One notable example is seen in "[Africa where they] exhibit distrust toward neighboring nations, preferring interactions with culturally distant partners. This psychological trait demonstrates why globalization fails in certain contexts." (Tung & Verbeke, 2010).

Other factors can also be observed, namely that cultures with traits that are more socially supportive correlate with higher entrepreneurship, whereas performance-based cultures do not; also "showed that firms from culturally similar countries experience lower information asymmetries, leading to more effective governance. This statistically supports why globalization works better in culturally aligned contexts." The returning expatriates leverage cross-cultural capital to benefit from globalization, while others lacking such advantages are left behind; societies with "tight" cultures (strict norms) resist global influences, whereas "loose" cultures adapt more easily (Tung & Verbeke, 2010).

One limitation to this paper is that it does not directly address globalization as a broad socio-economic phenomenon. Instead, it focuses on cross-cultural research in international business and assumptions about cultural distance.

In DeLorenzo et al., 2009's article A Data-Drive Conceptual Analysis of Globalization, he demonstrated how cultural psychological traits as defined by Hofstede's criteria, shape globalization's uneven outcomes. His work featured the statistical data gathered by several Slovak and US university students. DeLorenzo (2009) first gives context on the full extent of globalization drives cultural homogenization (exemplified by standardized education, etc.) and decreases localized adaptations to

global trends. This was supported by data where Slovakia's Power Distance Shifts (PDI) moved to be more similar to the United State's, a much more globalized country than Slovakia in modern times. This suggests globalization reduces hierarchical norms, but unevenly, because Slovakia's shift required post-socialist economic restructuring, while the U.S. remained stable.

Next, using Hofstede's Uncertainty Avoidance (UA) and individualism (IDV) indexes, DeLorenzo found out that in the advent of globalization in Slovakia, their UA increased, indicating heightened discomfort with ambiguity amid rapid globalization. Conversely, the U.S. (UAI: 48.3) thrives in volatile markets due to cultural tolerance for risk. Slovakia surpassed the United States with an IDV of 114.7 (hyper-individualist) compared to 52 (collectivist). This statistically significant change (p. 466) shows that globalization disadvantages collectivist societies by rewarding individualist attributes (like entrepreneurship). Masculinity (MAS): Slovakia's MAS fell from 110 to 31.6, indicating a drop in competitive "performance" values. The authors emphasize how globalization redistributes cultural capital and link this to EU integration promoting social welfare standards.

Szymura-Tyc and Kucia (2016) demonstrate how cultural characteristics impact internationalization, innovation, and networking by connecting Hofstede's cultural aspects to businesses' success in globalization. Low-PDI cultures, like Sweden (PDI: 31), may find it difficult to expand globally, whereas high-PDI cultures, like Poland (PDI: 68), thrive because of hierarchical structures that allow for quick adaptation. While high-UAI cultures, such as Japan (UAI: 93), withstand volatile markets, low-UAI cultures flourish in networking and innovation, as evidenced by businesses with lower UAI ratings establishing more international collaborations. Their study of Polish businesses demonstrates how globalization benefits cultures that are hierarchical and risk-tolerant, resulting in inequalities that harm egalitarian and risk-averse businesses.

In analysis of Hofstede's cultural characteristics impact corporate innovation, Gallego-Álvarez and Pucheta-Martínez (2020) demonstrate why some cultures gain more from globalization than others. Because of their hierarchical decision-making, high power distance (PDI) cultures like China

(PDI: 80) perform well in innovation, whereas low PDI cultures like Sweden (PDI: 31) may find it difficult. As seen in the United States, individualism (IDV) hinders creativity, while collectivist societies, such as Japan (IDV: 46), encourage teamwork, which is crucial for research and development. While long-term oriented (LTO) cultures, like South Korea, place a higher priority on consistent investment in R&D, high uncertainty avoidance (UAI) cultures, like Germany (UAI: 65), encourage innovation to reduce risks.

Globalization favors hierarchical, collectivist, and long-term cultures while discouraging individualistic and short-term oriented ones, according to a survey of 12,151 businesses in 28 nations.

Beyond the Hofstede and GLOBE, though, we also acknowledge the significance of other factors that impact a countries' success in the HDI. The success of globalization in a developing country is also heavily contingent on factors such as the strength of domestic political structures, institutional frameworks (both domestic and international), geopolitical context (global power alignments/trading blocs), educational and human capital, and infrastructure quality. Other significant enabling or limiting factors include geographical and historical factors.

Political stability and institutional frameworks are salient factors influencing the success of globalization. Rule of law, property rights, and contract enforcement reduce uncertainty and promote foreign investment. Countries with frequent regime changes, such as Sudan and Venezuela, struggle to attract sustained foreign investment whereas political stable countries such as Vietnam or Rwanda have seen a surge in global economic integration. Domestic institutional frameworks, encompassing rule of law, property rights, and contract enforcement reduce uncertainty and promote foreign investment.

Efficient financial frameworks are crucial for globalization success; systems with regulatory stability and transparency, deep capital markets, stable macroeconomic environment, and risk mitigation mechanism (eg. insurance, hedging tools, and prudential regulations) are necessary for a strong financial system in light of globalization. Assistance by programs by international institutions such as the World Bank and the IMF can both help and hamper globalizing economies. Structural alignment policies are criticized, even after reform, for imposing one-size-fits-all policies; they often impose austerity, privatization, and liberalization, regardless of local economic conditions or political realities. Geopolitical contexts, involving global power alignments and trading blocs, provide the strategic alliances to boost integration. Countries aligned with economic superpowers may get preferential trade access, military aid, or infrastructure investment, and entry into regional trade agreements can provide steppingstones to broader integration. A highly educated populace means the attraction of value-added industries (shift away from raw exports), absorptive capacity for foreign technologies, management practices, and business models, and the building of a more resilient and equitable population. Infrastructure quality — roads, ports, power grids, internet connectivity, logistics networks — directly influence participation in global supply chains. Countries with robust infrastructure are better positioned to compete in global trade, attract FDI, and absorb shocks through diversified, resilient networks.

1.3. Research Method

We utilized open data sets from the United Nations and The Culture Factor Group (Group), specifically the datasets titled Human Development Index (HDI) by the UN Development Program and Country Comparison tool by the Group. Then, we will analyze the data through Texas Instrument's programs and apply statistical models to represent the data, proving or disproving our assumptions and theory. We will find trends between the cultural norms of certain cultures and the prosperity of that country, finally determining whether the differences are significant enough to conclude our hypothesis or not.

When analyzing data relating to Hofstede's cultural dimensions, we must first identify which aspects in the Hofstede model are positive for the economics of a country and which characteristics tend to lead to lower economic output. In the following chart, we first identify several factors,

including Hofstede's and the GLOBE factors, allowing us to effectively analyze trends along the lines of these factors.

2. Hofstede's Cultural Dimensions

2.1. Power Distance (PDI)

High PDI scores indicate a hierarchal society, meaning that authority is respected and rarely challenged. This means that they thrive in sectors in which clear discretion and efficiency are values. But it also indicates limited adaptability and rigid structures, hence lower levels of innovation. Conversely, cultures with low PDI scores are more egalitarian, having more innovative success and adaptability; this contributes to greater success in environments that are dynamic but hinders success in industries that value order and discipline.

2.2. Individualism (PDI)

High IDV scores exemplify greater self-reliance and personal freedom, fostering a competitive environment and entrepreneurship. This means that these societies enjoy higher levels of success innovatively but tend to have weaker social safety nets, reduced community cohesion, and increased social inequality. However, collectivist cultures or low IDV societies emphasize loyalty, leading to potentially less success innovatively .

2.3. Masculinity (MAS)

Masculine or high MAS score societies are competitive and value achievement; this drives competition. Competitiveness generally results in higher performance economically in development. However, feminine societies with low MAS scores may excel in areas that emphasize collaborative, equitable systems such as education, research, and healthcare.

2.4. Uncertainty Avoidance (UAI)

Uncertainty Avoidance (UAI) refers to the extent to which a society tolerates ambiguity and uncertainty. High UAI societies seek stability, rules, and clear structures to avoid unpredictable situations, which may foster risk-averse behavior and hinder innovation. In contrast, low UAI societies are more adaptable to uncertainty, embracing flexibility and experimentation. This openness can drive innovation and creativity, especially in dynamic industries, but may also lead to less structured approaches in decision-making. High UAI countries tend to focus on security and planning, while low UAI countries thrive in environments that require change and adaptability.

2.5. Long-Term Orientation (LTO)

High LTO scores stipulate highly forward thinking, pragmatic societies, meaning they favor sustained growth through investments in R&D and capital. However, this could also raise risks of over-planning; there could be bureaucratic delays (e.g. Slow response to disruptive technology). Low LTO scores indicate underinvestment towards innovation and reliance on foreign technology. Furthermore, it means short-term profit focus; it renders itself to vulnerable to boom-bust cycles.

2.6. Indulgence (IND)

High IND scores denote strong consumer economies, creative and liberal policies, and adaptability towards global trends. However, they risk overconsumption and workforce complacency (lowered productivity in rigid industries). Low IND scores presage high savings rates, stable workforces, and resilience to economic shocks. However, resistance to foreign ideas, rigid work cultures, and weak soft power can hinder innovation.

3. Global Leadership and Organizational Behavior Effectiveness (Included Metrics)

3.1. Performance Orientation (POSV)

High POSV means inclination towards innovation and productivity, a meritocratic system, and the ability to adapt rapidly towards market changes. However, it fosters cutthroat work environments and potential short-term orientation that may neglect sustainability. Low POSV hint at strong social safety nets and collaborative work cultures that could lead to retention of talent. At the same time, it hinders competitive urgency, leads to “tall poppy syndrome” which suppresses talent, and evokes slower response to global trends.

3.2. Assertiveness (ASRTV)

High ASRTV scores indicate efficient decision-making, clear communication in cross-cultural interactions, and strong negotiating positions. However, it can lead to cultural clashes in diplomatic contexts, high employee turnover rates, and potentially cause damages in long-term partnerships. Inversely, smooth cross-cultural relations and strong relationship-based economies are characteristics of low ASRTV societies. Yet, it leads to in in directedness and the avoidance of necessary confrontations.

3.3. Humane Orientation (HOSP)

High HOSP scores mean high CSR scores, hence more ESG investment, high employee loyalty, and strong NGO/development sectors. However, it tolerates underperformance, is subject to be exploited in tough negotiation, and is less adaptive in competitive industries. Low HSOP scores indicates a competitive, performance focused society but it risks high burnout/turnover rates, reputationally damaging industries, and weak social licensees.

3.4. Gender Egalitarianism (GEP)

High GEP scores indicate the effective doubling of talent pool utilization, meaning stronger innovation through diversity and the attraction of progressive firms globally. However, it risks cultural resistance, creates a “green fatigue” in more traditional markets, and requires infrastructure development. Low GEP scores mean cultural authenticity in traditional markets, stable social structures, and clear role expectations; it deters multinational diversity initiatives and limits service sector growth.

Growth, Equity, and Sustainability

To define what constitutes economic “success” in the context of globalization, our team used the GES framework: Growth, Equity, and Sustainability. These three pillars collectively reflect a nation's long-term economic health and resilience. Specifically, we operationalize “success” through indicators such as GDP per capita, global value chain (GVC) participation, sovereign credit ratings, the Gini coefficient and its rate of change, the Human Development Index (HDI), and measures of labor market inclusivity. These metrics offer a holistic view of a country's economic progress—not just in terms of growth, but also in how fairly and sustainably that growth is distributed.

With this definition in place, our model explores which cultural traits—individually and in combination—are most closely associated with economic success since the 1980s. To guide this exploration, we introduce the GES Plan, a roadmap for understanding how culture interacts with globalization. The first step is diagnosing cultural traits using Hofstede's and the GLOBE project's data. By identifying national strengths and weaknesses, we can pinpoint which cultural profiles are conducive to success in specific sectors. For example, countries with high individualism (IDV) and low uncertainty avoidance (UAI)—such as the United States—tend to excel in technology innovation.

Germany, with high long-term orientation (LTO) and low power distance (PDI), demonstrates success in sustainable manufacturing sectors.

4. Results and Discussion

Our team expected that developed countries classified by the United Nations to have higher scoring Hofstede and GLOBE indexes, while developing countries with lower scoring tend to be classified as developing countries or least developed countries. Assuming that this hypothesis is true and significant with a confidence interval of 95%, we can safely conclude that cultures with higher Hofstede rankings are more likely to be beneficial to the economy, while the opposite would lead to lower economic output.

Through our analysis, we found that certain traits within the Hofstede and GLOBE analyses have a extremely strong correlation with HDI, while others could be almost completely independent ($P_{val} > 0.96$.) The variables PDI, IDV, ITOWVS, uasp, fosp, pdsp, hosp, cspicii, uasv, fosv, csvic, posv, csvicii had statistically significant relationships to the HDI of the country.

One way to understand the difference between variables that are significantly related to the Human Development Index (HDI) and those that are not is to view them through the lens of practices versus values. Variables significantly related to HDI tend to capture societal practices—what people in a culture actually do in their daily lives and institutions. These include observable behaviors such as how a society handles uncertainty, plans for the future, or distributes power. For example, a country with high future orientation practices may have robust long-term education or savings systems in place, which directly bolster human development. On the other hand, non-significant variables tend to reflect cultural values—what people believe or aspire to. These might express preferences for equality or assertiveness but are not always acted upon or embedded in structural systems. Because HDI measures real-world outcomes like life expectancy, education, and income, it's more sensitive to practiced behaviors than to ideological preferences.

Another perspective is to contrast functional vs. ideological orientation. Variables that show strong associations with HDI tend to be functionally grounded—they influence or reflect how a society organizes itself to solve problems and improve living conditions. These societal practices often show up in governance, economic planning, or education systems, thereby directly contributing to measurable development outcomes. For instance, low power distance in practice may result in flatter institutional hierarchies, enhancing transparency and efficiency—factors that support HDI growth. In contrast, non-significant variables tend to be ideological in nature. They express cultural ideals or norms that may not yet be realized in institutions or behaviors. A society may highly value gender equality, for example, but without translating that into policy or workplace norms, the impact on HDI remains minimal. Ideological alignment without functional implementation may limit the practical effects of these values on developmental indicators.

A further way to distinguish these variables is by looking at the scope and immediacy of their effects on development. The variables significantly associated with HDI tend to reflect structural societal features that produce relatively immediate and measurable outcomes. For instance, how power is exercised or how future-oriented practices are implemented can quickly influence infrastructure, healthcare access, or educational systems, all of which are components directly measured by HDI. In contrast, the non-significant variables often capture more diffuse, long-term cultural attitudes that shape society more subtly and over longer timescales. Values like assertiveness or gender egalitarianism may contribute to societal change, but their effects on development indicators are indirect, gradual, and harder to isolate statistically. This difference in immediacy means that HDI aligns more closely with concrete societal structures and behaviors than with evolving cultural mindsets that influence development only over extended periods.

While trends may suggest that a better Hofstede and GLOBE index indicates better economic output, there are of course exceptions to the rule. There are factors that are not yet recognized by this study, such as the intricate interplay in countries like the Republic of Korea and Japan have especially low scoring indexes in several categories of the Hofstede and GLOBE indexes, have managed to

become industry leaders, due to special circumstances, such as the chaebols and effective development from the wars where they were forced to advance their industries rapidly.

Our analysis of Hofstede's cultural dimensions and economic data reveals that globalization benefits some cultures more than others. Individualistic societies, such as those in the U.S., Canada, and Germany, tend to thrive in a globalized world due to their emphasis on innovation, entrepreneurship, and competition. In contrast, collectivist cultures, which are more common in parts of Asia and Latin America, often struggle with globalization because decision-making processes are slower and risk-taking is less encouraged. Similarly, long-term-oriented cultures like China and Japan show a strong ability to adapt to globalization over time, investing in education and infrastructure to sustain economic growth. On the other hand, societies with high uncertainty avoidance, such as Greece and France, tend to resist globalization due to their preference for stability, making them less open to rapid economic or technological shifts.

From a psychological perspective, certain cultural traits strongly correlate with economic success in globalization. Regression analysis shows that individualism (IDV) and long-term orientation (LTO) are positively associated with higher GDP per capita, while high uncertainty avoidance (UAI) and power distance (PDI) tend to slow down economic growth. Countries that embrace risk-taking, innovation, and long-term planning generally perform better in the global economy. High power distance societies, where hierarchical structures dominate, often experience slower innovation, while cultures with high uncertainty avoidance resist changes in trade policies and foreign investments. The key insight is that cultural adaptability plays a crucial role in determining whether globalization brings prosperity or stagnation.

The divide between developed and developing countries further illustrates how globalization favors certain societies. Developed nations consistently exhibit lower power distance, higher individualism, and lower uncertainty avoidance, creating conditions that encourage innovation, economic flexibility, and competitive markets. In contrast, developing nations often have higher power distance, lower individualism, and higher uncertainty avoidance, which can limit their ability to compete globally. These cultural traits make it harder for developing economies to integrate into the global market efficiently. Visualizing the data confirmed that societies that embrace competition, risk-taking, and long-term strategies tend to benefit the most from globalization.

Ultimately, globalization is not inherently fair—it structurally favors cultures that are psychologically and economically prepared for rapid change. However, nations that struggle with globalization can implement reforms to foster innovation, reduce hierarchical barriers, and encourage adaptability. While deep-rooted cultural traits shape economic success, policies that promote openness to change can help bridge the gap, ensuring that globalization benefits a broader range of societies.

4.1. Policy Recommendation

4.1.1. India

To put our analysis of our data into effect, we henceforth provide recommendations to currently developing or under-developed countries to implement changes that benefit the societal drives of increasing the Human Development Index (HDI), and expand their economic output on the global stage. As the country with the highest population of 1.438 billion (2025), we chose India as a case study of how their population can benefit from certain changes to their societal interactions and belief characteristics. Taking their data from Hofstede's and GLOBE frameworks, and filtering such that only statistically significant variables are accounted for, India scores well in the Power Distance and Masculinity categories while underperforming in the Individualism vs. Collectivism, Uncertainty Avoidance Index, and Indulgence vs. Restraint categories.

What this means for India is that they must proactively cultivate societal structures that encourage individual initiative and critical thinking, strengthen institutional trust through transparent governance and consistent rule enforcement, and gradually reshape cultural attitudes to

allow greater space for emotional expression, leisure, and the pursuit of personal goals. In practice, this would involve education reforms that prioritize creativity and problem-solving over rote memorization; legal and administrative systems that minimize ambiguity and bureaucratic red tape; and public health or media campaigns that destigmatize rest, mental health, and recreational pursuits.

This would help India in its path to full modernization and reaping the full benefits of globalization because these traits allow them to foster a more dynamic and innovation-driven workforce, reduce inefficiencies tied to institutional uncertainty, and increase overall quality of life—which in turn boosts productivity and domestic consumption. Further, it creates a cultural environment that aligns more closely with those of high-HDI countries, thereby facilitating smoother integration into global markets, improving foreign investment appeal, and empowering India's emerging middle class to become a more active and globally influential demographic. Over time, this cultural shift would not dilute India's identity but enhance its global competitiveness by anchoring development in human capital and social cohesion.

We could say the same for Indonesia. As the world's fourth most populous nation and the largest economy in Southeast Asia, Indonesia is likewise poised at a critical juncture in its development path. With an HDI that places it in the medium human development category, Indonesia faces similar cultural and structural constraints that must be addressed to realize its full developmental potential. Drawing on Hofstede's and GLOBE data, and again considering only statistically significant cultural dimensions, Indonesia shares many of the same strengths and weaknesses as India. The country exhibits high Power Distance and strong Masculinity scores—indicating a preference for hierarchical structures and competitive achievement—while falling behind in key dimensions such as Individualism, Uncertainty Avoidance, and Indulgence.

4.1.2. Indonesia

This cultural profile suggests that Indonesia, like India, must focus on fostering more individualistic and autonomous behavior in both educational and workplace settings, developing more predictable and transparent institutions, and reshaping public attitudes to support emotional openness, leisure, and well-being. Practically, this could include major reforms in Indonesia's public education system to encourage inquiry-based learning and entrepreneurship, streamlining governance procedures to improve regulatory reliability, and launching nationwide campaigns to normalize work-life balance, emotional health, and creative expression.

These reforms are critical not only for improving quality of life but also for unlocking Indonesia's competitive edge in a rapidly globalizing economy. Cultivating a culture that values innovation, personal agency, and emotional well-being enables the rise of a creative class capable of leading the country's transition toward high-value, knowledge-driven industries. It also makes Indonesia more appealing to global investors and collaborative partners seeking stability, creativity, and long-term growth potential. Ultimately, much like India, Indonesia's success will depend not just on economic metrics but on a parallel transformation of its cultural and institutional fabric—one that honors its identity while embracing the changes necessary for sustained, inclusive development on the global stage.

4.1.3. Phillipines and Indonesia (IDV)

Hofstede observed that individualistic cultures tend to achieve higher economic development. In our pair, the Philippines (IDV=32) was much more individualistic than Indonesia (IDV=14), yet both countries had similar colonial legacies (Western colonization), tropical archipelago geography, and mid-2000s GDP per capita. By 2010 the Philippines had a slightly higher HDI (0.673 vs 0.667), reflecting marginally better education and health outcomes. For example, Philippine literacy and school enrollment rates were higher and its life expectancy (~69) marginally exceeded Indonesia's, consistent with greater personal autonomy and investment in human capital in an individualist society [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov).

Indonesia's collectivist culture (strong in-group loyalty) may slow widespread adoption of new ideas and businesses, which helps explain its slightly lower per-capita income and educational attainment despite similar institutions.

Regression analyses support these trends. A model of life expectancy found that higher IDV predicts longer life expectancy (standardized beta ≈ 0.37) [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov). In practical terms, the Philippines' more individualist values likely fostered entrepreneurship and remittances (e.g. from overseas workers), boosting income and health spending, whereas Indonesia's collective norms emphasized traditional hierarchies, correlating with its marginally lower HDI. Overall, individualism (IDV) helps explain why the Philippines outpaced Indonesia on education and income indicators, aligning with Hofstede's insight psicothema.com [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov).

4.1.4. Uruguay vs Mexico (IVR)

Uruguay (IVR=53) is a moderately *restrained* society, whereas Mexico (IVR \approx 97) is highly *indulgent*. Both are former Spanish colonies in Latin America with mixed economies and democratic institutions. In 2000–2010 Uruguay had a substantially higher HDI (0.785) than Mexico (0.747). This gap can be linked to social policies: Uruguay's culture of collective restraint is reflected in heavy investment in public goods. For example, Uruguay spent about 4.4–5.0% of GDP on education education-profiles.org and maintains near-universal schooling and health coverage. In contrast, Mexico's indulgent norms coincide with a more consumer-oriented society and higher inequality. Mexico's public social spending was similar in GDP share but achieved less equality (higher Gini), and its secondary education completion and health coverage lagged Uruguay's. Thus, Uruguay's relatively low IVR aligns with disciplined social investment and higher development, whereas Mexico's high IVR did not translate to better outcomes.

These patterns are consistent with cultural correlations: one study found indulgence (IVR) positively associated with health spending [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov), yet Uruguay's outcome shows that *restraint* (lower IVR) in fact coincided with efficient social services. In other words, Mexico's indulgent culture has not yielded proportional gains in education or health for its population, whereas Uruguay's restraint and emphasis on social norms underpin its stronger HDI. For instance, by 2010 Uruguay had literacy $\approx 98\%$ and life expectancy ≈ 77 years, surpassing Mexico's $\approx 94\%$ literacy and ≈ 76 years, reflecting how restrained social values supported public services.

4.1.5. Egypt vs. Morocco (MAS)

Masculinity (MAS) measures competitiveness and traditional gender roles; it generally has **no clear effect** on development outcomes [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov). Egypt and Morocco provide a matched pair: both North African, majority-Muslim societies emerging from colonial rule with semi-authoritarian governments. Egypt (MAS \approx 45) is somewhat *feminine* (caring values), while Morocco (MAS=53) is more *masculine*. Despite this difference, their HDIs were both middling in 2010 (Egypt 0.667, Morocco 0.604 countryeconomy.com) due to non-cultural factors. In fact, Egypt's more feminine culture coincided with **higher** HDI than Morocco's. Egypt has, for example, historically invested more in female education and healthcare; by 2010 women's literacy was roughly $\sim 84\%$ in Egypt versus $\sim 73\%$ in Morocco. Its relatively liberal family norms (e.g. greater women's workforce participation) helped improve its HDI components despite a history of autocracy. Morocco's higher MAS culture has not produced higher development; rather, Morocco's progress is slowed by regional inequality and weaker social policies.

This illustrates that MAS itself is not driving the HDI gap. In health-outcome regressions, masculinity did *not* significantly predict life expectancy or spending [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov). The Egypt–Morocco case confirms this: cultural differences in MAS did not translate into parallel HDI differences. Instead, political stability and policy choices are more important. Both countries share geographic and institutional legacies (e.g. similar oil price shocks, regional conflicts), so the HDI gap is better explained by how each government prioritized education and health, not by their MAS

scores. In short, the similar development outcomes despite differing MAS scores support the view that masculinity/femininity is a weaker correlate of HDI pmc.ncbi.nlm.nih.gov.

Appendix

- HDI::PDI Slope: -109.86677216212, Pval: 0.0000006
- HDI::IDV Slope: 146.6209652, Pval: 0.00000001
- HDI::MAS Slope: -26.913516025252, Pval: 0.31980858367659
- HDI::UAI Slope: -43.99992308571, Pval: 0.14330853189683
- HDI::ITOWVS Slope: 66.917508514048, Pval: 0.021300642074564
- HDI::IVR Slope: 44.235245540905, Pval: 0.13504798359369
- HDI::uasp Slope: 2.24112005, Pval: 0.000479014
- HDI::fosp Slope: 1.125648026, Pval: 0.026062458
- HDI::pdsp Slope: -1.156855821, Pval: 0.019707394
- HDI::cspic Slope: 0.573596323, Pval: 0.230663921
- HDI::hosp Slope: -1.335034932, Pval: 0.008314023
- HDI::posp Slope: 0.681630494, Pval: 0.131077732
- HDI::cspicii Slope: -3.395009635, Pval: 2.13016E-05
- HDI::gesp Slope: 0.478105695, Pval: 0.246783199
- HDI::asp Slope: -0.326620326, Pval: 0.434912585
- HDI::uasv Slope: -3.185812951, Pval: 2.6779E-07
- HDI::fosv Slope: -2.11387839, Pval: 0.00010141
- HDI::pdsv Slope: 0.176284242, Pval: 0.695872599
- HDI::csvg Slope: -1.407788522, Pval: 0.009748719
- HDI::hosv Slope: -0.018732032, Pval: 0.963028888
- HDI::posv Slope: -1.4289199, Pval: 0.021233121
- HDI::csvgicii Slope: -1.114316776, Pval: 0.012183778
- HDI::gesv Slope: 0.859386822, Pval: 0.111879148
- HDI::asv Slope: -0.882006387, Pval: 0.218888463

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