



ARE ORIENTATIONS OF NATIONAL CULTURE AND THE DEVELOPMENT OF THE GREEN ECONOMY INTERRELATED?

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Abstract: *Green economy, as an environmentally sound, low-carbon economy, brings benefits not only to the natural environment but also to business and society. Decreasing environmental problems and promoting sustainable development are critical objectives of the green economy that seeks to balance the social, economic, and environmental pillars. Culture is an important supporting pillar of social development since it shapes the identity of a society, and there can be no sustainable development without considering this important factor. Most of the Sustainable Development Goals, adopted by the United Nations in 2015, emphasize the role of culture at its core. The primary purpose of this paper is to explore the interconnectedness of national cultural orientations and the stages of green economy development. In the research, we gathered secondary data from 60 countries from different parts of the world. The data for national cultural orientations were collected from the Hofstede insights website, whereas the values for the green economy indicators we gathered from the Green Growth Index Report. The research is based on descriptive statistical analysis. Its findings show that for some green economy indicators, there are statistical differences between different groups of countries with different national cultural orientations. For some indicators, there were no significant differences.*

Keywords: *National culture, Intercultural differences, Green economy, Hofstede cultural dimensions, Global Green Growth Index.*

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1. INTRODUCTION

Many economies are depleting natural resources and stressing natural ecosystems through their current operation, risking long-term disruption of natural balance and climate change, which could significantly threaten future generations' habitat and socioeconomic development. The era of contemporary globalization requires changes in the development of economies toward sustainability. To achieve sustainable development, it is crucial to reconcile three fundamental elements: economic growth, social inclusion, and protection of the natural environment (Gast et al., 2017). Protection of the natural environment aims to preserve natural ecosystems and natural resources as the basis for the lives of future generations.

A green economy brings benefits not only for the natural environment but also for businesses and society as a whole. For example, the European Union is embracing the Sustainable Development Goals and the green economy as an opportunity to transform the European Union into a competitive, modern, and resource-efficient economy (Intihar Marulc, 2022). The key objectives of the green economy, as an ecologically sound, low-carbon economy (UNEP, 2020), are to reduce environmental problems and risks and to promote sustainable development.

Over the last decade, the concept of the green economy has become a strategic priority for national governments. By transforming their economies into so-called green systems, economies should be able to meet the key challenges of the 21st century – from excessive urbanization and scarcity of natural resources to climate change and economic instability (UNEP, 2020). All industries, services, and households can contribute to developing a green economy. The key sectors that can contribute the most are energy, construction and transport, water management, waste management, and agriculture. The transition to a green economy is a major challenge for societies and economies.

A green economy emphasizes the importance of good governance as an indispensable and crucial prerequisite for its development. Achieving a predictable macroeconomic environment with competent institutions and governance systems is vital to increasing local and foreign investment and implementing green economy strategies and programs. The shift towards a green economy requires a new mindset and an innovative view of the business. It also requires new potential skills and capabilities of individuals who can work competently at the cross-sectoral level in interdisciplinary teams.

The authors define culture in different ways, but there are certain similarities. Tylor (1870) first defined culture as „a complex whole comprising the values, beliefs, norms, customs, and habits the individual acquires as a member of a social group“. According to Hofstede (1994), culture is „the collective programming of the mind that separates members of one group or category of people from another“. Gajšt and Korez-Vide (2013) state that the fundamental elements of culture are social structure, language and communication, and religion. Individuals from different cultures differ in their thinking and behavior. Each new interaction with individuals from other cultures is unique (Korez-Vide & Jurše, 2016). Culture plays a direct and crucial role in achieving the strategic pillars of a country's development vision (Alwakid et al., 2020). Various authors have attributed countries' economic growth to the dominant characteristics of particular national cultures.

Cultural variables play an essential role in the use and perception of high-tech products and societal attitudes towards new technologies in countries at different stages of development. Culture is vital for the economic performance of individuals, including their mindset and entrepreneurial behavior. Research also considers culture as an essential determinant of sustainability. Several studies view culture as an important variable in sustainability-related actions. For example, the

propensity of an entrepreneur to think sustainably is a part of the culture (Alwakid et al., 2020). Considering that the environmental aspect is part of sustainability, that culture is an important determinant of sustainability, and that green entrepreneurship and sustainable entrepreneurship are essential parts of the economy, it can be determined that the dominant characteristics of national culture are related to a green economy.

For instance, different attitudes toward green entrepreneurship can be found in various developed countries (Rebernik et al., 2018). In countries at different stages of development, economies have different policies to support green entrepreneurship. Promoting environmental awareness is one way to extend sustainability (Lotfi et al., 2018). Consumer awareness can be a lever for the development of green entrepreneurship e.g., in developed countries, consumers are willing to pay more for renewable energy sources than for traditional energy sources (Pelau & Pop, 2018), which suggests that individuals in developed countries are more likely to act towards the development of a green economy.

Culture is usually seen as an organization or society's values, beliefs, and ideology. It is an essential contextual factor in business research. Socio-cultural commitments, norms, and values play a vital role in people's survival strategies, and national culture influences leadership attitudes, values, behavior, and performance in organizations (Song et al., 2018).

Following Hofstede's seminal work (1980, 2001), it has become common practice in the intercultural field to extract the dimensions of culture from self-reported values, beliefs, and ideologies. These measures, called "dimensions", are annotated with country scores, which explain significant inter-country differences among business and management practices, political and economic systems, and various social differences (Minkov & Kaasa, 2022).

The main objective of our research is to identify if there are any differences among the groups of countries with different national cultural orientations at different stages of green economy development.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Sustainability became a new science more than a decade ago. It advocates positive social change to reduce the harmful effects of humans on the natural environment. It seeks solutions to restructure the relationship between human activities and the natural environment. Its key objectives include developing an understanding of the dynamics of the so-called social-ecological systems, promoting the design, implementation, and evaluation of actions that promote sustainability in specific areas and contexts, and improving the links between research, innovation, policy, and governance in this field. Changes in the natural environment lead to changes in society and vice versa. Humanity will be increasingly affected by climate change, biodiversity loss, safe drinking water scarcity, and arable farmland degradation. Social change will trigger changes in the natural environment, both harmful (environmentally unsustainable production and consumption patterns) and positive (sustainable lifestyles, technologies, and social practices).

The green economy focuses on human aspects, impacts on nature, and an economic order that can create high-wage jobs (UNEP, 2020). Studies on the green economy cite a fundamental shift towards more efficient, innovative, environmentally friendly technologies that can reduce harmful emissions and the effects of climate change while coping well with the challenges of resource depletion and degradation of the natural environment (Janicke, 2012). Key pillars of green economy

development include reducing carbon emissions to minimize the risks of climate change due to the overexploitation of natural resources and large-scale degradation of the natural environment, reducing the natural capital on which humanity depends.

Sustainable development means that society and the economy should develop in a way that does not compromise the needs of future generations to meet current needs that affect the natural environment (Zhang & Zhu, 2022). It is the development that seeks to maintain a balance between the three pillars of development: social, economic, and environmental. The green economy can be said to be part of sustainable development corresponding to its objectives.

Culture is an important supporting pillar of social development. Culture shapes the identity of a society, and there can be no sustainable development without considering this important factor. Most of the Sustainable Development Goals adopted by the United Nations in 2015 (UNDP, 2015) emphasize the role of culture as their essence. Culture is essential to sustainable development's economic, social, and environmental dimensions. Hofstede's cultural dimensions can be used to test whether culture shapes the scale of green consumption (Halder et al., 2020).

Hofstede's study (1980, 2001) was the first to rank more than 50 countries along cultural dimensions. Despite criticisms of Hofstede's model its robustness has been recognized outside academia. Hofstede's (2001) research focuses on behavior patterns in the business environment and draws on his findings to analyze individual national cultures (Hofstede et al., 2006). The dimensions of culture defined by Hofstede are individualism/collectivism, masculinity/femininity, uncertainty avoidance, long-term/short-term orientation, enjoyment/limitation, and power distance. His model is beneficial in comparative, cross-cultural studies.

According to Hofstede (1980) and Hofstede et al. (2006), societies can be long-term oriented and think about acting in their future. Alternatively, they can be short-term oriented and not think much about their future, preferring to be comfortable in the present. Hofstede (2001) classifies elements of the negative side as short-term orientation and elements of the positive side as long-term orientation. The World Bank's plans for sustainable development and green economies are all long-term oriented. One of the critical strategic orientations in the literature on strategic management in firms is the firm's time orientation, which can range from short- to long-term (Lin et al., 2019). The short- or long-term orientation influences the firm's objectives and solutions, which in turn affect the environment in which it operates. For example, short-term-oriented companies only prioritize profit while long-term-oriented companies set bigger goals. On this basis, we set the first hypothesis:

H1: There are statistically significant differences in national culture's long-term/short-term orientation across countries at different stages of green economy development.

Individuals in collectivist societies are likelier to engage in behaviors that benefit society (Sreen et al., 2018). Research thus shows a positive effect of collectivism on environmentally friendly behavior, including the willingness to buy so-called green products. Researchers also find that collectivist societies are more likely to develop pro-environmental attitudes and to protect the environment so that the whole society can enjoy prosperity (Halder et al., 2020). People in a collectivist culture are more willing to share scarce resources with others in the same society and develop positive attitudes towards behaviors that help society thrive (Sreen et al., 2018). Social norms and the need for conformity are paramount in a collectivist society for the transition to environmentally friendly purchasing behavior. On this basis, we formulate the following hypothesis:

H2: There are statistically significant differences in national culture's individualistic/collectivistic orientation across countries at different stages of green economy development.

Avoiding uncertainty has a negative impact on entrepreneurship. When countries have high levels of uncertainty avoidance, the volume of entrepreneurial activity is lower (Rebernik et al., 2018). As a result, a country's economic growth will be lower. The country's development will also slow down because entrepreneurship drives socioeconomic development, stimulating new ideas and solutions, including green products and a green economy. Although low levels of uncertainty avoidance in society are often associated with unethical actions (Song et al., 2018), which can also be manifested in companies' neglect of activities to reduce their impacts on the natural environment, societies with low levels of uncertainty avoidance are predominantly oriented towards risk-taking activities that are expected to bring more benefits than drawbacks to society and the economy. Based on this research, we formulate the following hypothesis:

H3: There are statistically significant differences in higher/lower levels of uncertainty avoidance as a national cultural orientation across countries at different stages of green economy development.

In a culture that tends to be restrictive, people tend to emphasize the importance of responsibility in the social or work environment. For them, personal freedom and pleasure can be sacrificed for the sake of responsibility. Therefore, companies in low enjoyment cultures are expected to be more willing to sacrifice their personal interests and be more responsible towards the natural environment (Song et al., 2018). At the same time, some authors argue that at low levels of life satisfaction, individuals will not care about the environment, i.e., there will be a low level of responsibility for the natural environment because the individual's primary needs are not met. At high levels of life satisfaction, individuals have their basic needs met, which allows them to focus on higher-order needs related to concern for the natural environment. Societies that are prone to enjoyment allow for higher levels of life satisfaction. Individuals in these societies are expected to be in control of their lives. In societies prone to restriction, people are more pessimistic, often perceive powerlessness, and have less control over their personal lives. Some authors argue that societies prone to restriction are more concerned with environmental sustainability. Other authors also state that the propensity to consume is positively associated with employees' engagement in environmental sustainability (He & Filimonau, 2020).

On the other hand, in cultures where high levels of consumption are prevalent, there is an emphasis on the individual's freedom and control over their destiny. Individuals feel more freedom and control over their lives and are more likely to move from intention to action. Empirical evidence also suggests that cultures with higher levels of life enjoyment tend to have higher levels of innovation (Lažnjak, 2011).

Based on the above information, we set the following hypothesis:

H4: There are statistically significant differences in higher/lower enjoyment of life as a national cultural orientation across countries at different stages of green economy development.

It can be expected that companies in countries characterized by more feminine cultures will be more aware of the impact of their activities on the natural environment (Wang et al., 2021). Several researchers have hypothesized that policies promoting green entrepreneurship and so-called green entrepreneurial behavior are based on a culture in which caring for others is a signifi-

cant value. The presence of masculinity tends to emphasize competitiveness and aggressiveness, which is the opposite of femininity – humility, and compassion. One of the challenges in achieving a green economy is green technology. Business leaders in male-dominated companies are generally goal-oriented and prioritize financial objectives linked to profitability. They are less enthusiastic about investing in R&D and green technology. Similarly, the finance literature finds that male cultures tend not to foster innovation capabilities. Empirical results show that masculinity negatively affects environmental and technological change toward sustainable development, suggesting that such cultural dimension influences green products due to gender identification or stereotype. From their findings, it is possible to conclude that green brands predict feminine eco-friendly behavior or product characteristics. However, masculinity is expected to have a negative effect on the development of the green economy (Lee et al., 2022). Thus, our fifth hypothesis is the following:

H5: There are statistically significant differences in female/male national cultural orientation across countries at different stages of green economy development.

3. DATA AND METHODOLOGY

The research is based on data from 60 countries on six continents. Data on the dimensions of the green economy were collected from the Global Green Growth Index (GGGI) 2020 (Zabrocki et al., 2020). The GGGI comprises four dimensions: sustainable and efficient use of resources, protection of natural capital, green economic opportunities, and social inclusion. We focus on the area of green economic opportunities, which comprises green investment, green trade, green jobs, and green innovation. Green investment refers to public and private investments that directly or indirectly promote the sustainable use of resources, including materials, water, energy, and land, as well as the protection of natural capital, such as environmental protection and climate change mitigation and the promotion of sustainable development. Green trade refers to a country's competitiveness in producing and exporting environmental products that can contribute to the protection of the natural environment, climate change mitigation measures, green growth, and sustainable development. Green employment refers to green jobs created and sustained by economic activities that are environmentally friendly and offer decent working conditions. Green innovation relates to product, process, and service innovations, such as energy saving, pollution prevention, waste recycling, and green product design, as well as to firms' activities that bring environmental benefits. Data for Hofstede's indicators on cultural dimensions were obtained from Hofstede Insights (<https://www.hofstede-insights.com>, 2022).

The analysis was carried out using SPSS to obtain descriptive statistics for the green economy indicators according to the national cultural orientations.

4. RESEARCH RESULTS

The results of the descriptive statistics are shown in Tables 1 – 5. Each table shows all green economy indicators and individual cultural dimensions. We mainly focus on the average, minimum, and maximum values in describing the results.

In the research, we compared the differences between countries with long-term and short-term cultural orientations according to the green economy indicators. Twenty-nine countries have a long-term national culture orientation, and 31 countries have a short-term national culture orientation (Table 1).

Table 1. Descriptive statistics for the long-term/short-term oriented national cultures at different stages of the green economy

	Green investment		Green trade		Green employment		Green innovation	
	Long term	Short term	Long term	Short term	Long term	Short term	Long term	Short term
N	29	31	29	31	29	31	29	31
Mean	68.33	66.36	31.87	19.83	53.29	44.07	41.44	37.3
Median	70.77	66.88	31.45	17.16	49.72	44.17	40.63	34.79
Std. Deviation	7.64	7.81	17.12	13.35	20.43	18.25	27.03	19.93
Variance	58.35	61.02	292.93	178.18	417.57	333.21	730.43	397.13
Range	29.5	26.9	66	41	85.37	69.65	99	99
Minimum	50.9	53.3	3	3	14.63	13.9	1	1
Maximum	80.4	80.2	69	44	100	83.55	100	100

Notes: green investment: adjusted net savings, including particulate emission damage (% GNI)⁴; green trade: share of export of environmental goods to total export; green employment: share of green employment in total manufacturing employment; green innovation: share of patent publications in environmental technology to total patents; cultural dimensions: (1) 1-50 short-term orientation, (2) 51-100 long-term orientation; green investment: (1) 1-20 very low scores; (2) 20-40 low scores; (3) 40-60 moderate scores; (4) 60-80 high scores; (5) 80-100 very high scores; green trade: (1) 1-20 very low scores; (2) 20-40 low scores; (3) 40-60 moderate scores; (4) 60-80 high scores; (5) 80-100 very high scores; green jobs: (1) 1-20 very low scores; (2) 20-40 low scores; (3) 40-60 moderate scores; (4) 60-80 high scores; (5) 80-100 very high scores; green innovation: (1) 1-20 very low scores; (2) 20-40 low scores; (3) 40-60 moderate scores; (4) 60-80 high scores; (5) 80-100 very high scores.

Source: Own research

For the green investment indicator, the average value (68.33) of adjusted net savings is higher in countries with a long-term orientation of national culture by 1.96%. The lowest value (50.9%) taken by countries for this indicator is in countries with a short-term orientation of national culture. We can conclude that the minimum that occurs among the countries studied is higher in countries with a short-term orientation of national culture than in countries with a long-term cultural orientation. Therefore, the minimum value of the adjusted net savings is higher in countries with a short-term orientation, regardless of the average. At the maximum value (80.4% in the long-term; 80.2% in the short-term) that this indicator can take, the value is approximately the same in countries with different time orientations.

For the green trade indicator, the average value (31.87%) of the share of exports of environmental goods (as a percentage of total exports) is higher (12.04) in countries with a long-term orientation of national culture. The minimum values (3%) are the same in both groups. The maximum value (69%) - this indicator is evidenced in countries with a long-term orientation of national culture.

For the green employment indicator, the average value (53.29%) is higher in countries with a long-term orientation of national culture. The minimum (14.63) and maximum (100%) values are higher in countries with a long-term orientation of national culture.

For the green innovation indicator, the average value (41.44%) of patent publications in environmental technology in total patents is higher in countries with a long-term-oriented national culture. The minimum (1%) and maximum (100%) values are the same in both groups of countries.

We found that 28 countries have an individualistic orientation of national culture, while 32 countries are more collectivistic oriented (Table 2).

4 GNI – Gross National Income. Adjusted net savings are equal to net national savings plus education expenditure and minus energy depletion, mineral depletion, net forest depletion, and carbon dioxide and particulate emissions damage.

Table 2. Descriptive statistics for the individualistic/collectivistic oriented national cultures at different stages of the green economy

	Green investment		Green trade		Green employment		Green innovation	
	Ind.	Col.	Ind.	Col.	Ind.	Col.	Ind.	Col.
N	28	32	28	32	28	32	28	32
Mean	68.61	66.18	33.31	18.95	56.47	41.57	49.83	30.08
Median	68.59	63.84	34.35	14.87	57.32	39.63	46.39	34.21
Std. Deviation	6.25	8.76	15.21	14.36	21.93	14.66	25.24	17.6
Variance	39.04	76.77	231.34	206.23	480.86	214.84	636.96	309.66
Range	23.2	29.5	63	54	86.1	59.15	85	54
Minimum	55.1	50.9	6	3	13.9	16.29	15	1
Maximum	78.3	80.4	69	56	100	75.44	100	55

Notes: See Table 1.

Source: Own research

The average adjusted (68.61%) net savings indicator for the green investment indicator is higher in countries with an individualistic rather than a collectivistic orientation. The minimum value (55.1%) is also higher for countries with an individualistic orientation. The highest value of adjusted net savings that occurred was 80.4% of adjusted net savings in countries that have a collectivist orientation of national culture. This tells us that some countries with a collectivist orientation outperform countries with an individualist orientation.

For the green trade indicator, the average value (33.31%) of the share of exports of environmental goods (as a percentage of total exports) is higher in countries with an individualistic orientation of national culture. The same applies to the maximum (69%) and minimum (6%) values. Thus, individualistic countries score better among the countries we have selected for the green trade indicator.

For the green employment indicator, the average value (56.47%) of the share of green employment in total manufacturing employment is higher in countries with an individualistic national culture orientation. The lowest value that emerges is 13.9% in countries with an individualistic orientation of national culture. This shows that this indicator's minimum value (16.29%) is higher in countries with a collectivistic orientation. The maximum value is 100% green employment in manufacturing, which occurs in countries with an individualistic orientation of national culture. Even though countries with an individualistic orientation are better, some countries may be worse than those with a collectivistic orientation.

In the case of the green innovation indicator, the average value (49.83%) of the share of patent publications in environmental technology is higher in countries with an individualistic orientation of national culture. The minimum (15%) and maximum (100%) values are higher in countries with an individualistic orientation. Therefore, countries with a collectivistic orientation of national culture have lower values for this indicator.

As we found, 43 countries have higher levels of uncertainty avoidance, while 17 countries record lower levels (Table 3). For the green investment indicator, the average value (70.48%) of adjusted net savings is higher in countries with lower uncertainty avoidance. The minimum (55.1%) and maximum (80.4%) values are also larger in countries with lower levels of uncertainty avoidance. This tells us that countries with higher uncertainty avoidance perform worse on the green investment indicator.

Table 3. Descriptive statistics on higher/lower levels of uncertainty avoidance at different stages of the green economy

	Green investment		Green trade		Green employment		Green innovation	
	High	Low	High	Low	High	Low	High	Low
N	43	17	43	17	43	17	43	17
Mean	66.06	70.48	26.4	23.74	49.47	46.14	42.05	32.34
Median	66.88	71.52	25.74	22.54	48.88	47.42	40.63	24.6
Std. Deviation	7.25	8.21	17.25	13.99	20.36	18.39	22.19	25.97
Variance	52.5	67.40	297.55	195.91	414.56	338.36	492.46	674.34
Range	27.8	25.3	66	39	85.37	69.65	99	99
Minimum	50.9	55.1	3	6	14.63	13.9	1	1
Maximum	78.7	80.4	69	44	100	83.55	100	100

Notes: See Table 1.

Source: Own research

For the green trade indicator, the average value (26.4%) of the share of exports of environmental goods is higher in countries with a higher degree of uncertainty avoidance. The minimum value for this indicator is 3% for countries with a higher degree of uncertainty avoidance and 6% for countries with a lower degree of uncertainty avoidance. This shows that the minimum value is higher in countries with lower uncertainty avoidance. This indicator's maximum value (69%) is higher in countries with higher uncertainty avoidance. However, for the green trade indicator, we see that countries with higher uncertainty avoidance outperform countries with lower levels of uncertainty avoidance.

For the green employment indicator, the average value (49.47) is higher in countries with higher uncertainty avoidance. The minimum (14.63%) and maximum (100%) values are also higher in countries with higher levels of uncertainty avoidance. For this indicator, countries with lower levels of uncertainty avoidance have worse scores than countries with higher levels of uncertainty avoidance.

For the green innovation indicator, the average value (42.05%) of the share of patent publications in environmental technology is higher in countries with a higher degree of uncertainty avoidance. The minimum (1%) and maximum (100%) values are the same in both groups of countries (Sova et al., 2023).

We found that 27 countries have a higher enjoyment of life, while 33 countries have a lower enjoyment of life (Table 4).

Table 4. Descriptive statistics on higher/lower levels of indulgence as an orientation of national culture at different stages of the green economy

	Green investment		Green trade		Green employment		Green innovation	
	High	Low	High	Low	High	Low	High	Low
N	27	33	27	33	27	33	27	33
Mean	67.13	67.46	23.27	27.59	46.86	49.89	39.43	39.19
Median	67.54	68.8	22.86	23.74	47.42	48.88	32.54	42.9
Std. Deviation	7.83	7.76	15.28	17.11	21.75	18.13	23.36	23.99
Variance	61.27	60.24	233.41	292.90	473.05	328.88	545.85	575.92
Range	25	29.5	49	66	86.1	72.42	85	97
Minimum	53.3	50.9	3	3	13.9	17.56	15	1
Maximum	78.3	80.4	52	69	100	89.98	100	98

Notes: See Table 1.

Source: Own research

For the green investment indicator, the average value (67.13% at higher enjoyment of life and 67.46% at lower enjoyment of life) of adjusted net savings is roughly the same in countries with higher and lower enjoyment of life. The minimum value (53.3%) is higher in countries with higher enjoyment of life. The maximum value (80.4%) is higher in countries with lower enjoyment of life. Therefore, It is impossible to say which countries dominate in this indicator.

For the green trade indicator, the average value (27.59%) of the share of exports of environmental goods is higher in countries with lower levels of enjoyment of life. The minimum values (3%) are the same in both groups of countries. However, the maximum value (69%) is higher in countries with lower enjoyment of life. For this indicator, countries with higher levels of enjoyment of life have higher values.

For the green employment indicator, the average value (49.89%) of the share of green employment in total manufacturing employment is higher in countries with lower enjoyment of life. The minimum value (17.56%) is also higher in countries with lower enjoyment of life. The maximum value is higher in countries with higher enjoyment of life and is 100%. We can conclude that, regardless of the results, countries with higher enjoyment of life show better results than countries with lower enjoyment of life.

For the green innovation indicator, the average values (39.43% at higher levels of enjoyment of life and 39.19% at lower levels of enjoyment of life) are roughly the same in countries with higher and lower enjoyment of life. The minimum (15%) and maximum (100%) values are higher in countries with higher enjoyment of life.

We found that 33 countries have a female-oriented national culture, and 27 countries have a more male-oriented national culture (Table 5).

Table 5. Descriptive statistics on masculinity/femininity as an orientation of national culture at different stages of the green economy

	Green investment		Green trade		Green employment		Green innovation	
	Fem.	Mas.	Fem.	Mas.	Fem.	Mas.	Fem.	Mas.
N	33	27	33	27	33	27	33	27
Mean	66.93	67.79	22.69	29.26	44.13	53.9	41.15	37.04
Median	68.32	67.61	22.77	30.75	45.75	49.72	42.02	31.28
Std. Deviation	7.45	8.17	13.60	18.77	17.18	21.58	25.78	20.66
Variance	55.45	66.8	184.99	352.21	295.07	465.49	664.81	426.83
Range	27.5	27	54	64	68.92	86.1	99	89
Minimum	50.9	53.3	3	5	14.63	13.9	1	11
Maximum	78.3	80.4	56	69	83.55	100	100	100

Notes: See Table 1.

Source: Own research

For the green investment indicator, the average value (67.79%) of adjusted net savings is higher in countries with a male-oriented culture. The minimum (53.3%) and maximum (80.4%) values are also larger in male-oriented countries.

For the green trade indicator, the average value (29.26%) of the share of exports of environmental goods is higher in countries with a male-oriented national culture. The minimum (5%) and maximum (69%) values are also higher in male-oriented countries.

The green employment indicator's average value (53.9%) is higher in countries with a male-oriented national culture. The lowest value (14.63%) is higher in countries with a female-oriented national culture. The maximum value (100%) is higher in countries with a male-oriented national culture.

The average value (41.15%) for the green innovation indicator is higher in countries with a female-oriented national culture. The lowest value (11%) is higher in male-oriented countries. The two maximum values are equal at 100% each. In male-oriented and female-oriented cultures, the maximum values are the same and are 100%.

5. CONCLUSION

Our research found that countries with a long-term orientation of national culture have better average, minimum, and maximum values than countries with a short-term orientation of national culture at different stages of green economy development. Based on descriptive statistics, we confirmed the first hypothesis that there are statistically significant differences in national culture's long-term/short-term orientation across countries at different stages of green economy development.

We learned that countries with an individualistic orientation of national culture perform better than countries with collectivist orientation culture, but some collectivist countries outperform the individualistic ones. Some countries with a collectivistic orientation of national culture perform better than individualistic countries on some indicators. We also confirmed the second hypothesis that there are statistically significant differences in national culture's individualistic/collectivistic orientation across countries at different stages of green economy development.

We found that countries with a higher degree of uncertainty avoidance in the national culture perform better than countries with a lower degree of uncertainty avoidance on the green trade, green jobs, and green innovation indicators. Regardless, however, countries with lower levels of uncertainty avoidance perform better than countries with higher levels of uncertainty avoidance on the green trade indicator. Countries with a lower degree of uncertainty avoidance perform better on the green investment indicator than those with higher uncertainty avoidance. The third hypothesis that there are statistically significant differences in higher/lower levels of uncertainty avoidance across countries at different stages of green economy development was also confirmed.

As we saw with the green investment indicator, we cannot identify a dominant group of countries along the cultural dimension of higher/lower enjoyment of life. For the green trade and jobs indicators, countries with lower enjoyment of life had better values. For the green innovation indicator, however, countries with higher enjoyment of life scored better. We can conclude that in some cases, one group of countries is better and, in some cases, the other group. Based on descriptive statistics, we partially confirmed the fourth hypothesis that there are statistically significant differences in higher/lower enjoyment of life in the national cultural orientation across countries at different stages of green economy development.

As we found with the green investment, green trade, and green jobs indicators, countries with a male-oriented national culture perform better than countries with a female-oriented national culture. For the green innovation indicator, countries with a female-oriented national culture perform better than countries with a male-oriented national culture, which means that the fifth hypothesis was confirmed.

It could be argued that whatever the dominance of a particular group of countries in the green economy indicators, there may be countries from another group that performs better given the different cultural orientation of national cultures. This was evident in the smallest and largest values. For example, for the green investment indicator, the average value is higher in countries with an individualistic orientation of national culture. Still, the maximum value is higher in countries with a collectivistic orientation of national culture. This tells us that, regardless of the average, some countries with a collectivistic orientation of national cultures perform better than countries with an individualistic orientation of national cultures. For the green jobs indicator, the average value is higher in countries with an individualistic national culture, but the minimum value is higher in countries with a collectivistic national culture. This tells us that the minimum value is higher in countries with a collectivistic national culture orientation. For example, we could not determine which group of countries was better for the higher/lower enjoyment of life on the selected green growth indicators, as both had roughly the same scores/values.

Modifying the green economy indicators or adding some additional ones would be useful for further research. We could not include more countries because our research was limited to certain indicators. Adding more countries to enlarge the sample would make sense, which would be possible with a different set of indicators. We could also choose some other model of intercultural differences as a research framework. For further research, it would be useful to investigate a specific period covering several years.

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