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### **54th ERSA Congress**

## «Regional development & globalisation: Best practices »

### 26-29 August 2014

### St. Petersburg, Russia

#### Special Session

S\_ZB Economics of Quality as a Basis for Sustainable Development of Communities

#### Abstract

# The role of Quality in the development and implementation of the regional strategies *JEL: 05, R1*

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While studying the efficiency and strategy of goods and services production in the Soviet Union over 40 years ago, we observed several trends: lower quality of goods and services, huge waste in production processes, and much lower levels of efficiency and productivity, especially in comparison to Western Europe, the United States, and Japan. We concluded that due to low quality, production inefficiency, high levels of pollution, and lack of strategy in domestic production, the Soviet Union would not be able to fulfill the needs for goods and services of its people. At that time, we began to search for the root cause for such low quality consumer goods in the political economy of Soviet

socialist system. Eventually, this search led us to analyze philosophical categories focused on the term Quality of Life and Aristotle's idea of the Good Life.

It has been traditionally accepted that "happiness" is a philosophical concept and cannot be measured. Furthermore, even if measuring happiness were possible, such research would not fall under the umbrella of Economics. Our studies over the past four decades have led us to a different conclusion. First, as economists, we must examine all the factors that lead to the successes and failures of nations and the development of societies. Second, nations with low Quality of Life indicators and generally "unhappy" populations tend to produce lower quality goods and services. Finally, nations with poor economic performance and low quality goods and services are at much greater risk of suffering from unrest and collapse.

We begin with the Quality of Life category: Although the development of society and its levels of maturity require a comprehensive system for measuring the Quality of Life, this category is not analyzed nearly enough. An analysis of the differences in Quality of Life in multiple economic systems and countries, leads to large-scale conclusions in the fields of political economy, economics, strategy, and some technological sciences. In particular, the maturity and stability of a society can be measured by the development and the proportional role of its middle class. A strong, thriving middle class contributes to a society's dynamism, maturity, and the level of prosperity of its population and overall stability. This is one of the most important categories for Professor Phelps in his latest book on mass flourishing. The middle class in Developed Countries has a higher level of lifestyle (a major characteristic of Quality of Life), more influence in society, and a smaller gap to the upper class, especially in comparison with the role of the middle class in Developing and Emerging Market Countries (EMCs).

When studying the important role of the middle class in society, we asked ourselves: why is labor productivity in countries with command economies always lower than in countries with market economies?

It is easy to hypothesize that economic differences are caused by the character of the political system, but difficult to prove that a high level of societal freedom is a precursor for higher Quality of Life. If political freedom is a precursor for higher income per capita, how do we understand the high GDP per capita of countries such as Qatar, Kuwait, Bahrain or Brunei? To answer this question, we must focus on "Freedom of Choice" – the combined impact of economic and market-relations freedoms, more so than traditional political freedom. In particular Freedom of Choice in goods, services, and location predetermine the level of Quality of Life in a country. On the one hand, this approach is related to the philosophy of existentialism, which declares that individuals always(!) possess a "permanent ownership" over their Freedom of Choice. On the other hand, derivatives of

political freedom can lead under the worse versions of dictatorial regimes to a complete lack of Freedom of Choice.

Quality of Life and levels of satisfaction are determined through values that are subjectively defined by the individual as to how his or her needs are met. In Aristotle's theory of The Good Life, happiness as a philosophical category is also factored into the development of a person's well-being. Well-being and happiness first appeared on the economic agenda at the end of the 20th century, primarily as a part of status assessments for individuals in Developed Countries. According to the 2011 European Quality of Life Survey (EQLS), the characteristics of happiness among EU citizens of 27 countries were ranked in the following order of priority: health, love, employment, peace, money, friendship and freedom. Justice, education, pleasure, religious belief, tradition, order and solidarity, on the other hand, appeared at the bottom of the list. It is important to note that the same happiness factors were prioritized differently, and were heavily influenced by generational factors in EMCs.

This brings us to our next point: for the political system of any country to be sustainable, Quality of Life must be oriented towards preferences that reflect the basic needs and choices of the people. Without understanding this strategic concept and its connection to Freedom of Choice for the people, it is impossible to sustain market development and improve Quality of Life in any substantial way. Higher levels of Freedom of Choice tend to result in higher levels of consumer satisfaction as market forces – rather than central planning – tend to drive production. Stronger levels of market competition and wider ranges of available goods and services allow people to feel that they are able to find products that meet their expectations and reflect their values. Command economics on the other hand, tend to push "whatever is available" on the population. Additionally, as command economies almost never tie worker compensation to the quality of output, worker motivation is destroyed, which results in reduced productivity and decreased quality for goods and services.

Ultimately, limited Freedom of Choice causes lower Quality of Life levels and can lead to social and political transformations, frequently with revolutionary characteristics. The result of this process is the creation of conditions for the development of a free market, followed by an increased level of choice in goods and services. Eventually, this leads to a stronger feeling of happiness and satisfaction with Quality of Life. The philosophical understandings of happiness and the category of the Good Life connect with the pure economic category of quality of goods and services. Although there are differences in the prioritization of "happiness factors" between Developed Countries and EMCs, trends such as globalization and economic integration have contributed to the growth of a "Global Community." Newly developed market economies (especially Eastern European countries, accepted into the European Union during the 1990s and 2000s) have begun to adopt certain traditionally Western values. Conversely, the growth of EMCs, which currently account for 69% of the global population, has influenced the Developed Nations as well. This growing conversion of values between

the Developed Countries and EMCs in a Global Marketplace has created a pressing need for a more unified Quality Management System (QMS).

One aspect of a global QMS (and the focus for several of our joint studies), is the standardization of technology during the production of new goods and services. The implementation of unified standards for technological preparation of production leads to a higher predetermined quality of goods, a decrease in waste, and ultimately a higher Quality of Life. It is important to note here that production standardization without employee motivation practices will not achieve the intended goals. An example of this can be found in the attempts of the Soviet Union and Eastern European communist countries to create different systems to improve the quality of both military and civilian goods and services during the 1970s.

In an attempt to find production improvement methods within the bounds of Communist limitations on employee motivation, Professor Okrepilov created the original QMS. This system decreased production time, reduced waste, improved product quality, and allowed faster progress to newer models. However the system faced tremendous problems under a command economy. As there was no private sector competition and no general motivation for quality improvements, product aesthetics and life expectancy stagnated. The high standards set within the system were outside the technological capabilities for the majority of industry facilities, which were burdened with outdated and inefficient machinery.

Our studies leads us to conclude that the quality of produced goods and services is one of the most important criteria to evaluate the maturity of any society. Thus, the mission of Economics of Quality is to discover major objective trends and connections between the quality of produced goods and services, and overall social and economic prosperity within societies. Economics of Quality includes the analysis and development of managerial models at all levels of corporate, government, and international organizations. It enables the evaluation of the influence of quality on the modernization of economic systems, and the conditions required for continued and sustained development. These studies show that quality criteria are integrated in every aspect of human life.

Our current studies have focused on the quality of product management systems found in EMCs. At the outset, we were faced with the challenge of developing a special algorithm to achieve a synthesized country-rating system based on multiple integrated indicators. Despite significant work on such a rating system, we found that a truly comprehensive method was never achieved. The best-known attempt to do so was based on national consumption levels, developed by Merrill Bennett of Stanford University.

However, the Bennett method has several weaknesses, including its inability to accurately evaluate countries with wide disparities in development. The limitations of the Bennett method can be

avoided by supplementing his algorithmic summary with an algorithmic multiplication function (the Kvint algorithm).

$$\hat{P} = 1000 \cdot \prod_{k=1}^{N} P_k^{Wk} \quad \begin{tabular}{ll} where & is the product of multiplication, Pk is one of the five specific \\ indicators listed below, Wk is the weight (or importance) of indicator Pk, and N is the total number of indicators (in this case, five). Wk is defined as the relative weight of each of the five indicators listed below. \end{tabular}$$

Using a synthesis of two mathematical models (Bennett and Kvint's), a more comprehensive country ranking system is developed by an analysis of five key indicators, (relative weight/importance in parentheses): Modern-tech Manufacturing Index (1), Knowledge Economy Index (1), Service-based Economy Index (0.7), Economic Freedom Index (0.7), and GDP per Capita (PPP) Index (2). These indicators reflect the level of technological and socioeconomic development. Algorithmic multiplication uses the same indicators and their relative weights according to strategic importance.

Using this algorithm, we classified 83 countries into the Global Emerging Market category. EMCs produce more than 50% of the global output. Their GDP is 2.5 times bigger than the GDP of the United States and 2.3 times bigger than the European Union. Since 2008, an average of 40% of annual foreign direct investments would go to these countries. These investments are particularly important technologically as they drive modern advances to EMCs and increase quality throughout the Global marketplace.

Quality of Life requires more than just high standards of goods and services, we developed new measurements and connected Quality of Life to the UNDP Human Development Index (HDI). An analysis of the dynamics found in the HDI over the last 23 years demonstrates that while Developed Countries have a higher absolute number on this index, EMCs have a faster rate of growing indicators. In our opinion, this high rate of HDI growth is predetermined by ISO Standard 9001, the official international measurement of all QMSs. For an analysis of these trends, we developed methods of corporate evaluation for different industries in accordance with the criteria of the European Foundation for Quality Management (EFQM). This methodology allows us to allocate and evaluate both the weakest and strongest sections of a corporate QMS, and to establish a company rating guide that can be used for future application in a variety of industries for quality improvement in accordance with changes in customers' values.

We have also discovered that the use of QMSs exclusively at the level of individual corporations is insufficient; they must be implemented at a regional and national level as well. A multi-level QMS has much more bearing on the Quality of Life of a population outside of the quality of production,

containing several indicators of happiness for individuals. Monitoring the QMS cycle and public opinion regarding the required indicators of quality gives insight into changing societal values.

Nations attempting to foster mass flourishing based on home-grown innovation (as Professor Phelps strongly suggests), must place the individual – the generator of new intellectual capital - at the center of economic development. The necessity of a creative role for the individual makes it vitally important to increase standards of living, which in turn require a wider opening of national economic borders to the Global Marketplace. The practical result of Phelps' theory is proven by the fact that an analysis of Quality of Life according to our methods is in harmony with the HDI in a majority of cases.

Therefore the Good Life, according to our research, can be described as a high Quality of Life, and can be achieved on corporate, regional, and national levels through the implementation of the QMS. It must organically reflect democratic values, human rights, cultural and religious tolerance, and improvement of the environment. This is why the QMS cannot be implemented in the majority of the dictatorial states. As the values of Developed and Emerging Market populations converge in a Global Community, quality and standards across the entire spectrum as improved. This process leads to the development of a global order which focuses on the Good Life of the Global Community.