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# Does Marketing Activity Contribute to a Society's Well-Being? The Role of Economic Efficiency

**M. Joseph Sirgy · Grace B. Yu · Dong-Jin Lee · Shuqin Wei · Ming-Wei Huang**

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**Abstract** Does the level of marketing activity in a country contribute to societal well-being or quality of life? Does economic efficiency also play a positive role in societal well-being? Does economic efficiency also moderate or mediate the marketing activity effect on societal well-being? Marketing activity refers to the pervasiveness of promotion expenditures and number of retail outlets per capita in a country. Economic efficiency refers to the extent to which the economy is unhampered by corruption, burdensome government regulation, and a large informal economy. We used secondary data from the World Bank and other statistical sources to answer these questions. Our study findings suggest that both marketing activity and economic efficiency contribute positively to societal well-being, and that economic efficiency plays more of a mediator than moderator role between marketing activity and societal well-being. The public policy implication of this study is that increases in marketing activity and economic efficiency in countries characterized as low on both dimensions should significantly increase the quality of life in those countries.

**Keywords** Societal well-being · Quality of life · Marketing activity · Economic efficiency · Marketing and quality of life · Marketing well-being · Marketing systems

M. J. Sirgy (✉)
Department of Marketing, Pamplin College of Business, Virginia Polytechnic Institute and State University (Virginia Tech), 2025 Pamplin Hall, Blacksburg, VA 24061-0236, USA
e-mail: sirgy@vt.edu
URL: http://marketing.pamplin.vt.edu/facultyFolder/joeSirgy/

G. B. Yu
Yonsei University, Seoul, Korea
e-mail: bienie81@yonsei.ac.kr

D.-J. Lee
Department of Marketing, Yonsei University, Seoul, Korea
e-mail: djlee81@yonsei.ac.kr

S. Wei
Southern Illinois University, Carbondale, IL, USA
e-mail: shuqinw@siu.edu

M.-W. Huang
Virginia Tech, Blacksburg, VA, USA
e-mail: linomfat@gmail.com

## Introduction

Can business ethics scholars state with any degree of certainty that the level of marketing activity and economic efficiency in a country do contribute significantly to societal well-being or quality of life? To date no attempts have been made to answer this question empirically. The closest attempt to undertake such a task has been a study conducted by Pan et al. (2007) that focused on testing the notion that marketing activity in a society does contribute to subjective well-being (or perceived quality of life) directly and indirectly through economic well-being (level of wealth in particular). Their model controlled for other variables such as civil rights and individualism. The results failed to support a strong link between marketing activity and subjective well-being. That is, marketing activity was not found to predict subjective well-being directly or indirectly through national wealth (e.g., GDP). Subjective well-being was found to be predicted mostly by civil rights and individualism.

Pan et al. (2007) measured marketing activity at the national level using two indicators, namely advertising expenditures (per capita) and number of retail outlets (per

person). Data for advertising expenditures per capita were computed using two measures. The first measure was developed based on a number of variables: advertising expenditure in millions of units of national currency, exchange rate, and population (Euromonitor Publications 2008). The second measure of advertising expenditure per capita was obtained from *World Advertising Expenditures* (Starch INRA Hooper Group of Companies 1988). Each measure was standardized with a mean of 0 and a standard deviation of 1, then averaged (cf. Winter et al. 1999). The assumption is that the more advertising money is spent in a country, the greater the marketing activity in that country.

Although the Pan et al. study failed to find a significant effect of marketing activity on societal well-being, it is our position that the effect of marketing activity on the quality of life of a country may be moderated or mediated by the level of economic efficiency in that country. With respect to the moderation effect of economic efficiency, we expect that marketing activity may contribute positively to societal well-being in countries characterized by high than low economic efficiency. With respect to the mediation effect of economic efficiency, we expect that the effect of marketing activity on societal well-being to be mediated at least in part by economic efficiency.

In sum, our objective in this study is to make an attempt to test the theoretical proposition that both marketing activity and economic efficiency in a country contribute to the country's overall quality of life, and that the marketing contribution to societal well-being may be either moderated by economic efficiency (i.e., marketing's effect on societal well-being can be significantly undermined by low economic efficiency) and/or mediated by economic efficiency (i.e., marketing activity serves to reduce the size of the informal economy and corruption). Demonstrating the effects of marketing activity and economic efficiency on societal well-being should help business ethicists, economists, and public policy officials develop better policies and programs to ensure the development of the marketing system conjoined by efforts to enhance economic efficiency.

## Conceptual Development

We define marketing activity in a country in terms of amount of promotion and retail activities. In measureable terms, marketing activity can be captured in terms of the dollar amount of advertising expenditures (per capita and % of GDP) in a country as well as the number of retail outlets in a country (per capita). We hypothesize that marketing activity does contribute significantly to society's quality of life (H1). We also hypothesize that economic efficiency does contribute significantly to societal well-being (H2). We define economic efficiency in terms of high levels of free trade, low levels of corruption, and a small informal economy. We hypothesize that that economic efficiency moderates the marketing activity effect on societal well-being such that marketing contribution to the quality of life diminishes significantly under conditions of low than high economic efficiency (H3). We also hypothesize that the marketing effect on societal well-being is mediated through economic efficiency in that marketing activity serves to enhance free trade and reduce corruption and the size of the informal economy (H4). See a graphic depiction of these hypotheses in Fig. 1.

### Marketing Activity Contributes to a Society's Quality of Life (H1)

Marketing system is defined as the activity conducted by organizations and individuals that operates through a set of institutions and processes for creating, communicating, delivering, and exchanging market offerings that have value for customers, clients, marketers, and society at large (Wilkie and Moore 2007). One can argue that countries that have a higher level of marketing activity are likely to be in a better position to provide greater opportunities to meet consumption needs of the public in various life domains, thereby enhancing the quality of life of society at

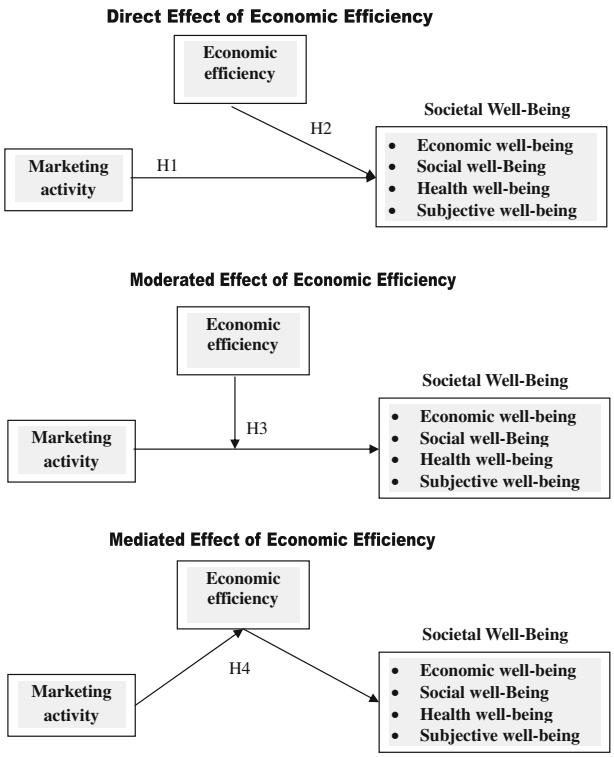


**Fig. 1** The effects of marketing activity and economic efficiency on societal well-being

large. Specifically, one can argue that marketing activity contributes to the quality of life for the following reasons.

First, a high level of marketing activity in a country should facilitate the physical flow of products from organizations to consumers. A large number of retail outlets should increase consumer accessibility to the much needed products. The consumption of these needed products satisfies a variety of consumers' needs in various life domains (work life, social life, health life, etc.), thus enhancing the overall quality of life of consumers at large (e.g., Kotler et al. 1998; Morris and Lewis 1991; Morris et al. 1995; Schultz and Pecotich 1997; Wilkie and Moore 1999).

Second, a high level of marketing activity in a country should facilitate informational flow from organizations to consumers. For instance, a high level of adverting should help consumers inform consumers about the benefits of much needed products, the consumers' cost to obtain these products, and the retail places from which to purchase these products. Such promotion activity should assist consumers meet their consumption needs in various life domains, (work life, social life, health life, etc.), which in turn should enhance their overall well-being (e.g., Frank and Enkawa 2009; Kotler et al. 1998; Morris and Lewis 1991; Morris et al. 1995; Schultz and Pecotich 1997; Wilkie and Moore 1999).

Third, providing more consumption opportunities and product information should help consumers find safe products (thus increases health well-being) at affordable prices (increases economic well-being) (e.g., Frank and Enkawa 2009; Kotler et al. 1998; Morris and Lewis 1991; Morris et al. 1995; Schultz and Pecotich 1997; Wilkie and Moore 1999).

Fourth, a high level of marketing activities should increase job opportunities not only in retailing and advertising but also across a wide range of profit, nonprofit, and government organizations engaged in marketing of goods and services to target consumers. This activity contributes significantly to the country's economic well-being. More job opportunities created by marketing activity should motivate people to become more educated (thus reducing illiteracy rate), which in turn should contribute to social well-being. And finally, a high level of marketing activity should facilitate the free flow of safety information to consumers, which in turn should enhance consumer health and reduce product safety concerns, thereby increasing health well-being (e.g., Frank and Enkawa 2009; Kotler et al. 1998; Morris and Lewis 1991; Morris et al. 1995; Schultz and Pecotich 1997; Wilkie and Moore 1999).

In summary, a high level of activity in the marketing system should increase societal well-being by increasing consumption opportunities of safe products at affordable prices, creating more jobs and income, enhancing education, increasing access to information and products, and meeting other needs in a variety of life domains. This is essentially our first hypothesis (see Fig. 1). Countries that have higher levels of marketing activity are better poised to serve the consumption needs of their consumer public, an important factor reflected in important dimensions of societal well-being (economic, social, health, etc.). Based on the discussion, our study will test the following hypothesis:

**H1**: Marketing activity in a country has a positive predictive impact on *societal well-being*.

**H1a**: Marketing activity in a country has a positive predictive impact on *economic well-being*.
**H1b**: Marketing activity in a country has a positive predictive impact on *social well-being*.
**H1c**: Marketing activity in a country has a positive predictive impact on *health well-being*.
**H1d**: Marketing activity in a country has a positive predictive impact on *subjective well-being*.

## Economic Efficiency Contributes to a Society's Quality of Life (H2)

We propose that efficiency in the economy has a direct effect on societal well-being. An economy is said to be "efficient" when there is a high level of free trade in the country, the informal market is small, and corruption is at a minimum (Abed and Davoodi 2000; Eilat and Zinnes 2002; Matei et al. 2010). One can argue that economic efficiency reflects the *absence* of economic inefficiency in the form of low levels restrictions on trade, low levels of an informal economy, and low levels of corruption.

Free trade increases a country's quality of life because free trade contributes to economic growth (e.g., Mullen et al. 2009) and the efficient allocation of resources, and the provisioning of goods to consumers at affordable prices (e.g., Balassa 1985; Berkery 1992; Berney and Swanson 1982; Tyler 1981), which in turn serves to meet the consumption needs of the public. Meeting these needs serves to enhance well-being in various life domains (work life, social life, health life, etc.).

Efficient economies tend to protect consumers from fraud and misleading information (Dickson and Hollander 1991). As a result, consumers in efficient economies are likely to have safe products, accurate product information, and transactions with business and government organizations unhampered by corruption, which in turn contributes to well-being in various life domains such as work life, social life, health life, etc. (e.g., Buckenya et al. 2003; Diener and Biswas-Diener 2002; Frank and Enkawa 2009).

Inefficient economies are less transparent in which the informal economy overshadows the formal one, which in

turn exerts a negative influence on the country's quality of life by distorting economic conditions of business entities, decreasing tax revenues, and failing to protect consumers from poor and fraudulent marketing practices (e.g., Frey and Schneider 2000). Informal economies or black markets deprive governments from badly needed tax revenues, which exacerbate government corruption. Tax revenues in efficient economies tend to be used much more efficiently in providing a wide array of services to the public, which in turn contributes to the country's overall quality of life.

In summary, efficient economies tend to contribute positively to a country's overall well-being because efficiency is instrumental in providing consumers with more consumption opportunities at lower prices through free trade, reduced monitoring costs, and protecting consumers from fraud and misleading information. Thus, we would expect societal well-being to be high under conditions of high economic efficiency, and conversely, societal well-being should be low under conditions of low economic efficiency. Thus, economic efficiency should be a significant predictor of societal well-being in its own right. Accordingly, we will test the following hypotheses (see Fig. 1):

**H2**: Economic efficiency in a country has a positive predictive impact on *societal well-being*.

**H2a**: Economic efficiency in a country has a positive predictive impact on *economic well-being*.
**H2b**: Economic efficiency in a country has a positive predictive impact on *social well-being*.
**H2c**: Economic efficiency in a country has a positive predictive impact on *health well-being*.
**H2d**: Economic efficiency in a country has a positive predictive impact on *subjective well-being*.

## The Moderating Role of Economic Efficiency on the Marketing Effect (H3)

We also believe that economic efficiency has a moderating effect on the influence of marketing activity on societal well-being. Specifically, economic efficiency has a stronger effect on societal well-being than marketing activity. Economic efficiency overshadows marketing activity in the sense that countries with high levels of marketing activity but couched in economies with low efficiency are not likely to generate high levels of societal well-being compared to economies with high levels of efficiency but low level of marketing activity. That is, marketing activity is to a certain degree dependent on economic efficiency to deliver the maximum societal well-being possible. Why?

Countries characterized by low economic efficiency typically are besieged with problems of business and government corruption, lack of free trade, and a large informal economy. These problems hack away at *trust*, the social fabric of society. Trust is strongly and negatively associated with corruption—an important component of economic efficiency in a country (Shleifer and Vishny 1997). Transaction costs and economic inefficiencies become highly problematic without trust. Arrow (1972) suggests that much of the economic inefficiencies in the world can be explained by the lack of trust. Jacobs (1961), Loury (1977), and Coleman (1990) have argued that trust determines social capital, which has a significant impact on economic and political factors. Michalos (1990) has documented the impact of trust on business, international security, and quality of life. In other words, there is a growing awareness among social scientists that trust plays an important factor in economic development and societal well-being (e.g., Fukuyama 1995; Zak and Knack 2001; Inglehart 1999). Based on the preceding discussion, we will subject the following hypothesis to testing (see Fig. 1):

**H3**: The effect of marketing activity on *societal well-being* is moderated by economic efficiency in that societal well-being is higher under high economic efficiency/low marketing activity conditions than low economic efficiency/high marketing activity conditions.

**H3a**: The effect of marketing activity on *economic well-being* is moderated by economic efficiency in that societal well-being is higher under high economic efficiency/low marketing activity conditions than low economic efficiency/high marketing activity conditions.
**H3b**: The effect of marketing activity on *social well-being* is moderated by economic efficiency in that societal well-being is higher under high economic efficiency/low marketing activity conditions than low economic efficiency/high marketing activity conditions.
**H3c**: The effect of marketing activity on *health well-being* is moderated by economic efficiency in that health well-being is higher under high economic efficiency/low marketing activity conditions than low economic efficiency/high marketing activity conditions.
**H3d**: The effect of marketing activity on *subjective well-being* is moderated by economic efficiency in that societal well-being is higher under high economic efficiency/low marketing activity conditions than low economic efficiency/high marketing activity conditions.

## The Mediating Role of Economic Efficiency on the Marketing Effect (H4)

We also believe that economic efficiency plays a mediating role between the marketing activity effect on societal well-being. In other words, marketing activity serves to increase

economic efficiency in a country, which in turn contributes positively to societal well-being. As previously defined, increases in marketing activity reflects increases in number of retail outlets and advertising spending (Pan et al. 2007). An economy that has a higher number of retail outlets is an economy that makes accessible to consumers needed products that ultimately meet the consumption needs of the public (e.g., Schultz and Pecotich 1997). This increased availability of needed products is likely to shrink the size of informal market in the country. Similarly, increases in ad spending are likely to increase information flow to consumers. Increased information flow to consumers, in turn, should reduce fraudulent marketing practices (e.g., Frey and Schneider 2000) and increase consumers' trust in the economy (e.g., Ekici and Peterson 2009; Michalos 1990). These outcomes are essentially what constitute economic efficiency in a country.

Previously, we argued that economic efficiency plays a positive role in societal well-being because efficiency is instrumental in providing consumers with more consumption opportunities at lower prices through free trade, reduced monitoring costs, and protecting consumers from fraud and misleading information (Balassa 1985; Berkery 1992; Berney and Swanson 1982; Buckenya et al. 2003; Diener and Biswas-Diener 2002; Dickson and Hollander 1991; Frank and Enkawa 2009; Mullen et al. 2009; Tyler 1981). Based on the preceding discussion we advance H4, and we will subject it to an empirical test:

**H4**: Marketing activity in a country has a positive predictive impact on *societal well-being* through the mediation effect of economic efficiency.

**H4a**: Marketing activity in a country has a positive predictive impact on *economic well-being* through the mediation effect of economic efficiency.
**H4b**: Marketing activity in a country has a positive predictive impact on *social well-being* through the mediation effect of economic efficiency.
**H4c**: Marketing activity in a country has a positive predictive impact on *health well-being* through the mediation effect of economic efficiency.
**H4d**: Marketing activity in a country has a positive predictive impact on *subjective well-being* through the mediation effect of economic efficiency.

## Method

Based on our conceptual framework, we identified three sets of indicators: marketing activity, economic system efficiency, and societal well-being. We selected 133 countries based on data availability and credibility. We used secondary data from the World Bank during the period of 2005–2008. We converted many indicators to per-capita basis to partial out the effect of the size of the country population (see the full list of constructs and indicators in Table 6—Appendix).

To deal with the problem of missing data, we grouped all countries into low-income, middle-income (subdivided into lower-middle and upper-middle), and high-income countries using the World Bank's classification based on each economy's gross national income (GNI) per capita. Then we computed averages of each group for each variable and used the computed averages to replace the missing values within a group.

### Indicators of the Marketing Activity

Guided by Pan et al. (2007) study, we selected indicators of marketing activity based on two dimensions: (1) advertising expenditure and (2) retailing network of the country. Specifically, with respect to advertising expenditure, we identified *advertising expenditure per capita* and *advertising as a % of GDP* as suitable indicators. We obtained annual advertising data through Zenith Optimedia (2008). Each measure was standardized with a mean of 0 and a standard deviation of 1, which were then averaged, producing one final variable (cf. Pan et al. 2007). Data reflect 2005.

With respect to the second dimension (the retailing network of the country), we used *the number of retail outlets per capita* (Euromonitor Publications 2008) as indicator. Data reflect 2002/2003. Again, this subconstruct and measure are consistent with the study conducted by Pan et al. (2007).

### Indicators of Economic Efficiency

To reiterate, we conceptualized economic efficiency in a country as an economy characterized by (1) low fraud and misleading information, (2) free trade, and (3) small shadow market (Abed and Davoodi 2000; Eilat and Zinnes 2002; Matei et al. 2010). With respect to the first dimension (fraud and misleading information), we identified one indicator, namely the *Corruption Perception Index* (CPI). One can safely assume that countries scoring high on marketing fraud do not have an effective regulatory system in terms of action taken by government, consumer advocacy groups, marketing/business professional associations, industry associations, and higher educational institutions. The CPI measures how much the public, business people, and risk analysts see the country's government as corrupt, ranging from 0 (highly corrupt) to

10 (highly clean) (Transparency International 2011). Data reflect 2005.

Regarding the second dimension (free trade), we identified the E*conomic Freedom Index* (EFI) as a suitable indicator. The EFI index refers to freedom of personal choice, protection of private property, freedom of exchange, and freedom of investment. Ten dimensions are involved in the index: (1) size of government, (2) government efficiency, (3) tax burden, (4) banking efficiency, (5) monetary policy and price stability, (6) constraints on investment capital, (7) legal structure and security of private ownership, (8) freedom to trade with foreigners, (9) freedom from corruption, and (10) regulations in labor market (Heritage Foundation 2011). A score of 100 refers to maximum economic freedom. Data reflect 2005.

Regarding the last dimension (shadow economy), we identified *shadow economy in % of GDP* as a suitable indicator. This measure includes purposely unreported income from the legal production of goods and services for reasons including: (1) avoiding taxes, (2) avoiding social security contribution, (3) avoiding legal labor market standards, and (4) avoiding administrative procedures (Schneider 2005). Data reflect 2005.

## Indicators of Societal Well-Being

As previously discussed the outcome of the marketing system is construed in terms of societal well-being. Traditional quality-of-life dimensions include economic, social, health, and subjective well-being (e.g., Sirgy 2002; Sirgy et al. 2007).

### *Indicators of Economic Well-Being*

To capture *economic well-being*, we conceptualized this construct to involve two dimensions: (1) nation's domestic wealth and (2) cost of living (cf. Sirgy 2002; Sirgy et al. 2007). With respect to the first dimension (nation's domestic wealth), we identified GNI per capita as a suitable indicator. GNI comprises the total value added by the residents of a country, together with product taxes excluded in the output valuation and net receipts of primary income from other countries (World Bank 2011). GNI is expressed in international dollars using Purchasing Power Parity (PPP) rates. Data reflect 2005.

In relation to the second dimension (cost of living), we have identified *inflation* as a suitable indicator. Inflation as measured by the *Consumer Price Index* (CPI) reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly (World Bank 2011). Data reflect 2005.

### *Indicators of Social Well-Being*

To capture *social well-being*, we conceptualized this construct to involve two dimensions: (1) literacy and (2) education (cf. Sirgy 2002; Sirgy et al. 2007). In relation to the first dimension (literacy), we identified *adult literacy rate* as a suitable indicator. Adult literacy rate refers to the percentage of persons aged 15 and above who have the basic abilities to communicate verbally and in writing for daily life (World Bank 2011). Data reflect 2008.

In relation to the second dimension (education), we identified one indicator: *net enrollment ratio in secondary school* defined as the percentage of children of official school age that are in fact enrolled in secondary school (World Bank 2011). Data reflect 2005.

### *Indicators of Health Well-Being*

In regards to *health well-being*, we conceptualized this construct to involve four dimensions (1) children health, (2) maternal health, (3) health of mature individual, and (4) investment of health infrastructure (cf. Sirgy 2002; Sirgy et al. 2007).

With respect to the first dimension (children health), we identified *under-5 mortality rate* as a suitable indicator. This measure refers to the probability (per 1,000 live births) of newborn babies in a certain year dying before reaching their fifth birthday, based on current age-specific mortality rates for each country (World Bank 2011). Data reflect 2005.

With respect to the second dimension (maternal health), *maternal mortality ratio* was identified as an adequate indicator. This indicator refers to the total number of pregnancy- or childbirth–death, per 100,000 live births (World Bank 2011). Data reflect 2005.

Regarding the third dimension (health of mature individual), we identified *life expectancy* as a suitable indicator. This indicator is the average expected lifespan of a newborn infant if age-specific mortality levels remain constant (World Bank 2011). Data reflect 2005.

Regarding the last dimension (investment on health infrastructure), we identified *public expenditure on health* as an indicator. This indicator refers to the expenditure on health care from the public funds, including government funds, international borrowings and grants and social health insurance funds (World Bank 2011). Data reflect 2005.

### *Indicators of Subjective Well-Being*

Concerning *subjective well-being*, we conceptualized this construct as personal judgments of happiness and life

**Table 1** Confirmatory factor analysis

| Construct | Indicators | Coefficient | *t* Value | α | AVE | Composite reliability |
|---|---|---|---|---|---|---|
| Economic well-being | Nation's domestics wealth | 0.861 | 11.059 | 0.677 | 0.732 | 0.690 |
| | Inflation® | 0.575 | 6.870 | | | |
| Social well-being | Literacy | 0.829 | 11.495 | 0.797 | 0.879 | 0.872 |
| | Education | 0.927 | 13.648 | | | |
| Health well-being | Health of mature individuals | 0.883 | 12.928 | 0.821 | 0.851 | 0.908 |
| | Investment on health infrastructure | 0.477 | 5.806 | | | |
| | Children health | 0.983 | 15.650 | | | |
| | Maternal health | 0.962 | 15.000 | | | |
| Subjective well-being | Subjective well-being | 1.000 | – | – | – | – |

Goodness-of-fit: $\chi^2$ ($p$ value) = 53.761 (0.00), df = 21; CFI = 0.969, NFI = 0.951, NNFI = 0.947, RMSEA = 0.110, SRMR = 0.061

® = Reverse coded

satisfaction (e.g., Diener et al. 1995; National Science Foundation 2011). Data reflect 2007.

## Results

In this section, we report the results of the tests pertaining to construct validity followed by results related to hypothesis testing.

### Construct Validity

The construct validity of the measures used in this study was tested using confirmatory factor analyses (see Table 1). We deleted some indicators that had high cross loadings (>0.40), and we selected ones based on the modification indices of the measurement model. The results of confirmatory factor analysis for endogenous variables generated an acceptable fit to the data ($\chi^2 = 53.761$, df = 21, $p = 0.00$; CFI = 0.969, NFI = 0.951, NNFI = 0.947, RMSEA = 0.110, SRMR = 0.061). The results indicate that the measures are reliable for economic well-being ($\alpha = 0.677$; $\rho = 0.690$), social well-being ($\alpha = 0.797$; $\rho = 0.872$), and health well-being ($\alpha = 0.821$; $\rho = 0.908$). The measurement model was deemed satisfactory in spite of the significant $\chi^2$ statistic, given its strict assumptions and sensitivity to sample size (Bagozzi et al. 1991). Marketing activity and economic system efficiency constructs were not included in this analysis because they are treated as formative measures (Table 2).

All factors loadings were significant with no high cross loadings. Also the results indicate that all the correlations among the latent constructs were significantly less than one and the $\chi^2$ difference suggest that the non-constrained model is significantly better than the constrained model ($p < 0.05$). For all pairs of relationships, the average variance extracted (AVE) scores for the constructs were larger than the shared variance (Phi Square) (see Table 3). These results provide evidence for convergent and discriminant validity. Based on these results we proceeded to compute actual indices for marketing activity, economic system efficiency, economic well-being, social well-being, health well-being, and subjective well-being by averaging their respective sub-dimensional indicators.

**Table 2** Correlations among latent constructs

| | Economic WB | Social WB | Health WB | Subjective WB |
|---|---|---|---|---|
| Economic well-being | 1.000 | | | |
| Social well-being | 0.822 | 1.000 | | |
| Health well-being | 0.757 | 0.916 | 1.000 | |
| Subjective well-being | 0.640 | 0.366 | 0.387 | 1.000 |

*WB* = well-being

[a] All coefficients are significant at $p < 0.05$

### Hypothesis Testing

We tested H1–H3 (see Fig. 1) using moderated regression analysis (Aiken and West 1991). These results are summarized in Table 4. We tested H4 using the Sobel test (Baron and Kenny 1986; MacKinnon et al. 1995). These results are shown in Table 5.

#### *Marketing Activity's Main Effect on Societal Well-Being*

H1 posits that countries that have a higher level of marketing activity are likely to be in a better quality-of-life position than countries that have lower levels. The results indicate that marketing activity does indeed have a positive influence on societal well-being across all four dimensions (economic, social, health, and subjective well-being) (see Table 4). Specifically, marketing activity in a country was found to be a positive predictor of economic well-being

**Table 3** Test of discriminant validity

| | Economic WB | Social WB | Health WB | Subjective WB | AVE |
|---|---|---|---|---|---|
| Economic well-being | 1.000 | | | | 0.732 |
| Social well-being | 0.675 | 1.000 | | | 0.879 |
| Health well-being | 0.573 | 0.839 | 1.000 | | 0.851 |
| Subjective well-being | 0.409 | 0.133 | 0.149 | 1.000 | – |

*WB* = well-being

* Average Variance Extracted (AVE) of the constructs is larger than shared variance (Phi square)

**Table 4** Testing H1–H3

| Variables | | Standardized coefficient | *t* Value | Total $R^2$ |
|---|---|---|---|---|
| DV | IV | | | |
| Economic well-being | Marketing activity (MA) | 0.242** | 4.005 | 0.680 |
| | Economic efficiency (EE) | 0.677** | 11.165 | |
| | MA x EE* | −0.007 | −0.124 | |
| Social well-being | Marketing activity (MA) | 0.277** | 3.341 | 0.403 |
| | Economic efficiency (EE) | 0.481** | 5.857 | |
| | MA x EE* | −0.089 | −1.162 | |
| Health well-being | Marketing activity (MA) | 0.265** | 3.123 | 0.382 |
| | Economic efficiency (EE) | 0.497** | 5.898 | |
| | MA x EE* | −0.165** | −2.093 | |
| Subjective well-being | Marketing activity (MA) | 0.191** | 2.347 | 0.427 |
| | Economic efficiency (EE) | 0.593** | 7.362 | |
| | MA x EE* | −0.212** | −2.831 | |

* $p < 0.05$; ** $p < 0.01$

(standardized beta coefficient = 0.242, $p < 0.05$), social well-being (standardized beta coefficient = 0.277, $p < 0.05$), health wellbeing (standardized beta coefficient = 0.265, $p < 0.05$), and subjective well-being (standardized beta coefficient = 0.191, $p < 0.05$). These results provide support for H1a–H1d.

*Economic Efficiency's Main Effect on Societal Well-Being*

H2 posits that countries that are high on economic efficiency are likely to be in a better quality-of-life position than countries that have lower levels of efficiency. The results indicate that economic efficiency has a positive influence on societal well-being across all four dimensions of quality of life (economic, social, health, and subjective well-being) (see Table 4). Specifically, economic efficiency in a country was found to have a positive predictive influence on economic well-being (standardized beta coefficient = 0.677, $p < 0.01$), social well-being (standardized beta coefficient = 0.481, $p < 0.01$), health well-being (standardized beta coefficient = 0.497, $p < 0.01$), and subjective well-being (standardized beta coefficient = 0.593, $p < 0.01$). These results provide support for H2a–H2d.

*Moderation Effect of Economic Efficiency*

H3 states that societal well-being under conditions of high economic efficiency and low marketing activity is likely to be higher than under conditions of low economic efficiency and high market activity. Examining the interaction effects of marketing activity and economic efficiency in Table 4, we see a significant regression coefficients for the interaction term in relation to health well-being (standardized beta coefficient = −0.165, $p < 0.05$) and subjective well-being (standardized beta coefficient = −0.212, $p < 0.05$) but not economic well-being (standardized beta coefficient = −0.007, $p > 0.05$) and social well-being (standardized beta coefficient = −0.089, $p > 0.05$).

To study the nature of the interactions closely, we dichotomized the independent variables (marketing activity and economic efficiency) and ran a MANOVA. The interaction plots across all four dependent measures are shown in Fig. 2. The results show that indeed economic efficiency does have a stronger predictive effect on societal well-being than marketing activity and that societal well-being is somewhat greater under conditions of high economic efficiency and low marketing activity than under

**Table 5** Testing of the mediation effect (H4)

| DV | Marketing activity → Economic efficiency: $a/s_a$ | Economic efficiency → Societal well-being: $b/s_b$ | Test statistic | $p$-value |
|---|---|---|---|---|
| Economic well-being | 0.521 (0.076) | 13.894 (1.205) | 5.892** | 0.000 |
| Social well-being | 0.521 (0.076) | 5.760 (1.005) | 4.397** | 0.000 |
| Health well-being | 0.521 (0.076) | 9.955 (1.811) | 4.288** | 0.000 |
| Subjective well-being | 0.521 (0.076) | 0.098 (0.013) | 5.071** | 0.000 |

$a$ = raw (unstandardized) regression coefficient for the association between IV and mediator

$s_a$ = standard error of $a$

$b$ = raw coefficient for the association between the mediator and the DV (when the IV is also a predictor of the DV)

$s_b$ = standard error of $b$

** Significant at $p < 0.05$

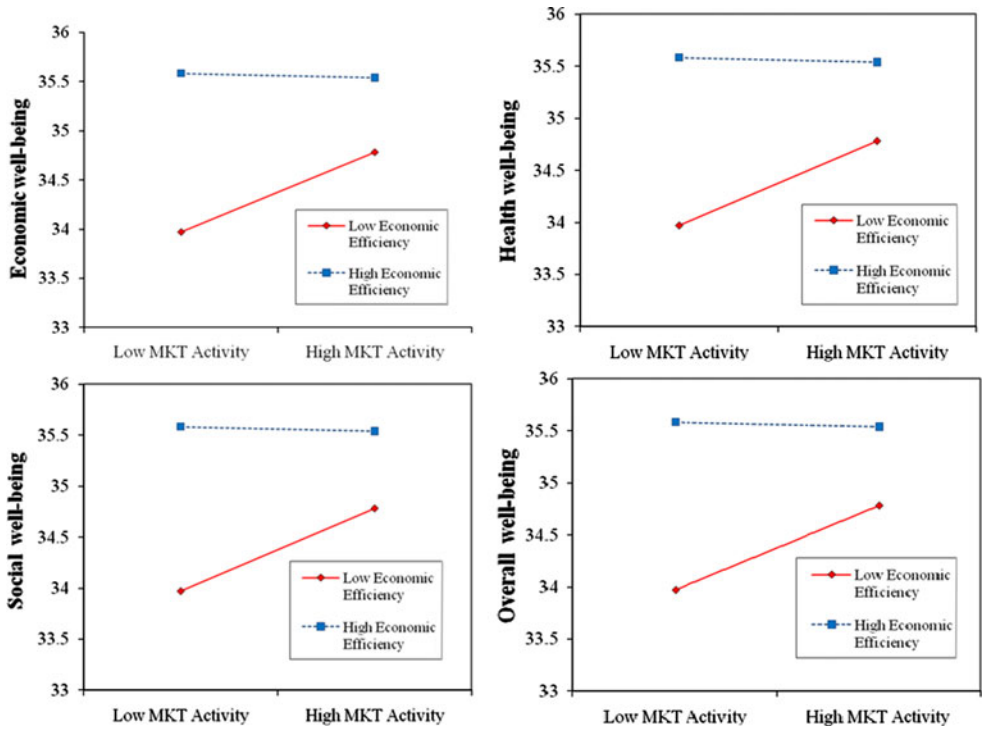


**Fig. 2** Interaction Plots

conditions of low economic efficiency and high market activity across all four sets of indicators of societal well-being (see Fig. 2). However, it should be noted that although the interaction plots across all four dependent measures confirm H3 they were not statistically significant ($p > 0.05$).

*Mediation Effect of Economic Efficiency*

H3 states that marketing activity in a country has a positive predictive impact on societal well-being through the mediation effect of economic efficiency. We tested the mediation effect of economic efficiency between the marketing activity and societal well-being using Sobel test (Baron and Kenny 1986; MacKinnon et al. 1995). These results are shown in Table 5. The test results indicate that economic efficiency does *partially mediate* the relationship between marketing activity and economic well-being ($t = 5.892$, $p < 0.050$), social well-being ($t = 4.397$, $p < 0.050$), health well-being ($t = 4.288$, $p < 0.050$), and subjective well-being ($t = 5.071$, $p < 0.050$), as hypothesized.

Thus, we conclude that the overall pattern show that both marketing activity and economic efficiency play a significant positive but largely an independent role on societal well-being. However, the overall data pattern suggests more support for the mediating effect of economic efficiency than the moderating effect. In sum, one can interpret these results as providing support for the notion that marketing activity

(H1) and economic efficiency (H2) do play a significant positive role in predicting societal well-being, and that marketing activity may contribute to societal well-being by influencing economic efficiency (H4).

## Discussion

As previously stated, the goal of this study is to test the theoretical proposition that the marketing system does contribute to societal well-being and that economic efficiency does play a significant role in this relationship. Specifically, economic efficiency may play two roles in this context. First, it is directly and positively associated with societal well-being. Also, it is indirectly related to societal well-being in the way it mediates the relationship between marketing activity and societal well-being. That is, an economy that has a higher number of retail outlets is an economy that makes accessible to consumers needed products that ultimately meet consumption needs of the public. This increased availability of needed products is likely to shrink the size of informal market in the country. Similarly, increases in ad spending are likely to increase information flow to consumers. Increased information flow to consumers, in turn, serves to reduce fraudulent marketing practices and increase consumers' trust in the economy. These outcomes reflect in part economic efficiency.

Specifically, our study was able to empirically demonstrate the positive predictive influence of marketing system on societal well-being, which is consistent with the many arguments made by marketing scholars about the positive contribution of marketing to society (e.g., Kotler et al. 1998; Morris and Lewis 1991; Morris et al. 1995; Pan et al. 2007; Samli 1985). In other words, our study was able to provide empirical evidence to this long held belief: the marketing system plays an important and positive role in societal well-being.

Also consistent with our expectations, the study demonstrated the positive predictive influence of economic efficiency on societal well-being directly. The results also provide evidence of the mediation effect of economic efficiency on societal well-being through marketing activity. Marketing activity contributes to societal well-being directly and indirectly through economic efficiency. This pattern is consistent with the notion that economic efficiency facilitates the impact of marketing activity on societal well-being through trust—the social fabric of society. Lack of trust can significantly hinder efforts toward a greater quality of life (cf. Arrow 1972; Coleman 1990; Fukuyama 1995; Michalos 1990; Shleifer and Vishny 1997; Zak and Knack 2001). High levels of marketing activity serve to heighten consumers' trust in the economy (reflective of economic efficiency), which in turn contributes to high levels of societal well-being. Trust seems essential in this equation.

The *public policy implications* that can be deduced from the study findings are as follows. First, to meet the consumption needs of the public and contribute significantly to societal well-being, marketing managers and public policy makers should insure that the marketing system in place is active (i.e., that the system has a high level of promotion and retail activity). The results of this study show that countries with high levels of marketing activity enjoy high levels of societal well-being. The study findings also show marketing activity contributes to societal well-being directly and indirectly through economic efficiency. Societal well-being is greatest when economic efficiency and marketing activity are high. Societal well-being is lowest when the country is not only riddled with economic efficiencies but also has a failing marketing system. Thus, our study findings highlight the important role of marketing on societal well-being. The message is loud and clear: public policy should be formulated to enhance marketing activity, especially in countries that have low levels of marketing activity and economic efficiency. Doing so should go a long way toward enhancing societal well-being.

There are several *limitations* in this study. First, this design of our study was cross-sectional (i.e., the study focused on relationships at one point in time). Future research should track the changes of societal well-being as a function of changes in marketing activity and economic efficiency (i.e., use longitudinal research designs). We do have missing data largely in the low-income countries, although the data are normally distributed. Future research may use an imputation method to predict missing data using theoretically justifiable predictors and perhaps use income as a formal covariate in replicating and expanding our model. More importantly, the finding that low marketing significantly amplifies the adverse QOL effect of economic inefficiency has to be tested and replicated using longitudinal data.

Second, this study focused on advertising and retail indicators for marketing activity. One can argue that our study included indicators that do not capture the entire domain of marketing activity at the country level. The measurement of marketing activity in future research should be broadened to include distribution-type indicators (e.g., transportation, shipping, and logistics indicators such as number of air shipments per capita, number of truck shipments per capita, number of rail shipments per capita, number of ocean freight shipments per capita) and product development activities (e.g., number of patents per capita, number of new products entering the market per capita). One can argue that the well-being effect of marketing is likely to be more evident if and when future research captures the full domain of the marketing activity construct.

## Appendix

See Table 6.

**Table 6** Construct and measures

| Construct | Dimensions (and Indicators) |
|---|---|
| Marketing activity | Advertising expenditure |
| | Advertising expenditure per capita US $ (2005): 48.12% missing data |
| | Advertising as a % of GDP (2005): 47.37 missing data |
| | Retailing network of the country |
| | Retail outlet per capita (2002/2003): 61.65% missing data |
| Economic efficiency | Degree of transparency |
| | Corruption Perception Index (2005): 4.51% missing data |
| | Economic freedom |
| | Economic freedom index (2005): 3.01% missing data |
| | Informal economy |
| | Shadow economy as % of GNP® (2005): 4.51% missing data |
| Economic well-being | Nation's domestics wealth |
| | GNI per capita (2005): 2.26% missing data |
| | Inflation and cost of living |
| | Inflation: Average annual change in CPI® (2005): 5.26% missing data |
| Social well-being | Literacy |
| | Adult literacy rate (2008): 38.35% missing data |
| | Education |
| | Net enrollment ratio in secondary school (2005): 35.34% missing data |
| Health well-being | Children health |
| | Under-5 mortality rate® (2005): 0.75% missing data |
| | Maternal health |
| | Maternal mortality ratio® (2005): 0.75% missing data |
| | Health of mature individuals |
| | Life expectancy (2005): 0% missing data |
| | Investment on health infrastructure |
| | Public expenditure on health (2005): 0.75% missing data |
| Subjective well-being | Subjective well-being or overall happiness |
| | Life satisfaction (2007): 38.35% missing data |

® Reverse scored

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