Investigation of Commonly Used International Market Selection Variables in Direct Selling

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This article empirically investigates the efficacy of the commonly used variables in international market selection (IMS) in the direct sales industry. Data is from 31 direct selling companies that made 133 international market entries into 45 countries between 1985 and 2008. The objective outcomes of sales revenue as reported on annual reports and other regulatory reports are the dependent variable. Results suggest that two-stage market selection method is predictive of sales revenue. Outcomes also suggest that many macro-level factors may be less relevant in IMS processes for direct selling organizations when used to predict objective measures. The implication of these results is that direct selling companies that rely solely upon macro-level factors to screen and eliminate potential countries may be overlooking viable targets.

INTRODUCTION

As the global economic situation improves, many companies will look to resume or begin their expansion into the global marketplace. These globally expanding companies might do well to consider the international expansion lessons learned by direct selling companies. Despite the global recession, direct selling companies experienced an industry growth rate of 17% (WFDSA 2011). Moreover, with annual sales of over 132 billion dollars, this industry is not only important for its size but for its growth in international markets. However, to the best of our knowledge scant empirical evidence of a 'best practice' selection process that would be appropriate for a firm using the direct selling market strategy (DSMS) as part of its global expansion exists.

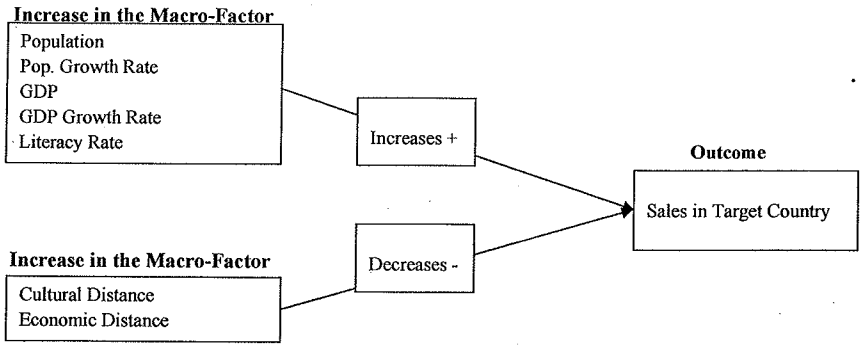
This paper reviews the quantitative International Market Selection (IMS) approaches with their plethora of indicators or measures within the context of companies using the direct selling marketing strategy. DSMS companies "rely upon the sale of a consumer product or service, person-to-person, away from a fixed retail location by independent salespeople" (Direct Selling 2009). Using companies that rely on DSMS as part of their global strategy, this research tests the predictive efficacy of measures that originated out of the three broad theoretical frameworks often used in selection, prioritization, and sequencing of global opportunities.

LITERATURE REVIEW

International Market Selection Frameworks

The first of these theoretical frameworks has its roots in the 1950's proposition that increases in overall economic activity lead to increases domestic demand. This proposition was extended to suggest that in any given country, expansion of factors such as productivity, capital, or population inevitably leads to increases in overall demand for imports in that country (Corden 1956; Sakarya et al. 2007). By the 1960s and 1970s, the application of this framework resulted in the use of static country level macro-measures coupled with cluster analysis to segment countries as attractive, neutral, or unattractive (Papadopoulos and Denis 1988). More recently, the empirical evidence or lack thereof has cast some doubt on this approach. For instance Nachum (1994 p. 55) states there is "limited evidence for changes in demand as a result of economic development." However, we suggest this lack of empirical support develops out of predicting economic expansion with static indicators and expand our variable set to include measures that incorporate rates of change. It seems likely that since economic expansion and contraction are vectors, then predicting their direction might rely upon rates of change. This model, as diagramed below, suggests that macro-indicators either static or as rate of change are predictive company outcomes.

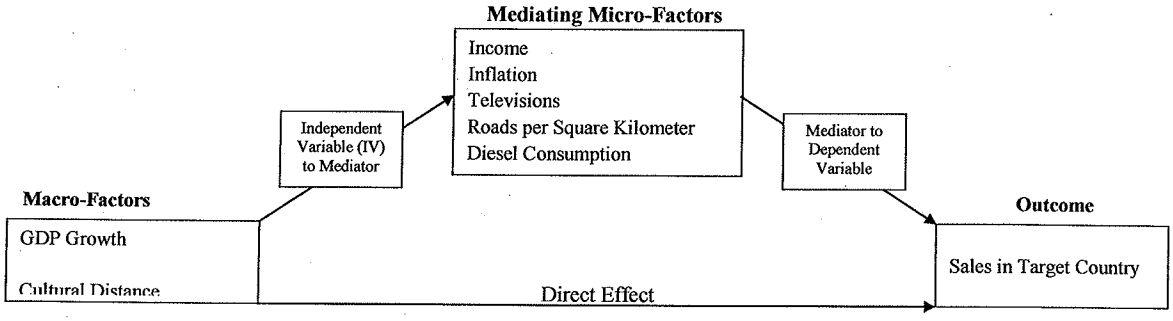
Figure 1
Model of Macro-Factors Influence on Sales



The second framework suggests mediation occurs between macro-factors and firm success. Within this framework, various micro-factors of the environment form the basis of this mediation. These micro-factors may be indicators of demand such as economic expansion leading to increases in personal income, which in turn influences increases in demand through higher levels of disposable income. Additionally or alternatively, there is a supply side argument that economic expansion leads to improvements in infrastructure such as distribution systems which in turn leads to smaller barriers to supply meeting demand thus increasing profits and overall prosperity (Goldman 1974).

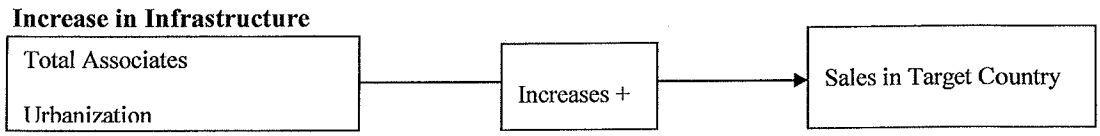
Thus within this second framework, IMS needs both macro and micro-indicators to forecast market potential. A two-step heuristic has been a common approach in this framework beginning with a screening of a pool of countries using secondary data on a variety of macro-indicators, followed by a second stage screen based on micro-level measures (Cavusgil 1985; Kumar et al. 1994; Koch 2001). This approach, as a predictor of successful international expansion, has had mixed empirical support. The mixed findings may be due to inappropriateness of the indicators chosen (Sakarya et al. 2007) or by failing to model the estimate of demand as a function of macro-factors mediated by the micro-factors.

Figure 2
Models of Macro-Factor's Mediated Influence on Sales



The third framework probably has the longest tenure in the literature. The core concept of this approach is that IMS should focus on segmenting target buyers on commonality in desires or perceptions (Dubois et al. 2005). Recent applications of this approach has segment definition occurring regardless national boundaries and focusing on the global nature of markets (Moen and Servais 2002; Agarwal 2003). The objective is a focused marketing mix approach designed for the target segment of customers. The target segment has strong homogeneity and shared interests that transcend national borders. The segment exhibits sufficient heterogeneity to other segments of customers even within national borders. The target has both of these conditions to a degree that a focused marketing mix approach is successful. Emphasis in IMS under this framework is in finding indicators of the size of the segment within the country to allow for comparison across countries as the definition of the segment has already occurred.

Figure 3
Model of Infrastructure's Influence on Sales



The Concept of Distance in Global Markets

Overlaying any IMS approach is the argument that international market selection is inherently different, riskier, and entails greater uncertainty than target market selection in the home country. Researchers argue these conditions make home country based assumptions non-transferable to international markets. They advise against using key performance indicators from the home country when making predictions about the market in target countries. This advice has led some researchers to suggest the degree of difference, often called distance, is a better predictor of entry success. Distance as a measure of the similarity or divergence between the home country and host country is indicative of barriers or disturbances to information flow (Dow 2000). Perceived differences creates uncertainty and increases perceptions about the risks associated with expansion to the target country (Johanson and Vahlne 1977). Refinement to these distance measures has led to the use of second order constructs of economic or cultural distance based upon combinations of several existing measures (Kogut and Singh 1988; Johnson and Tellis 2008). With distance indicator, marketing potential has an inverse relationship with distance. The greater the degree of difference between the home country and the host country the less likely is the occurrence of successful international expansion (Mitra and Golder 2002).

Each of the three main approaches as well as the augmentation provided by distance concepts contribute to the universe of suggested measures or variables that should be predictive of international expansion success. However, there are few empirical comparisons of the predictive validity of these theoretical variables. Further, those empirical papers reporting mixed evidence about the significance and usefulness of the various indicators do so regardless of the theoretical framework (Nachum 1994). The lack of empirical evidence of predictive validity extends to the refinements offered by the distance measures (Ojala and Tyrvainen 2007).

Closing these gaps is important because regardless of the IMS method chosen, the usefulness of these market potential indicators is critical in achieving positive expansion outcomes (Kumar et al. 1994; Nachum 1994). Furthermore, developing a relevant set of predictive indicators is important as the various arrangements and combinations of indicators could potentially reach very different conclusions about initial target markets and subsequent sequences of entry (Kumar et al. 1994). We demonstrate this possibility in Table 1. This table is a hypothetical selection using a ranking assessment to determine the initial country for expansion. Admittedly, Table 1 over-simplifies the selection and ranking processes but it does demonstrate how conclusions can vary by process. In the first method, Country E is the first selected country as it has the highest growth in GDP per capita. However, under a selection process that focuses on a specific target market segment indicator such as the distance measure, disposable income, the conclusion is to start with Country F. In addition, in a blended approach, the macro-factor of growth in GDP/ capita narrows the pool of countries to those labeled A, C, E and then in the second stage, distance based on disposable income suggests Country A. It seems likely that even more extensive selections processes could also lead to differing targets for international expansion. It appears a comparison of these theoretical backgrounds and their corresponding measures by empirical investigation would provide a significant contribution to the literature and practice.

Table 1
Three Hypothetical Situations Using three Selection Methods

	Selection by Macro-Factor			Selection by Micro-Factor/Market Potential			Two Stage Selection Method		
	Growth in GDP/Capita	Rank	Country Selected	Distance Measure in Disposable Income	Rank	Country Selected	2-Stage Approach Rank by Growth in GDP/Capita	Rank of top 3 Macro by Distance	Country Selected
Country A	5.30 %	2		19.1	4		2	1	X
Country B	1.00 %	6		14.7	3				
Country C	3.70 %	3		22.5	5		3	2	
Country D	2.40 %	5		12.5	2				
Country E	7.90 %	1	X	29.0	6		1	3	
Country F	2.50 %	4		11.1	1	X			

Direct Selling Marketing Strategy

Some challenges of previous empirical efforts at investigating IMS has been the unavailability of objective measures, the presence of confounds from the multitude of uncontrollable antecedent variables, or both conditions. This study attempts to alleviate some of these research constraints by using a post-hoc analysis of thirty-one companies that relied on the Direct Selling Marketing Strategy (DSMS) and engaged in one hundred and thirty three foreign market entries. As mentioned above, the marketing mix plan of DSMS companies is to "rely upon the sale of a consumer product or service, person-to-person, away from a fixed retail location by independent salespeople" (Direct Selling 2009).

The DSMS companies are consistent in their use of this marketing mix approach regardless of industry or target countries. Revenue is generated by the personal selling efforts of a network of independent sales associates (Duffy 2005). These sales associates operate on a one to one basis, in home party events, or even at auction events arranged by the sales associate. Typically, direct selling organizations subsume the other marketing mix variables such as distribution and promotion into this network of sales associates. Direct Selling firms do not use traditional distribution channels or retail outlets; they rarely rely upon media advertising or other promotion efforts. Pricing and product are standardized across markets (Bloch 1996).

The DSMS approach, also known as network marketing or multi-level marketing (MLM), has proven resilient especially in global markets. It is estimated that in 2010 the direct selling industry has over 62 million sales associates worldwide with global sales of $132 billion (WFDSA 2011). Brand names within the industry include some of the most well known global consumer brands including Avon, Mary Kay, Herbalife, and Amway. Annual worldwide revenue is approaching levels similar to several long established brands (Colgate $15.3 Billion and Bayer ConsumerHealth $7.5 billion versus Avon $10.3 billion and Alticor (parent of Amway) $8.4 billion revenue in 2009).

To provide an increase in the objectivity of the measures used, we rely upon annual reports or other government required disclosure filings and public agency databases such as the World Bank. We concentrate on DSMS companies because of the homogeneity of their marketing mix approach. These companies typical focus on a core product line with little to no advertising except in efforts to attract new sales associates. Distribution of the product is direct through the associates. Pricing strategies involve standardized price list with little or no price variance allowed. This uniformity in marketing mix approach that allows for control of potential confounds but limits the generalizability of findings.

This post-hoc examination does not presume to know the actual IMS process or measures used by these companies. We do not even suggest that the firms used any empirically based selection process. We are not aware of any two-stage selections. Rather, we reiterate this is an after the fact analysis in which historical performance is regressed upon indicators that would have been available to decisions makers prior to entry. Regardless of whether the actual firms used the

predictive variables, under the theoretical frameworks these measures should have some statistically significant relationship to international expansion performance. We select and test macro-market screening criteria such as Gross Domestic Product (GDP), GDP growth, literacy rates, surface area, and similar indicators. (Cavusgil 1985), micro-factors such as existing potential (Kumar et al. 1994; Nachum 1994), and more recent constructs that are second order combinations of various factors and measure the degrees of difference between the home and host country (Mitra and Golder 2002) as antecedent predictors of actual sales results. We examine the usefulness of these antecedent variables at predicting the actual sales revenue achieved by the firms. We conduct this analysis with these indicators acting independently as well as in their interactions within a two-stage selection model.

METHODOLOGY

As mentioned above, IMS researchers frequently have trouble in obtaining financial performance measures from companies. Sometimes the companies indicate that performance data, such as sales, is not available at the country level. Other times, citing concerns related to the competition, the organizations do not report data (Maines, Bartov, Fairfield, Hirst, Iannaconi, Mallett, Schrand, Skinner, and Vincent 2003). Thirdly, measures, if available, are incomplete with only performance measures available and the inputs that guided the selection of the country where that performance occurred are not available or shared.

In an effort to overcome these issues, this research selects public firms using the direct selling marketing strategy. As noted above, this category of companies uses a highly focused marketing mix. Marketing inputs are primarily the sales associates that are typically paid a straight commission based on revenue. An additional benefit to using these organizations is that many of these firms have actively engaged in foreign market entry over the last two decades.

Incidents of international expansion came through a number of sources. Using the Direct Selling News archives (News 2009), each issue from 1995 to 2008

Table 2

Summary of Companies and Initial Market Entry

Company Name (Home)	Target	Year
ACTIS Global (US)	S. Africa	2006
Amore Pacific (Korea)	France	1998
Amway (US)	Denmark	1999
	Ukraine	2004
Aquasource (Ireland)	Finland	2002
Arbonne (UK)	Australia	2007
Avon (US)	Russia	1995
Best World Int. (Singapore)	Indonesia	2003
	Malaysia	2001
	Thailand	2003
	N. Zealand	1988
Capra Ness (Switzerland)	Thailand	2005
Creative Network Int. (Malaysia)	Brunei	2005
	Hong Kong	2005
	India	2005
	Indonesia	2005
	Philippines	2005
	Singapore	2001
	USA	2005
	Taiwan	1995
DXN Int. (Malaysia)	Australia	2006
	India 2000	
	Philippines	2000
	Thailand	2007
	UAE	2007
	USA	2006
ENJO (Austria)	Australia	2001
Forever Green (US)	Japan	2001
Forever Living (US)	France	1993
Herbalife (US)	Argentina	1994
	Austria	1995
	Belgium	1994
Herbalife (US)	Brazil	1995
	Chile	1997
	Czech Rep.	1992
	Denmark	1994
	Dom. Rep.	1994
	Finland	1995
	France	1990
	Germany	1990
	Greece	1996
	Hong Kong	1992
	Italy	1992
	Japan	1993
	Korea 1996	
	Mexico	1989
	Netherlands	1993
	Norway	1995
	Philippines	1994
	Poland	1994
	Portugal	1992
	Russia	1995
	S. Africa	1995
	Spain	1989
	Sweden	1994
	Switzerland	1995
	Thailand	1997
	Venezuela	1997
Immunotec (Canada)	Korea	2008
	USA	2006
Kleeneze (UK)	Germany	2007
	Ireland	1995
	Netherlands	2004
Mannatech (US)	Australia	1999
	Denmark	2005
	Germany	2006
	Japan	2000
	Korea	2005
Mannatech (US)	N. Zealand	2002
	Taiwan	2005
	UK	2000
Natura (Brazil)	Argentina	1994
	Chile	1998
	Colombia	2007
	France	2006
	Mexico	2006
	Peru	1994
	Venezuela	2007
Natural Health Trends Trends (US)	Australia	2001
	Japan	2005
	Korea	2003
	Malaysia	2005
	Mexico	2004
	N. Zealand	2001
	Russia	2002
Nature's Sunshine (US)	Brazil	1994
	Japan	1994
	Malaysia	1994
	Mexico	1985
	Venezuela	1994
NuSkin (US)	Belgium	1995
	Denmark	1998
	France	1995
	Germany	1995
	Korea	1996
	Malaysia	2001
	Netherland	1995
	Philippines	1998
	Poland	1998
	Singapore	2001
	Sweden	1998
	Thailand	1997
	UK	1995
Nutrition for Life (US)	Philippines	1997
	UK	1996
Phoenix Trading (UK)	Australia	2006
	N. Zealand	2007
RBC Life Sciences (US)	Canada	2005
	Korea	2006
Reliv (US)	Australia	1992
	Canada	1993
	Colombia	2000
	Germany	2005
	Malaysia	2003
	Mexico	1994
	N. Zealand	1993
	Philippines	2000
	Singapore	2004
	UK	1996
Royal BodyCare (US)	Japan	2003
SwissJust (Argentina)	Germany	1997
Tiens (China)	Japan	2007
USNA (US)	Australia	1999
	Hong Kong	2000
	Japan	2001
	Korea	2003
	Malaysia	2007
	Mexico	2005
	Singapore	2003
	Taiwan	2002
	UK	1999
Vector (US)	Canada	1990
YTB (US)	Canada	2008

was reviewed for any article mentioning a foreign market entry, foreign market sales performance, or foreign market exit strategy. The directory of the World Federation of Direct Selling Associations (WFDSA 2010) lists 59 country websites with links to the individual country's Direct Selling Association and their respective members. A review of each country's membership directory, reports, and news releases yields 1443 companies with 172 engaged in at least one foreign market expansion between 1985 and 2008. The MLM (multi-level marketing) Network and MLM (multi-level marketing) Watch Organization (Admin 2010; Barrett 2010) listed an additional 117 companies out of 588 companies in their databases that engaged in international expansion. From these lists, we identified 1116 international expansions that took place between 1985 and 2008. Out of these companies and their foreign market entries, 31 companies traded publicly at the time of expansion and they had entered 133 new international markets during the period of 1985 to 2008.

Accessing and reviewing the EDGAR and Mergent online databases as well as the World Wide Web allows for data gathering from the official government filings of the target companies. Reviewing all annual reports, SEC 10K and 8K quarterly reports or their equivalents allows for objective determination of the companies' reported sales on a country-by-country basis as well as the number of sales associate per country.

Before explicating the various factors used in the analysis, a couple of points about adjustments made to measures are necessary. First, the years of entry range from 1985 to 2008 resulting in the comparison of performance and other indicators over a wide timeline. The year 2008 is the base year to allow for 2 years of post-entry performance and to avoid unaccounted for revisions to financial filings. The most common method for establishing comparability is to use a baseline year for calibration equivalence (Morris et al. 1994; Steenkamp and Hofstede 2002). All monetary figures are in the common denomination of U.S. dollars in the year 2008. Secondly, time of entry did not consistently fall exactly on the start of the calendar year. Annualizing those instances in which reported sales were for only a partial year occurs on a straight-line basis.

Development of Dependent Variable

Ultimately, this research's goal is to examine saliency of the measures that underlie each of the three international market selection methods within the DSMS context. As each method directly or indirectly relies on projecting demand in economic terms, we select a common economic performance measure, revenue. Further, we suggest that the first year's revenue most accurately reflects selection performance rather than subsequent indicators that are more distant from the initial entry into the chosen international market.

Adjusting first year's revenue by the methods mentioned above helps to control for any bias from subsequent in-country operations or subsequent changes to the operating environment. As with many companies, a key performance indicator for Direct Selling organizations is initial sales. The experience of direct selling organizations indicates that initial efforts and outcomes provide the foundation for subsequent growth (Herbalife Annual Report, 2010 and Mannatech Annual Report, 2010). The importance of initial success is due to the multi-level marketing method of initial agents no only selling product but actively recruiting additional agents, which leads to geometric revenue growth. We use measures of *First Year Sales (Sales)* as the key indicator of firm's entry success and as the dependent variable.

Independent Variables of the Macro-Factor Framework

Even a cursory review of the international marketing literature reveals the existence of a large and diverse group of macro-level indicators. The literature also indicates some economic indicators are part of the difference constructs mentioned below. It is also not likely that valid historical measures exist for all indicators. These conditions make it impractical to use the full set of recommended indicators from the literature. Nor are they all theoretically grounded. Explications of the factors and their sources of measurement occur below. We did limit these items to only those that theory suggests as indicative of changes in demand. Furthermore, we use both static and the rate of change measures. This approach allows for a series of statistical tests of the propositions that demand as indicated by *Sales* is contingent upon the rate of change in the economic situation.

While a large variety of factors, including items based on demographic, economic, geographic, and socio-cultural categories (Douglas et al. 1982; Cavusgil 1985) have seen usage in the literature; those related to productivity, capital, or population seems most relevant based upon theory. *Population Size* as a static macro measure and *Population Growth Rate* as a rate of change measure are commonly used both as part of single stage IMS approach as well as in the first stage of two-stage IMS studies and are obvious indicators. Using data from the World Bank's (Bank 2009) World Development Indicators (WDI) database, the population and its growth rate were recorded for each of the two years prior market entry (note: the WDI database excludes Taiwan and data was collect from other sources). Gross Domestic Product (GDP) commonly measures productivity or a country's ability to improve its standard of living. The rate of change or *GDP Growth* is the change from year to year. It is especially important for researchers to avoid collinearity of either GDP measure with population measures. Measures are from the WDI database and are collected for both years prior to market entry. Review of the annual reports and Direct Selling News indicates one to two years is the typically market entry decision window for this industry. We suggest for most countries, investments in people through education have a high impact on the overall economy and more importantly will influence increases in demand for imports. *Literacy Rate* has seen use in previous research on international market selection (Cavusgil 1985). Data was collected from the United Nations database on literacy (UNESCO 2007).

Macro-level Differentiation Factors

Though foreshadowed by Cavusgil's note on 'similarities and differences in relation to home market" (Cavusgil 1985), distance or differentiation indicators were not operationalized until more recently. Using Hofstede's dimensions of culture, Kogut and Singh (1988) created a distance score they labeled *Cultural Distance*. They calculated the difference between the home country and the host county's index measures on each of the four Hofstede dimensions. Accounting for differences in variability of an index measure is via arithmetically averaging results. The result is a composite score of *Cultural Distance*.

Another difference score that has recently been developed and seen use in IMS studies is *Economic Distance*. Extending the concept of Mitra and Golder (2002) that a relevant factor in market entry is the difference between the home country and target country on economic measures, Johnson and Tellis (2008) develop an index score of *Economic Distance*. This index used absolute differences between GDP, GDP growth, infrastructure, and population density (for details see (Johnson and Tellis 2008)). We calculate *Economic Distance* for each of the two years preceding market entry.

The next step is fitting these indicators to a regression model as predictors of the dependent variable of *First Year Sales (Sales)*. Collecting measures for each independent variable for one year prior to entry and two years prior to entry leading allows for the two tests of the following equation.

$$Sales = b0 + b1 Population\ Size + b2 Population\ Growth\ Rate + b3 GDP + b4 GDP\ Growth + b5 Literacy\ Rate + b6 Cultural\ Distance + b7 Economic\ Distance + e$$

Under the single stage model, increases in any of the first five macro-factors should lead to increases in demand as reflected in higher *First Year Sales*. However, increases in distance should predict lower sales such b6 and b7 should be negative. Each of these seven constructs is a hypothesized relationship between it and the dependent variable of *Sales*. Empirical support for the saliency of any of these factors comes from a statistically significant beta associated with the factor of interest. Discussed below and presented in Table 4 are the outcomes of the statistical tests for each factor.

Micro-Factor Indicators as Mediators of Macro-Factors

An alternative statistical model develops out of the two-stage IMS framework. In this model, the main or macro-factors indirectly influence the dependent variable of *Sales*. The direct effect of the macro-factor is on an intervening variable, called a mediator. This mediator variable then directly influences *Sales*. The test for this form of mediation is a three-step process. The results are in Table 5 and 6.

The origins of micro-factors that form the basis of the mediator tests in a two-stage IMS process developed alternatively out of influences that directly increase demand or are influences on facilitating supply and thus fulfilling demand. Increases in personal income and subsequently increases in demand often lead to increases of measures of *Disposable Income*. Mediation by *Disposable Income* happens when economic activity expands at a rate less than increase in population. The corresponding decrease in disposable income likely leads to a decrease in demand. Similarly, uneven distribution of the wealth from economic expansion may also mediate the effect of economic activity upon demand. Previous research in direct selling has found that *Income Distribution (Income)* as measured by the percentage of the population above the poverty level is positively correlated to Sales (Schwartz 1992) for direct selling firms as it indicates a sufficient segment exists with disposable income. A common measure of the potential of disposable income that has seen use is the *Inflation Rate (Inflation)* or the percentage change of consumer prices. Inflation would be a mediator under the assumption that higher inflation leads to decreases in disposable income and demand thus creating a mediating effect (Kumar et al. 1994; Nachum 1994).

During international market selection for a direct selling organization a common mediating condition of the supply side argument is the development of the marketing infrastructure (Douglas et al. 1982). In the two-stage model of IMS, the framework suggests as the overall economy expands the availability and extensiveness of advertising media increases. Thus, the availability of television receivers as measured by *Television Receivers per Thousand (TV)* would indicate a mediating effect upon the relationship between macro-factors and increases in demand. Previous research in DSMS organizations suggests these firms do not rely heavily on mass promotion, are not price sensitive, nor are they form utility dependent (Schwartz 1992). Instead, economic expansions should lead to increases in delivery infrastructure. Using indicators of surface trucking such as extensiveness of the road system or the trucks per capita should indicate the mediating effect of this aspect of marketing infrastructure on the relationship between macro-factors and demand. We use consumption measures of the quantities of diesel fuel used in the surface transportation industry. *Annual Diesel Consumption (Diesel)* per capita statistics are reflective of the number of delivery vehicles in a country as the provided by the International Energy Agency and the U.N. as the database differentiates between passenger vehicles and delivery vehicles. In addition, we looked at the extensiveness of the road system as indicate by *Roadways per Square Kilometer (Roads/SK)*.

As suggested by the second framework, this second set of independent variables mediates the relationship between the macro-factors and the dependent variable *Sales*. The large number of IVs in the model outlined above as well as the relationship between macro-indicators and the distance measures raises questions about the assumption of the independence. Giving attention to the issues related to multicollinearity is important prior to hypothesis testing. We do not assume *a priori* independence of macro-factors nor do we suggest specific models.

Additionally, under the mediation tests of Baron and Kenny (1986) one of the essential conditions is that these IV have a statistically significant relationship with the dependent variables. Therefore, after testing the macro-factors for independence and statistical significance, we test the two-step international market selection process by establishing the mediation of the statistically significant macro-factors identified in the first stage analysis. As noted above, the results of the tests of main effects of the macro-factors are in Table 4.

Discussion of the second step of mediation testing is in the results section. Outcomes of mediation testing are in Tables 5 and 6. We suggest demand side mediation should occur with the independent variables of *Income* and *Inflation* while supply side or marketing infrastructure mediation should occur with *TV*, *Roads/SK*, and/or *Diesel*.

International Market Selection and Segmentation

The final IMS framework suggests that for firms using a Direct Selling Marketing Strategy there are global target segments. The buyers in such a segment would be very similar in their valuation schema across national borders. They may exhibit local nuances within the various countries and there may be variation in actual segment

size within countries but the national differences would be minor compared to the commonalities of the segment. Indicators that reflect the segment's homogeneous value proposition are good predictors of market potential which in turn can be further refined into share estimates by considering limiting factors such as the number of competitors (Kumar et al. 1994).

For organizations using direct selling marketing strategy a measure from the competition, the number of *Total Associates* likely correlates positively with market potential. As mentioned in several of DSMS companies' annual reports as well as in an article of the direct selling news (Crowley 2006), the most salient factor in firm performance is their total number of associates. This fact leads to a three-fold argument for higher numbers of active sales associates across all direct selling companies being a positive indicator of success. First, a large number of existing associates indicates the culture is accepting of this marketing approach. Second, the total number of associates represents the potential for a trained pool of individuals. The third rationale is that the larger the number of associates, the better the indication that an entrepreneurial climate exists. For these reasons, each nation's Direct Selling Association annually surveys and reports the number of *Total Associates* in their country in an attempt to encourage additional entrants.

Though not directly tested in the direct selling environment, the level of urban concentration in a country would also seem to provide a positive indicator of firm success. The DSMS relies on direct personal interaction and positive word of mouth. Concentrations of population would facilitate these activities. *Urbanization (Urban)* or the percentage of a country's population that is living in urban areas has seen previous use in test of the theoretical models of international market selection (Nachum 1994). For the companies using the DSMS, the compactness of customers minimizes associate travel and increases the accessibility of a large customer base. This outcome is supported by existing sales research which suggests larger geography increases travel times and decreases the face to face selling time available to associates (Zoltners and Sinha 2005). The measures of urbanization as indicate by *Urban Density (Urban)* correlates positively with *Sales*.

The test of the saliency of each of indicator develops out of the following model. The significance of the betas forms the basis of the test for this proposed framework. As in the single stage model, increases in either factor should lead to increases in demand as reflected in higher *First Year Sales*.

$$Sales = b0 + b1 Total\ Associates + b2 Urban + e$$

The difference between the first equation and this model is the theoretical foundation of the independent variables included in the model. As in the first equation, empirical support for the saliency of any of these factors comes from a statistically significant positive beta associated with the factor of interest. The results are in the following section and due to the limited outcomes are not in tabular form.

RESULTS

Before applying linear regression models, some methodologists (Neter and Wasserman 1974) suggest it is especially important in business or economic contexts to examine the independent variables (IV) for the possibility of multicollinearity. They suggest beginning with an examination of each combination of paired correlations. The purpose of this review is to identify any unusually large or even unexpected correlations of the paired independent variables. Including suspicious paired IV in the model and examining the variance inflation factor (VIF) to see the effect on the linear model when including both IVs tests multicollinearity. Where VIF indicates high multicollinearity, then the most common solution is to eliminate one of the two variables (Neter and Wasserman 1974; Draper and Smith 1998).

This examination yields several pairs of IV that are highly correlated. As seen in Table 3, there is a high level of association between the macro-factor, *GDP*, and *Total Associates*. Similarly, *Urbanization* is significantly correlated with *Roads/SK* and *Literacy*. These paired correlations alone do not indicate multicollinearity and the fact that statistical significance tests of these independent variables occurs in separate linear equations or are involved in the mediation analysis suggest the inclusion of all independent variables in testing.

Table 3
Correlation Matrix

	Macro-Factors								Micro-Factors					Infrastructure	
	Sales	*Pop.*	*Pop. Growth*	*GDP*	*GDP Growth*	*Lit.*	*Cultural Dist.*	*Economic Dist.*	*Income*	*Inflation*	*TV*	*Roads/ SK*	*Diesel*	*Urban*	*Total Assoc.*
Sales	1	-.010	-.091	.079	.180*	.018	-.178*	-.081	-.122	-.198*	.248*	-.090	*.138*	.072	-.079
Pop.	-.009	1	.053	.304*	.063	-.627*	-.025	-.068	.086	.092	-.101	-.031	-.217*	-.432*	.346
Pop. Growth	-.068	.043	1	-.209*	.353*	-.463*	.000	.018	.455*	.086	-.506*	-.434*	*-.214**	-.145	-.021
GDP	.078	.304*	-.223*	1	-.12	.214*	.037	-.112	-.002	-.042	.523*	.185*	*.261**	.019	.768*
GDP Growth	.198*	.062	.230*	-.132	1	-.367*	.034	.228*	.218*	-.033	-.269*	.064	*-.141*	-.097	.069
Literacy	.017	-.627*	-.429*	0.215*	-.247*	1	-.106	-.141	-.449*	-.134	.588*	.176	*.404**	.186*	-.002
Cultural Dist.	-.178*	-.024	.043	.035	.024	-.119	1	.087	.239*	.084	-.272*	.105	*-.181**	-.120	.176*
Econ. Dist.	.080	-.069	.034	-.112	-.026	-.108	.087	1	.291*	-.057	-.137	.379*	*.103*	.186*	-.002
Income	-.121	.083	.437*	-.007	.131	-.449*	.246*	.290*	1	.269*	-.513*	-.165	*-.433**	-.140	-.137
Inflation	-.343*	.106	.016	-.053	-.213*	-.064	.135	-.070	.250*	1	-.141	-.123	*-.121*	.017	-.059
TV	.245*	-.101	-.505*	.545*	-.249*	.571*	-.248*	-.130	-.503*	-.138	1	.274*	.548*	.360*	.211*
Roads/SK	.089	-.030	-.367*	.187*	.223*	.183*	.104	.381*	-.167	-.154	.274*	1	.283*	.249*	-.088
Diesel/capita	.178*	-.214*	-.161	.289*	-.131	.409*	-.207*	.095	-.405*	-.171*	.572*	.305*	*1*	.433*	.045
Urban	.073	-.428*	-.162	.022	.070	.411*	-.123	.184*	-.142	-.007	.211*	.253*	*.039**	1	-.118*
Total Associates	.081	.350*	-.023	.776*	.081	-.019	.175*	-.001	.143	-.065	.360*	-.087	*.824**	.190*	1

* Correlation Significant at .01 (two tail)
Correlations of construct from 1 year prior above diagonal and 2 years prior below

This review leaves thirteen independent measures along with the dependent variable *First Year Sales (Sales)* for inclusion in the proposed statistical tests. In the first linear equation, the test of the first framework, we gathered measures from one and two years immediately prior to market entry. These measurements of the IVs are regressed upon *Sales*. The results of this part of the analysis are in the first set of results in columns one and two of Table 4.

As can be seen from the table, the linear relationship of *GDP Growth and Cultural Distance to First Year Sales (Sales)* are statistically significant for measures from one year prior and two years prior to market entry. The remaining IVs are not statistically significant. There is a positive relationship with *GDP Growth* and *Sales* such that an increase in the growth of the domestic product suggests larger sales in the first year of entry. We note that this is a rate of change measure as mentioned in the discussion of the first framework. Additionally, there is an inverse relationship between *Sales* and *Cultural Distance* such that the greater the differentiation between the two countries' culture the lower will be the predicted sales.

Table 4
Regression of 1st Year Sales Revenue on Indicators
Macro-Factors

	1 Year Prior to Entry Regression Estimates		2 Years Prior to Entry Regression Estimates	
IV	**Standardized** Beta	t-value	**Standardized** Beta	t-value
Constant		.674		.664
Population	-0.136	-.909	-0.140	-.974
Pop. Growth Rate	-0.190	-1.809	-0.123	-1.236
GDP	0.146	1.343	0.168	1.566
GDP Growth Rate	0.227	**2.355***	0.237	**2.683***
Literacy Rate	0.120	.718	0.114	.741
Cultural Distance	-0.210	**-2.409***	0.210	**-2.416***
Economic Distance	-0.041	-.460	-0.107	-1.236

* significant at the .05 level

The next stage of the analysis examines the two-stage method of international market selection. Under the framework, we test the two statistically significant macro-factors for mediation by micro-factors of their effect on *Sales*. For example, one suggestion is that as the economy of a country grows (as indicated by *GDP Growth*) then a middle class may develop or expand, leading to wider dispersion of income as measured by income distribution and the construct *Income*. Under these conditions, *Income* would mediate the linear relationship between *GDP Growth* and *Sales*. Additionally, mediation of the positive effects of *GDP Growth* on *Sales* occurs when *Inflation* is large in an economy.

On the supply side, we see other micro-factors such as *TV*, *Roads/SK*, and *Diesel* as indicating an expanding marketing infrastructure. Mediation of the positive relationship of *GDP Growth* and *Sales* happens when the marketing infrastructure increases. While we found no specific theoretical mediating relationship between *Cultural Distance* and *Sales* for any of these five variables, we test for mediation. Results from one and two years prior to entry are in Table 5 and Table 6 respectively.

Table 5
Tests of Mediation
Lag 1 Year

IV → Dependent	Stand. Beta	t-value	IV → Mediator	t-value	IV & Mediator → Dependent	Mediator Significant	IV Stand. Beta	Mediation
GDP Growth Rate → Sales	*.180*	***2.094****	*GDP Growth Rate → Income*	***2.563****	*GDP Growth Rate & Income→ Sales*	*Marginally p=.054*	*.217*	*No*
			GDP Growth Rate → Inflation	*.378*	*GDP Growth Rate & Inflation→ Sales*			*No*
			GDP Growth Rate → TV	***3.203****	*GDP Growth Rate & TV→ Sales*	*Yes*	*.266*	*No*
			GDP Growth Rate → Roads/SK	*-.732*	*GDP Growth Rate & Roads/SK→ Sales*			*No*
			GDP Growth Rate → Diesel	***7.633****	*GDP Growth Rate & Diesel→ Sales*	*Yes*	*.091*	***Full***
Cultural Distance → Sales	*-.178*	***-2.066****	*Cultural Distance → Income*	*1.515*	*Cultural Distance & Income→ Sales*			*No*
			Cultural Distance → Inflation	*.969*	*Cultural Distance & Income→ Sales*			*No*
			Cultural Distance → TV	***-3.234****	*GDP Growth Rate & TV→ Sales*	*Yes*	*-.119*	***Full***
			Cultural Distance → Roads/SK	*1.207*	*Cultural Distance & Road SK→ Sales*			*No*
			Cultural Distance → Diesel	*.621*	*Cultural Distance & Road SK→ Sales*			*No*

Table 6
Test of Mediation
Lag 2 Years

IV → Dependent	Stand. Beta	t-value	IV → Mediator	t-value	IV & Mediator → Dependent	Mediator Significant	IV Stand. Beta	Mediation
GDP Growth Rate → Sales	*.198*	***2.313****	*GDP Growth Rate → Income*	*1.515*	*GDP Growth Rate & Income→ Sales*			*No*
			GDP Growth Rate → Inflation	***2.494****	*GDP Growth Rate & Inflation→ Sales*	*Yes*	*.131*	***Full***
			GDP Growth Rate → TV	***2.947****	*GDP Growth Rate & TV→ Sales*	*Yes*	*.276*	*No*
			GDP Growth Rate → Roads/SK	***2.615****	*GDP Growth Rate & Roads/SK→ Sales*	*No*		*No*
			GDP Growth Rate → Diesel	*1.045*	*GDP Growth Rate & Diesel→ Sales*			*No*
Cultural Distance → Sales	*-.178*	***-2.066****	*Cultural Distance → Income*	***2.902****	*Cultural Distance & Income→ Sales*	*No*		*No*
			Cultural Distance → Inflation	*1.562*	*Cultural Distance & Income→ Sales*			*No*
			Cultural Distance → TV	***-2.982****	*Cultural Distance & TV→ Sales*	*Yes*	*-.124*	***Full***
			Cultural Distance → Roads/SK	*1.199*	*Cultural Distance & Road SK→ Sales*			*No*
			Cultural Distance → Diesel	*.464*	*Cultural Distance & Road SK→ Sales*			*No*

* significant at the .05 level

The first step of establishing mediation is to test for significant relationships between the macro-factors and the dependent variable. As noted, only *GDP Growth* and *CD* have a statistically significant linear relationship with Sales. Using the proposed mediators of *Income*, *Inflation*, *TV*, *Roads/SK*, and *Diesel*, we test for mediation upon *Sales*.

The second set of equations of mediation test system do indicate a two-stage relationship with *GDP Growth* significantly related in year one lag to *Income*, *TV*, *Diesel* and in the year 2 lag to *Inflation*, *TV*, *Roads/SK*. Thus, all micro-factors have a statistically significant relationship with *GDP Growth* over the two years prior to market entry. *Cultural Distance* also appears to be part of a two-stage prediction process with statistically significant relationships between *Income* and *TV*. Full mediation occurs in the final test of mediation. Results fully support the two-stage model as *Inflation* and *Diesel* fully mediate *GDP Growth's* influence on *Sales*. Additionally, *Diesel* fully mediates the influence of *Cultural Distance* on *Sales*.

This last set of statistical tests provides evidence of the usefulness of the proposition that only micro-factors specific to company or industry have saliency in international market selection. Using linear regression models for measures from each of the two years prior to market entry indicate that neither *Urban* nor *Total Associates* relates, with statistical significance, to *Sales* (all t values smaller than 1.10 and $p < .25$) for either year. We do not display these non-significant results in tabular form as no results support the third proposed framework.

DISCUSSION

Perhaps the most surprising outcome of the above analysis is the scarcity of statistically significant results. We say this as the literature on international market selection strongly suggests that some if not all of the tested macro-factors should have either a direct or an indirect relationship with a firm's operational outcomes. In this study, only the direct relationships of *GDP Growth* and *Cultural Distance* upon *Sales* are statistically significant. It appears that within the direct sales environment that an extensive gathering of macro-factor indicators may not enhance managers' information during international market selection. While it may be true that the use of macro-factors to rank or discriminate between countries is plausible and relatively easy to accomplish, such efforts may not prove useful in selecting international market opportunities for DSMS organizations. For any manager, in the absence of a known connection between a macro-factor indicators and initial market entry success it may be wise to be circumspect in this approach.

However, the use of two-stage market selection does seem to receive support in this study. For example, the linear relationships between *GDP Growth* and *Income*, *Inflation*, *TV*, and *Diesel* are statistically significant and in the predicted direction. These results suggest that economic expansion does predict increases in the facilitating marketing infrastructure on both the supply and demand sides. These outcomes support the two-stage model of international market selection. While only the measures of *Inflation* and *Diesel* fully mediate the *GDP Growth* and *Sales* relationship with firms using DSMS, we suggest these limited results may relate to the research context. It appears that appropriate combinations of macro-factors with micro-indicators may provide reliable prediction of initial entry success.

An interesting result of this study is the mediation of *Cultural Distance* by the prevalence of television receivers. As anticipated, the greater the cultural disparity the less likely is first year sales in initial market entry. However, there is full mediation of this effect by the number of television receivers. It would appear that as the number of television receivers and presumably, as the number of television watchers increases that the influence of cultural distance decreases. This effect would seem to support the views of those that the world is moving towards a more homogeneous culture.

The analysis of the third model using segment specific indicators of *Sales* did not have any statistically significant results. The factor Total Associates has neither negative nor positive relationship to the first year sales of the direct selling organizations. This is surprising, as a large pool of potential agents should indicate an entrepreneurial spirit exists in the country as well as provide an abundant recruiting pool. The results do not support either proposition. The counter argument would be that a large existing

pool of associates limits recruiting opportunities and indicates strong competition. There is no indication that the larger number of associates impedes market success. Additionally, the measures of the density of the urban populations not relating to *Sales* indicates a lack of support for the proposition that higher density facilitates associates travel efficiency consequently leading to increases sales.

These results in conjunction with the lack of support of the predictive validity of some of macro-factors of the first model indicate the two-stage model may be the best approach for direct selling organizations. For managers of direct selling organizations, it appears that the rate of growth and the similarity of culture are good indicators of successful international expansion. However, mediating the effect of these macro-factors are the intermediating variables that are indicative of marketing infrastructure. International market selection for direct selling organizations should use the two-stage framework discussed in this paper.

While this research is limited by its context, it is does provide some indication that the best approach may be the two-stage selection process. The context of this study does not necessarily confound the theoretical relationship of macro and micro indicators presented in the two-stage model. Regardless of context, the use of micro-factors that are good indicators of marketing infrastructure seems appropriate. The key for managers is selecting the micro-factors relevant and specific to the industry of interest. For example, the number of television receivers did expand as the macro-factors moved in the appropriate direction. However, since the DSMS does not rely upon advertising as part of the marketing mix, this factor is not relevant to this sector's sales.

Limitations

The clear limitation of this research is the reliance upon organizations using DSMS. While this context helped reduced potential confounds, direct selling as a marketing strategy does not have wide acceptance (Bloch 1996) thus potentially limiting the perceive usefulness of findings. The direct selling context also limits generalizability, as other marketing inputs such as advertising or promotion are not considered.

Another limitation is that not all macro-level factors previously used in international marketing research are considered. The factors selected are commonly used and are relatively representative of the demographic, geographic, economic, and socio-cultural categories. However, our selection of variables is always open to interpretation and criticism. Similarly, only the first two years immediately before market entry are used. Using alternative temporal offsets could have different outcomes.

Finally, the dataset has only 45 countries out of the over 240 possible countries. However, this limited dataset did substantially represent most of the world's economy - 47 trillion in GDP out of 58 trillion (Bank 2009). The countries in the study constitute a broad representation on the economic development scale.

Each of the limitation noted above could be alleviate by further research that incorporates the variables that are missing as well the contexts that need expansion. Future research could also combine the IMS with MOE using the same selection factors to understand the interdependence of these two concepts. Finally, future research could look at additional indicators of performance both long and short-term.

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