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Evidence from Cross-Country Analysis*

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Abstract

An important and long-standing question in international marketing concerns the factors associated with cross-country variation in the development of the advertising industry. We estimated time series cross section models for 64 economies and supplemented them with cross-sectional OLS models. We found that the three predictor variables have significant effects on ad spending. Moreover, the income effect is more salient in more sophisticated markets than it is in less sophisticated markets. Evidence of foreign MNCs' influence on ad spending, on the other hand, is more readily apparent in less sophisticated markets.

Keywords: *Ad spending, civil liberty, market economy, foreign direct investment, Parks method*

The Issue of Cross-National Variation in Ad Spending

An important and long-standing question in international marketing concerns the factors associated with cross-country variation in the development of the advertising industry (Leff and Farley, 1980; Kshetri et al., 2007). It is important for managers and policymakers to have a better understanding of the optimal level of ad spending both at the firm and the national level (Leff and Farley, 1980). Scholars and philosophers have long been interested in this issue because advertising is considered as the most integrated element of the integrated marketing communications (IMC) mix (Kitchen and Schultz, 1999) and cited as a major force shaping the drive toward globalization (Appadurai, 1990; Fatt, 1967; Nelson and Paek, 2007). Fatt (1967, p. 61) noted: "Advertising is not only helping to break down national economic boundaries, but ingrown characteristics and traditions once considered almost changeless".

The issue of cross-national variation in ad spending is a critical but little-examined problem in international marketing. Four primary problems motivate our efforts: first, while there is some exploratory, qualitative and practitioner-oriented multi-country research on advertising and related marketing activities (e.g., Kitchen and Schultz, 1999; Macleod, 2009a, b; Nelson and Paek, 2007), empirical studies that include a large number of diverse countries are lacking. Second, despite a vast and growing body of literature on related concepts such as integrated marketing communications (IMC) (Kitchen and Schultz, 1999), media industry (Dutta and Roy 2009) and penetration of various media (Buchner, 1988), there is a lack of research that explicitly focuses on ad spending. Third, while there are convincing arguments that formal and informal institutions influence all economic activities (North, 1996, Parto 2005), studies dealing with institutions' impact on ad spending, especially empirical ones, are conspicuously absent

from cross-country studies on advertising and related concepts. Fourth, while scholars have paid some attention to the effects of factors such as income and FDI on the development of advertising and related industries, they have overlooked the ways in which the magnitudes of the effects of these factors differ across economies with various levels of market sophistication.

The aim of this article is to contribute to filling these research gaps. We use data from 64 economies with diverse geography, culture, political and regulatory structures to theoretically and empirically investigate the factors that contribute to the development of the advertising industry. More to the point, we focus on how economic and institutional factors affect ad spending through the previously identified positive and negative mechanisms that can affect businesses', regulators' and consumers' orientations towards advertising.

We focus on ad spending because advertising is more integrated than the other elements of the IMC mix such as sales promotion, public relations, and direct marketing (Kitchen and Schultz, 1999). As noted earlier, advertising is a major force shaping the drive toward globalization (Fatt, 1967; Appadurai, 1990; Nelson and Paek, 2007). As noted earlier, a better understanding of the drivers of ad spending would help manage advertising expenditures at the firm level and devise strategies to develop the advertising industry at the national level. Leff and Farley (1980) noted: "Firms must be concerned with establishing the level of advertising which is optimal from the viewpoint of company strategy and their overall marketing mix" (p. 64).

The remainder of the paper is structured as follows: First, we provide a literature review and develop our hypotheses. Next, we provide a description of our method. This is followed by a section on analysis results and discussion. The final section provides implications and conclusion.

Literature Review

Despite a vast and growing body of literature on cross national differences in advertising and related concepts, several gaps in the existing literature can still be identified. In this section, we provide a review of economic and institutional factors used in the prior studies on cross-country studies of advertising and related activities and identify some gaps in the literature. Then we analyze how they affect ad spending through the previously identified positive and negative mechanisms that can affect businesses', regulators' and consumers' orientations towards advertising. The gist of our contribution is that using data from large number of diverse countries, we theoretically investigate and empirically test how economic and institutional factors are related to ad spending and how the magnitude of the effects vary across economies of various levels of market sophistication.

The issue of cross-national heterogeneity in ad spending largely has been ignored in the literature on international marketing. First, empirical studies on advertising related concepts that include a large number of diverse countries are lacking. Nelson and Paek (2008) suggested that in order to increase external validity and generalize implications for global advertising strategy, various elements of advertising need to be compared “across a full array of countries in terms of geography, culture, and sociopolitical and regulatory systems” (p. 717). Moreover, most multi-country studies focusing on advertising and related concepts, which have examined a small set of countries (Kitchen and Schultz, 1999; Nelson and Paek, 2007), are exploratory and qualitative in nature. While Kshetri et al. (2007) used an econometric model to examine the drivers of ad spending in the European Union (EU) economies; these economies are relatively homogeneous in terms of geography, culture, and sociopolitical and regulatory systems. In this regard, *a strategy* to address issues of external validity and enhance generalizability would be to include a larger sample of more heterogeneous countries (Nelson and Paek, 2008).

Second, most multi-country studies on communications have focused on related concepts such as IMC (Kitchen and Schultz, 1999), the media industry (Dutta and Roy, 2009) and penetration of various media (Buchner, 1988) but not explicitly on advertising. For instance, Kitchen and Schultz's (1999) exploratory study examined the diffusion of the concept of integrated marketing communications in the U.S., the U.K., New Zealand, Australia, and India. Similarly, Nelson and Paek (2007) investigated global advertising strategies and tactics of a global media brand across seven countries. Likewise, Dutta and Roy (2009) examined the influence of FDI inflows in the media sector. Theorists have emphasized the importance of understanding the drivers of ad spending. Leff and Farley (1980) noted: "The level of advertising expenditure raises important questions for decision makers in both the private and public sectors" (p. 64). There has been surprisingly little empirical work on cross-country variation in ad spending. Macleod (2009a, b) and his earlier papers have reported ad spending trends in major industrialized economies. His practitioner oriented works, however, do not theoretically investigate nor empirically test what factors explain cross-country variation in ad spending.

Third, all economic phenomena have institutional components and implications (Parto 2005). Institutions include "formal constraints (rules, laws, constitutions), informal constraints (norms of behavior, conventions, and self-imposed codes of conduct), and their enforcement characteristics" (North, 1996, p. 344). The effects of informal institutions such as cultural values, cultural contexts, social norms and subjective norms on advertisers' strategies and tactics have been widely examined (e.g., Kalliny and Lance, 2007; Paek et al., 2009 and references there in). However, studies dealing with formal institutions, especially empirical ones, are conspicuously absent from cross-country studies on advertising and related concepts. Probably an exception is Buchner (1988), who compared telephone and TV diffusions in Marxist and non-Marxist

European nations. He found that telephone penetration rates in comparison to TV were lower in the former group than in the latter. Buchner's (1988) independent variable, however, is categorical-- Marxist vs. non-Marxist, and thus has limited statistical power. One way to increase statistical power would be to use discrete numerical or continuous variable in the analysis.

Fourth, while scholars have paid some attention to the effects of income and FDI on the development of advertising and related industries, they have overlooked the ways in which their effects differ across economies with various levels of market sophistication. For instance, a common observation is that the development of advertising industry, both measured by per capita ad spending as well as ad spending as a proportion of GNP, is positively related to the level of economic development (Leff and Farley, 1980). Likewise, there is a pervasive influence of MNCs on host countries' advertising industry (Kshetri et al., 2007). Recent empirical research has also examined the relationship between FDI and the development of the media sector. Dutta and Roy (2009) found that FDI inflows into a country "have considerable positive spillovers on the media sector" (p. 240). However, there are currently no studies in a wide range of economies, which empirically test whether the magnitudes of the effects of factors such as FDI and GNP vary according to the level of market sophistication.

Our point about empirical studies on cross-cultural advertising may warrant elaboration. Empirical research on cross-national advertising has been limited, primarily, we believe, because of shortcomings with data. In recent years, Euromonitor has made available extensive data on international markets and industries, which has provided scholars in this area with an exciting research opportunity (Kotabe, 2002).

Hypothesis Development

Our hypothesis development focuses on how economic and institutional factors affect ad spending through the previously identified positive and negative mechanisms that can affect businesses', regulators' and consumers' orientations towards advertising.

The income effect on advertising

A country's "economic wealth" positively influences mass media spending by consumers as well as by advertisers (Chan-Olmsted et al., 2008, p. 198). To be sure, a marketer wants reassurance that its ad spending translates into increased demand and profits (Bagwell and Ramey, 1994; Doyle, 1968) and economies of scale (Nelson, 1974, p. 729; Ramrattan and Szenberg, 2006). In this regard, high income countries offer higher potential for demand, profits and economies of scale for advertisers. A related point is that income level of a country is positively related to consumers' adoption of media enabling advertising. According to diffusion of innovation perspective (e.g., Antonelli, 1993; Gatignon and Robertson, 1985; Gruber and Verboven, 2001; Helsen et al., 1993), the gap between markets with different income levels in consumers' adoption of newly introduced advertising media is especially higher.

Advertising resources also tend to be scarce in low income economies (Horvat, 1992). Many firms in low income countries lack money to advertise. There is also a lack of adequately trained advertising personnel (Ho and Sin, 1986; Wang, 1988).

Other factors discouraging ad spending in these economies include costly advertising relative to reach and a higher proportion of rural population unreachable to marketers (Leff and Farley, 1980; Pritchard, 1997). Due to a poor media penetration, firms use other tools such as experiential marketing to reach rural consumers in India (Balakrishnan, 2007). In sum, a

country's income level is likely to be associated with the adoption of modern marketing practices including advertising (Chan and Cui, 2004). At the aggregate level, we propose that:

H_{1a}: An economy's income level positively affects ad spending.

Although income's effect on the advertising industry would seem to be straightforward, conclusions regarding differential effects of the variable across economies with different market sophistication levels are less clear. Let L_i and L_j be two economies which have less sophisticated markets (L) and M_i and M_j be the economies with more sophisticated markets (M). From our perspective, two important questions are: Does a unit increase in income have the same effect on ad spending in M and L?; Is income's contribution to intra-group variance in ad spending among economies in M same as that among economies in L? The latter can be put simply as: Is income a better predictor of the difference between M_i and M_j than that between L_i and L_j ?

As noted earlier, marketers' ad spending in an economy is positively related to the income level (Bagwell and Ramey, 1994; Doyle, 1968; Ramrattan and Szenberg, 2006). However, we argue that a one-unit increase in income is likely to lead to a higher increase in ad spending in M than in L.

First, recall that advertising is influenced by formal and informal institutions, which are persistent, durable and stable (Parto, 2005). Institutions thus change at a slower rate than the income. Consumers', businesses' and policy makers' mental maps, values, attitudes and ideological constructs tend to be more favorable to advertising in M than in L. Prior research in East Europe indicates that businesses lacked experience in advertising (Horvat, 1992). In post-communist Bulgaria, it was found that businesses were unaware what advertising could do for them (Ognianova, 1997).

Second, most products in economies in group L arguably require less advertising. A study conducted in the early 1990s, for instance, indicated that most products sold domestically

in China had not reached the point at which competitive or reminder ads are needed (Zhou and Belk, 1993).

Third, the consumers in L, who are living or lived in an economy of shortage and deficiencies, tend to believe that quality goods do not need advertising. These consumers consider advertising as counter-productive (Ognianova, 1997).

Fourth, there is a higher illiteracy rates in some economies in L, especially among older groups. For instance, adult literacy rate in India is 47.8% for females and 73.4 % for males (UNDP, 2008). A low literacy rate makes it difficult to communicate with a rural audience (Balakrishnan, 2007; Leff and Farley, 1980). Estimates suggest that half of the populations of less developed countries cannot speak an official language of their own country (Kenny, 2003).

A final reason why there might be less advertising in L compared to M is based upon the possibility that these two groups differ in the forms of capitalism (Baumöl et al., 2007). Businesses' propensity to advertise in an economy is a function of the prevalent form of capitalism in the economy. Sophisticated markets such as the U.S. are characterized by entrepreneurial capitalism. In these economies, advertising is likely to help businesses to meet the demand of the market place. Capitalism in less sophisticated markets are more likely to be state -directed (guided by the state to achieve economic growth such as in China) or oligarchic (politically-connected "oligarchs" control large corporations such as in Russia). A state directed capitalism is likely to emphasize on production and consumption and may consider advertising as "directed at vulgar needs" (Dzhuraev, 1999, p.4) and ad spending as "excessive and harmful" (Leff and Farley, 1980, p. 64). A related point is that a significant proportion of income growth in L is likely to be associated with gray and illegitimate economies, which tend to avoid media attention (Dabla-Norris and Inchauste, 2008; Ognianova, 1997).

Economies in M are largely homogeneous in their institutional characteristics related to advertising such as political and economic freedom and literacy rate. The major source of heterogeneity in ad spending in this group is thus likely to be income. For instance, adult literacy rate is relatively homogeneous in economies M, whereas for economies in the L group, it varies from 60% in India to over 99% in Russia (UNDP, 2008). Thus:

H_{1b}: The effect of income on ad spending is higher in an economy in M than in L.

H_{1c}: Income explains a higher proportion of variance in ad spending among economies in M than in L.

The freedom effect

One broad observation made by Bruce Barton, an Advertising Executive, Religious Writer, Copy Writer and U.S. Congressman, shapes everything that follows: Advertising is the “essence of democracy” (Carter, 1997). A country with stable democratic institutions is characterized by a higher media penetration and freedom of the press and of speech and consumers’ media literacy (Lewis and Jhally, 1998). In such societies, the effort to control advertisements is viewed as an infringement on the freedom (Martinson, 2005). For instance, firms in the U.S. tobacco industry are capitalizing on the “free speech” arguments to influence public policy.

Economies across the world vary in terms of the degree of advertisers’ unfettered access to media and other ingredients related to advertising. For instance, despite its economic prosperity, Singapore ranks near the bottom on the Paris-based *Reporters without Borders’* index of press freedom. In 2006, Singapore banned distribution of Far Eastern Economic Review magazine, arguing that it hadn’t complied with media regulations (Agence France Presse, 2007). In April 2008, the country’s Media Development Authority fined a cable TV operator for airing a commercial that showed lesbians kissing. Likewise, the Chinese athletes participating in the 2008 Olympic Games faced difficulties to gain TV advertising deals. Chinese government officials proposed to ban athletes’ engagement in advertising and public relations. In 2005, an

athlete, who won gold medals in diving in the 2000 and the 2004 Olympics, was dismissed from the national diving team. He was accused of not asking permission for his commercial activities. China's regulations in 2002 threatened to fine or shut down Internet publishers and portals disobeying the state's guidelines. Portals and search engines, which did not follow the guidelines, were banned.

The development of advertising industry is associated with and facilitated by the spread of "western" consumer cultures", which is a phenomenon more likely to occur in economies characterized by free market capitalism and liberal social and political regimes (Fitchett and Shankar, 2002; p. 502). Economies ruled by authoritarian regimes, which lack freedom (e.g., Belarus), however, tend to be isolated from the Western market economy and the democratization process (Kuznetsov and Yakavenka, 2005; Miazhevich, 2007). In a study of President Islam Karimov's authoritarian regime in the post-Soviet Uzbekistan, March (2003) noted a political hostility toward foreign advertising. The hostile attitude relates to discourses against Western consumer culture, which was perceived as an ideological threat. A court ruling against commercials of Western brands noted: "A squall of mass pseudo-culture is presently raining down on the Republic, which is directed at vulgar needs, an aggression at the base of which lie the interests of production and consumption" (Dzhuraev, 1999, p.4, cf. March, 2003, p. 214).

More broadly, marketing activities are promoters of economic democracy (Williamson, 1968). Studies have found that economic freedom and political freedom "typically go hand in hand" and are highly correlated (La Porta et al., 2004). In China, for instance, it is difficult to get advertising licenses, especially for foreign-invested enterprises and companies can advertise only products within approved business scopes (Stevenson-Yang, 2006). While the ultimate goal of

advertising is to persuade potential consumers to buy a product, this goal is less important in authoritarian regimes. We noted earlier that there are various types of capitalism. Capitalism in less sophisticated markets is more likely to be state -directed or oligarchic (Baumöl et al., 2007). State-owned firms place a higher emphasis on political and social goals rather than on market share and profits. As noted earlier, authoritarian regimes tend to view ad spending as “excessive and harmful” (Leff and Farley, 1980, p. 64). Millan and Elliott (2004) observe: “During the decades of central planning prior to 1989, the role of advertising in Bulgaria, as in most of the countries of Eastern Europe, was very limited” (p. 475). Likewise, politically-connected "oligarchs", do not face competition and thus have less incentive to advertise. Based on above discussion, the following hypothesis is presented:

H₂: Freedom (lack of freedom) in an economy positively (negatively) affects ad spending.

The FDI effect

Foreign direct investment (FDI) of an economy is defined as an investment by foreigners in productive assets. In prior theoretical and empirical research, scholars have viewed advertising and other elements of integrated marketing communications as driven by global forces such as FDI and MNCs' other activities (Dutta and Roy, 2009; Kitchen and Schultz, 1999). Dutta and Roy (2009) found that FDI inflows into a country “have considerable positive spillovers on the media sector” (p. 240). For instance, Hungary’s advertising industry developed rapidly after the country opened its market to foreign investment from major multinational agencies (Wilson and Amine, 2009).

From the standpoint of marketing, there is an interesting contrast here between local firms and MNCs. Different theoretical contributions and various empirical studies have led to the accepted view that while local firms tend to focus on price competition, MNCs spend on expensive advertising campaigns (Ray and Rahman, 2006). For one thing, compared to local

firms, developed world-based MNCs possess skills and resources needed for effective advertising (Riordan, 2007). For instance, advertising/sales ratio is often used as a proxy to measure firm-specific advantages (Delios and Beamish, 2001). Compared to local firms, MNCs devote more resources in advertising (Caves, 1982; Ray and Rahman, 2006) and thus have a higher advertising/sales ratio. The differences between local firms and MNCs, however, are likely to be higher in L than in M. For instance, local firms in China heavily rely on tactical advertising (Madden, 2004).

Globalizing companies with heavy ad spending create intangible assets such as brand equity that give them a relative advantage over local rivals (Kogut and Singh, 1988; Morck and Yeung, 1991). For MNCs, advertising has been one of the cornerstones to build a uniform global brand image (Duncan and Ramaprasad, 1995). To establish global brands, MNCs thus tend to devote more resources than national firms to promote their products (Caves, 1982).

As noted above, MNCs use advertising compared to price as a competitive tool in foreign markets. Why might this be the case? A valuable lead into this question is provided by Cowling and Tomlinson (2005), who suggested that MNCs divert competition away from price towards product/advertising where “retaliatory lags” are longer. Japanese automobile firms (Cowling and Sugden, 1989) and Volkswagen (Kiley, 2007) employed such a strategy, which arguably worked (Cowling and Tomlinson, 2005). A high level of ad spending can thus elevate entry barriers (Ray and Rahman, 2006).

Moreover, when industrialized world-based firms invest abroad, transnational advertising agencies tend to expand to host countries to service their home clients. For instance, transnational advertising agencies such as Leo Burnett’s, Ogilvy & Mather, Bates Asia and Euro serve a number of big Chinese firms (Cheung et al., 2008).

Economies in L, as noted a moment ago, draw less attention of marketers. Yet there are several market levels in a developing country. The segment with the high income spectrum makes an attractive target to MNCs. Even in Africa, economic liberalization has led to a greater availability of imported goods. Foreign companies have realized the need to establish brand awareness, which has led to the growth of the advertising industry (Pritchard, 1997).

Although it is easy to see why MNCs possess a stronger propensity to advertise, evidence from both the international business (Tahir and Larimo, 2004) and technology management (Cheung and Lin, 2004; Hoekman et al., 2005) literatures suggests that they can also operate in the stimulation of the local advertising industry defined along other dimensions. MNCs' operations in an economy, for instance, also lead to a cross-border transfer of marketing skills and technologies enabling advertising (Tahir and Larimo, 2004). Using provincial data, Cheung and Lin (2004) found demonstration effects of FDI on local companies' innovations in China. Note that demonstration effects arise if the observation of foreign advertisers affects local companies' advertising. Likewise, some channels of technology transfer from MNCs to local firms such as labor turnover and movement of people (Hoekman et al., 2005) are equally applicable for advertising. The above leads to the following:

H_{3a}: The FDI inflow has a positive effect on ad spending in an economy.

Let us again consider the two groups of economies discussed above, L and M. Next, we pose the same set of questions: Does a unit increase in FDI have the same effect on ad spending in M and L?; Is FDI's contribution to intra-group variance in ad spending among economies in M same as that among those in L? The latter can be put simply as: Is FDI a better predictor of the difference between L_i and L_j than that between M_i and M_j ?

First, the "retaliatory lags" for advertising is likely to be longer in L. As noted earlier, local firms lack resources and expertise to compete against MNCs' ads (e.g., Ho and Sin, 1986; Wang,

1988). Second, moreover, in L, MNCs spend less in product innovations (Cowling and Tomlinson, 2005), which translates to a higher ad spending.

In addition, FDI also indirectly influences the advertising industry in L. Previous research on Finnish firms in Asian countries indicated that FDI also triggers modern marketing activities by facilitating cross-border transfers of marketing skills and technologies, political transformation, economic and industrial development, and by promoting a market economy (Tahir and Larimo, 2004). It can be argued that such effects are likely to be higher in L, where the MNC-local firm difference in skills and resources are more substantial (Ray and Rahman, 2006). For instance, Chinese companies have quickly adopted western business practices and have built up their marketing teams by attracting employees from MNCs (Business Week, 2004). Foreign MNCs thus have a more powerful impact in stimulating the advertising cultures locally in L (Cheung and Lin, 2004).

As noted above, the advertising/ sales ratio, a proxy to measure firm-specific advantages, tends to be higher for MNCs compared to local firms (Delios and Beamish, 2001; Caves, 1982; Ray and Rahman, 2006). The differences *between* local firms *and* MNCs, however, are likely to be higher in L than in M. FDI thus tends to be a better predictor and a more important source of variation of ad spending across economies in L than those in M. To substantiate this claim, we began by arguing that MNCs and local firms focus on different market segments in economies in L. Schultz (2006) observed: "There was sophisticated marketing in places like Sao Paulo, Shanghai, Santiago and Bucharest. But at the same time, unsophisticated, almost primitive markets and marketing existed just outside the city centers: BMWs and horse-drawn carts, both competing for the same roadway". While MNCs such as BMW spend heavily in advertising, manufacturers of horse-drawn carts, which are local firms advertise considerably less.

While MNCs are likely to operate legitimately in L, family and clan based informal networks, which do not follow the rule of law, account for a significant proportion of the economy in this group (Giatzidis, 2007). As noted above, the illegitimate businesses tend to avoid media attention and thus do not advertise (Ognianova, 1997). In sum, the level of ad spending in economies in L is thus mainly determined by the presence or absence of MNCs.

Thus:

H_{3b}: The effect of FDI on ad spending is higher in an economy in L than in M.

H_{3c}: FDI explains a higher proportion of variance in ad spending among economies in L than in M.

Method

This section describes the data and the statistical analysis we employed in the empirical investigation. First we discuss the sources of the data and how the variables were measured, and second, we discuss the statistical analysis that was used to examine the effect of the economic and institutional variables on the ad spending.

Data and Measures

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Data on TAD, GNPPC and FDI were obtained from *Euromonitor*. There are five major constraints related to the use of international secondary data: accuracy, age, reliability, lumping and comparability (Kotabe and Helsen, 2001). *Euromonitor* largely addresses these constraints (Kotabe, 2002). While there is generally a time lag for data compilation, that is usually not much of an issue for scholarly articles. Ad expenditures on various media are lumped together into one category in *Euromonitor* data, which is not applicable for this paper. Data are compiled from various “reputable sources” and measures are taken to make them internationally comparable

(Kotabe, 2002; p. 173). Regarding comparability, it is also important to note that this constraint is mainly a consequence of a lack a common and shared understanding of a concept (e.g., social capital) across countries (Harper, 2002). This problem is compounded by different languages used in the surveys for measuring the concepts. Since the data used in this paper represent actions rather than attitude, feeling or intention and have straightforward operationalizations, international comparability doesn't seem to be a problem. Kotare (2002) observes: "Usually, the measurement quality of data collected from reputable data sources such *WMDS* [Euromonitor's World marketing data and statistics] do not get challenged in the blind review process" (p. 174). Note that *Euromonitor* data have been used in past studies (e.g., Coulter et al., 2003; Gnash, 1998; Kshetri et al., 2007).

Data on civil liberty index were obtained from the Freedom House's *Annual Surveys of Political Rights and Civil Liberties*. As is the case with *Euromonitor* data, researchers have used *Freedom House*'s political freedom related data (e.g., Diamond, 1992; Goldsmith, 1999).

Dependent and Independent Variables

Dependent variable

Ad spending is measured as the per capita total (across all media) ad spending (TAD).

Independent variables

Income is measured with the Gross National Product per capita (GNPPC), which is the total value of all final goods and services produced in an economy divided by the population.

Freedom is measured with the *Freedom House*'s civil liberties index. This index measures "the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state". Each country is assigned a numerical rating—on a scale of 1 to 7, where 1 indicates the highest and 7 the lowest level of freedom

(http://www.freedomhouse.org/template.cfm?page=351&ana_page=354&year=2009). We have denoted civil liberty index by LACKCL to indicate that a higher index represents more violation of freedom.

Foreign direct investment is measured as inflows of foreign investment in productive assets divided by the population (FDIPC).

Grouping variable

Market sophistication of an economy measures the development of market culture, which “is molded by, and functionally conducive to, a market economy” (Dittmer and Gore, 2001, p. 13). In a developed market culture, economic and institutional conditions are conducive to facilitate and encourage marketing activities. Dittmer and Gore (2001, p. 13) emphasize that in a market economy, “market values become relevant not only to economic transactions but to all socio-political decisions”. This definition is conceptually similar to the World Economic Forum’s financial market sophistication. As noted earlier, economic freedom and political freedom are highly correlated (La Porta et al., 2004). We thus use LACKCL to subdivide the 64 economies into two groups— M and L. Freedom House designates Free, Partly Free, or Not Free the general state of freedom in an economy. Consistent with the prior literature, the metrically defined LACKCL variable, which measures the lack of civil liberties, is transformed to two-level FREEDOM variable (Kshetri et al., 2007). Thus, "free economies" (FREE) and "partially/not free economies" (PNFR) are groups M and L respectively. The merging of the partially free and not free economies into one (PFNR) also allowed us to have a sufficient number of countries in each group. We use this parsimonious classification, which is based on the prior literature, to test hypotheses predicting differential impacts of variables across M and L.

Statistical Analysis

Time series cross sectional (TSCS) models

Only by confronting advertising theories with data for a long period of time can such theories be put into a test that is more severe than feasible for data at a point of time. We thus employed time series cross sectional (TSCS) models linear in parameters using annual data for 2000-2004.

TSCS models are designed to overcome the limitations of usual linear models. When pooling data one or more assumptions of the usual linear model may be violated. Fomby et al. (1984, p. 337) point out several such possibilities. First, the error terms in a pooled model may be “heteroskedastic, autocorrelated and may exhibit contemporaneous correlation” which make generalized least square technique inappropriate. Second, the parameters of the data generating process may differ from observation to observation. The reactions of different cross sections may be different to changes in explanatory variables and the reactions may also change over time. TSCS models allow for differences in behavior over cross sectional units as well as the differences in behavior over time for a given cross section. In sum, in addition to a gain in degrees of freedom (DF) (Bass and Wittink, 1975), TSCS models overcome limitations of usual linear models and are consistent with the way the data are generated (Fomby et al., 1984).

We employed the following TSCS model:

$$TADit = \beta_{1it} + \sum_{k=2}^K \beta_{kit} X_{kit} + \varepsilon_{it} \quad (1),$$

where, TAD_{it} is the per capita total (across all media) ad spending and β_{1it} is the dummy variable for the i^{th} country for the t^{th} time period and β_{kit} ($k \geq 2$) are the slopes. X_{kit} ($k \geq 2$) is the value of the predictor X_k for the i^{th} country in time t .

A key concern with TSCS models is the selection of the most efficient estimation procedure and testing of hypotheses about the parameters. Several factors need to be taken into

consideration in selecting the appropriate model. The first is the choice between fixed and random effect models. For the fixed effect (or dummy variable) model, the intercept term β_{lit} in (4) and (5) can be written as

$$\beta_{lit} = \alpha_i + \tau_t \quad (2),$$

where α_i are the country “dummies” and τ_t are the time “dummies”. The dummy variable model, however, eliminates a major portion of the variation among explained as well as explanatory variables if the between-country and between-time period variation is large (Maddala, 1971).

These problems can be overcome by treating α_i and τ_t as random (Bass and Wittink, 1975) in which case only two parameters, the mean and the variance of the α 's (and similarly for τ 's), are estimated instead of N+T parameters in dummy variable models (N= No. of cross-sections and T= No. of time periods). The procedure of treating α_i and τ_t as random can be rationalized by arguing that the dummy variables represent ignorance like ε_{it} . Maddala (1971) argues that this “specific ignorance” can be treated in the same manner as ε_{it} .

Then the residual can be written as: $u_{it} = \alpha_i + \tau_t + \varepsilon_{it}$ (3). Then,

$$TADit = \sum_{k=2}^K \beta_{kit} X_{kit} + \alpha_i + \tau_t + \varepsilon_{it} \quad (4).$$

We use Parks' (1967) autoregressive model to estimate the parameters of (4), which addresses concerns related to heteroskedasticity [i.e. $E(u_{it}^2) = \sigma_{ii}$], contemporaneous correlation or spatial heterogeneity [i.e. $E(u_{it}u_{jt}) = \sigma_{ij}$], and autoregression [i.e. $u_{it} = \rho_i u_{i,t-1} + e_{it}$] in pooled data.

Cross-sectional regressions

We supplemented TSCS models with OLS models for 2004 cross sectional data for the same set of economies. A combination and cross-sectional and TSCS models would increase validity.

Moreover, a task in this research is to determine whether the effect of an explanatory variable

varies within two independent samples. In such cases, we can test the significance of the difference between OLS regression coefficients estimated within the two samples (Paternoster et al., 1998). Moreover, conventional measures of R^2 are inappropriate for TSCS models (SAS Institute, 1999). We use OLS regression for 2004 to test hypotheses related to equality of regression coefficients and to compare R^2 for different combinations of predictor variables.

Analysis, Results and Discussion

Complete data for 2000-2004 were available only for 64 economies (Table 1). Table 2 presents descriptive statistics and Table 3 reports correlation matrix. A comparison of the coefficient of variation (CV) indices, as measured by the standard deviation divided by the mean, indicates that the intra-group variability is higher for the PNFR group than the FREE group for each variable except for LACKCL (Table 2).

<i>Place Table 3 about here</i>

The main effects for all economies

Hypothesis 1a predicts that TAD is positively related to GNPPC. The TSCS results (Tables 4a-4c) as well as OLS regression results for the cross-sectional analysis (Tables 5a-5c) provide strong support for H_{1a} . In the TSCS models, the t-values corresponding to the coefficients for GNPPC vary from 14.62 to 41.25 ($p < .01$ in all cases). Likewise, in the OLS models, the lowest t-value is 1.80 ($p < .01$) in Model I, Table 5b. In the remaining models in Tables 5a, 5b and 5c, t-values corresponding to GNPPC vary from 5.03 to 12.43 ($p < .01$ in all cases). The results indicate that factors such as consumers' strong buying potential, wider diffusion of media enabling advertising and firms' resources drive ad spending in high income economies (Bagwell and Ramey, 1994; Doyle, 1968; Nelson, 1974; Ramrattan and Szenberg, 2006; Antonelli, 1993;

Gatignon and Robertson, 1985; Gruber and Verboven, 2001; Helsen et al., 1993). The positive GNP impacts are thus clearly skewed towards the more sophisticated markets.

The TSCS results (Tables 4a-4c) indicate that H_2 is supported in models except for full model in the FREE group, which has the coefficient of LACKCL negative but failed to reach the level of significance ($t = -1.41$, $p > .1$ Model I, Table 4c). However, it is apparent, too, that LACKCL has a significant negative effect on TAD when either GNPPC or FDIPC are deleted from a model for the FREE group ($t = -1.81$, $p < .1$ in Model II and $t = -20.07$, $p < .01$ in Model III, Table 4c). The t-values corresponding to the coefficients for LACKCL vary from -6.08 to (-34.70 ($p < .01$ in all cases) TSCS models for all economies (Table 4a) and for the PNFR group (Table 4b).

Looking at the OLS regression results for the cross-sectional analysis (Tables 5a-5c), while LACKCL has a significant negative effect on ad spending for the 64 economies, as predicted by H_2 , the variable did not reach a level of significance for most models related to the two subsets of economies. This is probably because of a small DF. On the other hand, when we increase the DF (e.g., for 64 economies and/or five-year data), LACKCL's effect is significant and as hypothesized. A comparison of Table 4b and 4c indicates that LACKCL's effect is higher in FREE group compared to PNFR group in the Parks model. Overall, the results indicate that authoritarian governments' measures to isolate themselves from the Western market economy and limit the influence of western consumer culture have an unfavorable effect on the growth of the advertising industry. This result thus confirms and extends prior observations regarding the negative impacts of freedom on the media industry (Buchner, 1988) and discourses against advertising and Western consumer culture in general in authoritarian regimes (March, 2003).

Results similarly provide support for H_{3a} in TSCS and OLS models except for model I in Table 4a ($t = -0.82$, $p > .1$). However, in this case too FDIPC's effect on TAD becomes significant after dropping the GNPPC from the model ($t = 2.10$, $p < .05$ in Model III, Table 4a). Especially, FDIPC's effect on TAD is strong for the PNFR group, in which t-value varies from 7.33 to 8.36 ($p < .01$ in all cases). Thus, as are the cases of other elements of integrated marketing communications and the media sector, global forces such as FDI drive ad spending (Dutta and Roy, 2009; Kitchen and Schultz, 1999).

Place Tables 4a-4c, 5a-5c about here

Inter-group variation of the effects of predictor variables

Table 6 presents results to test hypotheses on the equality of regression coefficients related to two predictor variables for PNFR (β_{iPN}) and FREE (β_{iFR}) groups for the cross-sectional regression for 2004.

The test of the equality of regression coefficients was performed (Gujarati, 1988). Regarding comparisons across models, the results displayed in Table 6 and Figure 1a demonstrate that the difference in the income coefficient in the FREE group (.0086) and in the PNFR group (.0013) is statistically significant ($p < .01$) (Model I, Table 5b and Model I, Table 5c) as predicted in H_{1b} ¹. The lower coefficient in the latter group may be attributable to factors such as the state directed capitalism (Baumöl et al., 2007), emphasis on production and consumption, higher illiteracy rates, perception of advertising as excessive, harmful and counter-productive (Leff and Farley, 1980; Dzhuraev, 1999; Ognianova, 1997) and production of goods that require less advertising (Zhou and Belk, 1993).

We turn next to the effect of MNCs' concentration. As seen in Table 5b-5c, FDIPC is a significant predictor for both groups. Moreover, the t-value is greater for PNFR than for FREE

group (7.31 vs. 1.79) in OLS models and TSCS models (Table 4b-4c) (7.33 vs. 2.28). In OLS models, looking at the beta values, while the direction is as hypothesized in H_{3b}, the difference did not reach a significance level (Table 6 and Figure 1b). Due to lower relative costs of media and longer retaliatory lags, a large proportion of FDI in economies in L tends to concentrate on advertising. FDI also indirectly affects advertising through such mechanisms as local companies' learning, facilitation of political transformation, promotion of a market economy and economic and industrial development. At the same time, multinationals face higher level of competition in M. Economies in M also have more attractive advertising targets and better availability of advertising media. In the aggregate, the ad spending levels associated with the two sets of effects seem to have roughly offset each other. These results have thus refined our understanding of drivers and patterns of advertising and media industries by considering how the magnitude of the effect of a given factor varies across different levels of market sophistication. This paper especially extended the observations of the prior studies (Leff and Farley, 1980; Kshetri et al., 2007) and concluded that the income effect on ad spending is higher in a more sophisticated market.

Predictor variables and intra-group differences

As noted above, conventional measures of R² are inappropriate for TSCS models (SAS Institute, 1999). To compare predictive powers, we turn our attention now to cross-sectional analyses (Table 5b-5c) and compare a full model with the model minus one variable.

We calculated incremental contribution of GNPPC and FDIPC to R² by:

$$F\text{-incremental} = \frac{\frac{R_2^2 - R_1^2}{k_2 - k_1}}{\frac{1 - R_2^2}{n - k_2 - 1}}, \quad (5).$$

$$R_2^2 = R^2 \text{ for the full model,}$$

$$R_1^2 = R^2 \text{ for the restricted model (an IV deleted),}$$

n = sample size,
k₂ = number of predictors in the full model,
k₁ = number of predictors in the restricted model.

F-incremental has (k₂-k₁, n-k₂-1) DF and tests the null hypothesis that the R².incremental is zero.

For FREE group an elimination of GNPPC from the model reduces adj. R² from 0.7846 to 0.3433. Deletion of GNPPC, on the other hand, results in a small reduction of adj. R² from 0.8421 to 0.8266 for PNFR. Using (5), for FREE group, F = 69.66 (p<0.001) indicates that GNPPC significantly increases R². For PNFR, on the other hand, F = 2.15 (p >0.10) indicates that addition of GNPPC doesn't lead to a significantly better predictive power. These results provide support for H_{1c}. GNPPC is thus a better predictor and particularly significant source of heterogeneity in ad spending among freer economies but not among less free economies.

A rather different picture emerges, however, when we shift the focus from GNPPC to FDIPC. For PNFR group, deletion of FDIPC from the model results in a drastic reduction of adjusted R² from 0.8421 to 0.4820 compared to corresponding reduction from 0.7846 to 0.7709 for FREE group (Tables 5b-5c). Using (5), for PNFR, F = 50.17(p<0.001), indicates that FDIPC significantly increases R² value. For FREE group, on the other hand, F = 2.16 (p >0.10) indicates that addition of FDIPC doesn't enhance the model's predictive power. These results support H_{3c}. FDI is thus principal source of heterogeneity in ad spending among less free economies but not among freer economies.

A combination of TSCS and cross-sectional models has clearly offered advantages. First, multiple quantitative methods provide an effective system of "methodological checks and balances" and thus increase the certainty and accuracy with which the research questions are answered (Hall and Rist, 1999, pp. 303-304). Second, due to missing data for many countries, a

problem with the cross-sectional models concerns low degrees of freedom, which does not allow a sample statistic to be near the true population parameter. A genuine effect may thus fail to reach significance due to a small sample size. This problem is especially apparent when we separated the results for the two subsets of countries. The TSCS models allowed us to increase the number of observations and to improve the accuracy of the estimates. For instance, looking at the coefficients of the LACKCL variable for the PFNR group, it is clear that while this variable has a significant effect on the dependent variable but the effect fails to reach significance in cross-sectional models.

In conclusion, the above results prove that while GNPPC is more important than FDIPC to explain ad spending heterogeneity in FREE group, the reverse is the case for PNFR group. Evidence of foreign influence on the advertising industry is thus more readily apparent in less sophisticated markets. These overall patterns generally persist across all models.

<p><i>Place Table 6/Figures 1a, 1b about here</i></p>

Implications and Conclusion

The parsimonious framework used in this paper captures cross-country differences in ad spending and examines variables associated with the development of the advertising industry. We found that economic (income and FDI) and institutional (freedom) factors are associated with the development of the advertising industry. The availability of ‘targettable’ consumers, the existence of marketers with strong advertising propensity and regulative environment conducive to advertising and media freedom provide a fertile ground for the growth of the advertising industry. These are robust results, which essentially all models exhibited.

We have contributed by integrating literatures from a variety of social science domains including marketing, sociology, economics, media, political science, communication,

international business, development studies and psychology to understand the sources of cross-country variation in the development of the advertising industry. The theory presented in this paper has extended, refined and validated past research on cross-national advertising in three ways: first, unlike past studies, which were limited to a small set of relatively homogeneous countries (Kitchen and Schultz, 1999; Kshetri et al., 2007; Macleod, 2009a, b; Nelson and Paek, 2008), we used data from 64 economies with diverse geography, culture, political and regulatory structures to theoretically and empirically investigate factors that contribute to the development of the advertising industry. Thus, we also respond to the call for empirical cross-national research on advertising (Taylor, 2005). Second, we showed that relationship between income and ad spending and that between FDI and ad spending are contingent on the level of political freedom. Third, we viewed advertising through the prism of the literature on institutions and examined their influence ad spending.

Managerial and policy implications

Advertising is one of the major components in the marketing communications mix. Companies are facing intense global competition, which demands sophisticated advertising strategies. The findings of this paper would help managers achieve both global efficiency and local responsiveness. The three variables discussed in this paper help a company understand what is ideal, what is practical, and what is essential.

Implication 1: Importance of alternative marketing tools in low-income countries

One can conclude from the above discussion that factors such as a slow diffusion of media enabling advertising and a high illiteracy rate make it difficult to reach potential consumers in the developing world, especially in rural area. Businesses are thus required to employ other communications and promotions tools, especially experiential marketing such as face to face

contacts, event marketing and free trials. For multinationals, these efforts are likely to vary more across countries than advertising. This means that the subsidiary needs to become locally more responsive than in advertising.

Implication 2: GNP growth and ad spending growth

MNCs often have to decide the optimal marketing expansion strategy in an economy. Our findings suggest that an increase in the GNP of an economy leads to a growth of the advertising industry. For a given level of economic growth, however, ad spending at the national level (and thus at the firm level) is likely to be higher in freer economies, which provide a better condition for the growth of the advertising industry.

Implication 3: Importance of understanding the contexts, mechanisms and processes associated with advertising related constraints in economies that lack freedom

As discussed above, authoritarianism is associated with a control on advertising related activities. However, contexts and attendant mechanisms and processes differ across authoritarian regimes, which affect an advertiser's strategies and tactics. Some authoritarian regimes (e.g., Uzbekistan and other Islamic authoritarian regimes) use discourses against Western consumer culture and take measures to limit ads of Western brands. In China, on the other hand, the government is mainly concerned about advertising related activities that do not support its authoritarian political agenda.

Implication 4: Effects to local economy

Our findings suggest that FDI is positively related to the development of the local advertising industry. One way to develop the local advertising industry for a developing economy is thus to provide a favorable climate for FDI. FDI in the advertising sector may have an even bigger impact on the local advertising industry. As noted earlier, transnational advertising agencies tend to expand to the host country to serve their home clients (Cheung et al., 2008). The host country

can also expect additional benefits such as those associated with the creation of forward and backward linkages, labor mobility and stimulation of knowledge and technology transfer to local firms (Markusen and Venables, 1999). For instance, transnational advertising agencies can serve local customers (forward linkages) and provide employment (backward linkages). Likewise, as in the case in China, local companies can learn western business practices and build up their marketing teams by attracting employees from MNCs.

Limitations and Future Research

Several limitations of this research must be recognized in a balanced discussion of its findings. First, in general, incomplete or missing data has been a major challenge in most data sources related to international marketing including *Euromonitor* (Kotabe, 2002). In the context of this paper, missing data has been a problem mostly for least developed countries. Because of the unavailability of data, the approach used in this paper did not allow us to explore the advertising industries of economies that are at the bottommost of the global economic pyramid. As is the case with most other economic indicators, *Euromonitor* database doesn't contain ad spending data on many developing economies, especially the least developed ones.

An additional limitation is that the dependent and independent variables used are country-level (instead of firm-level) measures. Data aggregated at the country level may hide significant inter-firm variations in ad spending.

A final limitation is that we did not include informal institutions in our models. Various elements of informal institutions, which are found to influence strategic and tactical elements of advertising, may also be associated with ad spending.

The model and perspective developed here suggests many exciting directions for future research. First, as noted above, in our analysis, we could not include the least developed

economies. For instance, we have used only two African economies—Nigeria and South Africa-- in our analysis. However, as these economies develop and become more attractive markets, international research firms may collect standard marketing data on these economies. We would thus second Lehmann's (1999) call for research on marketing/advertising landscape at the bottommost of the global economic pyramid. By the bottommost of pyramid, we mean the least-developed countries designated by the United Nations.

Whereas econometric models are helpful in generalizing, there is very little “room for artful and exciting insights” in such models (DiMaggio, 1995). Additional research is also needed for in-depth analysis of advertising industries in selected economies. Economies with less sophisticated markets, especially those in transition, might be worthwhile target of study. We recommend analyses of longitudinal patterns of the development of the advertising industry of an economy by using historical methods (Smith and Lux, 1993) or in a number of economies by using comparative historical analysis (Mahoney, 2004). Historical methods require gathering evidence from multiple sources to identify, explain and interpret the process associated with the development of the advertising industry and address historical, socio-cultural, attitudinal issues. The associated historical phenomena can be divided into two categories: “things that change” or discontinuous factors and “things that stay the same” or continuous factors (Smith and Lux, 1993, p. 597).

We found that FDI is associated with the development of the advertising industry and that the relationship between FDI and ad spending are contingent on the level of freedom. The FDI effect on the advertising industry of a host country, however, may also be a function of the natures (e.g., freedom, the level of economic development, development of the advertising industry) of source

and host countries. In future conceptual and empirical work scholars need to compare and contrast various combinations of source and host countries in terms of such effects.

One extension of the present work is also to use primary quantitative and/or qualitative data collected at the firm-level to investigate how foreign and domestic companies in an economy differ in terms of their orientation towards advertising. Future research might also explore such differences across host and source countries at different levels of economic development and political conditions.

One issue that was raised in this article but not fully developed was the transfers of skills and technology related to advertising from MNCs to local firms. In this regard, another intriguing avenue for future research is to examine the contexts, mechanisms and processes associated with such transfers and the development of advertising cultures in the local economy.

Finally, in future research scholars also need to consider how the variables discussed in this article affect other related concepts. Some possible dependent variables include penetrations of various media and elements of IMC mix such as sales promotion, public relations, and direct marketing.

Table 1: Economies used in the analyses

Austria	France	Mexico	Slovakia
Argentina	Greece	Mongolia	Slovenia
Australia	Honduras	New Zealand	South Africa
Bahrain	Hungary	Nigeria	South Korea
Brazil	Iceland	Norway	Spain
Bulgaria	India	Pakistan	Sri Lanka
Cambodia	Ireland	Panama	Switzerland
Canada	Israel	Peru	Taiwan
Chile	Italy	Philippines	Thailand
China	Japan	Poland	The U.K.
Colombia	Kenya	Portugal	Turkey
Costa Rica	Laos	Qatar	Ukraine
Cyprus	Latvia	Romania	Uruguay
Czech Republic	Lebanon	Russia	USA
Estonia	Lithuania	Saudi Arabia	Venezuela
Finland	Malaysia	Singapore	Vietnam

Table 2: Descriptive statistics

	Mean	SD	CV	Min.	Max.
All economies (N = 64)					
TAD (US\$)	135.9	157.5	1.16	0.5	621.7
FDIPC (US\$)	395.0	709.8	1.80	1.4	4617.9
GNPPC (US\$)	14132.9	15424.1	1.09	341.5	55599.5
LACKCL	2.46	1.64	0.67	1.00	7.00
FREE group (N = 38)					
TAD (US\$)	200.0	168.8	0.84	0.66	621.7
FDIPC (US\$)	478.7	528.0	1.10	12.3	2282.2
GNPPC (US\$)	19844.7	15724.9	0.79	638.8	55599.5
LACKCL	1.31	0.47	0.36	1.00	2.00
PNFR group (N = 26)					
TAD (US\$)	42.3	70.8	1.67	0.5	345.9
FDIPC (US\$)	272.8	911.7	3.34	1.4	4617.9
GNPPC (US\$)	5785.0	10558.9	1.83	341.50	46357.4
LACKCL	4.15	1.22	0.29	3.00	7.00

Table 3: Correlation Matrix for 2004(All economies)

	GNPPC	LACKCL	FDIPC
TAD	0.878***	-0.50***	0.54***
GNPPC		-0.44***	0.52***
LACKCL			-0.17

Table 4a: TSCS regression (2000-2004) (Parks Method, All economies)

	Model I DV= TAD	Model II DV= TAD	Model III DV= TAD
Intercept	17.49 (4.54) ***	18.16 (5.19) ***	167.32 (7.31) ***
GNPPC	0.009 (38.88) ***	0.009 (41.25) ***	
LACKCL	-3.50 (-6.21) ***	-3.59 (-7.00) ***	-26.82 (-6.08) ****
FDIPC	-0.001 (-0.82)		0.010 (2.10)**
N	64	64	64
T	5	5	5
R ²	0.992	0.992	0.686

Table 4b: TSCS regression (2000-2004) (Parks Method, PNFR group).

	Model I DV= TAD	Model II DV= TAD	Model III DV= TAD
Intercept	25.54 (20.58) ***	30.00 (18.60)***	93.63 (12.22) ***
GNPPC	0.006 (23.37) ***	0.006 (14.62) ***	
LACKCL	-2.15 (-34.70) ***	-3.09 (-13.60) ***	-9.99 (-8.65) ***
FDIPC	0.019 (7.33) ***		0.067 (8.36) ***
N	26	26	26
T	5	5	5
R ²	0.998	0.969	0.954

Table 4c: TSCS regression (2000-2004) (Parks Method, FREE group)

	Model I DV= TAD	Model II DV= TAD	Model III DV= TAD
Intercept	10.74 (1.44)	13.96 (1.76)*	205.59 (32.86) ***
GNPPC	0.009 (29.81) ***	0.009 (29.46)***	
LACKCL	-3.63 (-1.41)	-5.07 (-1.81)*	-48.33 (-20.07) ***
FDIPC	0.003 (2.28)**		0.012 (6.62) ***
N	38	38	38
T	5	5	5
R ²	0.987	0.984	0.967

Table 5a: Cross-sectional regression for 2004 (All economies)

	Model I DV= TAD	Model II DV= TAD	Model III DV= TAD	Model IV DV= TAD
Intercept	52.79 (2.31)**	51.38 (2.20)**	194.18 (6.68)***	7.59 (12.72)***
GNPPC	0.007 (9.97) ***	0.008 (12.43) ***		0.008 (11.67)***
FDIPC	0.029 (1.96)**		0.10 (5.02)**	0.02 (1.71)*
LACKCL	-14.46 (-2.34)**	-13.49 (-2.14)**	-40.44 (- 4.46)***	
N	64	64	64	64
F	80.54***	113.6***	27.18***	109.99 ***
R ²	0.801	0.788	0.471	0.782
Adj. R ²	0.791	0.781	0.453	0.775

Table 5b: Cross-sectional regression for 2004 (PNFR group)

	Model I DV= TAD	Model II DV= TAD	Model III DV= TAD
Intercept	21.39 (1.07)	31.207 (0.87)	20.90 (1.00)
GNPPC	0.0013 (1.80)* SE = 0.00072	0.0048 (5.03)***	
FDIPC	0.06 (7.31)*** SE = 0.0083		0.071 (11.01)***
LACKCL	-0.802 (-0.17)	-4.13 (-0.49)	0.474 (0.10)
N	26	26	26
F	45.44***	12.63***	60.58***
R ²	0.8610	0.5235	0.8405
Adj. R ²	0.8421	0.4820	0.8266

Table 5c: Cross-sectional regression for 2004 (FREE group)

	Model I DV= TAD	Model II DV= TAD	Model III DV= TAD	Model IV DV= TAD
Intercept	6.738 (0.12)	33.465 (0.61)	4.124 (0.20)	252.35 (3.04) ***
GNPPC	0.0086 (8.53)* SE = 0.0010	0.009 (9.72)*	0.00861 (9.22) ***	
FDIPC	0.051 (1.79)* SE = 0.0289		0.052 (1.87)*	0.147 (3.18) ***
LACKCL	-1.61 (-0.05)	-13.71 (-0.43)		-93.60 (-1.80)*
N	38	38	38	38
F	45.91***	63.26***	70.89***	10.67***
R ²	0.8020	0.7833	0.8020	0.3788
Adj. R ²	0.7846	0.7709	0.7907	0.3433

Table 6: Testing hypotheses of equality of OLS regression coefficients for PNFR and FREE groups (For full models)

	β_{iPN}	β_{iFR}	SE (β_{iPN})	SE (β_{iFR})	$t = \frac{\beta_{iFR} - \beta_{iPN}}{SE(\beta_{iFR} - \beta_{iPN})}$ (DF= 62)
GNPPC	0.0013	0.0086	0.00072	0.001	5.923***
FDIPC	0.06	0.051	0.0083	0.0289	-0.299

Notes for all tables:

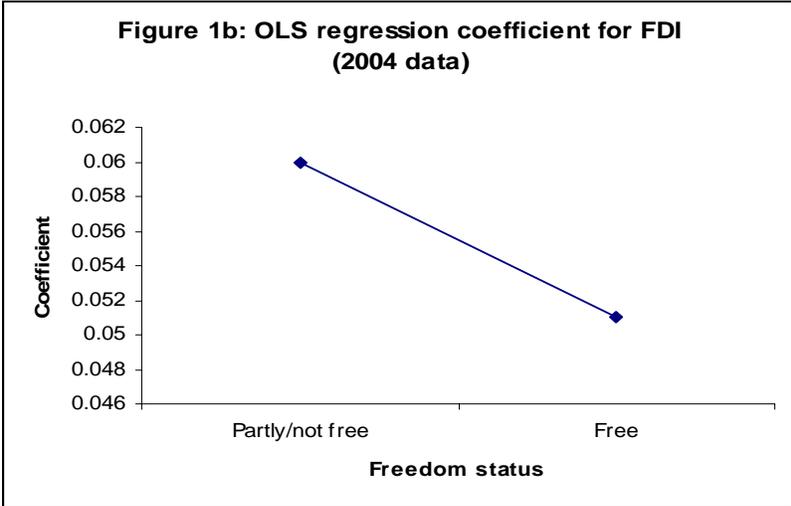
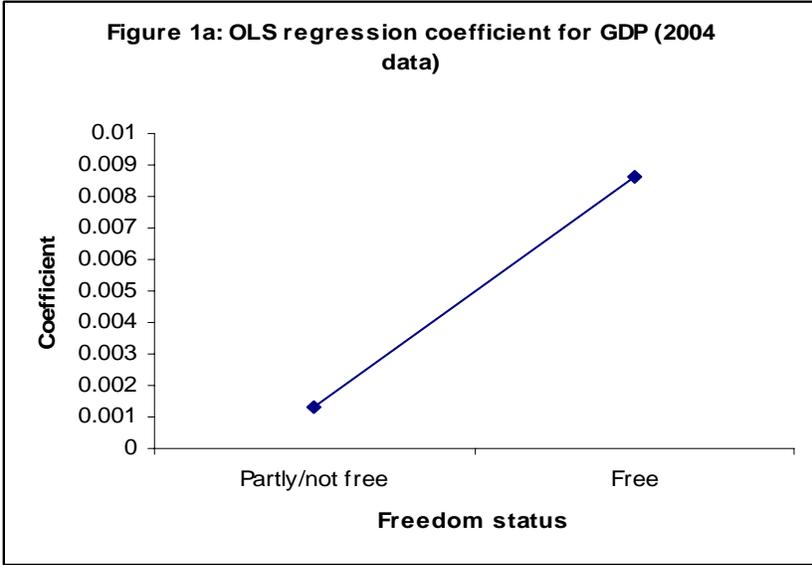
The numbers in the parentheses represent t-values.

*Significant at 0.1 level, ** Significant at 0.05 level, ***Significant at 0.01 level

^oSE ($\beta_{iFR} - \beta_{iPN}$) = $\sqrt{\text{var}(\beta_{iFR}) + \text{var}(\beta_{iPN}) - 2 \text{cov}(\beta_{iFR}, \beta_{iPN})}$, where, $\text{cov}(\beta_{iFR}, \beta_{iPN}) = 0$.

Explanation of variables:

- TAD: Total advertising spending per capita
- GNPPC: GNP per capita.
- FDIPC: Foreign direct investment per capita
- LACKCL: An index representing the lack of civil liberties.



References

- Agence France Presse (2007) "Lee Kuan Yew dismisses low press-freedom ranking for Singapore", October 15.
- Antonelli, C. (1993), "Investment and Adoption in Advanced Telecommunications", *Journal of Economic Behavior and Organizations* Vol. 20: 227-45.
- Appadurai, A. (1990), "Disjuncture and difference in the global cultural economy", *Public Culture*, Vol. 2, pp. 1-24.
- Bagwell, K. and Ramey, G. (1994), "Coordination Economies, Advertising, and Search Behavior in Retail Markets", *American Economic Review* Vol. 84: 498-517
- Balakrishnan, R. (2007), "Countryside competition", *Media: Asia's Media & Marketing*, Newspaper, 29 June, p. 126.,
- Baumöl, W.S., Litan, R.E., and Schramm, C.J. (2007) *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*, New Haven and London: Yale University Press.
- Bass, F. and Wittink, D. (1975), "Pooling Issues and Methods in Regression Analysis with Examples in Marketing Research", *Journal of Marketing Research* Vol. 12: 414-25.
- Buchner, B. J. (1988), "Social Control and Diffusion of Modern Telecommunications Technologies: A Cross-National Study", *American Sociological Review* Vol 53, pp. 446-53.
- Business Week (2004), "China's Brands on A Broader Stage", 92, November 8.
- Carter, S. (1997), "I'm Sorry, But We Really Have to Talk Politics," *Marketing: 22*.
- Caves, R. E. (1982). *Multinational Enterprise and Economic Analysis*. Cambridge: Cambridge University Press.
- Chan, E., Yau, O.H.M. and Chan, R. (1990), "Consumer Sentiment in Australia: A Replication and Cross-National Comparison", *European Journal of Marketing* Vol. 24 No. 10, pp. 44-58.
- Chan-Olmsted, S. M., Cha, J., and Oba, G. (2008), "An Examination of the Host Country Factors Affecting the Export of U.S. Video Media Goods", *Journal of Media Economics*, Vol. 21 No. 3, pp. 191-216
- Chan, T. and Cui, G. (2004), "Consumer attitudes toward marketing in a transitional economy: a replication and extension", *The Journal of Consumer Marketing* Vol. 21(1): 10.
- Cheung, K. and Lin, P. (2004), "Spillover Effects of FDI on Innovation in China: Evidence from the Provincial Data", *China Economic Review* Vol. 15, pp. 25– 44.
- Coulter, R. A., Price, L. and Feick, L. (2003), "Rethinking the Origins of Involvement and Brand Commitment: Insights from Postsocialist Central Europe.", *Journal of Consumer Research* Vol. 30, No.2, pp. 151-169.
- Cheung, Fanny S. L.; Mirza, Hafiz; Wing-fai Leung. (2008), "Client following revisited", *International Journal of Advertising*, Vol. 27 No. 4, pp. 593-628,
- Cowling, K. and Philip, R. T. (2005), "Globalisation and Corporate Power", *Contributions to Political Economy* Vol 24 No 1, p. 33.

- Cowling, K. and Sugden, R. (1989), "Exchange Rate Adjustment and Oligopoly Pricing Behaviour", *Cambridge Journal of Economics* Vol 13, pp. 373–93.
- Dabla-Norris, E. and Inchauste, G. (2008), "Informality and Regulations: What Drives the Growth of Firms?", *IMF Staff Papers*, Vol. 55, No. 1, pp. 50-82.
- Delios, A., and Beamish, P. W. (2001), "Survival and profitability: The roles of experience and intangible assets in foreign subsidiary performance", *Academy of Management Journal*, Vol 44, pp. 1028–1038.
- Diamond, L. (1992), "Economic Development and Democracy Reconsidered", *American Behavioral Scientist* Vol. 35 No. 4/5, pp. 450-99.
- DiMaggio, P. J (1995) "Comments on "What theory is not"" , *Administrative Science Quarterly*, Vol 40 No 3, pp. 391-397.
- Dittmer, L., and Gore, L. (2001). "China builds a market culture", *East Asia : An International Quarterly*, Vol. 19 No.3, 9-51.
- Doyle, P. (1968), "Advertising Expenditure and Consumer Demand", *Oxford Economic Papers* Vol. 20, pp. 394-416.
- Duncan, T. and Jyotika, R. (1995), "Standardized Multinational Advertising: The Influencing Factors", *Journal of Advertising* Vol. 24 No. 3, pp. 55-67.
- Dutta, N. and Roy, S. (2009), "The Impact of Foreign Direct Investment on Press Freedom", *Kyklos*, Vol. 62 No. 2, pp. 239-257,
- Dzhuraev, S. A. (1999), "Vvedenie", in *Habibulla Tadzhiyev, Teoreticheskie i metodologicheskie voprosy natsional'noi ideologii*, Tashkent: Uzbekiston, p. 4.
- Fatt, A. (1967), "The danger of 'local' international advertising", *Journal of Marketing*, Vol. 31, pp. 60-62.
- Fitchett, J. A., Shankar, A. (2002), "Having, Being and Consumption", *Journal of Marketing Management*, Vol. 18 No 5/6, pp. 501-516
- Fomby, T. B., Hill, R.C. and Johnson, S.R. (1984). *Advanced Econometric Methods*. Springer-Verlag, New York.
- Ganesh, J. (1998), "Converging Trends within the European Union: Insights from an Analysis of Diffusion Patterns", *Journal of International Marketing* Vol. 6 No. 4: 32-48.
- Gatignon, H. and Robertson, T.S. (1985), "A Propositional Inventory for New Diffusion Research," *Journal of Consumer Research* 11 (March): 849-867.
- Giatzidis, E. (2007), "The Challenge of Organized Crime in the Balkans and the Political and Economic Implications", *Journal of Communist Studies & Transition Politics*, Vol. 23 No 3, pp. 327-351,
- Goldsmith, A. A. (1999), "Slapping The Grasping Hand: Correlates Of Political Corruption In Emerging Markets", *American Journal of Economics & Sociology* Vol 58 No. 4, pp. 865-83.
- Gruber, H. and Frank V. (2001), "The Diffusion Of Mobile Telecommunications Services in the European Union", *European Economic Review* Vol. 45: 677-588.

- Gujarati, D. N. (1988). *Basic Econometrics*. New York: McGraw-Hill.
- Hall, A. L. and Rist, Ray C. (1999) “Integrating multiple qualitative research methods (or avoiding the precariousness of a one-legged stool” *Psychology and Marketing*, Vol. 16 No. 4, pp. 291 – 304.
- Harper, R. (2002), *The measurement of Social Capital in the United Kingdom*, Office for National Statistics Paris, Organisation for Economic Co-operation and Development, September, <http://www.oecd.org/dataoecd/22/52/2382339.pdf>
- Helsen, K., Jedidi, K. and DeSarbo, W.S. (1993) “A New Approach to Country Segmentation Utilizing Multinational Diffusion Patterns”, *Journal of Marketing* Vol. 67: 60-71.
- Ho, S. and Yat-Ming, S. (1986), “Advertising in China: Looking Back at Looking Forward”, *International Journal of Advertising* Vol. 5 No.4: 307-16.
- Hoekman, B. M., Maskus, K.E. and Saggi, K. (2005), “Transfer of Technology to Developing Countries: Unilateral and Multilateral Policy Options”, *World Development* Vol. 33 No. 10: 1587-1602.
- Horvat, J. (1992), "How Free are East European Media without State Control?" *Media Development*, Vol. 4, p. 37.
- Kalliny, M. and Gentry, L. (2007), “Cultural Values Reflected in Arab and American Television Advertising”, *Journal of Current Issues & Research in Advertising*, Vol. 29 No. 1, pp. 15-32
- Kenny, C. (2003), “The Internet and Economic Growth in Less-developed Countries: A Case of Managing Expectations?”, *Oxford Development Studies* Vol. 31 No. 1: 99-113.
- Kiley, D. (2007), “Hyundai Still Gets No Respect”, *Business Week.*, May 21.
- Kitchen, P. J. and Schultz, D. E. (1999), “A Multi-Country Comparison of the Drive for IMC”, *Journal of Advertising Research*, Vol. 39 No. 1, pp. 21-38,
- Kogut, B. and H. Singh (1988), “The Effect Of National Culture On The Choice Of Entry Mode”, *Journal of International Business Studies* Vol. 19: 411–432.
- Kotabe, M. (2002), “Using Euromonitor Database in International Marketing Research”, *Journal of the Academy of Marketing Science* Vol 30 No 2, pp. 172-175.
- Kotabe, M. and Helsen, K. 2001. *Global Marketing Management* (2nd). New York.
- Kshetri, N. Williamson, N. C. and Schiopu, A. (2007), “Economics and Politics of Advertising: Evidence from the Enlarging European Union”, *European Journal of Marketing* Vol 41 No 3/4, pp.349-366.
- Kuznetsov, A. and Yakavenka, H. (2005) “Barriers to Absorption of Management Knowledge in Belarus”, *Journal of Managerial Psychology*, Vol 20, No. 7, pp. 566 – 577.
- La Porta, R., Lopez-de-Silanes, F., Pop-Eleches, C. and Shleifer, A. (2004), ”Judicial Checks and Balances”, *The Journal of Political Economy*, Vol. 112, No 2, pp. 445-470.
- Leff, N. H. and Farley, J. U. (1980), “Advertising Expenditures In The Developing World”, *Journal of International Business Studies*, Vol 11, pp. 64-78.

- Lehmann, D. R. (1999), "Section I: How Do Customers and Consumers Really Behave?", *Journal of Marketing* Vol. 63, Special Issue, pp. 14-18.
- Lewis, J. and Jhally, S. (1998), "The Struggle over Media Literacy", *Journal of Communication* Vol. 48(1): 109-120.
- Macleod, C. (2009a), "Global economy and adspend prospects", *International Journal of Advertising*, Vol. 28 No. 1, pp. 187-189
- Macleod, C. (2009b), "Global economy and adspend prospects.", *International Journal of Advertising*, Vol. 28 No. 2, pp. 403-405.
- Maddala, G.S. (1971), "The Use Of Variance Components Models In Pooling Cross Section And Time Series Data", *Econometrica* Vol 39 No. 2, pp. 341-58.
- Madden, N. (2004), "Culture Clash Thwarts Shops from Enjoying China's Boom", *Advertising Age* Vol 75 No 18, 20. May 3.
- Mahoney, J. (2004), "Comparative-Historical Methodology", *Annual Review of Sociology* Vol. 30, pp. 81-101.
- March, A. F. (2003), "State ideology and the legitimation of authoritarianism: the case of post-Soviet Uzbekistan", *Journal of Political Ideologies*, Vol 8 No. 2, pp. 209–232
- Markusen, J. R. and Venables, A. J. (1999), "Foreign direct investment as a catalyst for industrial development", *European Economic Review*, Vol 43, No. 2, pp. 335-356
- Martinson, D. L. (2005), "Pornography and Deceptive Advertising: What Is The Role Of Government In A Free Society?", *The Social Studies* Vol. 96 No. 1, pp. 30-33.
- Miazhevich, G. (2007), "Official media discourse and the self-representation of entrepreneurs in Belarus", *Europe-Asia Studies*, Vol. 59 No 8, pp. 1331-1348.
- Millan, E. and Elliott, R. (2004), "Offensive Advertising, Public Policy, and the Law: The Rulings on the Zagorka Case", *Journal of Consumer Policy* Vol. 27 No.4, pp. 475-493.
- Morck, R., and Yeung, B. (1991), "Why Investors Value Multinationality", *Journal of Business* Vol. 64, pp. 165–187.
- Nelson, M.R. and Paek, H. (2007), "A content analysis of advertising in a global magazine across seven countries", *International Marketing Review*, Vol. 24 No 1, pp. 64-86
- Nelson, M. R., Paek, H. (2008), "Nudity of female and male models in primetime TV advertising across seven countries", *International Journal of Advertising*, Vol. 27 No. 5, pp. 715-744.
- Nelson, P. (1974), "Advertising as Information", *Journal of Political Economy* Vol. 82, pp. 729-754.
- North, D. C. (1996), "Epilogue: Economic Performance Through Time," *In Empirical Studies in Institutional Change*, L. J. Alston, T. Eggertsson, and D. C. North (eds.), Cambridge University Press, Cambridge, MA, pp. 342-355.
- Ognianova, E. (1997), "The transitional media system of post-communist Bulgaria", *Journalism & Mass Communication Monographs*, Issue 162, preceding pp. 1-56.
- Paek, H., Yu, J. and Bae, B. J. (2009), "Is On-Line Health Promotion Culture-Bound?", *Journal of Advertising*, Vol. 38 No. 1, pp. 33-47.

- Parks, R.W. (1967), “Efficient Estimation of a System of Regression Equations When Disturbances Are Both Serially and Contemporaneously Correlated”, *Journal of the American Statistical Association* Vol 62, pp. 500-509.
- Parto, S. (2005), “Economic Activity and Institutions: Taking Stock”, *Journal of Economic Issues*, Vol 39 No. 1, pp. 21-52
- Paternoster, R., Brame, R., Mazerolle, P. and Piquero, A. (1998), “Using the Correct Statistical Test for the Equality of Regression Coefficients”, *Criminology* Vol. 36, pp. 859-866.
- Pritchard, C. (1997), “Into Africa”, *Marketing Magazine* Vol. 102 No. 38: 12. October 13.
- Ramrattan, L. and Michael S. (2006), “Global Competition And The United States Pharmaceutical Industry”, *American Economist* Vol 50 No 2, pp. 65-82.
- Ray, P.K. and Rahman, S. (2006), “The Propensity For Local Innovation And Interfirm Linkages In Transnational Corporations Versus Local Enterprises In India”, *Transnational Corporations* Vol. 15 No. 2.
- Riordan, J. (2007), “One Buyer at a Time”, *Stanford Social Innovation Review* Vol 5 No 1, pp. 48-55.
- SAS Institute Inc. (1999). *SAS/ETS User's Guide, Version 8*. Cary, NC: SAS Institute Inc.
- Schultz, D. (2006), “Expand Marketing to Emerging Economies”, *Marketing News* 8. November 15.
- Smith, R. A. and Lux, D. (1993), “Historical Methods in Consumer Research: Developing Causal Explanations of Change”, *Journal of Consumer Research* Vol 19, pp. 595-610.
- Stevenson-Yang, A. (2006), “China's Online Mobs: The New Red Guard?”, *Far Eastern Economic Review* Vol. 169 No 8, pp. 53-57.
- Tahir, R. and Larimo, J. (2004), “Understanding the ownership structure choices of Finnish firms in Asian countries”, *European Business Review* Vol. 16 No 5, pp. 494-510.
- Taylor, C. R. (2005), “Moving International Advertising Research Forward: A New Research Agenda,” *Journal of Advertising* Vol. 34, No.1, pp. 7-16.
- UNDP (2008) Human Development Report 2007/2008: Fighting climate change: Human solidarity in a divided world, United Nations Development Program, New York, available at: <http://hdr.undp.org/en/reports/global/hdr2007-2008/> (accessed 20 July 2009).
- Wang, J. (1988), “Advertising Helps in China, Too”, *Beijing Review*, October 3-9.
- Williamson, O. E. (1968), “Economics as an Antitrust Defense”, *American Economic Review* Vol 8 No. 1, pp. 18-36.
- Wilson, R. T. and Amine, L. S. (2009), “Resource Endowments, Market Positioning, and Competition in Transitional Economies: Global and Local Advertising Agencies in Hungary,” *International Marketing Review*, Vol. 26 No.1, pp. 62–89.
- Zhou, N. and Russell, W. B. (1993), “China's Advertising and The Export Marketing Learning Curve: The First Decade”, *Journal of Advertising Research* Vol. 33 No. 6, pp. 50-66.

Notes:

¹ We restrict our analysis to full models, that is, models with all predictor variables.