

Confidence as an economic indicator: A cultural ecology parenthesis

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Abstract

In previous research endeavours on national economic development, almost no studies exist on how regional confidence can influence its industrial and economic well-being. Therefore, this paper provides a cultural ecology parenthesis, which integrates climatic, geographic, and genetic factors to spell out the forces of confidence on the national economic well-being, which is reflected by the gross national income per capita (GNI). By applying the non-parametric test, the correlation between the mean level of Rosenberg self-esteem scale and GNI per capital growth of 42 countries across the globe will be spelled out to support the cultural ecology parenthesis of confidence on overall economic development.

Key words:

Gross National Income, Confidence, Cultural-ecology, Economic Development, Cross-cultural studies

Introduction

Among the economic competitiveness of a nation, cultural values can be summarized as one of the most decisive factors (Porter, 1990; Hofstede, 2001). Though the issue of culture is treated by Porter as a supplementary matter (O'Shaughnessy, 1996), he has explicitly argued the importance of a home base for sustaining and creating economic advantages (Porter, 1990). On the national economic level, cultural factors such as thrift and family values positively contribute to the gross domestic product (GDP) per capital growth across countries (Minkov and Blagoev, 2009). Gross national product (GNP) is also found to negatively correlate to emotional duration (Wallbott and Scherer, 1988), where low self-esteem contributes to delinquency (Braumeister et al., 2003). Confidence in this sense plays a rather motivating role in shaping a nation's domestic and global policy sets, which can be utilized as factors for facilitating sustainable and long-term economic and industrial growth. Economic well-being in turn is also influenced by the confidence level of that country. Furthermore, one way to measure economic and social well-being is to access the information of how a nation allocates and distributes its economic wealth. GNI per capital is defined as the sum of value added by all residents of a nation: including personal consumption expenditures, gross private

investment, government consumption expenditures, net income from assets abroad, and gross exports of goods and services per capita and is ultimately a good indicator of the income distribution, equality and overall economic development of a nation (Bourguignon et al., 2004). A country's GNI per capita is a trustworthy source toward understanding the country's economic strengths and needs, as well as the general living standard enjoyed by the average citizen.

It is widely recognized that confidence suffices a cross-cultural implication (Diener and Diener, 1995; Hofstede and McCrae, 2004). Schmitt and Allik (2005) found that in cultures in which the value placed on men and women is more equal, people's self-esteem tended to be higher. Even within a single country, various ethnic or cultural groups may exhibit considerable differences in the distributions of self-esteem scores. In one of their self-assessment studies, Heine and Lehman (1999) have identified that there exists larger actual-ideal discrepancies in the self-images of the Japanese than in North Americans. North Americans have on average more positive self-views than do Japanese. In general, positive self-evaluation is more typical in Western societies and neutral or even negative self-evaluation is more common among Eastern cultures (Schmitt and Allik, 2005). Lundberg et al. (2000) have also confirmed that cross-cultural differences in confidence exist through the observation of 551 students in five nations. In another research, Oettingen (1995) has compared pupils in both East and West Germany, and found that low efficacy beliefs undermining motivation, generate negative effect, and impaired cognitive functioning which is more likely to occur among East German pupils due to cultural practices such as educational philosophy and ideologies. Rushton (1997) took a more provocative approach and argued that confidence levels may be implied according to racial orientations.

Nevertheless, there have been few studies conducted regarding the ecological causes of confidence formation in different regions. A cultural-ecology perspective provides a well-rooted foundation to explain psychological variations. Cultural ecology is the origin of particular cultural features and patterns which characterize different areas (Steward, 1972). Cultural ecology pays primary attention to those features which empirical analysis shows to be most closely involved in the utilization of the environment in culturally prescribed ways (Steward, 1972). With cultural-ecology lenses, the human-environment adaptation can be seen as the central force of the making of cultural values. The ecological adaptations of geographic, climatic, resource elements (Baldacchino and Milne, 2000; Chou, 2009), even genetics (Rushton, 1997; Rushton and Jensen, 2008; Vayda and Rappaport, 1968; Jarvik et al., 1973) have been proven to influence psychological functions in various human behavioural discourses. However, the actual ecological linkage to the confidence formation was rarely discussed by scholars. In this paper, efforts are made to show the relationship between cultural ecology and confidence in different parts of the world. The findings of such a study would be used as an application to help explain the competitive economic development of nations to answer the essential question of whether national confidence influences general economic well-being. We have proposed the following hypothesis.

H1. Self-esteem of individuals of a nation is positively correlated to the growth rate of GNI per capital.

H2. The overall confidence level of a nation positively influences its economic well-being.

Confidence from cultural ecology reasoning

The recent advance in the studies of climate, geography, and genetic evolution has provided us with rich information on how our human-environment adaptation works. A model with rules of correspondence between temperature and cultural competitiveness has been put forward by Van de Vliert et al. (2000). By compiling the native samples from 43 countries with background data on economic growth and the average daytime temperature of these countries' capital cities, it is concluded that inhabitants of warmer countries are both more inwardly competitive and poorer (Van de Vliert et al., 2000). Countries with both colder winters and hotter summers (investigated from winter-summer deviations of 22°C) have both higher suicide rates and lower happiness ratings (Van de Vliert, 2009). In another study, Van de Vliert et al. (2004) have established a societal level link between the atmospheric temperature and altruism, whereby colder climate higher-income countries foster individualism, femininity, and human rights which are in turn associated with more altruism. The climatic-psychological connection is therefore very robust in the face of human-nature adaptation. Geographically, the economic developments between locations reflect the immobile differences in these locations (Krugman, 1999): regions with large inequalities often exhibit a powerful tendency for populations to concentrate in few densely populated cities due to the limitation of coastlines that pushes up the cost of transportation, which is detrimental for external trade and businesses (Krugman, 1999). Therefore, these concentrations usually lead to domestic mass production, the broken linkage of land distributions and unequal shares of the wealth (Krugman, 1991). Even historically, the magnitude of geographic influence designated the rise and fall of nations. During 490–338 BC, the variation in development goals of Athens and Sparta reflected their different geographic conditions (Blížkovský and Pöschl, 2009). Athens, due to its advantageous harbours facing the Attica Sea, was suitable for trade and the development of general wealth. Sparta, on the other hand, cut off from the rest of Greece by the two mountain ranges of Parnon and Taygete, was keen on survival and protection from invaders from other cities. Biologically speaking, our genes may have also extended effects beyond the body in which they reside, biasing individuals toward the production of particular cultural systems (Rushton, 1997). The human-nature adaptation in many ways lies behind the observable events (Cavalli-Sforza and Feldman, 1981; Swidler, 1986), which occurs on the genotype level (Durham, 1992). Genes are part of the environment culture evolves. Culture and genetics, in fact interact and work together to effect adaptation in human populations much as they do in populations of non-humans (Vayda and Rappaport, 1968). In the Minnesota Study of Twins Reared Apart (MISTRA), genetic factors accounted for more than 50% variance in issues like personal interests, well-being and emotionality

(Krueger and Johnson, 2002). Even in occurrences of major life events such as divorce, it has a heritable component (Krueger and Johnson, 2002). In another research, Chiao and Blizinsky (2010) have concluded that East Asian nations that have a higher frequency of S allele carriers of the 5-HTTLPR (a type of polymorphism that causes attentional bias to negative information and negative emotion), engage in narrow thinking and cognitive focus that facilitates maintenance to collectivistic cultural norms of social conformity. Furthermore, self-perceived abilities (SPAs) are also found to be substantially influenced by genetic factors with a heritability of 51% in a sample of 3,758 pairs of twins (Greven et al., 2009). The impact of genetics is so powerful that it makes cultural legacies matter long after its original purpose has been fulfilled. By the same token, the notion of genetic distance (F_{st}) increases with geographic latitude, since the changing latitude means a changing climate and thus adaptation by natural selection to different climatic conditions (Stone et al., 2007). Thus, ethnic groups derived from similar geographic terrain and regional settings may tend to produce similar structures in value and socialization systems. In other words, certain geographic, genetic and climatic conditions foster the certain genetic adaptation patterns that influence psychological and cognitive functions. Confidence, as a result of the cultural-genetic adaptation may also appear to be a matter of pre-designation. The concept of emotional culture, which is argued as a stable socialization practice and only changes when a culture is transformed over generations of people (De Rivera, 1992), theoretically supports the cultural-genetic foundation of confidence formation. In cultures with low confidence, people joining together for common action is minimal, men take whatever they can and seek to get their own way at the expense of others; political regimes of low confidence societies seek their own exclusive advantage at the expenses of their citizens. Generally, personalities of this cluster are aggressive, tyrannous, vengeful and very insecure (Maslow and Honigsmann, 1970). The consequences of low confidence even leads to the value display. People of low confidence have a stronger tendency to endorse statements on the basis of their implicit social desirability rather than on their actual explicit content (Phillips and Clancy, 1972) or what Hofstede (2001) distinguished as desirable versus desired values. Due to the value importance on perceived superficiality and the promotion of the visible ideals, industrial and economic policies in these low confidence areas convey short-term cost advantages and instant political record but unconsciously undermine sustainable innovation and dynamism (Porter, 1990). The governmental investments in the areas of healthcare and primary education for the development of human capital also lag far behind the tangible industrial and infrastructure projects. On the other hand, nations and regions of positive confidence can boost overall social trust (Chou, 2009). Therefore national competitiveness can be subtly observed through general human development and psychological and emotional well-being, in which true life satisfaction and quality of life can be sustained through the trusted private and public joint efforts and common actions among its population.

Self-esteem and GNI per capita growth

For this analysis, we have used a survey by Schmitt and Allik (2005) performed on 52 countries and measuring the self-esteem levels in these countries using Rosenberg's self-esteem scale (RSES). RSES contains 10 items that aim to

access a person's overall evaluation of their worthiness as a human being. Self-esteem contains self-confidence as a main component (Rosenberg et al., 1995), which provides a good reason for us to adopt Schmitt and Allik's dataset. The results of this survey have been compared with the results of GNI per capita of 185 countries from 1990, 2000, 2005, 2006, 2007, and 2008 (World Bank WDI database).

Our objective is to assess whether the level of self-esteem in a nation has any influence on the growth magnitude of GNI per capita of that nation. With this objective in mind we have built a dataset of 42 countries (Schmitt and Allik's study comprises 53 countries but only 42 of them are present in the World Bank WDI database).

The World Development Index GNI per capita scores are published by the World Bank and appear on an annual basis. Since the report on self-esteem was published by Schmitt and Allik in 2005, we have decided to use the WDI for the years 2000, 2005, 2006, 2007 and 2008. We believe that in order to determine the influence of self-esteem on economic well-being, the GNI variable should not be treated as a static set such as taking scores from one particular year. Instead we first try to find out the growth rates of the GNI per capita across these 42 nations.

We decided to assess the correlation between the scores obtained by countries in the RSES and in the WDI GNI per capita scores. In the first ranking, the scores vary from 25.5 for Japan to 33.59 for Serbia. A high score indicates that the people of a particular country have a good opinion about themselves. A score below 25 indicates the opposite. It is interesting to remark that no country performed under the 25 point mark. This indicates that people tend, across culture and geographies, to have quite a good self-image of themselves. The range for the second measure, the growth in GNI per capita growth index from 2000 to 2008, varies from 203% in the case of Mexico to Zimbabwe with a score of -56%.

The result obtained, using both scores and rankings, was consistent with expectations. By performing this analysis we tried to show the existence of positive dependency between the self-esteem of a country and its GNI per capita growth. The values obtained, $R=0.4133$, is positive.

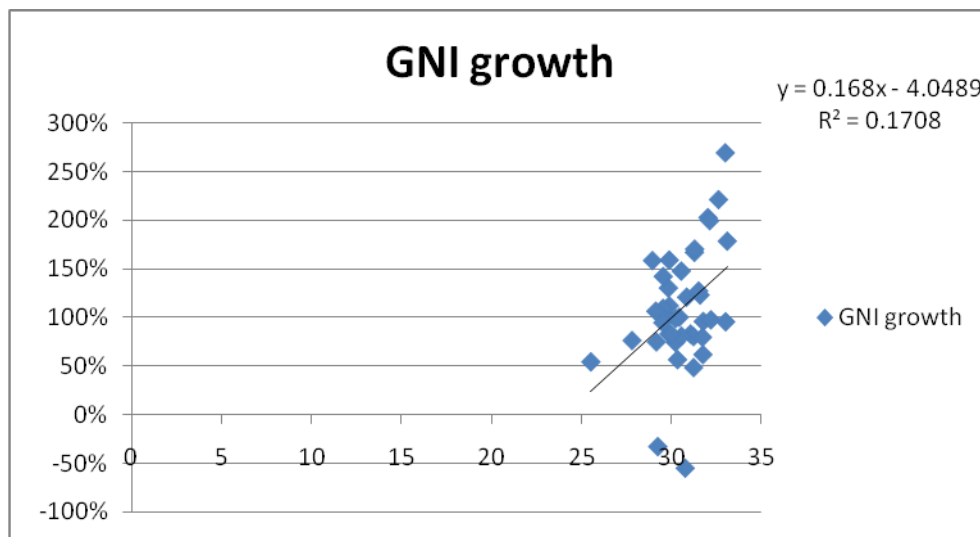


Figure 1. GNI growth and RSES

Schmitt and Allik's sample was collected from college students. If the self-esteem study performed by Schmitt and Allik had used business and professional people in the sample of individuals interviewed, the results may have shown an even more significant positive correlation.

Our initial hypothesis was that the self-esteem of individuals in a country must affect the GNI per capita growth of that nation. In order to test this hypothesis, we furthermore ran a regression model with GNI growth as a dependent variable and RSES as the explanatory (independent) variable. The result is that RSES is a significant explanatory variable at 99% confidence ($P < 0.01$). Furthermore, R^2 is 0.17 which means that RSES can explain 17% of the variability of GNI growth. This also means that the correlation between RSES and GNI growth is 0.41.

Discussion

As stated earlier, this research aims to see the correlation between the confidence level of a nation and its growth rate of GNI per capita. We have treated the terminology of confidence inter-changeably with the concept of self-esteem.

Consistent with our original prediction H1, the level of confidence positively contributes to the GNI per capita growth among the 42 sampling countries. With the proposed cultural ecology lens, we can interpret that countries with relatively low self-esteem are more likely to experience low GNI per capita growth rates, and the income gap therefore is more likely to be larger than countries with higher self-esteem, which leads to a higher GNI per capita growth. Personalities of these countries tend to be more competitive and thus the spirit of collaboration is minimal. Under the pressure of high-level competition and survivability, social and institutional trust is almost non-existent, which makes transaction costs and hidden business costs high. The overall economic behavioural policy is non-transparent. The public-private joint efforts are also scarce. On the governmental level, the economic and

development policies are oriented towards the short-term in order to maximize the political achievement records of the people or political party in power. On the opposite continuum, countries with a relatively high level of self-esteem may experience higher growth rates of GNI per capita. The social mobility, therefore, is assured through long-term democratic improvement and the incentives of the fair distribution of wealth. To illustrate H2, the overall confidence level of a nation positively influences its economic well-being, it is crucial to understand the nature of economic well-being, which is determined by each individual's ability to access goods, services and economic opportunities that are generated by a given society: it is a holistic phenomenon based on the extensiveness of economic development. The key stakeholder, therefore, is the average individual living in that given society. The quality of healthcare and education, the governmental economic initiatives on empowering human capital and sustainability on development are among the most important considerations. The political regime of low confidence societies seeks its own exclusive advantage at the expense of its citizens. The power and wealth are concentrated in the hands of few. Good public service is unlikely to exist and economic and environmental sustainability are merely propaganda under international pressure. Confidence as a concealed factor of geographic, climatic, resource and even genetic inter-play, is perhaps the best explanation of north-south economic disparities and inter-country income inequalities. Therefore, the overall confidence level of a nation does positively influence its economic well-being.

Conclusion

In this article, we have constructed cultural ecology reasoning (geographic, climatic, resource and genetic factors) for understanding the issue of confidence. Confidence or self-esteem is believed to be one of the decisive factors of influencing the GNI per capita growth. GNI per capita reflects the general living standard and income distribution of a society. Countries with higher self-esteem seem to experience a higher growth rate of GNI per capita, while countries with low self-esteem levels seem to experience a lower growth rate of GNI per capita.

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Appendix

Country or Area	RSES	GNI growth
Argentina	31.24	48%
Australia	31.07	83%
Austria	31.78	96%
Bangladesh	27.8	76%

Belgium	29.66	103%
Bolivia	31.24	80%
Botswana	30.85	121%
Brazil	30.34	56%
Canada	30.22	74%
Chile	33.12	178%
Estonia	32.63	221%
Ethiopia	29.24	-33%
Finland	31.76	62%
France	29.86	83%
Germany	31.73	79%
Greece	31.29	167%
India	30.44	100%
Indonesia	29.88	112%
Israel	33.03	95%
Italy	30.56	81%
Japan	25.5	54%
Latvia	29.88	159%
Malaysia	29.83	130%
Malta	29.53	109%
Mexico	32.04	203%
Morocco	29.13	106%
Netherlands	31.6	123%
New Zealand	30.24	99%
Peru	33.01	269%
Philippines	29.98	83%
Portugal	31.3	170%
Romania	29.54	142%
Slovakia	28.94	158%
Spain	31.52	127%
Switzerland	29.16	75%
Tanzania	29.52	94%
Turkey	32.14	200%
United Kingdom	30.55	148%
United States	32.21	97%
Zimbabwe	30.77	-56%

Self-esteem scores RSES and growth rate of GNI per capita