



An Analysis of Patterns of World Economy: Consumption and Economic Growth

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ABSTRACT

The purpose of this paper is to assess the effect of consumption (consumer spending) on economic growth based on 222 countries/territories in the world, while the effect of other variables that are also assumed to affect economic growth is statistically controlled. The four factors (patterns) of economic growth// identified are as follows: Factor 1/consumption-driven economy; Factor 2/Savings-based; Factor 3/oil-resource based; Factor 4/government-spending. Empirical evidence shows the predominance of the consumption-driven economy in affecting economic growth across the world, developing, or developed. Eight variables were found significantly loaded in the pattern of the consumption- driven economy: (1) consumption (2) globalization (3) economic freedom (4) knowledge economy (5) global competitiveness (6) corruption, (7) foreign direct investment, and (8) economic growth. The consumption- driven economy is multidimensional in affecting economic growth. It was found significantly associated with not only economic growth but also globalization (both 'domestic' and 'international'), corruption, economic freedom, knowledge economy, and foreign direct investment.

Keywords: Consumption-driven Economy, Globalization, Knowledge Economy, Factor Analysis, Logistic Regression Analysis

JEL Code C/Mathematical and Quantitative Methods; Code F/ International Economics; Code O /Economic Development, Innovation, Technological Change, and Growth

PURPOSE

The purpose of this paper is twofold: First, it is to identify different patterns of economic growth in the world based on 222 countries; Second, based on the different patterns identified, it is to assess the effect of consumption on economic growth. It will assess how the consumption-driven economy affects economic growth across the five continents (Asia, Europe, Africa, South American, North America). What can be the effect of consumer-spending on

economic growth? How can identify a ‘pure’ effect of consumer-consumption on economic growth by controlling the effects of other variables that/which are also assumed to affect the economic growth as well?

THEORIES OF ECONOMIC GROWTH

There are many theories of economic growth. Consumption (consumer-spending) is one of them. Consumer spending is the amount of money spent by individuals or households in an economy. Consumption is a major growth engine. One of the ways to determine how much economic growth is accomplished is to measure the GDP (Gross Domestic Product). The GDP is based on the following formula: $GDP = C + I + G + NX$, where C = Consumer spending; I = Business investments; G = Government spending; NX = Net exports. The GDP is the country’s total economic output. It is equivalent to what is being spent in that economy as well. The equation indicates that the consumer spending is a vital part of economic growth along with capital investments (both foreign direct investment/FDI and domestic private investment), government spending, and trade (net export). A consumer economy describes an economy driven by consumer spending as a percent of its GDP.

Economic growth relates a gradual increase in one of the components of GDP, consumption, government spending, investment, or net exports. Economic growth is the precursor and prerequisite for economic development. It is the ‘subset’ of economic development. Economic growth is single dimensional in nature as it only focuses on income of the people, while economic development is ‘multidimensional including not only the growth but also quality of life. GDP per capita based on PPP is gross domestic product converted to international dollars using purchasing power parity (PPP) rates and divided by total population.

CONSUMPTION AND NEW GROWTH THEORY

Consumer spending drives a significantly large part of U.S. GDP. This makes it one of the biggest determinants of economic health. Under the new growth theory, nurturing innovation internally is one of the reasons for organizations to invest in human capital. By creating opportunities and making resources available within an organization, the expectation is that individuals will be encouraged to develop new concepts and technology for the consumer market.

The new growth theory is an economic concept, positing that humans' desires and unlimited wants foster ever-increasing productivity and economic growth. The new growth theory presumes the desire and wants of the populace (consumer) will drive ongoing productivity and economic growth. Endogenous, rather than exogenous, growth theory maintains that economic growth is primarily the result of internal forces, rather than external ones. The endogenous growth theory argues that improvements in productivity can be tied directly to faster innovation and more investments in human capital. Individuals will be encouraged to develop new concepts and technology for the consumer market. The theory emphasizes the importance of entrepreneurship, knowledge, innovation, and technology, rejecting the popular view that economic growth is determined by external, uncontrollable forces. Under the new growth theory, nurturing innovation internally is one of the reasons for organizations to invest in human capital. By creating opportunities and making resources available within an organization, the expectation is that individuals will be encouraged to develop new concepts and technology for the consumer market. Central tenet of the new growth theory is that competition squeezes profit, forcing people to constantly seek better ways to do things or invent new products to maximize profitability. By creating opportunities and making resources available within an organization, the expectation is that individuals will be encouraged to develop new concepts and technology for the consumer market.

ECONOMIC GROWTH THEORIES

Supply-side economics as a macroeconomic theory explains that economic growth can be most effectively created by investing in capital and lowering barriers on the production of goods and services. The investment and expansion of businesses will increase the demand for employees and therefore create jobs, which also mean to increase in consumer-spending.

Foreign direct investment (FDI) inflow does increase economic growth of the recipient countries. This is particularly notable in developing countries where multinational corporations (MNCs) via their respective foreign direct investment (FDI) are doing their businesses. Several economists have emphasized physical investment: that is, the accumulation of structures, machinery, business plant and equipment and other tangible assets (De Long and Summers 1991: 445-502.). Gary Becker (1993) has emphasized the accumulation of human capital. Even physical investment is not possible or effective without the human capital.

Globalization *does affect economic growth*. There are pros and cons of the role of globalization in enhancing economic growth and quality of life. Stiglitz (2003) was critical of globalization, as it has deepened global inequality between the haves and have-nots, especially in less developed countries. Goklany (2007) argued for a positive effect of economic globalization via free trade, which helped to enhance human well-being. The Global Competitiveness Index (GCI) measures the ability and competitiveness of countries based on their respective 'national/domestic' institutions, administrations, and policies.¹

Terms of trade (export and import) affect economic growth. Favorable terms of trade, which is based on an increase in export prices relative to import prices, allows a larger volume of imports to be purchased with a given volume of exports. Thus, favorable terms of trade imply an increase in the real purchasing power of domestic production, which is equivalent to a transfer of income from the rest of the world. They can have large impacts on consumption, savings, and investment as well. On the other hand, unfavorable terms of trade will result in a negative or low economic growth, particularly in developing countries, (which heavily rely on the export of a single or a few primary commodities (Chow 1987; Appleyard *et al.* 2008: 214-15 and 416-17).

Types of political system affect the quality of life. Democratic political system with a free market- economy (economic freedom) enhances the quality of life. Russet (2005) found that democracies, reflecting political freedom, are efficient in generating wealth and economic growth. While political liberalizations and reforms are required for a sustainable economic growth, China, and Singapore, for examples, with their respective 'authoritarian capitalism' have still documented a rapid economic growth without undertaking significant political liberalization. South Korea was able to rapidly develop in the 1970s and 80s while its political system remained authoritarian. Clemens (2007) argues that a stronger role for the state (i.e., authoritarian political system) is advantageous for equal distribution of income. And the most vulnerable members of societies can be safeguarded by the role of a stronger authoritarian government.

Government spending (public spending) stimulates economy. The government's purchases of goods and services affect the economy. This theory suggests that the "government spending multiplier" is greater than 1, meaning that the government's spending of \$1 leads to an increase in gross domestic product (GDP) of more than \$1 (Dupor and Guerrero 2016). The other view is rather negative. Government spending may "crowd out" economic activity

in the private sector (Dupor and Mehkari, 2009). An excessive defense spending disproportionate to economic capacity siphons off resources, which otherwise could have been used for economic development (Sivard 1991).

There is a trade-off between defense spending and economic growth. Based on 44 developing countries, Benoit (1978) argued that there is a positive correlation between military expenditures and economic growth over the period 1950-65, which was still the Cold-War period. Klare (1987) also demonstrates trade-offs between the defense spending and domestic investment: every additional dollar spent on defense in developing countries reduces domestic investment by 25 cents and agricultural output by 20 cents. Barro (1990) found a significant negative relationship between government consumption share and the growth of real per capita GDP. Al-Jarrah (2005) examined the causal relationship between defense spending and economic growth for 1970-2003, in which he found that a higher defense spending lowered economic growth in the long run. Kim (1996) found countries with greater defense burden retain a lower quality of life regardless of population growth, urbanization, and ethnic diversity.

Urbanization does affect consumer-spending. Urbanization based on concentrated geographic region, cities and towns generate an aggregate demand, which increases consumer spending as well. The urbanization generates 'agglomeration economies' that benefit cost advantages not only to consumers but also to producers. Knowledge-economy is based on the notion that knowledge, creativity, innovation, and information are the key factors of prosperity and economic growth. A superior knowledge capitalization is the driving force of economic growth and productivity, which can offer a sustainable competitive advantage (Tocan 2012).

A resource-based economy depends on natural resources. Alekseev and Conrad (2009) show that the resource wealth has tended to make countries better off. Collier and Goderis (2007), however, suggest that this may be due only to the income that was generated by resource-rents// rather than the growth of output of material. They espouse both 'resource curse' and 'resource trap' theories. The curse theory suggests that countries with abundant natural resources, such as oil, often fail to democratize because the elite can live off the natural resources rather than depend on popular support for tax revenues. The trap theory argues that countries, particularly in Africa, that are dependent on oil, gas, and mining have tended to sustain weaker long-run growth, higher rates of poverty, and higher inequality in comparison with non-oil, non-mineral

dependent economies at similar levels of income. Some countries with natural resources are not necessarily creating employment opportunities either. Even oil and mineral revenues have often fueled corruption, which has a severely negative impact on a country's development. Despite the wealth of natural resources, they are rather 'trapped' in poverty and unemployment, as well as corruption.

Both savings and economic growth are closely related with each other. According to the Harrod-Domar growth model, every economy must save a certain proportion of its national income. And the saving was to replace worn-out or impaired capital goods (buildings, equipment, and materials) for economic growth.² The main obstacle to economic development was a relatively low level of new capital formation, including the savings, in most poor countries (Rostow 1960).

Corruption distorts market, undermining development and making business unsustainable as well. Corruption means to be a lack of market transparency, which can easily have negative impact on consumer-spending. According to the World Bank, corruption increases the cost of doing business up to 10% globally.³ Corruption is clearly detrimental to the global competitiveness of countries. The anti-corruption crackdown could help level the playing field and will also raise foreign capital investment (inflow). Some argue that corruption has rather a positive effect on economic growth in some of developing countries. A few studies suggest that while corruption is consistently detrimental in countries where institutions are effective, yet it can potentially increase productivity and entrepreneurship in highly regulated countries that do not have effective government, institutions and governance systems, The effect of corruption on growth is context specific and associated with factors such as the country's legal and institutional framework, quality of governance and political regime. The corruption 'grease/s the wheels.' (Méon and Weill 2010).

The review of literature thus far indicates there are many theories as well as variables thereof in explaining economic growth. Many approaches to the theory of economic growth and development reviewed indicate that the cause/determinant of economic growth/development coalesces around a single or a few variables (e.g., savings, investment, export, consumer-spending, oil, defense spending, etc.). This study is based on a multivariate analysis, in which many theories and variables thereof are used simultaneously. The multivariate analysis will be based on Factor Analysis, which soon will be detailed in the 'Methodology' section below, which produces factors (patterns) out of the diverse variables.

METHODOLOGY

Based on the review of literature and theories, the following 15 variables were selected. Each of the variables is operationalized/measured as follows:

1. Economic growth: per capita GDP/PPP (Purchasing Power Parity). GDP per capita (PPP based) is gross domestic product converted to international dollars using purchasing power parity rates and divided by total population.
2. Knowledge economy/Knowledge Economic Index (KEI), which is based on the following four pillars: (1) economic incentive and institutional regime, (2) education and human resources, (3) the innovation system, and (4) information and communication technology.
3. Globalization (Global): based on the KOF Index of Globalization, which measures the three ('plural') dimensions of globalization: economic, social, and political.
4. Global competitiveness/Global Competitiveness Index (GCI): measures a set of domestic institutions and policies for their respective global competitiveness: The index indicates a 'national/domestic' competitiveness worldwide.
5. Terms of trade (TT): It is calculated by dividing the value of exports by the value of imports, then multiplying the result by 100. Favorable term of trade is over 1, while unfavorable below 1.
6. Corruption/Corruption Perceptions Index (CPI): annually ranks countries by the perceived levels of corruption. The CPI ranks countries on a scale from 100 (very clean/transparent) to 0 (highly corrupt/non-transparent). It measures transparency.
7. Military expenditure/defense spending (Mil): military expenditure as a percentage of GDP.
8. Economic freedom/Economic Freedom Index (Ecofree): based on trade freedom, business freedom, investment freedom, and property rights.
9. Oil (Oil): based on countries with proven oil reserves.
10. Foreign direct investment (FDI): net inflows (new investment inflows less disinvestment).
11. Gross savings (Savings): measured by % of GDP: A measure that accounts for both private and public savings,

12. Consumer spending/consumption (Consumer): as % of GDP.
13. Government spending (Govspending): government expenditure as a percentage of GDP.
14. Domestic investment (Doinvest): domestic 'private' investment (physical investment) measured by % of GDP.
15. Population growth (Popgrowth): natural increase per 1,000 population based on the difference between birth and death rates of given population.

This study is cross-national comparative analysis of the 222 countries in the world. The data cover the 2012-2017 period. Countries have different time/year for their respective data availability for each of the 15 variables during the period covered. The cross-national (cross-sectional) comparative analysis does merit the followings. The benefit of a cross-sectional study design is that it allows researchers to compare many different variables at the same period. Since so many variables (15) across the 222 countries are used in this study, the longitudinal analysis amenable to a few variables for a longer period cannot be a suitable research design. Second, the cross-sectional studies based on many cases (countries) as well as on many variables can also sort out causal relations between the variables via statistical control, such as regression or factor analyses, for examples. This non-experimental cross-sectional design, like an experimental design, can still establish a causal relation between variables via statistical, not experimental, control.

Table 1: Patterns of World Economy

| | <i>Factor 1</i> <i>(Consumption-driven)</i> | <i>Factor 2</i> <i>(Savings-based)</i> | <i>Factor 3</i> <i>(Oil-resource)</i> | <i>Factor 4</i> <i>(Public spending)</i> |
|-------------|--|---|--|---|
| (Variables) | | | | |
| Corruption | .941 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| PPP | .941 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| GCI | .893 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| Consumer | .885 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| Ecofree | .882 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| KEI | .854 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| Global | .802 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| <u>FDI</u> | .783 | <i>(ns)</i> | <i>(ns)</i> | <i>(ns)</i> |
| Savings | <i>(ns)</i> | .918 | <i>(ns)</i> | <i>(ns)</i> |

contd. table 1

| | <i>Factor 1</i> <i>(Consumption-driven)</i> | <i>Factor 2</i> <i>(Savings-based)</i> | <i>Factor 3</i> <i>(Oil-resource)</i> | <i>Factor 4</i> <i>(Public spending)</i> |
|----------------|--|---|--|---|
| Doinvest | (ns) | .872 | (ns) | (ns) |
| TT | (ns) | .540 | (ns) | (ns) |
| Oil | (ns) | (ns) | .858 | (ns) |
| Mil | (ns) | (ns) | .858 | (ns) |
| Popgrowth | (ns) | (ns) | (ns) | -.928 |
| Govspending | (ns) | (ns) | (ns) | .675 |
| (Eigenvalue/%) | (45.7) | (19.3) | (10.7) | (7.1) |

Note: (ns) means non-significant.

Note: Name of 15 variables

1. **Corruption:** Corruption Perceptions Index (CPI).
2. **PPP:** per capita GDP PPP (Purchasing Power Parity).
3. **GCI:** Global Competitiveness Index (GCI),
4. **Consumer:** Consumer spending/consumption.
5. **Ecofree:** Economic freedom/Economic Freedom Index,
6. **KEI:** Knowledge economy/Knowledge Economic Index (KEI),
7. **Global:** Globalization.
8. **FDI:** Foreign direct investment (FDI):
9. **Savings:** Gross savings/ savings
10. **Doinvest:** Domestic investment.
11. **TT:** Terms of trade.
12. **Oil:** Oil reserves
13. **Mil:** Military expenditure/defense spending.
14. **Popgrowth:** Population growth.
15. **Govspending:** Government spending.

RESULTS

Table1 presents a factor analysis, in which four factors were found out of the 15 variables. The purpose of factor analysis is to identify different pattern/s of economic growth out of the 15 variables which are assumed to affect economic growth. The four factors (patterns) identified are as follows: Factor 1/

consumption-driven; Factor 2/Savings-based; Factor 3/Oil-resource; Factor 4 Public/government-spending.

Eight out of the 15 variables were significantly loaded in Factor 1 while in Factor 2 with three variables, in Factor 3 and 4 each two variables, respectively. Out of the four factors in Table 1, FACTOR 1 is the only factor that significantly loads consumption/consumer-spending. The factor loading of each variable that is greater than .50 is considered significant, although that criterion varies depending on different analysts. The cutoff points are somewhat subjective, which should be determined by researcher. Eigenvalue (%) at the bottom of each factor indicates the percent of total variance accounted for by each factor.

For example, Factor 1 with the largest Eigenvalue (45.7%) indicates that the Factor 1/factor was found the most predominant pattern of economic growth, followed by Factor 2 (19.3%), Factor 3 (10.7%) and Factor 4 (7.1%) in descending order. The consumer-spending/consumption variable is significantly loaded in Factor 1 along with other seven variables: economic growth (**GDP/PPP**), corruption (**Corruption**), global competitiveness index (**GCI**), economic freedom (**Ecofree**), knowledge economic index (**KEI**), globalization (**Global**), and foreign direct investment (**FDI**) variables. This cluster of eight variables, including the consumption, underlined goes together. These variables are significantly loaded in Factor 1, which is named as '*consumption -driven economy*.'

The consumer-spending was found significantly associated with not only economic growth but also globalization (both 'domestic' and 'international'), corruption, economic freedom, knowledge economic index, and foreign direct investment (**FDI**). This means the consumption-driven economy is 'multidimensional' in affecting economic growth. The globalization measured by the KOF Index does indicate 'international/external' world-wide interdependence and interconnectedness of a country, while the global competitiveness measured by the Global Competitiveness Index (GCI) is based on 'national/domestic' factors that are compatible with the global standard. Both globalizations, international/global and domestic, are not only highly correlated with each other but also they each are highly correlated with the consumer-spending as well.

A high corruption index indicating a high transparency in free market system was found to have positive effect on economic growth. A high transparency associated with a lower corruption is one of the conditions required for a free market to be efficient. Lower corruption indicates a fairer market and economic

freedom. The lower the corruption, the higher the 'fairness' in the free market, all of which facilitate consumer-spending as well, which has positive effect on economic growth. The finding does not support the 'grease the wheel' hypothesis in which corruption has rather positive effect on the economic growth.

Both knowledge economy (**KEI**) and foreign direct investment (**FDI**) were found conducive to enhancing the globalizations, global/external and domestic/institutional, all of which were found to facilitate consumer-spending. The knowledge- economy index (**KEI**) which is based on information, communication, technology, economic innovation, and incentive was found as a very significant and positive ingredient (in) facilitating the consumption- driven economy. The foreign direct investment (**FDI**) as an ingredient of the economic globalization was found significantly associated with the consumption-driven economy that is positively associated with economic growth as well.

Countries classified as the most/least '*consumption-driven economy*' are as follows.

- Most: Singapore, Switzerland, Sweden, Norway, US
- Least: Bangladesh, Tajikistan, Pakistan, Kenya, Venezuela

NOTE: The most/least is based on the factor score coefficient that is produced in descending (Most) or ascending (Least) order by the SPSS (Statistical Package for the Social Sciences) with the following formula: $(\text{factor loading (variable)}) \times z\text{-score (variable)}$.

Factor 2 loads three variables: domestic savings (Savings), domestic investment (**Doinvest**), and terms of trade (**TT**). There is a positive correlation between the three variables: domestic savings, domestic investment, and terms of trade. Countries with a high savings feature a high domestic investment as well as with sustaining export-oriented economy as well as favorable terms of trade. Yet none of the correlations between the three turns out to have significant 'independent' effect either on economic growth or on consumption. None of the three variables loaded on F2 was found to have significant effect on the consumption. This factor is called as '*savings-based economy*.' Countries most/least affected or oriented with the saving-based economy are as follows:

- Most: Bhutan, China, Azerbaijan, Saudi Arabia, Singapore
- Least: Grenada, Guinea, Greece, Montenegro, St Vincent

Factor 3 was found to have both oil (**Oil**) and military expenditure (**Mil**) variables significantly loaded, indicating oil resource is very important sources

of defense spending. Yet none of these two highly correlated variables, oil and defense spending, was found to enhance economic growth nor do they have any significant effect on consumption. Neither the oil –richness nor the heavy defense spending was found to affect economic growth and consumer spending. Factor 3 is called ‘oil resource -based economy.’ The five most/least oriented with the oil resource -based economy are as follows:

- Most: Saudi Arabia, Eritrea, Russia, US, Oman
- Least: Guatemala, Papua New Guinea, Uzbekistan, Ireland, Ghana

Those countries with a large heavy oil -resources were found to spend a large military expenditure as well. Those poor countries (e.g., Eritrea, Oman) in terms of GDP as well as in terms of even the oil resources in comparison with heavy oil producers (e.g., Saudi Arabia, Russia) were found to incur disproportionately a large heavy military expenditure, which rely on oil resources.

Factor 4 was found to significantly load population growth (**Popgrowth**) and government spending (**Govspending**), indicating that population growth was found significantly correlated with the government (public) spending. The correlation between the two is negative, which means the population growth diminishes the ‘size’ of the government spending. The government spending -based economy, which is affected by population growth, was found to have significant effect neither on economic growth nor on consumption. The most/least five countries oriented with the government spending economy are as follows:

- Most: East Timor, Micronesia, Kiribati, Cuba, Belgium
- Least: Qatar, Zimbabwe, Niger, Uganda, Ethiopia

“Uniqueness” to Different Region

Tables 2-(1), 2-(2), 2-(3), 2-(4), and 2-(5) below present the Logistic Regression Analysis (SPSS), which aims to identify the likelihood (probability) of each of the eight variables loaded in the ‘consumption-driven economy’ (Factor 1) to be ‘unique’ to each of the following five different continents in the world: Asia, Europe, Africa, North America, and South America.⁴

In Table 2-(1)/Asia, 52 countries in Asia are coded as 1, while the rest of the world countries as 0. This dichotomous (binary) classification is applied for the remaining continents as well. The dichotomous variable is treated as

Table 2: (1) Asia

| | <i>B</i> | <i>Wald</i> | <i>Sig</i> |
|------------|----------|-------------|------------|
| Global | -.136 | 2.610 | .060 |
| PPP | 1.996 | .978 | .041 |
| GCI | 4.319 | 7.626 | .006 |
| Consumer | .000 | .718 | ns |
| FDI | 23.981 | .413 | ns |
| Corruption | .000 | .718 | ns |
| KEI | -.009 | 1.875 | ns |
| Ecofree | .051 | .582 | ns |
| Constant | -11.093 | 3.091 | .000 |

dependent variable, while all the eight variables loaded significantly in Factor 1 (consumption- driven economy) as independent variables. Those eight variables are: corruption, **PPP**, global competitiveness index (**GCI**), consumption (**Consumer**), economic freedom (**Ecofree**), knowledge economy index (**KEI**), globalization (**Global**), and foreign direct investment (**FDI**). And the Waldo statistics (coefficient/standard error) indicates the level of significance of each independent variable in contributing to the likelihood or unlikelihood of the uniqueness to each continent. The variables significant at .10 level were underlined ⁵

Again, Asia in Table 2-(1) shows that out of the eight independent variables, **GCI** (global competitiveness index), **PPP**, and Globalization (**Global**) were each found to significantly differentiate between Asia and the rest of world/ countries. The **GCI** (4.319) means that Asian ‘economies’ have been sustained by a high ‘domestic’ political, institutional, and policy competence needed for global competitiveness, which is more likely to differentiate between Asia and the rest of the world countries. Globalization (**Global**/.136), however, indicates that Asia documents a lower ‘external’ globalization than the rest of the world countries. **PPP** (1.996) means Asian countries overall sustain a higher PPP (economic growth) than the rest (of the world). None of the remaining five variables of the ‘consumption- driven economy’ was found to be ‘unique’ to the Asian countries only. This means they, including the consumption variable itself, are rather universal across the continents in sustaining the consumption-driven economy, which was found the most predominant pattern of economic growth.

Table 2: (2) Europe

| | <i>B</i> | <i>Wald</i> | <i>Sig</i> |
|------------|----------|-------------|------------|
| Global | .285 | 3.746 | .044 |
| Corruption | -1.915 | 7.235 | .038 |
| KEI | .023 | 4.900 | .033 |
| Consumer | .000 | 1.409 | ns |
| FDI | 98.441 | 1.974 | ns |
| PPP | -.401 | .153 | ns |
| GCI | .146 | .007 | ns |
| Ecofree | -.136 | 2.654 | ns |
| Constant | -14.646 | 2.855 | .000 |

Europe in Table 2-(2) shows that globalization (**Global**), **Corruption**, and **KEI** (knowledge economy) were each found to significantly differentiate between Europe and the rest of the world countries. Europe features a high globalization and a high knowledge economy (**KEI**), yet a high corruption (low transparency) /perceived corruption. These three variables differentiate European countries from the rest of the world countries in economic growth based on the consumption-driven economy. Consumer-spending fails to be unique to Europe only.

Table 2: (3) Africa

| | <i>B</i> | <i>Wald</i> | <i>Sig</i> |
|------------|------------|-------------|------------|
| Global | .169 | 1.117 | ns |
| Corruption | 3.926 | 2.468 | ns |
| KEI | .009 | .301 | ns |
| Consumer | -.002 | 2.550 | ns |
| FDI | -.2335.214 | 1.323 | ns |
| PPP | 3.287 | 1.416 | ns |
| GCI | -10.031 | 3.156 | .076 |
| Ecofree | -.091 | .198 | ns |
| Constant | 22.607 | 1.697 | .193 |

Africa in Table 2-(3) shows that Global Competitiveness Index (**GCI**) was found to significantly differentiate between Africa and the rest of the world

countries. The strong yet negative coefficient (-10.031) associated with the Global Competitiveness Index (**GCI**) means a low ‘domestic’ global competitiveness, which differentiate Africa from the rest of the world countries in economic growth. The consumption -driven economy (**Consumer**) fails to be unique to Africa.

Table 2: (4) North America

| | <i>B</i> | <i>Wald</i> | <i>Sig</i> |
|------------|----------|-------------|------------|
| Global | .114 | .805 | ns |
| Corruption | -.086 | .011 | ns |
| KEI | -.006 | .342 | ns |
| Consumer | .001 | 2.279 | ns |
| Direct | -133.976 | .218 | ns |
| PPP | .000 | 1.174 | ns |
| GCI | -.664 | .054 | ns |
| Ecofree | .209 | 2.889 | .089 |
| Constant | -16.710 | 1.647 | .078 |

North America in Table 2-(4) shows that economic freedom (Ecofree) was found to significantly differentiate between North America and the rest of world countries. In North America, economic freedom was found ‘uniquely’ higher than the rest of the world, but the consumption-driven economy fails to be unique to North America.

Table 2: (5). South America

| | <i>B</i> | <i>Wald</i> | <i>Sig</i> |
|------------|----------|-------------|------------|
| Global | -.033 | .154 | ns |
| Corruption | .442 | .436 | ns |
| KEI | .002 | .050 | ns |
| Consumer | .006 | .061 | ns |
| Direct | -176.203 | .753 | ns |
| PPP | .276 | .066 | ns |
| GCI | -6.946 | 3.737 | .053 |
| Ecofree | .009 | .011 | ns |
| Constant | 4.903 | 6.909 | .478 |

South America in **Table 2-(5)** shows that Global Competitiveness Index (**GCI**) was found to significantly differentiate between South America and the rest of world countries. Like Asia and Africa previously discussed, **GCI** was found significant in differentiating South American countries from the rest of the world. The lower/poor 'domestic' global competitiveness in South America make themselves differentiated from the rest of the world countries as far as its effect on economic growth is concerned. While the **GCI** has positive effect on both economic growth and consumption in Asia, it was found to have negative effect both in Africa and in South America, respectively. The consumption-driven economy fails to be unique to South America either.

CONCLUSIONS

The pattern of world economic growth was found diverse. Four patterns were identified: Consumption-driven, Savings-based, Oil-rich based, and Government spending. The consumption-driven economy is the most predominant pattern of world economic growth. None of the five continents was found to be differentiated from each other by the consumption-driven economy. This means consumption-driven economy is rather universal in its effect on economic growth.

The consumption-driven economy is multilateral, in which endogenous ingredients such as innovation, knowledge economy, and human capital with entrepreneurship were found to be significantly associated with globalization, technological and economic. The consumption-based economic growth was found to be significantly affected not only by endogenous knowledge economy and innovation, but also by exogenous globalization (international and domestic/national), economic freedom/free market system, urbanization, foreign direct investment (FDI/inflows), and a high transparency devoid of corruption. Contrary to the 'positive' effect of corruption on economic growth, the effect of corruption on economic growth was found rather negative regardless developing and developed countries. Corruption was found not necessarily associated with less developing countries experiencing with a low political institutionalization as was argued by the 'grease the wheel' hypothesis. It is rather surprising to see the 'corruption perceived' high even in Europe in contrast with other continents of the world.

Notes

1. The Global Competitiveness Report (GCR) is a yearly report published by the World Economic Forum. *World Economic Forum. Global Competitiveness Index (GCI)*

/ *Global Rankings*. Available on <http://reports.weforum.org/global-competitiveness-report-2014-2015/rankings/>

2. Harrod, Roy F. (1939). "An Essay in Dynamic Theory". *The Economic Journal* 49 (193): 14–33.; Domar, Evsey (1946). "Capital Expansion, Rate of Growth, and Employment". *Econometrica* 14 (2): 137–147.
3. The CleanGovBiz Initiative was launched under the impetus of the Declaration on Propriety, Integrity and Transparency in the Conduct of International Business and Finance (PIT Declaration), which embodies the political commitment of OECD and other adhering countries to promote clean and efficient markets and transparent governance systems. CleanGovBiz is a high priority for the OECD, as reflected in the OECD Secretary-General's 2010 Strategic Orientations, and it also responds to the political call for energetic action against corruption expressed in the G20 Action Plan Against Corruption. See *World Bank (May 10, 2016) Brief/ "Anti-Corruption": Available on <http://www.worldbank.org/en/topic/governance/brief/anti-corruption>*
4. The factor score was based on the following formula: (factor coefficient) x (Z score). Computer (SPSS) produces the factor score for each of the countries. The classification of the most and the least countries ('economic ladder') was solely based on the size of the factor scores sorted out.
5. The significant level has been customarily based on 0.05, yet there is relatively little justification for that. A significance level of 0.01 or 0.10 is also widely used in academic research. As this research has been based on the 'population' of all world countries, the significance level set on 0.10 has been used.

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