JOURNAL OF INTERNATIONAL BUSINESS RESEARCH

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FOREIGN DIRECT INVESTMENT AND GROWTH: THEORY, EVIDENCE AND LESSONS FOR EGYPT

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ABSTRACT

This paper revisits the relationship between FDI and Economic growth. It reviews recent theoretical and empirical findings on the nature of this relationship and on the determinants of FDI flows to developing nations. It also reviews the current and difficult Egyptian FDI situation in light of the Egyptian revolution that took place on the 25th of January 2011. Findings reassert the fact that FDI enhances growth, and that market size, openness, human capital, infrastructure, exchange rate, efficient financial sectors, government debt, growth rates, good governance, institutional quality, democracy and political stability are main determinants in attracting FDI. In addition, the Egyptian economy is found to be in a serious deteriorating situation with negative FDI flows mainly due to the political situation, however, even if stability is achieved, the rising public debt, falling reserves and halt of economic reforms and openness can limit further FDI inflows.

INTRODUCTION

The Egyptian revolution that started on the 25th of January of 2011 has brought about a severe economic crisis to the Egyptian economy. The revolution took place at a time in which foreign direct investment (FDI) was flowing in an accelerating rate, relatively high GDP growth rates were expected and a host of economic reforms were beginning to pay off. The instability caused by the revolution has almost seized FDI if not repelling already existing FDI stock. Large budget deficit, fast depleting foreign reserves, lack of tourism and huge losses in the Egyptian stock market continue to hinder recovery. An alarming rhetoric is taking place among the public regarding large businesses especially multinationals working in Egypt that stems from the marriage of politics and business during the reign of the last regime. Such rhetoric may further scare foreign investors and delay the return of what may be a necessity to rebuild the economy. The public and the revolutionary forces need to be convinced of the importance of FDI for economic recovery and economic growth.

This paper revisits the relationship between foreign direct investment and growth. It presents the tie between growth theory and FDI, empirical findings of the literature regarding the relationship between FDI and economic growth, the determinants of FDI, and follows an inductive methodology to compare and contrast the findings with the Egyptian FDI situation.

ECONOMIC GROWTH THEORY AND FDI

Capital has always played a central part of Growth theory. During the late 1930's The Harrod-Domar model of growth was used to explain growth in terms of capital accumulation; more investment implies more capital stock and hence higher growth rates. For developing nations that are abundant in labor, increasing investment is always the obstacle since domestic savings are not enough to generate the required growth rates; a gap that can be filled through foreign direct investment or foreign debt. The late 1950's has seen the introduction of the Solow model. The Solow model of growth includes capital, labor and technology (Solow, 1956). The model also emphasizes the role of capital and saving rates, in addition, newer capital added can also have higher productivity due to new technology. The role of technology in increasing productivity and growth can be linked to FDI; for one of FDI benefits in a developing nation is the spillover effect where operating foreign companies or multinationals may end up increasing the productivity of the locals. The Solow model however, did not indicate what triggers a technological advancement.

Economic growth theory has witnessed a revolutionary change during the last two decades with the development of endogenous growth theories. Romer (1986) and Romer (1990) focused on technology that is endogenously determined within the typical neoclassical frame work where research and development and human capital play an important role. Grossman and Helpman (1991) also emphasized the role of technological spillovers on growth. Lucas (1988) emphasized the role of human capital and human capital spillover of knowhow for growth. Barro and Sala-i-Martin (1997) focus on a growth rate that is driven by discoveries in technologically advanced economies usually developed nations. Developing nations converge towards the growth of the developed ones as a result of copying the technology. They argue that it is cheaper to copy than to innovate over some range. Their model emphasized technological spillovers as an engine for growth. Barro (1990) focuses on government financed services and public capital in terms of infrastructure in addition to private capital in steering growth and notes the importance of human capital.

Endogenous growth models in general imply that developing nations can achieve growth through technological spillovers, research and development and human capital, in addition to the traditional increase in capital stock and in general within an operating environment of economic freedom. Foreign direct investment for developing nations is a method of filling both the savings gap and the knowhow gap, hence, in theory, enhancing growth.

A multitude of research analyzed the relationship between FDI and growth, ranging from theoretical, to empirical investigating the effect of FDI on growth in certain regions, or selective countries. Borensztein et al (1998) analyzed data on FDI flows from industrialized countries to 69 developing nations. Their findings indicate a robust relationship between economic growth and FDI based on the level of education in the host country as represented by the educational level of its population. Basu et al (2003) used a panel cointegration frame work to analyze the

bidirectional link between FDI and growth in 23 developing countries and explore the impact of liberalization on the dynamics of the FDI and GDP relationship. Their work indicates a link between GDP and FDI in more open economies than in restricted ones. De Mello (1999) used a sample data covering OECD and non OECD countries between the years of 1970-1990 to estimate the impact of FDI on output, factor productivity and capital accumulation. His findings indicate a positive link based between FDI and growth based on the degree of substitutability and complementarities between FDI and domestic investment or in other words the ability of the host country to adopt and use new technology. Oliva and Rivera-Batiz (2002) analyze data for 119 developing countries between1970 and 1994 and their findings indicate a positive link between FDI and growth in those nations in a more significant way than other capital flows. Similarly, a consistent finding that links FDI to growth was presented by Lensink and Morrissey (2006) in a study that analyzed data from 87 countries in which 20 are developing ones between the years 1975-1997. In addition, Lensink and Morrissey obtained a negative link between the volatility of FDI and growth in those nations.

Sophia D. and Helen L. (2004) analyzed productivity of labor of 3742 manufacturing firms operating in Greece in 1997, in which 5.5% are foreign owned or partially owned. Their findings indicate that foreign firms are more productive than domestic firms and that this difference increases with the increase of the share of foreign ownership and become significant for firms with a foreign share exceeding 51% specifically in large firms. They also indicate that significant spillovers arise only from firms with minority foreign ownership and are enjoyed by the small firms indicating a larger benefit from attracting FDI to smaller firms.

FDI AND GROWHT: EVIDENCE FROM REGIONS AROUND THE WORLD

Several research efforts were made trying to analyze the effect of FDI on growth in particular regions or selective countries around the world. For Latin American countries, Bengoa and Sanchez-Robles (2003) performed a panel data analysis covering the period between 1970 and 1999 in 18 South American nations. Their regression included a proxy to economic freedom (The Fraser index from the Fraser Institute) which reflects the level of government intervention, distortions, openness and corruption in addition to proxies for market size and human capital and other economic conditions such as public investment in railroads, inflation, and debt service. Their findings indicate a positive and significant correlation between FDI and economic growth. In addition, their finding indicates that FDI is more attracted to more open more market oriented economies with high political stability. Ramirez (2006) introduced a modified neoclassical function that includes the impact of key economic variables such as the effects of FDI, private capital, and credit to the private sector. He tested the model using data from nine major Latin American countries covering the period 1981-2000. His findings indicate that the lagged effect of foreign direct investment as a percentage of GDP positively influences

and with high significance the level of private domestic investment. His finding implies a positive and significant link between FDI and growth in this region.

Several research efforts were directed to establish the relationship between FDI and growth in Asian economies. Lee et al (2010) analyzed data from Kazakhstan that covers the period from 1997 to 2006. They used a regression where GDP is an independent variable and five independent variables; FDI inflows, fixed capital investment, employment, retail trade turnover, and industrial production level. Their findings indicate no significant correlation between FDI and economic growth in this nation reinforcing the debate that natural resources seeking FDI may not influence growth in developing nations. However, similar conclusion couldn't be referred from research done on other parts of Asia. Azam (2010) analyzed data from Bangladesh, Sri Lanka, India and Pakistan covering the years 1980 to 2009. He constructed a simple production function for each country where output is determined by total factor productivity of growth in output, exports and FDI. His results indicate that exports have a positive and significant on growth in the four countries. His findings also indicate that the effect of FDI on growth is positively significant at 1% level of significance for Bangladesh and Pakistan, it was however, not found to be significant in the case of India and surprisingly negative in the case of Bangladesh. Khaliq and Noy (2007) utilize an augmented Cobb-Douglass production function with FDI and domestic investment included among other variables and used it to estimate the effect of sectoral FDI flows and FDI flow in general on growth in Indonesia over the period 1997-2006. Their results indicate that FDI seem to have a positive effect on economic growth. At the sectorial level however, their results indicate a varying effect of FDI. Their results suggest that governments should work on incentives attracting FDI to sectors with highest impact on growth.

Hailu (2010) used panel data for 16 African countries covering the period between 1980-2007 to analyze the effect of FDI on imports and exports. He concluded a positive effect of FDI on exports. Sathye (2010) tested a model where growth is dependent on FDI, GDP, Inflation, domestic credit and government expenditure in 22 African lower developed countries over the period 2004-2007. His findings indicate no significant effect of FDI on growth in those nations and that LDCs need to work more on how to benefit from FDI.

Lee and Tcha (2004) analyzed time series data in addition to cross sectional and panel data from 16 transition economies over the period 1991-2000 to determine the dynamic impact of FDI on economic growth. The countries included in their study were Albania, Belarus, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, the Russian Federation, the Slovak Republic, Slovenia, and Ukraine. They utilize a constant return to scale production function to analyze the dynamic movement of equilibrium paths of those countries and the effect of each of the domestic and the foreign investment on such path. They indicate that the elasticity of substitution between capital and labor is low in these economies; hence, they are in risk of running into diminishing marginal productivity which makes FDI more desirable. Their findings indicate that those economies could have easily fallen

into a poverty trap, and the inflow of FDI was what swayed them of this path. Their findings indicate that FDI was the largest contributor to growth of these economies than did their domestic investment.

Gunaydin, and Tatoglu (2005) analyzed economic time series data on Turkey over the period 1968-2002. They utilized unit root tests, conitegration and Granger causality tests. Their findings indicate positive and significant relationship between FDI and economic growth in Turkey in addition to a bi directional causality between both.

Toulaboe et al (2009) tested a Cobb-Douglass based model where real per capita growth is dependent on factor productivity growth; growth rate of private capital foreign owned one, human capital that is dependent on the levels of domestic and foreign capital. In addition, they included other control variables such as government consumption, openness and terms of trade. The data used covered 17 middle income countries and 14 low income countries covering the period between 1978 and 2004. They tested four main hypotheses; FDI has a positive effect on its recipients, that effect is stronger in middle-income countries than lower-income ones, FDI enhances growth through improving human capital, and that the later effect is stronger in middle-income countries. Their findings indicate that FDI significantly contributes to growth, and that such effect is equal for middle-income and lower income countries. In addition, they found a significant correlation between FDI and human capital in such a fashion that indicates that improvement in human capital gives way to acceleration in growth in a more pronounced way in relatively better economies.

Research preformed on many nations or regions have shown that FDI is positively linked to growth. However, what attracts FDI into certain nations? The next section deals with FDI determinants.

FDI DETERMINANTS

Marr (1997) reviewed the flow of FDI from high income to low-income nations over a period of 25 years covering the years 1970- 1996 and the main determinants for such flows. Her findings indicate that during that period most of the FDI flow focused on three nations; China, India and Nigeria. Marr lists the following factors as determinants of this flow: size of the market, labor costs and productivity, political risk, infrastructure, incentives and operating conditions and privatization efforts carried out by the host nation.

Mottaleb (2007) compared the socioeconomic conditions of the top 20 FDI recipients to the lowest 40 FDI recipients in a sample of 60 developing countries from Africa, Asia and Latin America in the year 2005. Motaleb tested a proposed model where FDI is the independent variable and gross domestic product, annual growth rate of GDP per capita, industrial value added as a percentage of GDP, percentage of internet users, percentage of telephone line users, time required to enforce a contract, the number of days required to start a business, and corruption perception index as independent variables. His findings indicate that top FDI

recipient countries are characterized first by large domestic market and high GDP growth rate then modern infrastructure, communications and lower corruption as indicated by the Corruption Perception index.

Choong et al. (2010) explored the relationship between foreign direct investment, portfolio investment, financial development, and economic performance in a group of developing nations over the period 1983–2006. They utilized an augmented Cob-Douglas based model with domestic capital stock, labor, foreign capital flow, and other economic and financial conditions imbedded. To proxy financial development they used the ratios of liquid asset to GDP, deposit money bank assets to GDP, and private credit by deposit money bank to GDP. They employed generalized method of moments (GMM) panel data analysis. Their findings indicate that both types of capital flows have a positive impact on growth with a well-developed financial sector but have a negative effect in the presence of poor financial sector development. Their work indicates that foreign direct investment increases economic growth via efficiency effect, while portfolio investment stimulates economic growth via investment effect. They conclude that well-developed financial sectors are ones that are crucial for economic growth in developing countries. Their findings may be of interesting value in explaining why studies on the effect of private capital flows and growth in the recipient nations come up at times with conflicting results. They explain that the reason may be that a better financial system may increase the marginal product of new investments whereas at the same time the recipient is creating an environment capable of spilling over the technology.

Onyeiwu and Shrestha (2004) utilized fixed and random effects models to investigate the significance of several determinants of FDI flows to Africa. Their panel dataset covered 29 African countries over the period 1975 to 1999. They tested a linear relationship between the one year lagged net FDI as a percentage of GDP in a country, and its GDP growth, inflation rate, real interest rate in the country, degree of openness measured as the sum of imports and exports divided by GDP, international reserves as a percentage of GDP, external debt as a percentage of GDP, corporate profit tax rate, state of political rights in country measured by variables obtained from the Freedom House annual survey of freedom in the world, infrastructure measured as the number of main telephone lines per1000 people in country, natural resource availability in country measured by fuel exports as a percentage of total exports. Their findings indicate that of significance to attracting FDI are economic growth, inflation, openness of the economy, international reserves, and natural resource availability. However, and in defiance of intuition, they found that political rights and infrastructure were insignificant in attracting FDI. An explanation of that may be the proxy used for political rights; it may reflect the degree of freedom citizens enjoy, but doesn't directly reflect political stability.

Saengthien (2011) utilized a similar linear model to the one previously discussed, however, he focused on analysis of political risk and FDI. He studied the effect of three risk factors; government stability, bureaucratic quality, and corruption. He used risk rankings provided by several international and research institutes; the International Country Risk Guide

(ICRG) and the Relative Political Capacity (RPC) measure, the Fraser Institute, the Heritage Foundation and others. He used data on many developing nations and emerging markets that covered the period 1990-2004 where he averaged FDI data for each three years and averaged each independent variable into five years to account for the lag of the investment decision. His findings indicate that political variables are of significance to the FDI decisions in emerging, middle-income and developing economies where the efficiency, stability and capability of host governments are of large impact on such decisions.

Majeed and Ahmad (2009) used a panel data on 72 countries covering the period 1970-2008. Applying the General Method of Moments technique, they indicate the positive significance of gross domestic product (GDP), economic growth, openness, and per capita income on FDI. In addition, there findings also indicate that workers' remittances in the host country as a percentage of GDP have a significant and positive impact on FDI. On the negative side, they indicate a negative and significant effect of the real exchange rate, inflation, the balance of payments deficit, and military expenses as a percentage of GDP on FDI.

While most studies focused on the determinants of attracting FDI as whole, Kolstad and Villanger (2008) explored the determinants attracting FDI in services. They utilized data from 57 countries (developed, developing and transitional economies) covering the period 1989–2000. They used a model in which the dependent variables are the service industry overall level of foreign direct investment per capita, and the specific service industry FDI for the services of finance, business activities, transport, and trade. The independent variables constituted of GDP per capita, growth in gross domestic product trade, openness (sum of exports and imports as % of GDP), inflation, FDI in secondary industries. In addition, the dependent variables included indicators of political risk, democratic accountability, external conflicts and religious and ethnic tensions obtained or computed from the International Country Risk Guide. Their findings indicate that institutional quality and democracy seem to be more important for FDI in services than general investment risk or political stability. Their findings also indicate that absence of democracy is determinable to such investment below a certain level. Their results indicate no significant relationship between openness and FDI in services in addition to a strong correlation between FDI in manufacturing and that of finance and transportation.

Morrissey and Udomkerdmongkol (2012) explored whether FDI crowds out private investment and how different stages of governance affect such relationship. They used data for 46 developing countries; 23 from Latin America, 11 from Africa, eight in Asia, and four in Europe and central Asia that cover the period 1996–2009 . They utilized a linear model where the independent variable is private investment and the independent variables are net FDI inflows, growth of real output, public investment , and five variables that proxy governance conditions indicators; voice and accountability, political stability and absence of violence, regulatory quality, rule of law, and control of corruption . The governance indicators were obtained from the World Bank's Governance Indicators. Their findings indicate that better governance implies higher private investment and higher FDI. They also indicate evidence of FDI crowding out

domestic private investment where the extent of crowding out is related to governance. In addition, their findings point out that political instability and corruption and are the governance indicators that seem to have the largest impact on investment.

Good governance and less corruption may increase productivity. FDI is usually risk averse, governments that have a reputation of ineffectiveness or policy reversals would scare off FDI. Hence, the quality of institutions within the country may have an influence on FDI decisions. Research work tried to explore the relationship between the quality of the institutions in the recipient country and its FDI. To explore the relationship between the institutional quality and FDI Benassy-Quere and Coupet (2007) utilized the Institutional Profiles database which is based on a survey made in 2001 by the French Ministry of Finance in 52 countries. The survey had 330 elementary questions that were asked about the situation of public institutions and about capital, goods, and labor markets. They also analyzed the effects of the source countries' institutions utilizing the Fraser database. Their results indicate that institutions matter independently of GDP per capita. In addition to bureaucracy and corruption, they indicate that efficiency of the banking sector and of legal institutions are important determinants of inward FDI. Moreover, they point out that weak capital concentration and employment protection has a negative effect on inward FDI. In addition, there results indicate that the larger the differences between the quality of the institutions in the source country and the host country, the less there is of bilateral FDI.

Findings of most empirical research reassert the fact that FDI enhances growth, and that market size, openness, human capital, infrastructure, exchange rate, efficient financial sectors, government debt, growth rates, good governance, institutional quality, democracy and political stability are main determinants in attracting FDI.

FDI AND EGYPT

Economic reforms that started in the early 1990s in Egypt and continued at a relatively reasonable pace could have been starting to payoff around when the Egyptian revolution started. Egypt started to rank high among the top African nations attracting FDI. Table 1 indicates that FDI inflows to Egypt have been steadily on the rise starting 2001. It also indicates that FDI slowed down because of the world financial crisis in 2009 and 2010. However, the trend seemed to be on the increase. GDP growth rates in 2007 and 2008 exceeded 7% as indicated in Table 2. Similarly, GDP per capita in PPP was consistently increasing and exports seemed to be on the increasing path. With a population of over 85 million, the Egyptian market size is relatively large. In Addition, the Human Development Index calculated by the UNDP has shown a consistent increase in the quality of the Egyptian human capital; from 0.56 in the year 2000 to o.614 in 2009. UNDP 2010 human development indicators also show a rise in the percentage of internet users; from 0.6% of the population in the year 2000 to 16.6% in 2008.

	Table 1: FDI Inflows in Selected Countries From the MENA Region (Millions of U.S. Dollars in Current Prices and Current Exchange Rates)										
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bahrain	363.6	80.3	217.0	516.7	865.3	1048.7	2914.9	1756.1	1793.9	257.2	155.9
Egypt	1235.4	509.9	646.9	237.4	2157.4	5375.6	10042.8	11578.1	9494.6	6711.6	6385.6
Israel	6957.4	1771.7	1582.8	3322.4	2947.4	4818.3	15295.9	8798.4	10874.5	4438.2	5152.4
Jordan	913.3	273.6	238.2	547.0	936.8	1984.5	3544.0	2622.1	2828.9	2430.0	1703.8
Lebanon	964.1	1451.2	1336.0	2860.0	2483.7	3321.5	3131.7	3376.0	4333.0	4803.6	4954.9
Oman	83.2	5.2	122.2	26.0	111.1	1538.4	1587.8	3431.5	2528.5	1471.0	2045.3
Saudi Arabia	183.0	504.0	453.0	778.5	1942.0	12097.0	17140.0	22821.1	38151.0	32100.0	28105.0
Syrian Arab Republic	270.0	110.0	115.0	160.0	320.0	583.0	659.0	1242.0	1467.0	1433.7	1380.9
Tunisia	779.3	486.5	821.0	583.6	639.0	782.9	3307.9	1616.1	2758.4	1687.6	1512.5
Turkey	982.0	3352.0	1082.0	1702.0	2785.0	10031.0	20185.0	22047.0	19504.0	8411.0	9071.0
United Arab Emirates	-506.3	1183.8	95.3	4256.0	10003.5	10899.9	12806.0	14186.5	13723.6	4002.7	3948.3
Yemen	6.4	135.5	101.7	5.5	143.6	-302.1	1121.0	917.3	1554.6	129.2	-329.0
Source: Compiled from UNCTAD Statistical Database.											

The success story did not last for Egypt thought, since the revolution took place in January of 2011 and vital economic indicators took a reverse heading. Table 2 indicates a GDP growth rate of 1.8% in 2011, a drop from the 5.1% in 2010. The table also indicates estimation of a decrease in government revenue and increase in government consumption which may result in increasing the budget deficit to over 11% of GDP compared to a deficit of around 8% of GDP in 2010. In addition, government debt is estimated to increase to over 84% of GDP in 2011. External debt is also expected to increase, from an actual $33 billion in 2009 to around $45 billion in 2012. Moreover, unemployment is expected to top 12%; an increase by 3% as compared to 2009. This reverse is by no doubt a result of the political change that took place and fall in productivity during the revolution in addition to the flight of FDI stock.

Table 3 compares the balance of payments financial account items between January and September of 2010 and 2011. FDI net inflow decreased from $5.73 billion in 2010 to $376 million in 2011 and net portfolio investment in Egypt went from a positive $12.216 billion to a negative $8.852 billion.

The Heritage Foundation's 2012 Economic Freedom Score gives Egypt an overall score of 57.9 out of 100, a decrease of 1.2 points from 2011, and hence ranks Egypt as number 100 in the world and 12th in the region when it comes to Economic freedom. Table 4 indicates that Egypt scored less due to the decrease in its ability to protect property right, its strict financial system which was reduced by 10 points as compared to the year before, government spending, and by a reduced business freedom. On the other hand, Egypt's Freedom of Corruption index improved by 3%, and there were slight improvement in labor freedom, fiscal and monetary freedom.

Table 2: Economic Indicators and Forecast								
	Indicator	2007[1]	2008[1]	2009[1]	2010[1]	2011[2]	2012[3]	2013[3]
GDP[4]	Nominal GDP (US$ bn)	132.2	164.8	187.3	214.4	231.1	264.4	316.8
	Nominal GDP (E£ bn)	745	896	1,039	1,207	1,372	1,599	1,850
	Real GDP growth (%)	7.1	7.2	4.7	5.1	1.8	1.6	5.2
Expenditure on GDP (% real change)[4]	Private consumption	8.8	5.7	5.7	4.1	4.5	4.3	5.2
	Government consumption	0.2	2.1	5.6	4.5	3.8	4.2	4.7
	Gross fixed investment	23.7	14.8	-10.2	7.7	-5.6	1.4	10.8
	Exports of goods & services	20.2	28.8	-14.5	-3	4.6	6.2	14.3
	Imports of goods & services	30.5	26.3	-17.9	-3.2	7.5	11.3	15.5
Origin of GDP (% real change)[4]	Agriculture	3.7	3.3	3.2	3.5	2.7	3.6	3.5
	Industry	5.9	6.1	5	4.3	1.1	6.8	6.9
	Services	20.2	8.2	3.8	6	2.8	-6.1	3.2
Population and Income	Population (m)	80.1	81.5	83	84.5	86.1	87.7	89.4
	GDP per head (US$ at PPP)	5,059	5,440	5,656	5,913 [2]	5,988	6,112	6,434
	Recorded unemployment (av; %)	8.9	8.7	9.4	9.0 [2]	12.2	11.5	10.8
Fiscal indicators (% of GDP) [4]	Central government revenue	24.2	24.7	27.2	22.2	19.3	19.1	18
	Central government expenditure	29.8	31.5	33.8	30.3	29.3	29.7	29.2
	Central government balance	-7.3	-6.8	-6.6	-8.1	-10	-10.6	-11.2
	Central government debt	102.5	86.2	83.5 [2]	81.5 [2]	84.3	83.4	83.9
Prices and financial indicators	Exchange rate E£:US$ (av)	5.63	5.43	5.55	5.63	5.94 [1]	6.05	5.84
	Exchange rate E£:€ (av)	7.72	7.99	7.71	7.48	8.25 [1]	7.74	7.3
	Consumer prices (av; %)	9.5	18.3	11.8	11.1	10.2 [1]	7.2	7.7
	Stock of money M1 (% change)	25.1	14.9	12.9	13.4	13.7	16.6	15.7
	Stock of money M2 (% change)	19.1	10.5	9.5	12.4	9.3	13.7	15
	Lending interest rate (av; %)	12.5	12.3	12	11	12	12.5	12.3
Current account (US$ m)	Trade balance	-20,801	-26,774	-22,475	-27,016	-25,573	-27,693	-29,295
	Goods: exports fob	24,455	29,849	23,089	25,024	27,620	30,410	34,988
	Goods: imports fob	-45,256	-56,623	-45,564	-52,041	-53,193	-58,103	-64,283
	Services balance	11,195	14,312	13,242	15,482	11,917	12,600	14,512
	Income balance	1,478	1,373	-1,922	-5,843	-6,031	-5,318	-2,934
	Current transfers balance	8,322	9,758	7,960	12,439	14,464	13,506	14,123
	Current-account balance	194	-1,331	-3,195	-4,939	-5,224	-6,905	-3,595
External debt (US$ m)	Debt stock	34,120	33,417	33,257	34,95[2]	39,055	44,937	45,767
	Debt service paid[5]	2,938	3,245	2,942	3,241[2]	3,605	4,702	5,463
	Interest	907	935	870b	794[2]	671	1,020	1,181
International reserves (US$ m)	Total international reserves	31,374	33,849	33,933	35,792	19,589	24,288	28,162
(1) Actual. (2) EIU estimates. (3) EIU forecasts. (4) Fiscal year data ending June 30th. (5) Includes prepayments of medium-and long-term debt in 2006-08. Source: Economist Intelligence Unit, Country Report, January 2012.								

Table 3: Egypt BOP Financial Account Comparisons		
January- September 2010 and 2011		
In (US $ m)	2010	2011
Financial-account balance	6,099	-7,105
Direct investment abroad	-1,025	-603
Direct investment in Egypt (net)	5,730	376
Portfolio investment abroad (net)	-450	-128
Portfolio investment in Egypt (net)	12,216	-8,852
Bonds	2,273	-737
Source: Central Bank of Egypt		

Table 4: Egypt's Economic Freedom Score				
Category	Indicator	Score	Change from Last Score	World Rank
Rule of Law	Property Rights	35	-5	93
	Freedom From Corruption	31	+3	100
Limited Government	Fiscal Freedom	89.7	+0.1	27
	Government Spending	64.1	-1.2	94
Regulatory Efficiency	Business Freedom	63.8	-0.7	96
	Labor Freedom	53.7	+0.1	119
	Monetary Freedom	62.3	+1.5	170
Open Markets	Trade Freedom	74	0	100
	Investment Freedom	65	0	50
	Financial Freedom	40	-10	105
Over All Score		57.9	-1.2	100
Source: World Heritage Foundation, 2012 Economic Freedom Index				

The continuous rise in FDI inflows prior to the revolution was due to the commitment to the reform program that started in the early 90s. The government prior to the revolution seemed to declare its commitment to openness. The turnaround in FDI inflows may be attributed to the short run political instability shock, yet the mixed signals from the successive governments appointed since the revolution, together with public opinion have been more towards the halt of the privatization program, and resilient to any IMF conditionality in regards to new IMF loans. It is important for the new government to understand that political stability alone is not going to restore FDI inflows. While immediate attention should be given to stability and enforcing property rights protection, government debt, foreign debt and slow growth rates are of great importance in attracting FDI. In addition, foreign exchange reserves have to be restored; its sharp decline substantially reduces the authorities' margin to maintain macroeconomic stability. A commitment to the privatization program should be declared and IMF recommendations of sound fiscal policies, controlling subsidies, and increasing the financial sector efficiency should be considered.

CONCLUSION

Economic growth theory has pointed out the importance of FDI on growth. In most of the research work carried, FDI was positively linked to growth in developing nations of Asia, Latin America, Africa and of the transitional economies of the former communist bloc. Recent empirical findings also reassert that market size, openness, human capital, infrastructure, exchange rate, efficient financial sectors, government debt, and growth rates as determinants in attracting FDI. More recent research emphasizes the role of good governance, institutional quality, democracy and political stability. Egypt's political turmoil stands as the sole reason for the short term turnaround in its Economic indicators and the sharp drop in FDI. The new regime in Egypt should carefully learn from experiences of other developing nations in attracting FDI. Egypt was witnessing an impressive FDI inflow prior to its revolution, indicating that improvement in traditional FDI determinants was paying off; namely, its commitment to openness and to the reform program. A real quick solution for the political turmoil should be reached to reduce the long term effects of such an acute decrease in FDI inflow. In the short run the new regime should quickly focus on restoring its ability to protect property rights and the rule of law and on improving the institutional quality, however, FDI will not be attracted by political stability alone. The government has to recommit to the reform program and soundly declare its commitment to a policy of openness and market oriented rules, such commitment managed to keep in an accelerating FDI inflows prior to the revolution, and should be able to sustain it after political stability is achieved.

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INDUSTRY SECTOR AND EXPORT PERFORMANCE OF SMALL, LOCALLY-OWNED FIRMS

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ABSTRACT

This paper reports on the findings of an empirical investigation into the relationship between industry sector and the export performance of small, locally-owned firms in the Jamaican economy. Given the small size of the Jamaican economy, it is expected that all firms would be engaged in exporting but clearly this is not the case. It appears that the industry sector does impact on the ability to export. To investigate this issue, the paper uses survey data of 92 exporters and non-exporters to estimate a logistical regression model of the firm's export behaviour. The results revealed that industry sector, firm size and the nature of the firm's product are all important factors that influence its export behaviour. The novelty of the findings is also seen in the directionality of the relationship between industry sector and firm export performance.

Key words: **Export, industry sector, small, locally-owned firms**.

INTRODUCTION

There is a rich amount of work on the export performance of firms, especially the small and medium sized firm (Coviello & Jones, 2004; Jones & Coviello, 2005; Dana, 2004; Dimitratos & Jones, 2005; Rialp et al., 2005; Miesenbock, 1988; Leonidou et al., 1998; Leonidou, 1998; Leonidou & Katsikeas, 1996; Aaby & Slater, 1989; Coviello & McAuley, 1999; Oviatt & McDougall, 1994; Zou & Stan, 1998; Williams, 2009; 2011). These works have focused on different aspects of the firm's export performance such as: firm and managerial characteristics that impact on export performance (e.g. Leonidou et al., 1998), the impact of firm size and age (Zou & Stan, 1998; Miesenbock, 1988; Williams, 2011); factors that stimulate the decision to initiate export (Williams, 2009; Bilkey, 1978), among other issues. Still, the majority of works in this area focus on the managerial characteristics which influence export performance. Indeed, Aaby & Slater (1989: p.16) after reviewing 55 studies, which focused on the firm's export behaviour, concluded that: "it appears as if it is the management's commitment, perception and attitude towards export problems and incentives that are good predictors of export success". Further, Miesenbock (1988), in a comprehensive review of the literature, which looks at studies that focus on the firm's export behaviour, also shared the view that it is the persuasion of the decision maker that will determine whether or not the firm exports. This may help to explain the heavy bias towards looking at managerial factors in the quest to understand the firm's export behaviour.

Despite the heavy bias in research towards studying managerial factors in relation to small firms' export performance; other researchers have pointed out the importance of external variables that may influence performance (Zou & Stan, 1998; Cavusgil and Zou, 1994). Most studies focus on government policies (Alvarez, 2004; Wilkinson, 2006) and market characteristics (Katsikeas et al. 1996; Cavusgil and Zou, 1994). Although some efforts have been made in looking at external factors, it appears that there is still some way to go in order to better understand the impact of external factors on export performance. Indeed, in their review of the literature on the export performance of the firm, Zou & Stan (1998) argued that the research on the environmental factors that influence export performance was the lowest. According to Madsen (1987), it seems that the lack of emphasis on the environment is still characterising the export performance studies in the last decade. This observation made over two decades ago is still relevant today. Although there is a growing literature on the export performance of the firm

(Leonidou & Katsikeas, 1996; Leonidou et al., 1998), very little attention is paid to the role of external factors such as the industry sector in which the firm operates, in influencing the export performance of the firm. This is even more so, when the research is analysed from a geographical perspective. The role of industry sectors in small, open economies has not been studied to determine their impact on the export performance of the firm. For small, open economies, it is assumed that all firms will export if they are to grow, and survive because the small size of the economic sector will make it infeasible for firms to concentrate their activities solely on the local market[1]. However, with this expectation in mind, not one of the studies has focused exclusively on the role of industry sector on the export performance of the firm, especially the small, locally-owned firms[2]. It is this gap that has motivated this study. The study therefore aims to understand whether or not the industry sector has any impact on the export performance of the firm. The guiding question will be: what is the impact of industry sector on the export performance of small, locally-owned firms in a small, open economy?

To shed light on the research question, the remainder of the paper is organised as follows; the next section will look at the literature surrounding the critical variables of industry sector and other control variables such as firm size and age, and also the nature of the firm's product which it sells. Following this, the paper will look at the research method and then present the results from the findings. The paper will end with a discussion of the findings and some concluding remarks.

THE RESEARCH LITERATURE

This section of the paper looks at the main variables that the research focuses on. It will present the state of the literature on each of these variables.

Industry Sector

From the rich literature on export behaviour of the firm, it appears that the least studied aspect of this behaviour is the influence of external uncontrollable factors on the export performance of the firm. Indeed, Zou & Stan (1998) after a comprehensive review of the literature in this area, found that of the 50 studies reviewed, only 18 looked at the external environment and its impact on the firm's export performance. Other researchers have also recognised the gap in looking at the influence of the external environment on export performance by noting that the majority of studies focus on managerial and firm characteristics in determining export performance without looking at the external environment (Leonidou et al., 1998; Aaby & Slater, 1989).

The handful of studies which looked at the influence of external factors on the firm's export performance also shows some inconclusive results. In terms of the external environment, the works generally look at the industry characteristics, the domestic market characteristics, and the characteristics of the export market. Research findings in relation to the impact of these different aspects of the environment on the export performance of the firm vary. As it relates to the characteristics of the industry, some studies found that firms in more complex industries such as high technology or complex manufacturing have a greater proclivity towards exporting than those in industries with lower levels of complexity and low levels of technological intensity. In other words, when the industry is characterised by high levels of technological intensity and complexity in its operations, the influence on export performance is positive (Cavusgil & Zou, 1994). Further, other works have also suggested that when an industry is unstable, that is, characterised by rapid change in technology, riskiness and unpredictability, the influence on export performance is also positive (Das, 1994). This result resonates with Vernon's (1966) product cycle theory, which basically argues that as technology becomes obsolete in the home market, because firms do not recover the cost of their investments, they will export the product to foreign markets where the technology is still fairly new in order to recover the costs.

As it relates to the attractiveness of the export market as well, some studies found that markets that are characterised by strong economic development and have a potential demand for the firm's product will generally

have a positive effect on export performance (Williams, 2009). Further, where the barriers to the export market are also lower, the influence on export performance is positive. However, some works have not found a significant relationship between export market barrier and export market performance. That is, firms do not pay too much attention to the barriers to export because they find ways of circumventing these barriers and enter into export markets.

The domestic market environment also influences the export performance of the firm. Researches have found that where there is a national export policy, firms tend to respond positively to exporting (Katsikeas et al 1996). Further, where the domestic market is characterised by depreciation of currency and heavy competition, it does not have a significant effect on the export performance of the firm. Other researchers have also reported a negative relationship between the export performance of the firm and domestic market conditions (Madsen, 1989).

This paper will focus specifically on the industry sector in which the firm operates in order to determine its influence on the export performance of small, locally-owned Jamaican firms. Given the inconclusiveness indentified in the literature, it is clear that this is an area that needs further research. The sectors that are studied in this paper could not be considered to be high technology or complex in their operations. The majority of manufacturing is light manufacturing in sub-sectors such as tea, coffee, metallic products etc. It will be important therefore to see the impact that these sectors will have on the export performance of the small firms, which are their main occupants. Indeed, through the lens of the industrial organisation view of strategy, it would suggest that the firm's external environment and the firm's export strategy are the main determinants of export performance. This paper will test to see whether or not this theoretical justification holds in this new environment.

Firm Size

Besides the industry sector, firm size is seen as another important determinant of the export performance of the firm. The extensive literature on this aspect of the firm's behaviour has yielded mixed results. Size as an explanatory variable, has received quite a lot of attention in the literature on the firm's export behaviour (e.g. Andersson et al., 2004; Mittelstaedt et al., 2003; Hall & Tú, 2004; Pope, 2002; Bilkey & Tesar, 1977). The general finding however seems to be biased towards a positive relationship between firm size and export propensity (Miesenbock, 1988). Indeed, some studies have even tried to determine the appropriate size for successful export performance. Mittelstaedt et al. (2003) for example, have suggested that there needs to be a critical minimum size in order for exporting to take place. The recommendation is that below 20 employees, exporting becomes infeasible. This argument finds support with that of Bilkey (1978), who discovered that beyond a certain point, exporting is positively correlated with firm size, but below a minimum point, there is no correlation. Because size reflects the productive capacity of the firm, below a critical minimum, the firm will not have sufficient capacity to at least initiate exporting (Mittelstaedt et al., 2003). This argument however, is weakened if the only measure is the number of employees. Firms with less than five employees are observed operating in the export market (e.g. Bilkey & Tesar, 1977; Philp, 1998; Moen & Servias, 2002; etc.), whereas, the proxy for sufficient productive capacity is suggested as 20 employees minimum. Size as a surrogate for productive capacity seems to be an argument which better suits continued export development than export propensity.

Significantly also, other researchers have found results contrary to the common position on the size debate in the literature. For example, Hall & Tú (2004) looked at the impact of size on both measures of export performance; that is, export propensity and export intensity and found different results[3]. As it relates to export intensity they found a negative relationship with size, while for export propensity, there was a positive relationship with size. Other researchers found no relationship with size and export intensity (e.g. Czinkota & Johnson, 1983; Cavusgil, 1984b etc.). Czinkota & Johnson (1983) concluded that size did not substantially differentiate between managers' attitudes and the firm's experiences in exporting.

From a more critical look at the size and export propensity debate, Hall & Tú (2004) argued that it is the fixed cost associated with entry which makes size an important variable in the decision to export. The high fixed

cost involved with exporting is important because small firms, which are resource poor, are more vulnerable to sunk costs. To elucidate, fixed cost associated with search for market, negotiation, certification such as ISO and HACCP can be exorbitant. Small firms which are resource poor will not be able to afford these costs, as such; it may dissuade them from giving thought to exporting.

While the fixed cost argument seems compelling in justifying size as a significant variable that impacts the decision to enter export markets, if the firm has a highly competitive product and there is a growing demand in the export market for this product, there are methods which can be used to overcome the fixed cost problem. For example, firms may get assistance for certification from domestic governments. Some small firms may also network with larger firms which are resource rich and have already borne the fixed cost involved in exporting (Coviello & McAulley, 1999; Beamish, 1987; Bonacorssi, 1992; Lipparini & Lorenzo, 1999). Networking will help smaller firms to get their products in the export market at a lower cost than if they were to seek the market on their own.

Firm Age

Similar to firm size, the age of the firm has also received a reasonable amount of attention in the extant literature. Andersson et al. (2004) in the study on Swedish firms showed that age of the firm is not a significant factor in determining the level of internationalisation[4]. Further, Keng & Jiuan (1989) found that there is no statistically significant difference between younger and older firms' interest in exporting. They concluded that this finding does not give support to the contention that younger firms are more interested in exporting than older ones.

From the theoretical lens of organisation theory, the literature provides arguments to suggest that younger firms are more interested in exporting than older ones (Rhee, 2002; Autio et al., 2000). This theoretical lens points to structural inertia as a result of age. It posits that structural inertia in a firm increases with the age of the firm. This therefore, results in older firms being slower in responding to change compared to younger firms. Since exporting calls for important changes to be made in a firm's operational activities, it is expected that older firms will respond less quickly than younger ones.

Although the theoretical explanation from organisation theory sounds plausible, the literature is still fragmented in its empirical conclusions. For example, in a Peruvian study, Daniels & Goyburo, (1976) found evidence that older firms are more likely to become exporters. The interpretation is that Peruvian firms serve their local market first then gradually move to the export market. It could reasonably be argued that this finding was before the rapid liberalisation of the world's trading system and also the massive improvements in information and communication technologies. As a result, it could be reasonably expected that firms operating in this era would behave in this incremental way towards exporting. However; today, these factors (trade liberalisation, improvements in information and communication technologies) have provided a strong stimulus inducing firms to enter export markets. Therefore, it may be argued that age will no longer be a barrier to exporting. More recently however, Brouthers & Nakos, (2005) although they did not measure export performance as export propensity, showed that older firms are more likely to be more successful in the export market. The implicit assumption is that these firms are more likely to become exporters. Moreover, because the resource based view of venture internationalisation argues that firms gather resources over time and export initiation requires large amount of resources, then it is expected that older firms will have more resources upon which to build an international basis (Bloodgood et al., 1996). This therefore may explain the findings that show a positive relationship between firm age and export performance.

Nature of the Firm's Product

Like size and age, the nature of the product which the firm offers seems to have some influence on its export performance. This factor has also received some attention in the extant literature. The characteristics of the firm's product take into account, degree of standardisation, quality, uniqueness, usage:- consumer or industrial

(Cavusgil & Nevin, 1981; Christensen et al. 1987; Aaby & Slater, 1989; Wiedershiem- Paul et al 1978; Leonodou & Katsikeas, 1996).

The interpretation from the extant literature is that firms which possess products that do not have to adapt to conditions in the export market are more likely to be engaged in exporting (Christensen et al., 1987; Vernon, 1966; Tookey, 1964). That is, firms with products that can be sold both in the domestic market and the international market with just minor variation, will get involved in exporting easier than those firms that have to make monumental changes to the product before it can be sold overseas. Tookey (1964), in a study of hosiery firms in the Leicester area in Britain, found that a large number of firms did not export because they failed to adapt their products to the demands of the export market. Importantly, adaptation of a product to the conditions in an export market is important to small resource poor firms due to the costs involved. The fixed cost involved in having two separate production lines (one for the domestic market and one for the export market) can be exorbitant for small firms. Therefore, they try to create a product that can be sold locally and with minor adjustments (e.g. adding contents to labels); it can also be sold in the export market. This cost may be trivial for firms in the service sector, but for firms in merchandise trade, it can be exorbitant.

Indeed, the literature seems to be suggesting that; firms which do not have to adapt their products to the conditions in the export market are stronger candidates for export market entry than those that have to (Balabanis et al., 2004; Tookey, 1964; Contractor et al., 2003). However, for increased export revenue, the literature is strongly biased towards adaptation of the product to the demands of the export market (Christensen et al., 1987; Tyebjee, 1994; Rodriguez & Rodriguez, 2005). Importantly however, adaptation or standardisation of the firm's product is a function of other features of the product and also the line of business which the firm operates in. For example, products such as toilet tissue can be sold in almost all markets without any adaptation to the specific market. However, certain garments (e.g. winter coats) cannot be sold in tropical countries without modifications (Williams, 2009). It is these specific features that will make it necessary to do further work to see whether or not the firm's product offering does influence its export performance.

THE RESEARCH METHOD

The data employed were derived from a survey of 92 firms in the manufacturing and agricultural sectors in the Jamaican economy. The size of the Jamaican economy provides a novel context for this research to take place. The economy is small with a GDP of approximately US$13billion and a population of 2.7million peoples. Given this small market size, exporting becomes an important activity for the growth of firms and by extension, industry sector. This limited size will make it necessary that all firms participate in international business if they want to ensure their survival. Further, Jamaica is in very close proximity to the United States, the world' largest economy with GDP of over US$13trillion and a population of over 300million peoples. This distance provides an opportunity for Jamaican firms to export their outputs to this market with minimum transportation cost.

Exporting is seen as one of the most feasible ways to stimulate growth in the Jamaican economy and reverse the negative trends of its macro-economic performance given its small market size. The general macro-economic indicators in Jamaica are very weak with macro-economic instability being a regular feature of the Jamaican economy for over 30 years. Export policymakers are interested in getting more firms to export as a way to improve the growth performance of the Jamaican economy. To do this however, they will have to be clear on the role of industry sector in motivating firms to export, especially the small firm, given that the majority of firms in the Jamaican economy are small. This paper will focus on how the industry sector impacts on the firm's export performance.

Data Collection Strategy

The data for this study were derived from an interviewer administered survey with small firm owners; the key informants, who are local owners of these firms in the Jamaican economy. Firms in specific areas of the manufacturing sector (food, beverages and tobacco, garment and textile, furniture and fixtures, chemical and rubber etc) and the agricultural sector (coffee, tea, vegetables, fish, fruits etc) were interviewed for the study. The interviews were conducted using a semi-structured instrument. Respondents were asked to reflect on the questions asked and respond as best as possible. Where there was need for clarification, the researcher explained ambiguous terms to the interviewers.

The Research Variables

For this study, variables were classified as dependent and independent in order to shed light on the research issue. The dependent variable is export performance as measured by export propensity. This captures whether or not the firm exports its products. The variable is operationalised using a binary variable where 1 is given to the firm that exports and 0 otherwise. The independent variables for this study are: industry sector as measured on an ordinal scale, firm size, as measured by the number of employee, firm age as measured by the time since the firm started it operations, and the nature of the firm's product as measured by a dummy variable where 1 is assigned if the firm exports a product without much modification and 0 otherwise. Table 1 below presents a summary of these variables and how they are operationalised.

Table 1: Operationalisation of Variables		
Variable Name	**Operational Measure**	**Previous Works**
Nature of the firm's product	Dummy variable 1= no changes made to the product for export 0= changes made to the product before exporting	Tyebjee, 1994; Tookey, 1964; Madsen & Servias, 1997; Brouthers & Nakos, 2005
Industry sector	1= Food beverages and tobacco 2= garment and textile products 3= Furniture and fixtures 4=Farming(vegetables fish, fruits etc) 5= Printing and publishing 6= Paper and paper products 7= Chemical, rubber and plastics 8= Essential oils 9= Non-metallic pottery and glass	Zou & Stan, 1998
Firm Size	Number of employees	Pope, 2002; Mehran & Moini, 1999; Obben & Magagula, 2003
Firm Age	Number of years since firm was legally established	Das, 1994; Brouthers & Nakos, 2005
Export Performance	Dummy variable 1= exporter 0 = non-exporter	Obben & Magagula, 2003, Rodriguez & Rodriguez, 2005

Data Analysis

The dependent variable is dichotomous in nature as such; to determine how the independent variables relate to it, a model from the qualitative genre of econometric models is used. The logit model was chosen as the tool to carry out the analysis. It helps us to predict the likelihood of a firm becoming an exporter given its location in an industry sector, its age, its size, and the nature of the product it has. Further, because the sample frame for small, locally owned firms in Jamaica is not known, it is difficult to estimate the true population mean and variance. As such, one cannot be sure about the normality of the population from which the sample was drawn. Using the logit model to analyse data from this population helps to overcome the problems identified. The logit model is less sensitive to violation of the normality assumption (Gujarati, 2003).

The form the logit model takes for this analysis is captured in Equation 1 below.

$$\text{Logit (Y)} = \ln(P/1\text{-}P) = \alpha + \beta_1\varphi + \beta_2\lambda + \beta_3\mu + \beta_4\theta + \varepsilon \qquad \textbf{(1)}$$

Where
$\varphi =$ industry sector
$\lambda =$ firm size
$\mu =$ firm age
$\theta =$ nature of the firm's products

The dependent variable Y captures the firms export performance, that is, whether it is an exporter or not. If it is an exporter, it gets a 1 and if not a 0.

The next section of the paper outlines the results derived from the analysis of the data using the logit model.

RESULTS

This section of the paper reports on the results from the analysis of the data. Table 2 below highlights the results derived from the estimation of the logit model which focused on likelihood of the firm becoming an exporter given its industry sector and also its age, size and product.

Table 2: Logistic Regression- Model with a Constant (N=92)				
Independent variables	β	*Wald*	*Sig.*	**Exp(β)**
Constant	-1.231	2.059	.151	.292
Industry sector	-.230	3.978	.046*	.795
Firms Size	.044	11.564	.001*	1.045
Firm Age	.034	.064	.800	1.035
Nature of the product	1.900	12.295	.000*	6.687
2LL(Initial Model)	127.4			
-2LL(Final Model)	99.9			

Table 2: Logistic Regression- Model with a Constant (N=92)				
Independent variables	β	*Wald*	*Sig.*	**Exp(β)**
χ^2 (df)(Final Model)	27.4**			
χ^2 (df)Hosmer & Lemeshow test	13.02***			
Nagelkerke R^2	.34			
R^2_L	.22			
% Correct Prediction	67.4			

*   Variables are significant at the 0.05 level of significance
**   Statistic is significant at the 0.05 level of significance   (p=0.00)
*** Test is non-significant at the 0.05 level of significance   (p=.11)
     R^2_L = 1- (Final model -2LL/ Initial model -2LL)
   Dependent variable is export performance (1= exporter, 0 = non-exporter)				

According to the model, the likelihood of a small, locally-owned firm in Jamaica becoming an exporter is related to the size of the firm, the nature of the firm's product and the sector that the firm operates in but not its age. In other word, to answer the research issue that this paper has under investigation, the results suggest that the industry sector significantly impacts on the likelihood of the small firm becoming an exporter. Given the negative sign on the co-efficient, the interpretation is that as the complexity of the sector increases, the likelihood of the firm becoming on exporter is lower. This is so because sectors with lower levels of complexity were labelled with lower numbers and those with higher complexity were labelled with higher numbers.

Table 3: Model Without Constant				
Independent variables	β	*Wald*	*Sig.*	**Exp(β)**
Industry sector	-.305	8.764	.003*	.737
Firms Size	.035	10.763	.001*	1.036
Firm Age	-.112	1.557	.212	.894
Nature of the product	1.697	10.691	.001*	5.455
2LL(Initial Model)	127.6			
-2LL(Final Model)	102.1			
χ^2 (df) (Final Model)	25.5**			
χ^2 (df) Hosmer & Lemeshow test	9.9***			
Nagelkerke R^2	.32			
R^2_L	0.20			
% Correct Prediction	70.7			

*   Variables are significant at the 0.05 level of significance
**   Statistic is significant at the 0.05 level of significance   (p=0.00)
*** Test is non-significant at the 0.05 level of significance   (p=.27)
     R^2_L = 1- (Final model -2LL/ Initial model -2LL)
   Dependent variable is export performance (1= exporter, 0 = non-exporter)				

Interestingly, the original model found that the constant term was insignificant statistically. This suggests that the model can be estimated without the inclusion of the constant term. Table 3 below shows the results from this analysis.

Indeed, this further sensitivity analysis of these models suggests that the results are robust. All the variables that were significant from the estimated model with the constant remain significant under the model without the constant. Industry sector which is the critical variable of choice is seen as significant in both models. The Nagelkerke R^2 and the model R^2 remain stable as well as the other goodness of fit measures of the model such as the Hosmer and Lemeshow statistic. The Hosmer & Lemeshow statistic remains non-significant at the 5 percent level of significance ($p > 0.05$), which suggests that the predicted model is not different from the theoretical or observed model. Further, the predictive accuracy of the model is also high, which suggests a good model fit. Tables 4 & 5 below show the predictive accuracy of the model with the constant included and without the constant.

Table 4: Predictive Accuracy of Model- Constant Included				
Observed		Predicted		
		Export Performance		Percentage Correct
		Non exporter	Exporter	
Export Performance	Non exporter	31	17	64.6
	Exporter	13	31	70.5
Overall Percentage				**67.4**

Table 5: Predictive Accuracy of Model- Without Constant				
Observed		Predicted		
		Export Performance		Percentage Correct
		Non exporter	Exporter	
Export Performance	Non exporter	33	15	68.8
	Exporter	12	32	72.7
Overall Percentage				**70.7**

Overall, the results derived from the analysis are robust given the model fit and the strong diagnostic statistics.

DISCUSSION AND CONCLUDING REMARKS

This paper has set out to understand the impact that industry sector has on the export behaviour of small, locally-owned firms from Jamaica, a small, open economy. Viewing the research problem through the lens of Industrial Organisation theory, which posits that the performance of a firm is really a function of external factors and not so much the firm's internal organisational resources; the research used multivariate statistical technique to determine the impact of the industry sector on the export performance of the firm. Indeed, the external environment imposes pressure on the firm to which it has to react in order to survive. Therefore, the characteristics of the industry sector can influence the export performance of the firm. The results from the estimated model suggest strongly that the industry does impact on the export propensity of the small, locally-owned firms in Jamaica. Critically, the results suggest that there is an inverse relationship between industry sector and export performance. In this case, the

interpretation is that as small firms in Jamaica move to more complex industry sectors, their likelihood of becoming an exporter is reduced compared to those in less sophisticated sectors. This is interesting given that the extant literature posits that firms in more technologically intensive sectors and industry sectors that are seen to be more complex are more likely to become exporters.

Indeed, while the findings in the Jamaican context adhere to the general trend in the literature which finds that industry sector impacts on export performance, the novelty of the directionality of the findings seem to be related to context. The industry sectors studied in this research are manufacturing (mainly light manufacturing) and agriculture. From all indications, these sectors are not heavily technological in nature and also, their operations are not very complex either. Firms therefore from these sectors that are exporting would not be too concerned about the complexity of their operations or the technological sophistication of their sector. It appears that exporting becomes a natural strategy given the size of the sector. The lack of understanding about how to operate in complex sectors and to use complex technology maybe the main reason for these small firms not giving much thought to these issues in their consideration to become exporters. Also, the cost of operating complex manufacturing plants and purchasing sophisticated technology can be quite exorbitant. The small firms in this study are too resource poor to be able to afford these technologies. This inability to acquire the technology and manage complex operating processes may have prevented these firms from operating in more complex sectors. This could explain why there is indeed a negative relationship between industry sector and export performance. This situation however, may be peculiar to Jamaica given its limited resource stock and its low level of technological sophistication. Research in other jurisdictions that are more technologically sophisticated and have more complex manufacturing operations may see a direct positive relationship between industry sector and export performance. The findings from this paper however, support the need for very strong context specific studies in this area of work.

Besides, the industry sector, the results also suggest that the nature of the firm's product and the size of the firm are other important factors that influence the export performance of small, locally-owned firms in Jamaica. The interpretation of the results suggests that firms of larger size are more likely to become exporters than smaller firms. This is reflected in the positive and significant relationship between firm size and export performance. The implication here is clear. Firms that want to play in the export market will have to grow from being mere micro firms to a reasonable size so that they can acquire the resources necessary to carry out international business operations. Getting involved in international business is not an effortless task and it requires a huge commitment of resources (Johanson & Vahlne, 1977; Williams, 2009). Firms that are micro in nature will more than likely not be able to have sufficient resources to take on international operations. As the firms become larger, they will acquire sufficient resources that can help them to launch their international operation. It is therefore important for managers to grow their enterprises if they are to become successful in the export business.

Another important variable that the model suggests in influencing the export performance of small, locally-owned firms is the nature of the firm's products. The interpretation from the results is that as firms standardize their products, it is much easier for them to become exporters. This is quite a compelling argument in the context of small firms that are generally resource poor. The cost for adaptation is exorbitant and if export market requires that products be adapted, then most small firms will not be able to afford it. Small firms that create a product, which requires slight modification before it is sold in the export market will find this more attractive than if they were to make one product for the export market and one for the domestic market. Again, the implication is clear. If small firms in Jamaica want to improve their chance of becoming an exporter, they will have to create a product that does not require significant modification in order to be sold in the export market. The very limited resources which these firms possess will make it almost impossible for them to be able to adapt their products to the export market.

Concluding Remarks

This study has demonstrated that industry sector does influence the export performance of Jamaican firms. It showed that similar to other studies in the extant literature, there is indeed a statistically significant relationship

between industry sector and export performance. However, the directionality of the impact seems to differ in this particular study. The results revealed an inverse relationship between industry sector and export performance. Firms in less complex and technologically intensive sectors are more likely to export than those in complex and more technologically intensive sectors. This novelty in the findings reveals the importance of context specific studies in this area of work.

While the results are robust, one of the limitations of the study is that a more nuanced treatment of industry sector could have been done. Further researchers could look at the characteristics of the industry to better determine issues of complexity and technological sophistication. This would help to provide stronger argument about the directionality of the results.

ENDNOTES

[1]   Small, open economies are generally referred to as those with a population of less than 10 million and with trade to GDP ratio of more 100 percent.

[2]   These are firms with 100 or less employees and are not apart of any larger establishments. Their headquarters are located in the domestic economy.

[3]   Export propensity looks at whether or not a firm exports while export intensity looks at the portion of sales from export as a percentage of total sales.

[4]   Internationalisation here was measured as export performance; that is, both export intensity and export propensity.

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AN INTERNATIONAL LOOK AT ATTITUDE TOWARDS ADVERTISING, BRAND CONSIDERATIONS, AND MARKET EXPERTISE: UNITED STATES, CHINA, AND INDIA

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ABSTRACT

This paper, in its exploratory nature, sets out to understand to the similarities and differences between the United States, China and India respondents based on three marketing constructs; Attitude towards Advertising, Brand Considerations and Market Expertise. It is one of the first studies to compare China and India. The study found that 89% of the questions in the survey generated a significant difference between two of the three countries.

INTRODUCTION

The United States market represents a diverse marketing environment. This diversity is complicated by an even more complex global environment. The environment's impact on marketing has created new marketing opportunities. This study explores the differences among three marketing components across three countries; the United States, China and India. The three marketing components are Attitudes towards Advertising, Brand Considerations and Market Expertise. This study focused on the Chinese and Indian markets, in comparison with one another and the US market. This focus was chosen because China and India are two of most important emerging markets and loosened trade barriers have allowed for increased imports of foreign brands. Studies focusing on customer behavior for both China and India together have been limited (Kumar et. al., 2008).

Furthermore, marketing theories are traditionally based on US concepts and the transferability across cultures may be challenged. As such, examining the applicability of US-based constructs in other countries has increased in importance (Lee and Green 1991; Durvasula et.al. 1993). This study seeks to better understand if traditional marketing scales are useful for Chinese and Indian respondents. The key goal was understand the underlying differences between the three respondent groups.

LITERATURE REVIEW

While research on customer behavior of China and India is limited, there are emerging trends and traits that influence their consumers' respective actions.

China

China has developed a strong presence in the international markets, as the world's third largest economy (Businessweek, 2010), representing the world's second largest exporter, behind the European Union, and world's fourth largest importer. It has enforced a strict child-bearing policy leading to an increasingly large aging population (CIA, 2010). China represents a growing economy of changing needs.

Attitude towards Advertising

The advertising market in China is the second largest in the world (Ferle et al, 2008) with past projections to overtake the US market by 2015 (Hong Kong Trade Development Council, 1998). This growth has led to an increase in mass media exposure (Zhou et al, 2002). Advertising has been viewed by the government as a fundamental component to economic prosperity. A study conducted in 1990 by Polley et. al found positive attitudes towards advertising and attributed it to the government encouragement and support of advertising. Zhao and Shen found in 1995 that many viewers were irritated with television commercials (Zhou et al, 2002), creating mixed opinions over the positive views of advertising.

Luxury Implications on Brand Consideration

Albatross Global Solutions, a marketing services agency in Asia, and Ruder Finn Inc., a public relations agency, issued a report in 2009 on China's Luxury Goods and its consumption that stated, "China surpassed the United States to be the world's second largest luxury goods consumer after Japan, from the beginning of 2008 to January 2009, accounting for 25% of global sales. The Ministry of Commerce last September predicted China would become the world's largest luxury market by 2014" (Wenlei, 2009). This trend is prompted by an emerging middle class that is striving for more and better designer items that represent social status, wealth, personality and taste. However, this market is uneducated on the connotations of the brands and is embracing conspicuous consumption to fit in (Wenlei, 2009). China has seen an evolution of generations. The first generation had little and was unlikely to consume luxury goods, while the second generation was sensitive to prices. The third generation has been more privileged and consumed luxury since childhood, making them less price sensitive and highly loyal to certain brands (Wenlei, 2009, p. 42). This evolution of society would likely produce results that favor materialism and brand preference. Other research has shown that with increased globalization entering the Chinese markets, consumers are becoming more brand conscious and its generation Y cohort demonstrates an increased likeliness of spending (Stanat, 2006; Cass, 2008). This same

cohort perceives higher status with certain brands and thus is willing to pay a premium (Cass, 2008).

Market Expertise

To date, research on market expertise in China has not been uncovered. The researchers were unable to locate any past trends or behavior to formulate an anticipated reaction the market expertise component of the survey.

India

India is making waves in the global world with an over trillion dollar economy and a new currency. The new currency will create a distinctive character and identity highlighting its economic strength and robustness as a destination for global investments (News, 2010). Two-thirds of its population resides in the countryside and over half of its labor force works in agriculture. However, India has seen a boom in its services sector creating an affluent middle class, with rising incomes and more access to credit (India, 2009). The emerging economy and growing wealth has created changing behaviors.

Attitude towards Advertising

While research on India's attitude towards advertising is limited, a study conducted in 2009 analyzed Indian's attitude toward email advertising. The study found that their attitudes were influenced most by the content and the frequency of the advertising message via email (Hag, 2009).

Brand Considerations

The branding marketplace has transformed "with an inflow of foreign brands that are competing with the traditional long-established Indian products. Before there was essentially a monopoly: one brand of soap for the low end, one brand for the high end. People now find it difficult – there's a choice for everything. People are just starting to realize the importance of branding," reports a Mumbai-based branding agency (Colyer, 2006, n.p.). Overall branding expertise in India is regarded as low, equating to advertising in the minds of manufacturers. The manufacturers lack the understanding of the rational component of branding including product quality that gives confidence and motivation to induce customer purchase (Colyer, 2006). However, the awareness of branding is on the rise; in particularly western branding excels with knowledge driven products, luxury items or desirable products (Colyer, 2006).

Market Expertise

The consumption patterns share close relation to values and social relationships; national culture has been shown to influence consumer behavior (Jaishankar, 1998; Banerjee, 2008).

Outside of this basic understanding of a link between culture and behavior, no research to date was found on market expertise in India.

RESEARCH METHODOLOGY

This exploratory research was conducted through the use of multiple validated US scales to understand the three marketing components; Attitude towards Advertising, Brand Considerations and Market Expertise. It is one of the first studies to compare India and China simultaneously and in comparison with the United States.

Attitude towards Advertising Scales

Richard Lutz's scale, Affective and Cognitive Antecedents of Attitude toward the Ad and the Public Opinion Toward Advertising scale developed by Pollay and Mittal were used as the foundation for the attitude towards advertising questions in this study.

Richard Lutz's work uncovered five antecedents of attitude toward the ad including ad credibility, ad perceptions, attitude toward the advertiser, attitude toward advertising in general, and mood (Lutz, 1985; Durvasula et.al, 1993). His work defined attitude toward advertising in general, used in this study, as "a learned predisposition to respond in a consistently favorable or unfavorable manner to a particular advertising stimuli during a particular exposure occasion" (Lutz 1985, p. 46). The importance of attitude towards particular advertising has been shown through research to influence brand attitudes and purchase intent (Mitchell and Olson 1981; Shimp 1981).

Richard Pollay and Banwari Mittal developed the Public Opinion toward Advertising scale in 1993. The scale was developed through multiple convenience samples with validity provided from LISREL tests proving predictive validity of overall attitudes. The scale shows attitudes as a series of beliefs reflecting three personal use and four societal effects. The personal use variables are product information, social role and image and hedonic/pleasure, while societal effects are good economy, materialism, value corruption and falsity/no sense. These seven components were covered through questions constructed on a 5-point agree-disagree scale (Pollay and Mittal, 1993). A complete list of the questions can be found in Appendix A.

Brand Consideration Scales

After careful research the authors compiled the brand consideration questions using the following scales; Brand Consciousness by Donthu and Gilliland (1996), Brand Consciousness and Choice Confusion by Gehrt and Shim (1996), Brand Loyalty by Mittal (1994), and Shopping Styles: Consumer Styles Inventory by Sproles and Kendall (1986). A complete list of the questions can be found in Appendix A.

Market Expertise Scales

The scales used to develop the market expertise component include the Market Maven Scale by Feick and Price (1987) and the Material Values Scale by Richins and Dawson (1992). A complete list of the questions can be found in Appendix A.

Lawrence Feick and Linda Price developed a scale that provides a valid measure for market mavens, called the Market Maven Scale. They were able to "conclude: market mavens exist, consumer can identify them and they use them in making purchase decisions." Market mavens are "individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information" (Feick and Price, 1987, p. 85). These individuals seek information that they believe is useful for others or creates conversation; unlike opinion leaders with specific product knowledge (Feick and Price, 1987, p. 83-97).

The Material Values Scale developed by Marsha Richins and Scott Dawson in 1992 provided validity for materialism as a value that involves beliefs and attitudes that guide how life is conducted. They identified three themes that reflect the values placed on material goods and the respective roles played in their lives; possessions as defining success, acquisition centrality, and acquisitions as the pursuit of happiness (Richins and Dawson, 1992).

Survey

Based on these scales, a survey was constructed and composed of 77 questions using a five-point Likert Scale (see Appendix A). The survey included three segments; 29 questions based on Attitude towards Advertising, 20 questions based on Brand Considerations, and 28 questions based on Market Expertise. The survey was distributed in English electronically through email lists in the USA, China and India in the three separate survey segments, allowing respondents to answer all three, or two, or one of the segments. Segments were presented in randomly to negate order bias and respondent wearout, and questions within each segment were also presented in random order. Respondents were given the opportunity to opt out and/or pass the link along to others, thus creating a snowball sample. Although the initial email lists in each country represented 100 randomly selected possible respondents, due to referrals, the resultant sample sizes were actually larger than the 100 initial respondents and actual response rates cannot be calculated.

RESULTS

The overall finding concluded that most items were significantly different in at least two of the three countries. The findings were further analyzed to determine when all three countries were significantly different from one another and where there were no significant differences among all three countries.

Respondent Sample Size

All survey segments that were not fully completed were eliminated from the analysis. The respondent size for the three survey components is outlined below in Table 1. The Chinese population represented the largest number of respondents, as more Chinese respondents fully completed their surveys. Additionally, Chinese respondents were more likely to pass the link along for others to answer.

Table 1: Respondent Sample Size			
Country	**Attitude Towards Advertising**	**Brand Considerations**	**Market Expertise**
USA	203	220	209
China	310	325	270
India	101	110	110
Total	**614**	**555**	**589**

Analysis

The data was first analyzed using ANOVA, which was used to determine that there were overall differences among respondents in the three different countries. Survey items were analyzed further using independent sample T-tests, testing for a significant difference of $p < .01$. A significance value of $p < .01$ was used to determine the exact sources of differences among respondents. Each country's responses were run against the other two countries to determine differences. Only differences where all three countries were significantly different from each of the other two are reported.

Attitude towards Advertising

The three countries showed significant differences for three of the attitudes towards advertising questions tailored towards societal effects (see Table 2). Indian respondents were the most speculative toward advertising and believed it to be misleading and to pass on the costs to consumers. The fact that China lies in the middle between the USA and India in terms of advertising being misleading is not surprising. A study by Zouh, Zhang and Vertinksy (2002), found that only a small of percentage of Chinese respondents believed advertising was misleading. The same study also supports China's more positive attitude toward advertising costs; the study found, in support with past studies that individuals with higher education levels tend to have a more positive attitude towards advertising (Zouh et al., 2002; Shavitt et al., 1998; Zhao and Shen, 1995). India's negative thoughts compared to the US and China could be supported by lower per capita advertising expenditures and novelty of television advertising (Durvasula et. al, 1993).

Table 2: Attitude toward Advertising: Significant Differences (p<.01)			
Question (5=Strongly Agree, 1=Strongly Disagree)	**Highest**		**Lowest**
Advertising misleads people.	India 3.58	China 3.26	USA 2.93
Advertising costs are passed on to me.	India 4.12	USA 3.76	China 3.37
Advertising costs are passed on to consumers.	India 4.12	USA 3.76	China 3.37

Throughout all three countries, only two questions resulted in no significant difference (as seen in Table 3). The views of the individuals aligned, neither agreeing nor disagreeing, on advertising resulting in better products and raising the standard of living. Zouh, Zhang and Vertinsky (2002) found that attitudes toward advertising of Chinese, when compared to Americans, held the same or more positive views towards adverting; making the lack of differences unsurprising. The similar positive attitude towards advertising of India and the US is supported by a study conducted by Durvasula et. al, (1993) which found that the US and India had similar positive attitudes toward advertising in general.

Table 3: Attitude toward Advertising: No Significant Differences (p<.01)			
Question (5=Strongly Agree, 1=Strongly Disagree)	**Highest**		**Lowest**
Advertising results in better products for me.	China 3.27	India 3.18	USA 3.16
Advertising raises the standard of living.	China 3.25	India 3.13	USA 3.06

Brand Considerations

Of the 20 brand consideration questions, only one resulted in a significant difference among all three countries; having a hard time to choose where to shop (see Table 4). This difference is supported by India's new inflow of foreign brands, further increasing competition among local brands and providing consumers with more choices. This finding is supported by low brand expertise and organized retail only compromising 3.5% of the market with a negligible brand culture (Colyer, 2006), making it less likely that brands would influence and drive them to particular products and stores due to low brand knowledge in relation to the US and China.

Table 4: Brand Considerations: Significant Differences (p<.01)			
Question (5=Strongly Agree, 1=Strongly Disagree)	**Highest**		**Lowest**
Sometimes it's hard to choose which stores to shop.	India 3.31	China 2.98	USA 2.58

Four of the brand consideration questions resulted in no significant differences among all three countries (see Table 5). All respondents expressed a similar opinion regarding brands are about the same, choosing expensive brands, nice department stores offer better products and limiting their supermarket purchases to their favorite brands.

Table 5: Brand Considerations: No Significant Differences (p<.01)			
Question **(5=Strongly Agree, 1=Strongly Disagree)**	**Highest**		**Lowest**
All brands are about the same.	China 2.56	USA 2.51	India 2.35
The more expensive brands are usually my choice.	India 2.90	China 2.69	USA 2.62
Nice department/specialty stores offer me the best products.	India 3.40	China 3.29	USA 3.15
For most supermarket items, I have favorite brands and limit my purchase to them.	India 3.57	China 3.51	USA 3.48

Market Expertise

The Market Expertise component presented the most significant differences among all three countries. India scored the highest, placing it closer to strongly agree on eight of the nine significantly different questions, followed by China. The Indian and Chinese respondents were more likely to share their knowledge, which is likely a component of their collectivist culture compared to the US (de Mooij, 2005; Ferle et.al, 2008) making them more likely to exhibit characteristics of market mavens. Surprisingly, of those eight questions the Indian respondents showed higher levels of materialism, with the exception of the question regarding material possessions, which the US scored highest on. The high levels of Indian materialism are likely attributed to their newfound ability to attain luxuries that were unattainable (Mishra, 2009).

Despite the differences that existed in the materialism among the three countries; materialistic views in regards to admiring others, the importance of owning possessions, and happiness received from things were similar among all three countries (see Table 7).

Table 6: Market Expertise: Significant Differences (p<.01)			
Question **(5=Strongly Agree, 1=Strongly Disagree)**	**Highest**		**Lowest**
I like introducing new brands and products to my friends.	India 3.48	China 2.69	USA 2.07
I like helping people by providing them with information about many kinds of products.	India 3.60	China 2.73	USA 2.22
People ask me for information about products, places to shop, or sales.	India 3.38	China 2.72	USA 2.47
I know a lot of different products, stores, sales, and I like sharing this information.	India 3.33	China 2.78	USA 2.44
I like a lot of luxury in my life.	India 3.31	China 2.85	USA 2.48

Table 6: Market Expertise: Significant Differences (p<.01)			
Question **(5=Strongly Agree, 1=Strongly Disagree)**	**Highest**		**Lowest**
Some of the most important achievements in life include acquiring material possessions.	USA 3.63	India 3.54	China 2.66
The things I own say a lot about how well I'm doing in life.	India 3.54	USA 3.07	China 2.80
I don't pay much attention to the material objects other people own.	India 3.43	China 2.98	USA 2.71

Table 7: Market Expertise: No Significant Differences (p<.01)			
Question (5=Strongly Agree, 1=Strongly Disagree)	**Highest**		**Lowest**
I admire people who own expensive homes, cars, and clothes.	India 2.97	China 2.93	USA 2.90
The things I own aren't all that important to me.	China 3.00	India 2.84	USA 2.56
I wouldn't be any happier if I owned nicer things.	India 2.91	USA 2.84	China 2.83

CONCLUSIONS

This research study is one of the first exploratory studies comparing China, India and the United States, based on multiple US marketing constructs. Past research has focused on the comparison with the US individually. It is also one of the first studies to look at the reaction of Chinese and Indian consumers using market expertise scales. The reactions found in the attitude towards advertising aligned with past research. The differences found in the brand consideration section were supported by different stages of economic growth; the emergence of foreign and domestic branding knowledge is still expanding in China and India. It was interesting to see that all three countries, given their different levels brand knowledge, agreed that all brands are not the same. While the high levels of materialism found by the Indian respondents was surprising, considering most of the population lives in countryside and works in agriculture, it is not surprising the more educated individuals surveyed showed materialist aspirations in line with the US and China.

Limitations

This research was limited by the size and type of the sample and the demographic representation of the respondents. The sample, although initially randomly selected, became a convenience sample due to the ability to share the survey with others. Additionally, the sample size is relatively small, resulting in a higher error rate when generalizing responses to the overall population of each country. The resultant sample was also biased toward a younger age group (20-40 years old) of respondents. Additionally, the Indian respondents were predominantly male.

The sample was also confined to English-respondents. It was distributed to those with English as a second language, thus presenting an opportunity for translation errors or misunderstandings. The use of United States-based constructs, where few studies have examined the applicability of these for other countries and cultures (Durvasula et. al, 1993; Lee and Green 1991; Hui and Triandis, 1985), presents the opportunity for invalid inferences.

Future Research

The goals of future research include expanding the current sample size to include a wider age representation that is more representative of each country's population. More research is needed to understand the true significance and differences that exist among all three countries. Future research markets also include the other two BRIC countries, Brazil and Russia. This research will also require purification and validation of the marketing scales, and the need for translation of these scales to improve understanding of the questions. The goal is to better understand and explore these three marketing components across the emerging economies to allow companies and universities to better understand how these different markets respond to advertising, brand considerations and market knowledge.

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APPENDIX A

All questions were asked on 5-point Likert scales, where 5=Strongly Agree and 1=Strongly Disagree.

Attitude Toward Advertising Questions

Advertising misleads me.
Advertising misleads people.
Advertising persuades people to buy products they do not need.
Advertising persuades me to buy products that I do not want.
Advertising promotes materialism.
Advertising insults my intelligence.
Today's standards of advertising are higher compared with 10 years ago.
Most product advertising is truthful.
Advertising is a good source of information.
Advertising improves public taste.
Most people do not pay too much attention to advertising.
Advertising presents a true picture of the product being advertised.
People have more confidence in advertised products than in unadvertised ones.
I do not pay much attention to advertising.
Advertising insults people's intelligence.
Advertising is bad.
Advertising results in better products for me.
Advertising is essential.
Advertising raises my standard of living.
Advertising results in lower prices for products.
Low sales levels would result from decreased advertising.
I have more confidence in advertised products.
Advertising costs are passed on to me.
Advertising costs are passed on to consumers.
Advertising is good.
Advertising is necessary.
Advertising results in lower prices for me.
Advertising raises the standard of living.
Advertising is wasteful.
Advertising is a good source of information for me.
Advertising results in better products.

Brand Consideration Questions

Nice department stores/specialty stores offer me the best products.
The more expensive brands are usually my choice.
Store brands are of poor quality.
The higher the price of a product, the better its quality.
The well-known national brands are best for me.
All brands are about the same.
Differences among brands are hard to judge.
I usually purchase name brand products.
Differences among brands are large.
The best brand is hard to judge.

In most product categories in the supermarket, there are certain brands for which I/my family have a definite preference.

Sometimes it is hard to choose which stores to shop.

Once I find a product or brand I like, I stick with it.

I have favorite brands I buy over and over.

For most supermarket items, I limit my purchase to favorite brands.

There are so many brands to choose from that I often feel confused.

I go to the same stores each time I shop.

I change brands I buy regularly.

The more I learn about products, the harder it seems to choose the best.

All the information I get on different products confuses me.

I/my family will consume only certain brands and not others.

Market Expertise Questions

I like helping people by providing them with information about many kinds of products.

I know a lot of different products/stores/sales, and I like sharing this information.

People ask me for information about products/places to shop/sales.

I like introducing new brands/products to my friends.

If people asked where to get the best buy on products, I could tell them where to shop.

My friends think of me as a good source of information when it comes to new products/sales.

Some of the most important achievements in life include acquiring material possessions.

It sometimes bothers me quite a bit that I can't afford to buy all the things I would like.

Buying things gives me a lot of pleasure.

The things I own say a lot about how well I am doing in life.

When I watch commercials, I usually want what is shown.

I like a lot of luxury in my life.

I enjoy spending money on things that are not that practical.

Most people who have a lot of money are happier than most people who have only a little money.

I like to own things that impress people.

My life would be better if I owned certain things I do not have.

I would be happier if I could afford to buy more things.

I admire people who own expensive homes/cars/clothes.

I do not place much emphasis on the amount of material objects people own as a sign of success.

I put less emphasis on material things than most people I know.

I would not be any happier if I owned nicer things.

I try to keep my life simple, as far as possessions are concerned.

I have all the things I really need to enjoy life.

Money is not everything.

I usually buy only the things I need.

The things I own are not all that important to me.

I do not care whether my clothes have a designer label on them.

Having a nice car is important, but school/education is more important.

I do not pay much attention to the material objects other people own.

AN INTEGRATION OF CULTURAL FRAMES OF REFERENCE WITH THE MARKET ENTRY DECISION

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ABSTRACT:

Most models predicting the foreign market entry decision focus on integration strategy. This paper analyzes the decision from the home country only. The actions expected of managers in their home country play a significant role in the entry mode decision and these expectations are generally ignored. Instead firm level Competitive Advantages and Efficiency gains are often hypothesized to determine entry mode decisions. Social exchange is conducted with behavioral as well as economic payoffs and the entry mode decision is not immune to these unseen payoffs. Drawing from several conceptual points of view this paper uses Institutional theory to conceptualize how national culture leads to a preferred frame of reference for the entry mode decision.

Keywords: culture, frames of reference, decision-making, role theory, entry mode, conceptual.

INTRODUCTION

Current models of Foreign Direct Investment do not account for the influence cultural differences have on market entry mode decisions. Previous research has focused on which cultures provide the best fit for a favorable outcome.(Kogut and Singh 1988; Shimizu et al. 2004) The scope of this paper is limited to the role culture plays in determining the entry decision made by the home country manager. Drawing on cross cultural and institutional theory we attempt to identify the cognitive processes home country managers utilize and the influence of cultural roles, norms, and values on these processes. We also provide a set of propositions that apply the influence of culture to the decision model.

A firm's strategy cannot be separated from personal assumptions of a manager and each manager brings their own set of personal values and assumptions about alternatives. (Simon 1958) We propose to examine the cultural factors that influence a manager and thus a firm's entry mode decisions. Researchers have linked strategy to top-level management characteristics including age, experience, education, background, locus of control, and risk taking. (Grimm and Smith 1991) We seek to extend this literature to include the impact of culture on manager's decision making processes in regards to the market entry choice.

Globalization and market positioning are taking place at an unprecedented speed, and in order to keep up many firms are moving quickly to expand operations into new foreign markets.

Gaining access to larger markets and increasing capabilities has become an increasingly important topic. Firms are searching for the optimal strategy to gain competitive advantages in the global market. Despite the significance of the initial entry decision, little is known about the process leading to this decision. Based on the work of Williamson (1975, 2008) Most existing theoretical approaches rely on the assumption that the ability to control the foreign market subsidiary is the primary predictor of which markets a firm will enter and what entry mode they will use.

Institutional theory has been used in several areas of marketing including marketing channels, systems, and supply chain management. (Grewal and Dharwadkar 2002; Iyer 1997; McFarland et al. 2008) According to Institutional Theory the actions of an organization are dependent upon a larger social and historical context which plays a significant role in determining what those actions will be. (Powell 1991) An organization may adopt a practice or process based upon institutional pressure. It is environmental uncertainty that prompts firms to conform to new and evolving business practices. In this way some risk is attenuated by this mimetic behavior. (March et al. 1976) Even when there does not appear to be an immediate financial incentive for adoption a firm may enhance their reputation and credibility by signaling their knowledge of current practices. (Scott 2000; Zucker 1977) Using institutional theory we intend to show how national culture leads influences entry mode decisions.

There is a great deal of literature regarding entry mode decisions within the cross cultural management and strategy literature. Much of the literature considers the Resource Based View (RBV) and also the Institutional view of Transaction Cost Economics (TCE) as providing the framework an organization uses to make entry mode decisions. Both views have advantages for decision making, and both have often failed to consider the cultural dynamics of the entry mode choice. (Brouthers 2002; Buckley and Casson 1998; Keith D. Brouthers 2000; Zhao et al. 2004)

Relying on a model of mostly rational decision making, the RBV view has assumed managers have the ability to identify the costs of 'liability of foreignness' as well as the benefits of a future synergy between home and host country(Chen and Chen 2003; Zaheer 2002). The TCE approach assumes individuals will sometimes exhibit opportunism or "self seeking with guile" and because of this managers must choose a strategy of control to mitigate this risk. (Williamson 1981) Both views do assume bounded rationality and that sometimes managers will satisfice or choose a course of action that is good enough (Simon 1955)

In this paper we will begin with a brief review of RBV and TCE. Then we proceed by suggesting an alternative for understanding the initial decision making process of managers. We continue by applying cognitive decision theory to the RBV and TCE frameworks. Then we will look at the decisions managers face when deciding whether to pursue a strategy that includes globalization. Figure 1 gives a graphical overview of the model we propose to explain foreign market entry strategy. First the focus of this model is on the role of cognitive processes in decision making. We then examine the influence of national culture on these processes. A distinguishing feature of this model is that we do not assume rationality as a parameter. Instead

we assume that managers have limited cognitive capabilities and limited access to relevant information. Since they have limited information and cognitive capabilities they will rely heavily on the role expectations of their home country.

Managers' perception of their role differs significantly across cultures. (Yaconi 2001) How they regard; the involvement of colleagues in decision making, threats to their authority, and issues of the scope of their control are all institutionalized behaviors. (Whitley 1994) There is agreement among the social science disciplines that a manager's position will determine their behavior more than their own personal characteristics.(Yaconi 2001)   The paper follows the following model. We propose that the entry mode decision is more internalized than previously considered.   Consistent with previous research we predict that national culture leads to managerial role expectations. We suggest that these role expectations lead to a decision frame that is largely homogenous within cultures. This homogenous decision frame promotes similar decisions by managers within the same country regardless of the performance of the decisions. While firm specific factors and the competitive environment do come into play, the focus of this paper is on the significance of the solid lines represented in the top row of this model.

Essentially we suggest that the Macro environment leads directly to the micro environment and eventually plays a significant role in the decision frames that individual manager's use when choosing and entry mode.

Figure I: Model of Home Country Culture and Entry Mode Decision
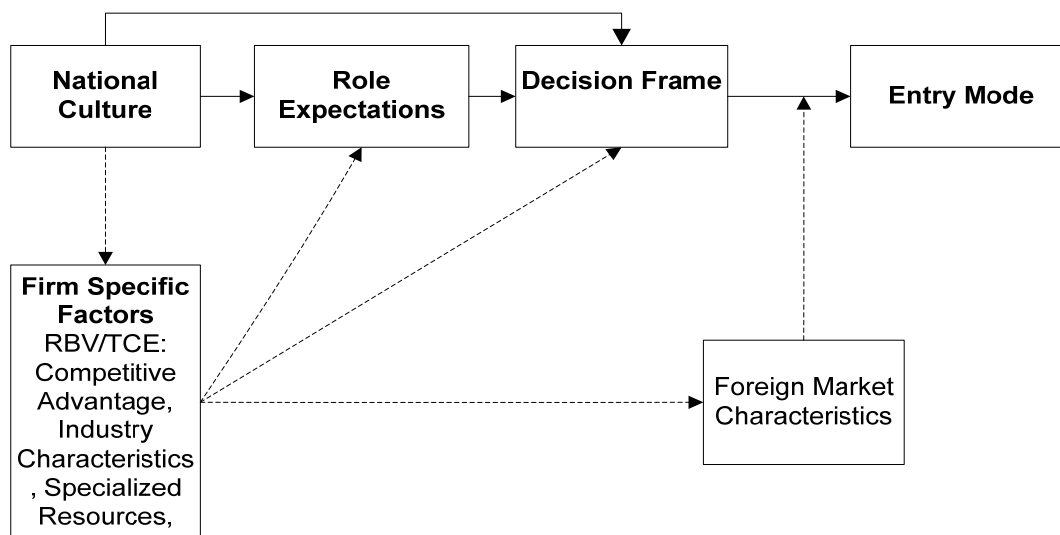
VIEWS OF THE FIRM

In 1776 Adam Smith explained the benefits of the division and specialization of labor and their contribution to productivity and economies of scale. Although he wasn't necessarily focused on the origins of the corporation he did say, "*Whoever offers to another a bargain of any kind, proposes to do this. Give that which I want and you shall have this which you want, is the meaning of every such offer; and it is this manner that we obtain from one another the far greater part of those good offices that we stand in need of.*" (Smith 1776) In this context if you and I are going to trade; we would each need to be in possession of what the other party would like. If you do not have or will not negotiate for exactly what I'm after and neither does anyone else; the result is what TCE literature has called market failure. If I have resources that you desire it may be worth your while to find a way to "make or buy" what I'm after. (Coase 1937)

All companies need to consider how to best use their limited resources with the goal of gaining the highest return on those resources. How to invest in the development of new products, how to efficiently manufacture, and market your product are the common questions every business must ask. In management and marketing theory there are currently several views on how these decisions are made, two of the dominant views are ; Transaction Cost Economics (TCE) and the Resource Based View (RBV). The two views both deal with the nature of firm boundaries or whether or not a firm should make or buy. TCE frames decisions as seeking efficiency gains while RBV bases decisions on obtaining competitive advantage even if some efficiency may be sacrificed. Essentially both assume a great deal of rationality with the goal of maximizing profits.

In both views firms consist of a bundle of transactions and deciding which transaction to move outside the firm and which to leave internal is determined in a way that maximizes profits. In TCE the costs of transactions is minimized by considering the effects of opportunism, bounded rationality, and asset specificity and in the RBV efficiency is produced by maximizing or creating value that might not exist within the market thereby maximizing the firm's competitive advantage. (Barney 1991) At first glance the two views appear to offer excellent models for determining an entry mode strategy.

Resource Based View

According to the RBV of the firm, managers evaluate decisions based on the firm's ability to identify and develop resources that are; Valuable relative to competitors, Inimitable or difficult to duplicate and Non-substitutable.

The firm's decisions will be determined by the measures required to protect and acquire these resources. A company's goal is Sustained Competitive Advantage or maximizing and maintaining the value of current capabilities. The RBV theory explains foreign market entry as a process intended to gain access to the research and knowledge of other organizations in order to

produce competitive advantage. (Barney et al. 2001) This approach relies heavily on the ability of a decision maker to calculate some probability of success.

Transaction Cost Economics

In TCE market failure is the result of the existence of bounded rationality, opportunism, and asset specificity. According to Williamson (1985 p.30) When these conditions are present together they often result in the formation of the firm or governance structure. According to TCE the formation of a firm allows exchanges with fewer transactions, reduced uncertainty, and reduced opportunism. These conditions bring about asset specificity which arises when assets become customized to the user,(Anderson and Schmittlein 1984) or when redeploying the assets for another purpose does not produce the same value, bounded rationality the idea that it is impossible to have perfect and complete information at any given time, (Simon 1955) and opportunism which is defined as "self interest seeking with guile," (Williamson 1975) have been empirically observed and analyzed in several research disciplines using several different methodologies. (Richman and Macher 2006) The most prominent of the conditions for integration is the presence of asset specificity. (Anderson and Schmittlein 1984) Williamson's outline of TCE views governance choice on a continuum from market to hierarchy. Although it is viewed as a continuum most research makes predictions based on a discreet choice between market and vertical integration. (Geyskens et al. 2006a)

Uncertainty, opportunism, frequency, and asset specificity all lead to market failure. (Geyskens et al. 2006b)Asset specificity refers to the ability of an asset to be redeployed without loss of value. Opportunism refers to the assumption that at least some people will act with "self interest and guile" (Williamson 1981) Furthermore, uncertainty concerning outcomes and the potential for opportunistic behavior increases as the number of firms willing to provide the required service or product decreases. For TCE new market entry is done to increase efficiency and the entry mode chosen depends on the level of opportunism. A possible benefit of increasing the number of new entrants in an industry or country would be to produce a situation with many rivals; limiting the ability to behave opportunistically.

Decision Frames

Theories based on rational choice have been used to explore and understand a variety of issues involving human behavior, be it in economics, psychology, sociology, political science, philosophy or history. These theories have been used to describe situations, explain mistakes, and make predictions. Rational expectations theory is the basis for most decision models including RBV and TCE. The theory allows for random errors but not systematic errors. Misspecification of cultural values, norms and roles in any decision model would be a systematic error.

Most prior research in the business literature focuses on the expected utility model of decision making. However, March and Simon wrote that "Most human decision making, whether individual or organizational, is concerned with the discovery and selection of satisfactory alternatives; only in exceptional cases is it concerned with the discovery and selection of optimal alternatives." (Simon 1958)In a review of how managers perceive risk March and Shapira (1987) found that most executives do not consider probabilities of success. Even when it would be possible for them to use conscious decision making strategies they often see themselves as risk takers. "Risk taking fits into social definitions of managerial roles."(p.1414)

In addition in three separate case studies of decision making processes Alexander (Alexander 1979) found that shared beliefs in an organization tend to constrain the alternatives considered. He found that before any formal process of evaluation begins; the informal process selects the 'best' alternatives to consider. The possible alternatives are reduced before a problem is ever made salient. (p.397) Following March and Simon's advice we will abandon a search for an optimal strategy for choosing a foreign entry mode. Instead we will focus on a description of the actual decision process without the assumption that the two are equivalent.

Studies in strategic decision making have identified cognitive groups and found that they affect firm performance. In fact, Margaret Peteraf has proposed that a strong group identity will lead to suboptimal behavior. "Group members may prefer imitation over differentiation even if differentiation is the optimal strategy. " Managers imitate other managers even if there is no apparent benefit. (Peteraf and Shanley 1997) This reasoning is in line with current decision making models that tell us that norms and values help individuals form cognitive heuristics. Choosing which cognitive shortcut to use is a function of your frame of reference which itself is determined by norms, values, and beliefs.

The most common heuristic is to simply do what others do. However, many others are available and in use including; choose the last or first alternative, do the opposite of what didn't work, a little tally of what others would do, or avoid the worst case. (Gigerenzer. and Todd. 1999) There are an abundance of real-world examples of individuals considering decision problems one at a time instead of adopting a broader frame. According to Kahneman broad and narrow frames often lead to different preferences. (Kahneman and Lovallo 1993; Kahneman and Tversky 1979; Kahneman 1999) The rational decision maker must consider more alternatives and adopt a broader frame of reference.

National Culture

In addition to the TCE and RBV decision frameworks are studies using institutional theory to examine culture, trust, and role expectations. (Gulati 1995; Hodgkinson et al. 1999) In role theory individuals are considered social actors each playing many parts in their homes, organizations, and countries. Expectations are developed by 'averaging' the actions of individuals in specific categories. These categories then become the expected behavior of

specific roles. There is evidence that self perceived roles differ based on nationality and values. (Peterson et al. 1995; Smith. et al. 2008; Yaconi 2001)

Roles come about formally as well as informally through normative expectations. (Scott 2000) These expectations are developed by interactions of actors with one another. In addition to this interaction, the assignment of roles is accomplished through the matching of capabilities and functions. These roles operate within an organization which is within a society. Individuals define the roles which combine to produce society itself. In situations with strongly established societal tradition it becomes difficult for an individual to define or even have much influence on their own role. The forces of tradition have the power to coerce. (Weber 1957)

In this way actions are determined by society. Specific roles are assigned to social positions like manger. Everyday decisions may become the result of carrying out your role. "Commonly accepted social values serve as media of social transactions that extend the range of social processes beyond the limits of direct social processes." (Blau 1954) These values set the value or "price" of the non-economic portion of exchange. "Influence of others is purchased at the price of allowing one's self to be influenced by others."(Homans 1961) Rather than focusing only on the economic payoffs; we should account for the behavioral payoffs as well.

When we understand that there are normative standards and expectations of fair exchange and that these standards are determined by culture we may be able to link economic transactions to social exchange. Examining RBV and TCE we can see some convergence with sociological theory. In the RBV and TCE framework we see that the initiator must desire some resource, efficiency or *behavior* that another party is able to provide (capability). That's as far as RBV and TCE can go. At this point calculating success becomes too difficult and heuristics take over. The initiating party's frame of reference (culture) leads them to some conception of how the other party will respond. They generally believe that the other party will respond to a reasonable offer. By way of mutual agreement an exchange takes place. The conditions that resulted in a satisfactory exchange for both parties are remembered and repeated eventually resulting in predictable patterns of exchange. Order and expectations become established.

Both TCE and RBV see decision making as primarily a calculative process and both views tend to explain market entry post hoc. (Barney et al. 2001; Buckley and Casson 1998; Williamson 1981) Alternatively, managers may play roles such as being decisive, accessible, charismatic, professional, flexible, and fair. (Yaconi 2001) The management role is embedded with the heuristic used in decision making. This heuristic takes either a broad or narrow view and depending upon the nationality of the manager. The role also includes the post hoc rationalized framework for decision making. That framework may be efficiency seeking (TCE), advantage seeking (RBV), or whatever decision is in line with the expectations or isomorphic pressures on the manager. (Meyer and Rowan 1977)

From our model we will use three of Hofstede's dimensions and the role expectation that those dimensions lead to. We believe these expectations lead to a broad or narrow frame of reference which predicts the most likely mode of entry. Hofstede's (1991) culture dimensions

include; *Power distance* which is the degree to which less powerful members of organizations accept and expect that power is distributed unequally. *Individualism* is the degree to which people in a society prefer to act individually. *Collectivism* is the degree to which they prefer to act within a group and *Uncertainty Avoidance* is a society's unwillingness to deal with ambiguity.

The Following Table shows the relation between Hofstede's Cultural Dimensions, Yaconni's Role expectations, and the proposed decision frame and choice made by the Manager. The entry mode in the model is hypothesized to be independent of host country characteristics

RESEARCH PROPOSITIONS

Our model considers three entry modes 1) Greenfield is the establishing a new business in a foreign country; 2) IJV refers to a partnership involving two or more companies with joint control over a separate legal organization with one company headquartered in a foreign country; 3) Wholly Owned Subsidiary refers to the acquisition of another company in a foreign country. We propose that the entry mode choice is influenced not only by the culture of the foreign country but also by the culture of the home country which plays a role in determining the frame of reference used by decision makers.

> P1   *Relative to managers from countries with Low Uncertainty Avoidance; Managers from countries with High Uncertainty Avoidance will be more likely to choose a Greenfield entry mode.*

Managers from High Uncertainty Avoidance countries will focus on the level of control. Using the TCE framework their entry mode decisions will be based on reducing risk and mitigating the opportunism.

> P2   *Relative to countries with High Uncertainty Avoidance, Managers from countries with Low Uncertainty Avoidance will be more likely to choose an IJV entry mode.*

Managers from Low Uncertainty Avoidance countries will focus their entry mode decision on the perception of the lowest cost alternative. In this case the cost will be the direct economic cost of entry with less concern and possibly disregarding the potential for opportunism. These managers entry mode strategy will focus on the lowest economic cost.

International Joint Ventures provide companies information, resources, and economies of scale and scope. They also allow firms to share risk. (Gulati et al. 2000) Companies belonging to alliances can focus on their core competencies while continuing to learn and add value to their products and processes thru collaboration. These alliances seek cost efficiency by coordinating more like a market than a traditional chain of command. (Miles and Snow 1995)

      P3   *Relative to managers from countries with Low Power Distance; Managers from countries with High Power Distance will be more likely to choose a wholly owned subsidiary entry mode.*

Managers from High Power Distance countries will choose the entry mode that offers the greatest opportunity to maintain the current hierarchy. These managers will be the most likely to see the value of a WOS.

      P4   *Relative to managers from countries with High Power Distance; Managers from countries with Low Power Distance are more likely to choose an IJV entry mode.*

Managers from Low Power Distance countries will choose the entry mode that offers the best opportunity for Synergy. Using the RBV framework and a commitment to cooperation these firms are likely to search for and choose partners that are similarly committed to an International Joint Venture.

      P5   *Relative to managers from countries with Low individualism; Managers from countries with High Individualism will be more likely to choose a WOS entry mode.*

Managers from countries with High Individualism value independence as well as the independence of others. The dichotomy presented here suggests these countries will seek to protect their own independence and allow others to guard their independence as well. Using the TCE framework; IJV presents the most efficient alternative. However, as institutional duality takes effect these firms seek to protect their independence and move to the WOS entry mode.

      P6   *Relative to managers from countries with Low Collectivism; Managers from countries with High Collectivism will be more likely choose a Greenfield development entry mode.*

Mangers from countries with High on the Collectivism dimension will seek to maintain their in-group's harmony and avoid outside influences as much as possible. They will consider more alternatives and use a broader frame of reference than countries that are lower on the collectivism dimension. Using the RBV framework they will be more likely to pursue a Greenfield mode of entry.

DISCUSSION

One premise of the paper has been that firms do not enter a foreign market because of competitive advantages nor to reduce costs. They enter because that's what they are expected to do and because that is who they are. Both RBV and TCE assume foreign market entry is done to 'get' some resource. While one view focuses on the level of control and the other on imitable resources both could benefit by taking another look at social factors influencing organizations.

(Maitland et al. 1985)Organizations are socially constructed and there may not be a single "rational" best business or business practice. (Whitley 1991)

Table I: Entry Mode Rationalization			
Hofstede's Dimensions (Hofstede 1994)	**Role Expectation (Yaconi 2001)**	**Frame of reference (Kahneman and Lovallo 1993)**	**Most likely mode of entry / and rationalization**
High Uncertainty Avoidance	**Directive/Accessible** Highly rational. Faith in Decision Models but not in People	broad	Greenfield TCE *Seeking control*
Low Uncertainty Avoidance	**Flexible/Charismatic** Adaptable informal and persuasive	narrow	IJV RBV *Seeking lowest cost but willing to work with others*
High Power Distance	**Directive/Integrity** Sole decision maker attempts to be fair	narrow	WOS TCE *Seeking to maintain hierarchical culture.*
Low Power Distance	**Exemplary/Synergetic** Model for others looks for ways to improve the group	broad	IJV RBV *Seeking synergy*
Individualism	**Directive/ Empathetic** Independent and respects the independence of others	narrow	Start with IJV and move to WOS TCE *Seeking to maintain control*
Collectivism	**Professional/Accessible** Preservation of harmony with in group(Smith et al. 1996)	broad	Greenfield RBV *Seeking to maintain group culture and maximize group benefits*

When a manager says "I've considered all the alternatives and this is most efficient" perhaps now he could say the TCE framework has been successful. When considering the foreign market entry decision evaluating every alternative is not really possible. This would include considering every mode of entry, every country, every region, every level of control, every management decision. Or perhaps RBV could be considered correct since the uniqueness of every foreign market entry certainly offers some type of inimitable knowledge resource if it survives. Assuming that resource or efficiency outcomes were planned and known about a priori seems to be attributing some super normal cognitive capabilities to management.

Our framework outlines and alternative process for determining cultural fit. Rather than using a measure of cultural distance as Kogut and Singh recommend; it may be beneficial to look for a fit based on complimentary cognition. (Kogut and Singh 1988) We may consider that the decision is a separate choice from integration strategies and may be viewed separately. Following entry the firm may then develop integration strategies.(Foss 2002; Madhok 2002)

The effect of culture on the home countries decision process has been an underdeveloped area of study. Understanding how culture and decisions interact and presenting a more socialized view of managers could help us better understand the situations we find ourselves in.

In the decision making approach described here, the decision is the product of culturally dependent cognitive process. Given the cognitive and cultural differences among managers we would expect different results, decisions, and strategies across countries.

CONCLUSION

A common limitation of the current research in MNE is that it primarily relies on the expected utility model of decision making with success or performance as the dependent variable. It seems that in doing this research the same model should be applied to the MNE's performance in the home country. It would be helpful to know if there is a difference in the decision processes of managers when facing international expansion versus home country expansion. In other words if we compare home country JV, M&A, and Greenfield development by a firm with the same activities internationally are they similar?

It seems that a great deal of effort is placed on investigating the culture of a host country and its influence on MNE integration and entry decisions.(Magnusson et al. 2008) However, little has been done to examine the influence of home country culture on the management decision making process. The popular strategy is to assume a host country has been targeted and then entry mode is made based on cultural distance and control. (Kogut and Singh 1988) This is supposedly to maximize the efficiency or competitive advantage of the firm.

In every field there exists the idea that we can do better that there is an optimal way that strategies and decisions can be made or modeled. That may be the case but finding a model based on a managers' calculative ability appears to be the fantasy of unbounded rationality. Examining Transaction Cost Economics (TCE) and the Resource Based View (RBV) theory of the firm we see that both attempt to explain the entry mode strategy yet neither consider the influence of culture.

While transaction cost and resource based research in building within nation organizational relationships and strategies continue to progress much of it assumes that what is done is optimal and can be explained in terms of control and resources. (Akerlof and Kranton 2005; Barney 2001; Doney et al. 1998; Madhok 1996; Williamson 1981) The model presented in this paper focuses on the cognitions of the manager in predicting the mode of foreign market entry. Although to some it may seem shocking to consider entry mode decisions without the

industry and economics as the primary force in determining entry strategy, decisions must be made and it is irrational to consider the expected utility model.(Cohen et al. 1972) Neither TCE nor RBV adequately considers the culturally determined cognitions of managers and either could benefit by understanding how and why the firm has gone to the host country in the first place.

The multicultural marketplace has increased the attention paid to internationalization of companies and the frequency of cross border transactions. Firms are attempting to capitalize and capture value in the diversity of human, natural, and social resources. Increasingly this is done by seeking growth and resources through Foreign Direct Investment. The decisions how and when to enter a foreign market is being made more frequently yet with little to suggest that the process is improving. How can this be explained?

Two interesting questions this raises are; would a team decision model change the outcomes or are the mental models of managers so homogenous that within the same organization the output would be identical. Would an international heterogeneous (international) management team using different mental models interact in a process that produces a collective output that is more reliable than the individual's?

While we have hypothesized the most likely entry mode strategy future interests also lie in determining which cultures offer the best potential for a successful match. In predicting and planning foreign market entry we can benefit from understanding that standards of social contribution and status serve a similar function as money and that these "cultural values legitimate the social order and the various arrangements that sustain it." (Blau 1954)p254) Once these standards are better understood it may be possible to more productively move towards predictable patterns of international exchange.

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CONTAGION BETWEEN THE BOLSA MEXICANA DE VALORES AND NYSE DURING THE CREDIT CRUNCH–FINANCIAL PANIC OF 2008

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ABSTRACT

The authors use the performance of the Índice de Precios y Cotizaciones and NYSE index to examine the extent of the contagion between the two markets during the credit crunch and financial panic of 2008. The authors develop a model to capture the impact of financial events in 2008, and then examine with daily data the relationship between each event and with daily and weekly data the behavior of each index. Statistical results are consistent with the contagion hypothesis that the Mexican Bolsa quickly impounded financial events in the United States.

INTRODUCTION

In this paper we examine the relationship between the market for stocks in the United States and México during the credit crunch of 2008. Minsky (1968) described a credit crunch as a ". . . colorful way of describing intense pressure upon banks and other financial institutions." Kaufman (1991) commented that stabilizing an economy works through credit crunches, not through the seamless, incremental fine tuning of interest rates and the cost of capital because monetary policy does not restrain access to everyone to the same extent. He observed that monetary restraint works by severely limiting or eliminating altogether access for some marginal borrowers. Whitney (2009) noted that 2008 illustrated a perfect credit crunch: "Large, well-capitalized companies have no problem finding credit. Small businesses, on the other hand, have never had a harder time getting a loan."

The 12 months of 2008 are notorious for credit and financial dislocations that occurred in U.S. markets. In fact, Mishkin (2011) notes the dislocations led to the Great Recession of 2009 and 2010, the longest recession in U.S. history. Not only did financial events of 2008 affect U.S. economic activity, but also they affected México adversely. Skelton and Quintin (2009) refer to the México *año horible* (horrible year) and note that it occurred as a result of events in the

United States. They comment on the similarity of the severity of the recent recession in México to that of the mid-1990s, the Tequila Crisis from an abrupt depreciation of the Mexican peso.

We examine financial events in 2008 and their impact on two indices, the index of the New York Stock Exchange (NYSE) and Índice de Precios y Cotizaciones (IPC). We find that the two indices were statistically affected similarly and that events were quickly impounded in index values, thus supporting the contagion hypothesis.

This paper and its results are useful to both investors and financial managers. Investors gain from international diversification when returns from global stock markets are not correlated. However, the benefit from diversification disappears when there is contagion, that is, when markets are statistically related. We show evidence that the Mexican Bolsa and the NYSE were closely related during the credit crunch and financial panic of 2008, discrediting the notion that diversification of investment portfolios between U.S. and Mexican stock markets contributes to an increase in risk-adjusted return. U.S. and México financial managers will find this paper useful because it shows that their activity as managers influences not only returns to local shareholders, but also returns to foreign investors.

The paper is organized as follows. Part1 considers the literature of contagion and places this paper within that body of literature. Part 2 discusses events of 2008 and the performance of the NYSE and IPC. Part 3 describes the steps used to build the model. Part 4 presents results of the statistical analysis, and Part 5 is a summary and conclusion.

THE LITERATURE OF CONTAGION

Because this paper examines the relationship between U.S. and Mexican stock markets, it fits in the body of literature addressing contagion in financial markets. The trend to greater contagion worldwide is associated with the technology-driven proliferation of trading systems and efforts by government regulators to promote competition among markets. Dungey, Fry, and Gonzalez-Hermosillo (2004) survey various methods to model contagion and note that results from empirical studies vary depending on the way contagion is modeled. Forbes and Rigobon (2002) comment on the "widespread disagreement" of a definition of contagion. They observe that researchers define contagion in such a way as to facilitate hypothesis testing. Some define contagion as a statistically significant correlation across global financial markets. Several studies of financial markets use this and related definitions of contagion to find that contagion is prevalent in world financial and economic systems. For example, King and Wadhwani (1990), Longin and Solnik (2001), Eichengreen, Rose, and Wyplosz (1996), Hamoa, Masulis, and Ng (1990), Goldstein, Kaminsky, and Reinhart (2000), Forbes and Rigobon (2002), Hon, Strauss, and Yong (2004), and Larrymore and Murphy (2009) used their definitions to show empirically that markets and economies are linked.

Some researchers modify the correlation definition of contagion to consider the increase in cross-country correlations during crisis times relative to those during tranquil times. If cross

correlations do not increase during a time of crisis, then significant cross correlations capture only interdependence (Forbes and Rigobon 2002). Studies by Ang and Bekaert (2001) and Longin and Solnik (2001) show that cross-correlations of international equity markets are higher in periods of volatile markets. Using correlation analysis, Lee and Kim (1993) find evidence of contagion in global stock markets after the 1987 U.S. stock market crash. Forbes and Rigobon (2002) investigated the incidence of contagion in the Asian crisis of 1997, the Mexican Tequila Crisis of 1994, and the U.S. market crash of 1987. They found no evidence of contagion, only interdependence. In their examination of the impact of September 11, Hon, Strauss, and Yong (2004) found that both short- and long-term relations between U.S. and Mexican stock returns increased substantially after September 11 and so supported the contagion hypothesis as defined as an increase in cross correlations during times of crisis.

Economic theory explains the presence of financial contagion in U.S. and Mexican markets. Kehoe and Ruhl (2010) develop a theory to explain the stagnant economic growth of the Mexican economy and the economic basis of contagion. Economic growth of an emerging economy, they note, depends upon economic and financial relationships between the industrial leader and the emerging country. It is easier for a country to grow faster than the industrial leader when an economy is far behind, but more difficult as the country approaches the leader. As a country gets closer economically and financially to the industrial leader, rapid growth stops and levels off at the trend growth rate of GDP per working-age person. Kehoe and Ruhl compare the United States, México, and China. The more rapid growth rate of China arises because China is economically farther from the United States than is México (2008 GDP per working-age person in México $20,755; in China $7,986). As México approached economically and financially the United States, its growth leveled off at the trend growth rate of GDP per working-age person, 2% annually for México. The close economic relationship between U.S. and Mexican economies contributes to contagion between their financial markets.

Mendoza (2010) and Hanson (2010) present economic theory that suggests the presence of contagion between U.S. and Mexican markets. Mendoza (2010) builds a model relating financial crises in México to the increased financial leverage of companies and individuals during an economic upswing. In an open economy, increased financial leverage spreads from the industrial leader to the less developed country. When collateral restraints are reached, U.S. and Mexican economies react similarly, experiencing a sudden stop and financial crisis. Hanson (2010) examined the development of credit markets in México and pointed out that for credit markets to affect economic growth, they must affect economic productivity. He presents evidence that credit markets affect productivity and economic growth. Increased and increasing economic trade between the United States and México suggests presence of contagion in the financial markets.

EVENTS AND MARKETS IN 2008

Table 1 lists financial-market events of 2008 from Sarkar and Shrader (2010). The U.S. Treasury and Federal Reserve moved to allay market uncertainty and halt systemic risk by fiat, changes in regulations, and moral suasion.

Table 1: Financial Events of 2008	
14 Mar	Bear Sterns gets emergency loan from Fed
16 Mar	JPMorgan moves to purchase Bear Sterns
11 Jul	Run on IndyMac
15 Sep	BOA purchases Merrill Lynch; Lehman files for bankruptcy; AIG debt downgraded
16 Sep	RWC money market fund "breaks the buck"
25 Sep	WaMu closed by OTS
29 Sep	Systemic risk exception granted to Wachovia
14 Oct	Nine banks agree to Treasury capital injection
23 Nov	Citigroup receives government assistance

For example, on 14 March the Fed made an emergency loan to Bear Sterns. Treasury injected capital into nine banks on 14 October and assisted Citgroup on 23 November. These moves failed to allay uncertainty and restore conditions in the financial markets. Lack of success of these actions is evidenced by a run on IndyMac (11 July), the money fund RWC broke the buck, Lehman filed for bankruptcy (15 September), and the Office of Thrift Supervision closed Washington Mutual (25 September).

Figure 1
Performance of IPC and NYSE
(2007–2008)
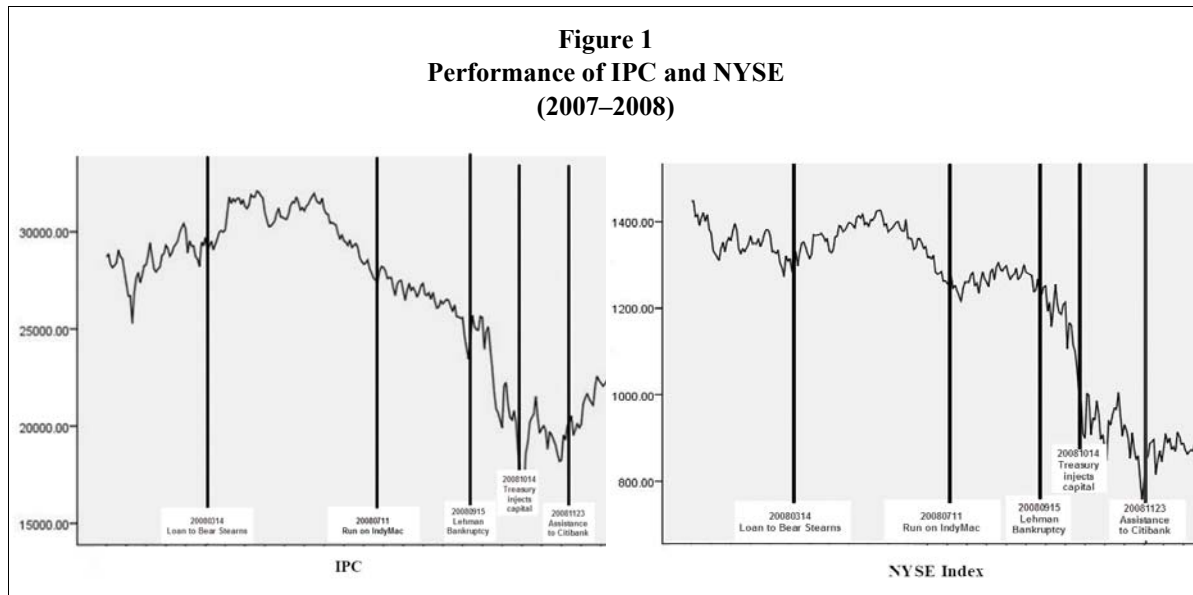
Figure 1 uses daily data from Yahoo.com to illustrate performances of the IPC and NYSE index over the period. Time marks for some events help put the performances in perspective.

Each index continued to rise after the initial event (14 March, Fed loan to Bear Sterns) and bottomed out when Citigroup received government assistance (23 November). The financial panic of 2008 receded after that date and markets returned to a measure of normal.

Plots of closing values from Yahoo.com of the Índice de Precios y Cotizaciones (IPC) and NYSE Index suggest the close relationship between the two markets. Time marks for some events put the performances in perspective. Each index continued to rise after the initial event (14 March, Fed loan to Bear Sterns) and bottomed out when Citigroup received government assistance (23 November). The financial panic of 2008 receded after that date and markets returned to a measure of normal. The authors replaced missing values in each series with linear interpolation of moving values over the period.

Figure 1 suggests that the Mexican Bolsa reflected events of 2008 in a way similar to that of the NYSE. We develop in the next part of this paper a model for examining statistically the relationship between the two indices.

MODEL BUILDING

The event study of U.S. and Mexican stock markets in this paper examines a series of returns during an event window to determine whether these returns are abnormally (statistically significantly) positive of negative. We define an event window the way Lamdin (2001) defines it, the length of time over which one may look for a reaction to news received by market participants. News represents unexpected information that may change the expected value of the affected securities and thereby cause abnormal returns. There is a single identifiable event and thus a single and short event window for events such as a merger, an earnings announcement, or an announcement by the Federal Reserve or U.S. Treasury.

Model building began by examining IPC and NYSE values. We considered several ways to handle missing data arising from different holidays on the NYSE and Bolsa, such as replacing them with median values of the two contiguous values or with values from linear interpolation. We decided to use the linear trend value on the missing date because subsequent analysis used linear regression.

We examined autocorrelation and partial autocorrelation functions applied to the data. Autocorrelation functions did not die out rapidly, indicating that the series was not stationary and must be differenced. Autocorrelation and partial autocorrelation functions of differenced values were not significant using an asymptotic chi-square approximation. Consequently, all analysis in this paper used differenced values.

To avoid bias from including in the model the influence of each announcement, we used observations from an estimation period beginning the first trading day of 2007 (03 January 2007) and ending at the close of the first trading day of 2008 (02 January 2008). Linear regression applied to the estimation-period provided constant and slope coefficients for each index. We then

applied these parameters to data in the event window starting 03 March 2008. Figure 2 illustrates the period used to build the model and its relationship to events.

Figure 2
Estimation Period Used to Calculate Model Coefficients
Relative to Event Window
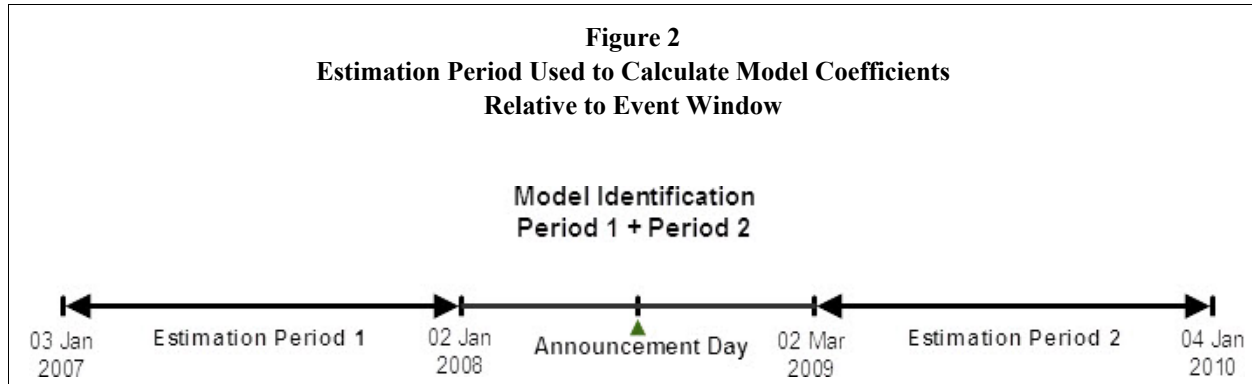
To avoid bias from including in the analysis the influence of each announcement, the authors used an estimation period beginning the first trading day of 2007 (03 January 2007) and ending at the close of the first trading day of 2008 (02 January 2008). Linear regression applied to daily and weekly observations provided constant and slope coefficients for each index to use in the subsequent event studies.

To capture the influence of each announcement, we considered the results in Edwards (2000) and subsequent research. Edwards notes that the dynamic independence of financial markets before and immediately after a contemporaneous shock in the U.S. financial market can bring changes in investment behavior in other economies. Hon, Strauss, and Yong (2004) built their model on the dynamic independence of markets during crises, and we developed our model of contagion using a similar approach.

Our measure of the impact of the events of 2008 is comparable to that of Gallant, Rossi, and Tauchen (1992), who used a set of dummy variables and time-series modeling to measure the impact of an event on security prices. We modify that approach with pulse variables to quantify abnormal returns on the day of each announcement:

$$S_{(0)} = \begin{cases} 0, t<0, \ t>0 \\ 1, t =0 \end{cases}$$

$S_{(0)}$ was 0 on all days other than the event day, on which it pulsed to 1.

Estimating announcement effects as we do in this paper differs in two ways from studies which segment the time into two (or more) periods in order to compare period returns before and after the announcement. First, comparing before-event with after-event abnormal returns indicates neither the rate of change in return due to the announcement nor the nature of the effect. Second, segmenting the time and examining the two (or more) periods often uses a student t–test or nonparametric test of return changes, thus relying on the assumption of

independent observations. Modeling with differenced data and pulse variables overcomes these issues.

In addition to results from linear regression, we applied ARIMA models during the event window and found results essentially unchanged. We report only the analysis with linear regression in the following part of the paper. Results from ARIMA modeling are available from the corresponding author. In summary, the analysis consisted of the following steps:

1   Calculate first-differenced time series parameters for each index during the estimation period.

2   Create expected values of each index during the event window using calculated parameters from step 1.

3   Create an abnormal return measured as the difference between the first-differenced actual index value from step 1 and the first-differenced expected value from step 2.

4   Regress the abnormal return from step 3 on the series of pulse variables during the event window and interpret results.

RESULTS

Table 2 below presents results of the analysis of the IPC during 2008. Coefficients are negative during the early part of the period, then turn generally positive (except for the Wachovia exception pulse 449) during the latter part. Standardized coefficients suggest that the pulse associated with the injection of capital into the nine banks had the least impact on changes in the IPC ($\beta=0.004$) and the pulse associated with RWC breaking the buck had the greatest impact ($\beta=0.108$). The only statistically significant pulse is the coefficient associated with RWC breaking the buck (t=3.327).

Applying model parameters to values of the Índice de Precios y Cotizaciones (IPC) reveals negative coefficients during the early part of the period, then generally positive coefficients (except for the Wachovia exception pulse 449) during the latter part. Standardized coefficients suggest that the pulse associated with the injection of capital into the nine banks had the least impact on changes in the IPC ($\beta=0.004$) and the pulse associated with RWC breaking the buck had the greatest impact ($\beta=0.108$). The only statistically significant pulse is the coefficient associated with RWC breaking the buck (t=3.327).

Table 2: IPC Results from Analysis of Events				
	Unstandardized Coefficients	Standardized Coefficients		
	B	Beta	t	Sig.
(Constant)	-1.36		-.039	.969
Pulse309Bear	-656.39	-.020	-.612	.541
Pulse 310MorganBearStearns	-858.95	-.026	-.801	.423
Pulse393IndyMac	-266.20	-.008	-.248	.804
Pulse439BOAMerrillLehmanAIG	-974.54	-.029	-.909	.364
Pulse440RWCBreaksBuck	3568.94	.108	3.327	.001
Pulse447WaMuclosed	696.82	.021	.650	.516
Pulse449WachoviaException	-1642.57	-.050	-1.531	.126
Pulse460NineBanksGetCapital	144.04	.004	.134	.893
Pulse489CitiGroupAssistance	1272.61	.038	1.186	.236

Statistical evidence suggests that announcements and actions during the early part of 2008 contributed negatively to changes in the level of the IPC, as investors assessed events in the United States. Later in the period (starting with pulse 440), the generally positive coefficients suggest that investors in the Mexican Bolsa saw actions of the Fed and the U.S. Treasury contributing positively to investor confidence that the credit crunch and financial panic were subsiding.

Table 3 presents results of the statistical analysis of the NYSE during 2008. As in Table 2, coefficients in Table 3 are negative during the early part of the period. Unlike those in Table 2, however, coefficients in Table 3 are mixed during the latter part of the event window with positive coefficients for RWC breaks the buck pulse 440, the closing of WaMu pulse 447, and assistance to CitiGroup pulse 489. Negative coefficients are associated with the Wachovia exception pulse 449 and the injection of capital into nine banks pulse 460. Standardized coefficients suggest that the pulse associated with the injection of capital into the nine banks had the least impact on changes in the NYSE (β=-0.003) and the pulse associated with the exception applied to Wachovia had the greatest impact (β=-0.065). The only statistically significant abnormal return is the pulse coefficient associated with the Wachovia exception (t=1.99).

Consistent with results in Table 2 for the IPC, statistical evidence Table 3 suggests that announcements and actions during the early part of 2008 contributed negatively to changes in the level of the NYSE index as investors assessed events. Later in 2008 (starting with pulse 440), lack of a consistent pattern in the coefficients suggests that investors in the NYSE remained uncertain about the contribution of the actions of the Fed and U.S. Treasury to control the credit crunch and financial panic.

Examining each index separately provides limited information about the interdependence of the Mexican Bolsa and the NYSE. As a further test, we combined the differenced index values into one variable measured as the ratio of differenced IPC to differenced NYSE. We then measured abnormal returns the same way we did for the two indices in Table 2 and Table 3.

Table 3: NYSE Index Results from Analysis of Events				
	Unstandardized Coefficients	Standardized Coefficients		
	B	Beta	T	Sig.
(Constant)	.064		.037	.971
Pulse309Bear	-26.98	-.016	-.505	.614
Pulse 310MorganBearStearns	-11.18	-.007	-.209	.834
Pulse393IndyMac	-13.62	-.008	-.255	.799
Pulse439BOAMerrillLehmanAIG	-58.77	-.036	-1.10	.272
Pulse440RWCBreaksBuck	21.13	.013	.395	.693
Pulse447WaMuclosed	23.54	.014	.440	.660
Pulse449WachoviaException	-106.63	-.065	-1.99	.046
Pulse460NineBanksGetCapital	- 5.13	-.003	-.10	.924
Pulse489CitiGroupAssistance	51.97	.032	.97	.331

We were concerned with our ability to place an announcement on a specific day. Lamdin [2001] notes that misplacing an event tends to put the impact of the event after the true date because market participants may have already incorporated the news in their transactions. As Lamdin notes, "Market participants may be better informed than journalists. . . ." Moreover, Table 1 shows some events in 2008 within a day of each other, specifically pulses 309 and 310 and pulses 439 and 440. We consequently expanded the analysis of the contagion effect to include weekly data.

Table 4 presents results from the expanded analysis. Each daily coefficient is positive with the exception of coefficients for the emergency loan to Bear Stearns (pulse 309) and capital injected in nine banks (pulse 460). Positive coefficients suggest that for each unit of change in the NYSE, the IPC changed positively and the negative coefficients, each changed oppositely. Of particular note is lack of statistical significance for each daily coefficient. Thus, the daily evidence suggests that the two markets reacted similarly, documenting contagion between them.

Applying model parameters to daily values of the ratio of the IPC to NYSE index results in positive coefficients with the exception of coefficients for the emergency loan to Bear Stearns (pulse 309) and capital injected in nine banks (pulse 460). Positive coefficients suggest that for

each unit of change in the NYSE, the IPC changed similarly and the negative coefficients, each changed oppositely. Of particular note is lack of statistical significance for each daily coefficient.

The bottom part of Table 4 presents results with weekly observations. There are only seven variables because two sets of events occurred in the same week, pulse 309 Bear and pulse 310 MorganBearSterns, and pulse 439 BOAMerrillLehmanAIG and pulse 440 RWCBreaksBuck. Although the generally negative coefficients suggest that the events had a negative impact on the relationship between the two markets, the coefficients are not statistically significant. Thus, results with weekly data confirm those with daily data and document contagion between the two markets.

Table 4: Ratio of IPC to NYSE Results from Analysis of Events				
	Unstandardized Coefficients	Standardized Coefficients		
	B	Beta	t	Sig.
Daily				
(Constant)	67.06		2.708	.007
Pulse309Bear	-1.87	.000	-.002	.998
Pulse 310MorganBearStearns	48.75	.002	.064	.949
Pulse393IndyMac	17.87	.001	.024	.961
Pulse439BOAMerrillLehmanAIG	28.98	.001	.038	.970
Pulse440RWCBreaksBuck	183.80	.008	.242	.808
Pulse447WaMuclosed	44.98	.002	.059	.953
Pulse449WachoviaException	30.82	.001	.041	.968
Pulse460NineBanksGetCapital	-9.12	.000	-.012	.990
Pulse489CitiGroupAssistance	51.96	.002	.069	.945
Weekly				
Constant	-4.081		-1.58	.122
PulseBearandMorganBearStearns	-10.78	-.112	-.679	.502
PulseIndyMac	3.40	.035	.214	.832
PulseBOAMerrillLehmanAIGandRWG	-1.98	-.021	-.125	.901
PulseWaMuclosed	-2.92	-.031	-.184	.855
PulseWachoviaException	- .15	-.002	-.010	.992
PulseNineBanksGetCapital	-1.97	-.021	-.124	.902
PulseCitiGroupAssistance	- .78	-.008	-.049	.961

SUMMARY AND CONCLUSION

This paper examined the relationship between financial-market events in the United States and the Bolsa Mexicana de Valores during the credit crunch of 2008. We used dates denoting each event to relate statistically those events to the index of the New York Stock Exchange (NYSE) and the Índice de Precios y Cotizaciones (IPC), an index of price performance on the Bolsa Mexicana de Valores.

The literature of financial contagion suggests that events affecting one market should affect (contaminate) the other market. To test for contagion between the NYSE and Bolsa, we used data from 2007 to develop a model of each differenced index. Parameters from this estimation period were applied in the event window to generate a series of expected returns. Abnormal returns measured as the difference between actual and expected returns in 2008 were then regressed on pulse values measuring nine events.

Our analysis of daily values found that events generally affected the change in each market in similar fashion, with not statistically significant coefficients prevailing over the period. To examine contagion directly, we then created a dependent variable measured as the ratio of the level of the differenced IPC to the level of the differenced NYSE using both daily and weekly values. Relating this ratio to the events revealed results consistent with the literature of contagion: Each abnormal return was not statistically significant, leading us to conclude that events in the United States were quickly impounded in the Bolsa (as measured by the IPC) similarly to the reaction of the U.S. stock market (as measured by the NYSE index).

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A MULTIVARIATE GARCH ANALYSIS OF INTERNATIONAL VALUE AND GROWTH EQUITY RETURNS AND VOLATILITY

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ABSTRACT

For the past decades, there has been much discussion of the impact of style differences among portfolios in the framework of growth versus value in the U.S. and international markets. Many research studies have identified the benefit of international diversifications and risk reduction benefit (correlations) of asset allocation between international growth and international value stock indexes.

The purpose of this paper is to investigate the risk-return relation among international value and growth of equity markets using asymmetric GARCH models.

To conduct the analysis, this paper will use MSCI data for 50 major international value (twenty five) and growth (twenty five) indexes, including EAFE, Europe, EMU (European Economic and Monetary Union), and the world market. Using monthly data, the results obtained from this analysis is very similar with the previous evidence obtained from daily and weekly data indicating that the relation is positive in almost all markets and often statistically significant.

INTRODUCTION

Recent advances in autoregressive conditional heteroskedastic (ARCH) and generalized autoregressive conditional heteroskedastic (GARCH) models allows to study the conditional volatility of stock markets and ascertain the predictability of future stock return volatility conditional on past volatilities and return shocks [see, for instance, Tse and Zuo (1996), Aggarwal et al. (1999), Adrangi et al. (1999) and Huang and Yang (2000)]. A few studies have even extended these to the multivariate case [see, for example, Tse (2000) and Tay and Zhu (2000)]. However, relatively few studies have applied asymmetric GARCH models to the international value and growth indexes.

And even when these models are applied in a broader context (that is, along with North American and European markets) there is generally an emphasis on broad indexes. As far as the author is aware, no study to date has examined the risk-return relation between growth and value stocks separately.

DATA AND SUMMARY STATISTICS

The data employed in the study is drawn from Morgan Stanley Capital International (MSCI) and encompasses the period monthly returns from January 1997 to October 2007. MSCI indices are widely employed in the literature on equity market comovements and volatility on the basis of the degree of comparability and avoidance of dual listing [see, for instance, Meric and Meric (1997), Yuhn (1997), Roca (1999) and Cheung and Ho (1991)].

In this study, monthly returns of fifty international value and growth equity markets from 1994 to 2007 have been used. Even though, it has been argued that "daily return data is preferred to the lower frequency data such as weekly and monthly returns because longer horizon returns can obscure transient responses to innovations which may last for a few days only" (Elyasiani *et al*. 1998: 94). However, Roca (1999: 505), amongst others, has countered that "…daily data are deemed to contain 'too much noise' and is affected by the day-of-the-week effect". Another reason for using monthly data is that with daily data from many countries, the trading hours generally are in different time zones it is not possible to implement directly a portfolio strategy of buying one market at trading time, t, and selling it at the close of trading time t +1.In addition, most of international asset pricing modes monthly data to measure the stock returns.

Table 1 presents descriptive statistics for each return series for the period 1997 to 2007. Samples means, medians, maximums, minimums, standard deviations, skewness, kurtosis and the Jacque-Bera statistic and *p*-value are reported for the monthly returns. The highest mean returns are in Finland growth (1.492%), Austria value (1.353%), Denmark value (1.15%), France value (1.01%) and finally Italy with 1.00%. Monthly returns are also higher on average across the Asian-Australian markets (7.183%) than in the European markets (6.698%) and North American countries of Canada and USA (6.047%).

Table 1 Summary Statistics of monthly returns for all markets									
	Mean	Median	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis	Jarque Bera	P-value
Austria growth	0.005	0.011	0.147	-0.155	0.059	-0.237	3.012	1.103	0.576
Austria value	0.014	0.026	0.175	-0.279	0.069	-0.994	5.279	44.953	0.000
Australia growth	0.005	0.012	0.144	-0.154	0.055	-0.284	2.904	1.636	0.441
Australia value	0.008	0.011	0.134	-0.192	0.055	-0.731	4.662	24.091	0.000
Belgium growth	0.007	0.012	0.162	-0.208	0.055	-0.949	5.386	45.721	0.000
Belgium value	0.009	0.015	0.215	-0.217	0.061	-0.695	5.920	51.417	0.000
Canada growth	0.006	0.022	0.203	-0.538	0.094	-1.998	11.858	464.356	0.000
Canada value	0.008	0.014	0.124	-0.257	0.051	-1.389	8.372	179.797	0.000
Denmark growth	0.008	0.014	0.149	-0.203	0.067	-0.557	3.235	6.375	0.041
Denmark value	0.011	0.017	0.145	-0.145	0.051	-0.190	3.526	2.069	0.355
Finland growth	0.015	0.019	0.318	-0.442	0.131	-0.544	3.999	10.726	0.005
Finland value	0.005	0.006	0.330	-0.243	0.079	0.015	5.284	25.657	0.000
France growth	0.004	0.007	0.157	-0.214	0.060	-0.380	3.774	5.784	0.055

Table 1 Summary Statistics of monthly returns for all markets									
	Mean	Median	Maximum	Minimum	Standard Deviation	Skewness	Kurtosis	Jarque Bera	P-value
France value	0.010	0.012	0.174	-0.258	0.062	-1.004	6.599	83.533	0.000
Germany growth	0.008	0.012	0.203	-0.237	0.068	-0.543	4.209	12.995	0.002
Germany value	0.002	0.013	0.230	-0.332	0.077	-0.869	6.303	68.474	0.000
Hong Kong growth	0.003	0.008	0.206	-0.320	0.073	-0.559	5.703	42.070	0.000
Hong Kong value	-0.002	0.002	0.418	-0.374	0.096	0.121	6.998	78.881	0.000
Ireland growth	0.001	0.012	0.141	-0.269	0.068	-1.101	5.629	57.832	0.000
Ireland value	0.006	0.010	0.138	-0.219	0.065	-0.826	4.248	21.088	0.000
Italy growth	0.006	0.001	0.264	-0.160	0.069	0.182	4.202	7.756	0.021
Italy value	0.010	0.013	0.220	-0.184	0.061	-0.229	4.298	9.310	0.010
Japan growth	-0.001	0.002	0.130	-0.141	0.064	-0.193	2.343	2.849	0.241
Japan value	0.002	-0.003	0.180	-0.116	0.058	0.377	2.956	2.808	0.246
Netherland growth	-0.002	0.003	0.108	-0.184	0.052	-0.770	3.866	15.351	0.000
Netherland value	0.009	0.018	0.233	-0.353	0.077	-0.958	7.010	97.122	0.000
New Zealand growth	0.001	0.010	0.147	-0.208	0.069	-0.803	3.590	14.380	0.001
New Zealand value	-0.001	0.008	0.246	-0.320	0.077	-0.697	5.416	38.261	0.000
Norway growth	0.006	0.008	0.176	-0.313	0.067	-0.741	6.155	59.745	0.000
Norway value	0.007	0.015	0.142	-0.352	0.079	-1.129	6.225	76.209	0.000
Singapore growth	0.003	0.012	0.267	-0.363	0.108	-0.621	4.599	20.139	0.000
Singapore value	0.010	0.016	0.205	-0.199	0.063	-0.576	4.225	13.904	0.001
Spain growth	-0.004	0.002	0.239	-0.280	0.082	-0.617	4.587	19.889	0.000
Spain value	0.006	0.012	0.310	-0.323	0.093	-0.451	5.753	41.268	0.000
Sweden growth	0.005	0.011	0.178	-0.321	0.075	-0.852	5.666	49.221	0.000
Sweden value	0.009	0.011	0.149	-0.245	0.063	-0.643	4.847	24.900	0.000
Switzerland growth	0.007	0.006	0.093	-0.112	0.040	-0.433	3.254	4.001	0.135
Switzerland value	0.008	0.013	0.190	-0.246	0.066	-0.793	5.125	34.556	0.000
United Kingdom growth	0.003	0.003	0.100	-0.093	0.040	-0.134	2.743	0.680	0.712
United Kingdom value	0.004	0.006	0.096	-0.111	0.039	-0.305	3.023	1.827	0.401
USA growth	0.005	0.006	0.106	-0.154	0.053	-0.485	3.016	4.625	0.099
USA value	0.005	0.009	0.098	-0.173	0.045	-0.733	4.752	25.641	0.000
EAFE growth	0.002	0.010	0.105	-0.115	0.046	-0.522	2.967	5.356	0.069
EAFE value	0.006	0.006	0.100	-0.154	0.045	-0.762	4.190	18.385	0.000
EMU growth	0.004	0.006	0.156	-0.161	0.058	-0.398	3.591	4.826	0.090
EMU value	0.010	0.013	0.166	-0.227	0.058	-0.964	5.755	55.598	0.000
Europe growth	0.008	0.015	0.133	-0.180	0.050	-0.854	4.947	32.982	0.000
Europe value	0.004	0.005	0.116	-0.127	0.047	-0.324	3.169	2.206	0.332
World growth	0.004	0.011	0.108	-0.137	0.047	-0.619	3.167	7.667	0.022
World value	0.005	0.008	0.098	-0.165	0.042	-0.866	5.146	37.409	0.000

As anticipated, volatility (as measured by standard deviation) is on average higher among the Asia-Australia markets (Singapore growth index 10.81% and Hong Kong value index 9.59%) in comparison with the European and North American markets. However, the highest volatility

(13.1%) is exhibited by Finland growth index. A visual perspective on the volatility of returns can be gained from the plots of monthly returns for each series in Figure 1. These findings are in accordance with international analysis of equity returns and volatility by Erb et al (1996).

The distributional properties of the return series generally appear to be non-normal. All of the markets have negative skewness with the exception of Finland value, Hong Kong value, Italy growth and Japan value. Positive and/or negative skewness in Asian equity returns have been documented by Huang and Yang (2000) and Tay and Zhu (2000), amongst others. The kurtosis, or degree of excess, in all markets, except Austria growth, Australia growth, Japan value and growth, Switzerland growth and United Kingdom growth have exhibited a leptokurtic distribution. Excess kurtosis in equity returns has been well-documented by a number of other studies including Bekaert and Harvey (1997). The final statistic in Table 1 is the calculated Jarque- Bera statistic and corresponding *p*-value used to test the null hypotheses that the monthly distributions of returns are normally distributed. With all *p*-values equal to zero at three decimal places, we reject the null hypothesis that returns for both value and growth markets are well approximated by the normal distribution.

INTERTEMPORAL RISK-RETURN RELATION

In finance theory the relationship between risk and returns plays an important role. Many theoretical models such as CAPM imply a linear relationship between the expected returns of a market portfolio and the variance. The intertemporal capital asset pricing model (ICAPM) of Merton's (1973) requires a positive relationship between the expected excess stock market return and variance. However, some of the empirical results have been inconsistent. The empirical study of French, Schwert, and Stambaugh (1987) showed the relation to be positive, however, other studies have shown a negative relation see, Campbell (1987), Glosten, Jagannathan, and Runkle (1993), Whitelaw (1994), and Brandt and Kang (2004).

In recent study, Guo and Neely (2006) using Component GARCH model report a positive relationship using 19 major international stock markets, including the world market. To investigate further, this study uses the MSCI monthly data for 50 major international value (twenty five) and growth (twenty five) indexes, including EAFE, Europe, EMU (European Economic and Monetary Union**)**, and the world market.

To gain insight whether the empirical results are sensitive to daily verses monthly data, the following asymmetric GARCH Models, Exponential GARCH (Nelson 1991), Threshold GJR (Glosten, Jagannathan and Runkle 1993), and Component GARCH proposed by Engle and Lee (1999) are added to the analysis.

The GARCH-in-Mean models used in this study are as follows:

$$R_t = \alpha + \lambda\sigma^2_t + \varepsilon_t \qquad (1)$$

where R_t is the excess stock market return, $\lambda\sigma^2_{t}$ is conditional variance and Z_t is assumed to have GED (general error distribution) or Statistic-t distribution. Two variants of the GARCH-in-mean specification, the conditional standard deviation and log of the conditional standard deviation are also used in the analysis.

$$R_t = \alpha + \lambda\sigma_t + \varepsilon_t \qquad (2)$$
$$R_t = \alpha + \lambda\log(\sigma_t) + \varepsilon_t \qquad (3)$$
$$\varepsilon_t = \sigma_t(Z_t) \quad where \quad z \sim iid(0,1) \qquad (4)$$

The Intertemporal CAPM of Merton's (1973) requires that the conditional excess stock return to be proportional to its conditional variance, where β is the positive coefficient of relative risk aversion proportion, and (α) is the constant term in the return equation. In their studies, Engle and Lee (1999) and Christoffersen et al. (2004) find a positive risk-return relation by excluding the constant term from the excess stock return equation. Lanne and Saikkonen (2005) show that properly excluding the constant improves the power properties of tests of the risk return relation. In this analysis, the inclusion and exclusion of the constant term was tested and the results supported the positive risk-return relation for most of the indices when the constant term was excluded.

The generalized specification for the asymmetric variance developed by Glosten, Jagannathan, and Runkle, which is a modified GARCH-M model, is given by:

$$\sigma^2_t = w + \sum_{i=1}^{q}\alpha_i\varepsilon^2_{t-i} + \sum_{i=1}^{q}\phi_i\varepsilon^2_{t-i}(\varepsilon_{t-i} < 0)\lambda_{t-i} + \sum_{j=1}^{p}\beta_j\sigma^2_{t-j} \qquad (5)$$

From the model, depending on whether ε_{t-j} is above or below zero, ε^2_{t-j} can have different effects on the conditional variance σ^2_t. When ε_{t-j} is positive ($\varepsilon_{t-j} > 0$), good news, $\lambda = 0$ ~, the impact of ε^2_{t-i} on σ^2_t is $\alpha\varepsilon^2_{t-i}$, when ε_{t-j} is negative ($\varepsilon_{t-i} < 0$), bad news, $\lambda = 1$, the impact is $(\alpha_i + \phi_i)\varepsilon^2_{t-i}$. One would expect ϕ_i to be negative and that bad news shown in negative ε_{t-j} would have larger impact on the volatility of the returns. Thus is so called "leverage effect" which. the conditional variance of returns often increases when returns are negative, for the i-th order. If $\phi_i \neq 0$, then the news impact is asymmetric. The parameter β captures the persistence in volatility and the stationarity of the volatility process requires that $\beta > 0$.

A second model which also captures the "leverage effect" is the Exponential GARCH or EGARCH (Nelson, 1991). The specification for the conditional variance is.

$$\log(\sigma^2_t) = w + \sum_{i=1}^{q}\alpha_i\left|\frac{\varepsilon_{t-i}}{\sigma_{t-i}}\right| + \sum_{k=1}^{r}\phi_k\frac{\varepsilon_{t-k}}{\sigma_{t-k}} + \sum_{j=1}^{p}\beta_j\log(\sigma^2_{t-j}) \qquad (6)$$

Since exponentiation always ensures positivity, EGARCH does not impose sign restrictions on its coefficients. In general, the main advantage of EGARCH when the model is specified as the logarithm of the variance is to avoid negative variances.

The third method is Engle and Lee's (1999) specification for the CGARCH model which permits both a long-run component of conditional variance, q_t, which is slowly mean reverting to ω with powers of ρ between 0.99 and 1 and a short-run component, $\sigma^2 t^{-qt}$ that is more volatile. The specification of the model is:

$$\sigma_t^2 - q_t = \alpha\,(\varepsilon_{t-1}^2 - q_{t-1}) + \gamma(\varepsilon^2{}_{t-i} - q_{t-1}) + \beta(\sigma_{t-1}^2 - q_{t-1}) \qquad (7)$$

$$q_t = \omega + \rho(q_{t-1} - w) + \phi(\varepsilon_{t-1}^2 - \sigma_{t-1}^2) \qquad (8)$$

EMPIRICAL RESULTS

Tables (1), (2) and (3) show the results for different asymmetric GARCH models. Table (1) shows a positive risk-return relation for 44 of 50 international value and growth stock indexes. In particular, by using Component GARCH (CGARCH) with no constant term, the relationship is significant for 45 of 50 indexes at ten percent. This result is consistent with other studies such as Engle and Lee (1999) and Christofferson et al. (2004) when the constant term was excluded from the stock return equation. When the constant term is added, the result is somewhat different. The relationship is positive for only 34 of 50 indexes supporting prior evidence that inclusion of the constant term may result in rejection of null hypothesis of no trade-off between risk and return.

	Table-2 Risk-Return Relation using Component GARCH Model with General Error (GED) and t-Distributions (t-stat)									
	Component GARCH with no Constant term					Component GARCH with Constant term				
	Index		Std. Error	Prob.	Dist	Index		Std. Error	Prob.	Dist
1	AUSG	0.151	0.089	0.089	t-stat	AUSG	1.981	0.570	0.001	ged
2	AUSV	0.309	0.086	0.000	t-stat	AUSV	2.147	0.982	0.029	ged
3	AUSTRG	0.177	0.092	0.054	ged	AUSTRG	2.022	0.750	0.007	ged
4	AUSTRV	0.204	0.079	0.010	ged	AUSTRV	0.061	0.033	0.067	t-stat
5	BELG	0.232	0.088	0.009	ged	BELG	-0.008	0.004	0.073	t-stat
6	BELV	0.243	0.090	0.007	ged	BELV[3]	0.009	0.023	0.691	ged
7	CANG	0.197	0.091	0.029	ged	CANG[3]	-0.064	0.031	0.039	ged
8	CANV	0.272	0.088	0.002	t-stat	CANV	1.651	0.908	0.069	ged
9	DENG	0.220	0.091	0.015	ged	DENG	-1.649	0.349	0.000	ged
10	DENV	0.242	0.099	0.015	ged	DENV	-0.356	0.089	0.000	ged
11	FING	0.099	0.027	0.000	ged	FING	0.290	0.041	0.000	ged
12	FINV	0.062	0.015	0.000	ged	FINV	10.496	1.264	0.000	ged
13	FRAG	0.041	0.022	0.064	ged	FRAG	0.061	0.009	0.000	ged
14	FRAV	0.245	0.078	0.002	ged	FRAV	0.578	0.168	0.001	ged

	Index		Std. Error	Prob.	Dist	Index		Std. Error	Prob.	Dist
	Table-2 Risk-Return Relation using Component GARCH Model with General Error (GED) and t-Distributions (t-stat)									
	Component GARCH with no Constant term					Component GARCH with Constant term				
15	GERG	0.159	0.032	0.000	ged	GERG	0.580	0.214	0.007	ged
16	GERV	0.115	0.041	0.005	ged	GERV	4.279	1.488	0.004	t-stat
17	HOKG[3]	-0.001	0.001	0.061	t-stat	HOKG	-0.467	0.201	0.020	ged
18	HOKV	-0.002	0.001	0.017	t-stat	HOKV	3.762	0.296	0.000	ged
19	IREG	0.064	0.001	0.000	ged	IREG	-1.163	0.536	0.030	ged
20	IREV	0.096	0.032	0.002	ged	IREV	0.451	0.212	0.034	t-stat
21	ITAG	0.056	0.023	0.013	ged	ITAG	6.682	2.207	0.003	ged
22	ITAV	0.239	0.091	0.009	ged	ITAV	-0.008	0.005	0.098	ged
23	JAPG	-0.102	0.090	0.258	ged	JAPG	-1.530	0.368	0.000	ged
24	JAPV[3]	-0.002	0.001	0.008	ged	JAPV	0.901	0.182	0.000	ged
25	NETG	-0.006	0.002	0.004	ged	NETG	-0.190	0.001	0.000	ged
26	NETV	0.259	0.088	0.003	ged	NETV	0.534	0.204	0.009	ged
27	NEWZG	-0.002	0.000	0.000	t-stat	NEWZG	-0.508	0.284	0.074	t-stat
28	NEWZV	0.019	0.010	0.048	t-stat	NEWZV	-0.859	0.484	0.076	t-stat
29	NORG	0.104	0.106	0.327	ged	NORG	0.736	0.039	0.000	ged
30	NORV	0.134	0.092	0.146	ged	NORV[3]	-1.785	0.743	0.016	t-stat
31	SWEG	0.143	0.105	0.172	t-stat	SWEG	-0.259	0.135	0.056	t-stat
32	SWEV	0.253	0.076	0.001	t-stat	SWEV	-0.718	0.029	0.000	t-stat
33	SING	0.108	0.065	0.094	t-stat	SING[3]	-0.381	0.176	0.030	t-stat
34	SINV	0.235	0.076	0.002	t-stat	SINV	0.934	0.319	0.003	t-stat
35	SPAG	0.167	0.075	0.025	ged	SPAG	0.981	0.386	0.011	ged
36	SPAV	0.166	0.085	0.051	ged	SPAV[3]	4.119	2.226	0.064	ged
37	SWIG	0.130	0.100	0.191	ged	SWIG	-0.698	0.364	0.055	t-stat
38	SWIV	0.219	0.087	0.012	t-stat	SWIV	1.030	0.584	0.078	t-stat
39	UKG	0.081	0.097	0.403	ged	UKG	0.014	0.009	0.105	ged
40	UKV	0.163	0.103	0.113	ged	UKV	0.271	0.060	0.000	t-stat
41	USAG	0.030	0.011	0.006	ged	USAG	0.002	0.221	0.994	ged
42	USAV	0.201	0.091	0.027	ged	USAV	1.687	0.957	0.078	ged
43	EAFEG	0.144	0.065	0.026	t-stat	EAFEG[3]	0.207	0.051	0.000	ged
44	EAFEV	0.184	0.091	0.044	ged	EAFEV	0.035	0.018	0.051	ged
45	EMUG[3]	-0.002	0.001	0.019	ged	EMUG[3]	0.015	0.000	0.000	ged
46	EMUV	0.276	0.089	0.002	ged	EMUV	1.094	0.312	0.001	ged
47	EURV	0.270	0.082	0.001	ged	EURV	0.065	0.037	0.076	ged
48	EURG	0.199	0.092	0.030	ged	EURG[3]	0.005	0.003	0.074	ged
49	WORG	0.196	0.086	0.023	ged	WORG[1]	3.070	1.037	0.003	ged
50	WORV	0.217	0.092	0.018	ged	WORV	0.040	0.018	0.029	ged

The GARCH-M models:

$$R_t = \alpha + \lambda \sigma^2_t + \varepsilon_t \ (1) \qquad R_t = \alpha + \lambda \sigma_t + \varepsilon_t \ (2) \qquad R_t = \alpha + \lambda \log(\sigma_t) + \varepsilon_t \ (3)$$

The result for Exponential GARCH model is surprisingly different than CGARCH with exclusion or inclusion of the constant term. Table (2) shows, with exception of UK growth index, a positive and statistically significant (except Japan growth index) relation for all of the indices.

The result with inclusion of constant term is also different from CGARCH with constant term. With inclusion of the constant term, there are only 24 of 50 indices that show a positive risk-return relation.

	Table-3 Risk-Return Relation using Exponential GARCH Model with General Error and t-Distributions									
	EGARCH with no Constant Term					EGARCH with Constant Term				
	Index		Std. Error	Prob.	Dist	Index		Std. Error	Prob.	Dist
1	AUSG	0.048	0.016	0.003	ged	AUSG[3]	0.095	0.023	0.000	ged
2	AUSV	0.283	0.043	0.000	ged	AUSV[3]	0.024	0.013	0.060	t-stat
3	AUSTRG	0.122	0.027	0.000	ged	AUSTRG[3]	0.089	0.002	0.000	t-stat
4	AUSTRV	0.128	0.029	0.000	ged	AUSTRV[3]	-0.571	0.079	0.000	ged
5	BELG	0.144	0.026	0.000	ged	BELG	-0.899	0.502	0.073	ged
6	BELV	0.138	0.025	0.000	ged	BELV[3]	-0.019	0.006	0.002	ged
7	CANG	0.202	0.038	0.000	ged	CANG	-1.022	0.418	0.015	ged
8	CANV	0.144	0.030	0.000	ged	CANV[3]	0.047	0.019	0.012	ged
9	DENG	0.175	0.029	0.000	ged	DENG[3]	-0.079	0.015	0.000	ged
10	DENV	0.164	0.036	0.000	ged	DENV	-0.443	0.237	0.062	t-stat
11	FING	0.081	0.016	0.000	ged	FING[3]	0.049	0.015	0.001	ged
12	FINV	0.059	0.018	0.001	ged	FINV[3]	-0.435	0.133	0.001	ged
13	FRAG	0.026	0.009	0.002	ged	FRAG[3]	0.010	0.006	0.084	ged
14	FRAV	0.123	0.028	0.000	ged	FRAV[3]	0.028	0.015	0.058	ged
15	GERG	0.135	0.029	0.000	ged	GERG	-0.855	0.437	0.051	t-stat
16	GERV	0.059	0.019	0.002	ged	GERV[3]	0.076	0.041	0.064	ged
17	HOKG	0.086	0.019	0.000	ged	HOKG[3]	-0.020	0.003	0.000	t-stat
18	HOKV	0.017	0.004	0.000	ged	HOKV	0.173	0.091	0.056	t-stat
19	IREG	0.107	0.024	0.000	ged	IREG[1]	-4.831	0.262	0.000	ged
20	IREV	0.053	0.014	0.000	ged	IREV[3]	0.012	0.005	0.014	ged
21	ITAG	0.002	0.001	0.010	ged	ITAG[3]	0.222	0.037	0.000	ged
22	ITAV	0.118	0.024	0.000	ged	ITAV	-0.004	0.002	0.056	ged
23	JAPG[3]	0.001	0.000	0.000	ged	JAPG[3]	-0.961	0.447	0.031	ged
24	JAPV	0.002	0.002	0.179	ged	JAPV[3]	-0.087	0.000	0.000	ged
25	NETG	0.041	0.017	0.014	ged	NETG[3]	-0.203	0.095	0.032	ged
26	NETV	0.226	0.042	0.000	ged	NETV[3]	0.017	0.009	0.056	ged
27	NEWZG	0.086	0.022	0.000	ged	NEWZG[3]	-0.017	0.007	0.013	ged
28	NEWZV	0.052	0.016	0.001	ged	NEWZV[3]	-0.083	0.043	0.052	t-stat
29	NORG	0.070	0.022	0.001	ged	NORG	1.779	0.420	0.000	ged
30	NORV	0.081	0.023	0.000	ged	NORV	-1.340	0.211	0.000	ged
31	SING[3]	0.000	0.000	0.000	ged	SWEG[1]	-3.603	1.945	0.064	ged
32	SINV	0.120	0.025	0.000	ged	SWEV[3]	0.001	0.000	0.000	t-stat
33	SPAG	0.114	0.025	0.000	ged	SING[3]	-0.016	0.008	0.048	t-stat
34	SPAV	0.110	0.023	0.000	ged	SINV[3]	0.639	0.321	0.047	ged
35	SWEG	0.031	0.006	0.000	ged	SPAG[3]	-0.323	0.183	0.077	ged
36	SWEV	0.122	0.027	0.000	ged	SPAV[3]	3.054	1.429	0.033	ged
37	SWIG	0.046	0.019	0.012	ged	SWIG[3]	-0.378	0.072	0.000	ged
38	SWIV	0.128	0.028	0.000	ged	SWIV[3]	-0.035	0.011	0.002	ged

	Index		Std. Error	Prob.	Dist	Index		Std. Error	Prob.	Dist

<table>
<thead>
<tr><th colspan="11">Table-3 Risk-Return Relation using Exponential GARCH Model with General Error and t-Distributions</th></tr>
<tr><th></th><th colspan="5">EGARCH with no Constant Term</th><th colspan="5">EGARCH with Constant Term</th></tr>
<tr><th></th><th>Index</th><th></th><th>Std. Error</th><th>Prob.</th><th>Dist</th><th>Index</th><th></th><th>Std. Error</th><th>Prob.</th><th>Dist</th></tr>
</thead>
<tbody>
<tr><td>39</td><td>UKG³</td><td>-0.001</td><td>0.000</td><td>0.069</td><td>ged</td><td>UKG³</td><td>0.013</td><td>0.004</td><td>0.003</td><td>ged</td></tr>
<tr><td>40</td><td>UKV</td><td>0.090</td><td>0.025</td><td>0.000</td><td>ged</td><td>UKV³</td><td>-0.022</td><td>0.013</td><td>0.083</td><td>ged</td></tr>
<tr><td>41</td><td>USAG</td><td>0.024</td><td>0.013</td><td>0.058</td><td>ged</td><td>USAG</td><td>-0.374</td><td>0.214</td><td>0.081</td><td>ged</td></tr>
<tr><td>42</td><td>USAV</td><td>0.098</td><td>0.021</td><td>0.000</td><td>ged</td><td>USAV³</td><td>0.040</td><td>0.006</td><td>0.000</td><td>ged</td></tr>
<tr><td>43</td><td>EAFEG</td><td>0.178</td><td>0.032</td><td>0.000</td><td>ged</td><td>EAFEG³</td><td>0.075</td><td>0.017</td><td>0.000</td><td>ged</td></tr>
<tr><td>44</td><td>EAFEV</td><td>0.138</td><td>0.031</td><td>0.000</td><td>ged</td><td>EAFEV³</td><td>-0.029</td><td>0.015</td><td>0.061</td><td>ged</td></tr>
<tr><td>45</td><td>EMUG</td><td>0.129</td><td>0.066</td><td>0.051</td><td>ged</td><td>EMUG³</td><td>0.053</td><td>0.010</td><td>0.000</td><td>ged</td></tr>
<tr><td>46</td><td>EMUV</td><td>0.255</td><td>0.068</td><td>0.000</td><td>ged</td><td>EMUV³</td><td>0.035</td><td>0.021</td><td>0.093</td><td>ged</td></tr>
<tr><td>47</td><td>EURG</td><td>0.128</td><td>0.066</td><td>0.053</td><td>ged</td><td>EURG³</td><td>-0.032</td><td>0.010</td><td>0.002</td><td>ged</td></tr>
<tr><td>48</td><td>EURV</td><td>0.136</td><td>0.067</td><td>0.044</td><td>ged</td><td>EURV³</td><td>0.015</td><td>0.002</td><td>0.000</td><td>ged</td></tr>
<tr><td>49</td><td>WORG</td><td>0.293</td><td>0.066</td><td>0.000</td><td>ged</td><td>WORG³</td><td>-0.005</td><td>0.001</td><td>0.000</td><td>t-stat</td></tr>
<tr><td>50</td><td>WORV</td><td>0.205</td><td>0.067</td><td>0.002</td><td>ged</td><td>WORV³</td><td>-0.059</td><td>0.021</td><td>0.005</td><td>ged</td></tr>
<tr><td colspan="11">The GARCH-M models:</td></tr>
<tr><td colspan="4">$R_t = \alpha + \lambda\sigma^2_t + \varepsilon_t$ (1)</td><td colspan="3">$R_t = \alpha + \lambda\sigma_t + \varepsilon_t$ (2)</td><td colspan="4">$R_t = \alpha + \lambda\log(\sigma_t) + \varepsilon_t$ (3)</td></tr>
</tbody>
</table>

The results for Threshold GARCH (TGARCH) are very similar to CGARCH model. Table (4) shows a positive relation for 41 of 50 indices with exclusion of the constant term. The results for TGARCH with constant term is quite similar to CGARCH and as results are not reported.

	Index		Std. Error	Prob.	Dist

<table>
<thead>
<tr><th colspan="6">Table-4 Risk-Return Relation using Threshold GARCH Model with No Constant Term</th></tr>
<tr><th></th><th>Index</th><th></th><th>Std. Error</th><th>Prob.</th><th>Dist</th></tr>
</thead>
<tbody>
<tr><td>1</td><td>AUSG</td><td>0.168</td><td>0.089</td><td>0.059</td><td>ged</td></tr>
<tr><td>2</td><td>AUSV</td><td>0.284</td><td>0.086</td><td>0.001</td><td>ged</td></tr>
<tr><td>3</td><td>AUSTRG</td><td>0.152</td><td>0.088</td><td>0.084</td><td>ged</td></tr>
<tr><td>4</td><td>AUSTRV</td><td>0.002</td><td>0.001</td><td>0.009</td><td>ged</td></tr>
<tr><td>5</td><td>BELG</td><td>0.201</td><td>0.083</td><td>0.015</td><td>ged</td></tr>
<tr><td>6</td><td>BELV</td><td>0.252</td><td>0.085</td><td>0.003</td><td>ged</td></tr>
<tr><td>7</td><td>CANG</td><td>0.257</td><td>0.086</td><td>0.003</td><td>t-stat</td></tr>
<tr><td>8</td><td>CANV</td><td>0.233</td><td>0.094</td><td>0.013</td><td>t-stat</td></tr>
<tr><td>9</td><td>DENG</td><td>0.215</td><td>0.091</td><td>0.018</td><td>ged</td></tr>
<tr><td>10</td><td>DENV</td><td>0.269</td><td>0.089</td><td>0.003</td><td>ged</td></tr>
<tr><td>11</td><td>FING</td><td>0.175</td><td>0.088</td><td>0.046</td><td>t-stat</td></tr>
<tr><td>12</td><td>FINV³</td><td>-0.002</td><td>0.001</td><td>0.057</td><td>t-stat</td></tr>
<tr><td>13</td><td>FRAG³</td><td>-0.002</td><td>0.001</td><td>0.027</td><td>ged</td></tr>
<tr><td>14</td><td>FRAV</td><td>0.219</td><td>0.080</td><td>0.006</td><td>ged</td></tr>
<tr><td>15</td><td>GERG</td><td>0.163</td><td>0.077</td><td>0.033</td><td>ged</td></tr>
<tr><td>16</td><td>GERV</td><td>0.167</td><td>0.097</td><td>0.084</td><td>ged</td></tr>
<tr><td>17</td><td>HOKG³</td><td>-0.002</td><td>0.001</td><td>0.004</td><td>t-stat</td></tr>
<tr><td>18</td><td>HOKV³</td><td>-0.001</td><td>0.001</td><td>0.271</td><td>t-stat</td></tr>
<tr><td>19</td><td>IREG</td><td>0.139</td><td>0.091</td><td>0.126</td><td>ged</td></tr>
</tbody>
</table>

	Table-4 Risk-Return Relation using Threshold GARCH Model with No Constant Term				
	Index		Std. Error	Prob.	Dist
20	IREV	0.153	0.091	0.093	ged
21	ITAG	0.089	0.089	0.321	ged
22	ITAV	0.205	0.082	0.013	ged
23	JAPG	-0.032	0.009	0.000	ged
24	JAPV[3]	-0.002	0.001	0.046	ged
25	NETG	0.021	0.010	0.031	ged
26	NETV	0.226	0.088	0.010	ged
27	NEWZG	0.078	0.022	0.001	ged
28	NEWZV	0.019	0.010	0.048	ged
29	NORG	0.138	0.066	0.037	ged
30	NORV	0.190	0.066	0.004	ged
31	SWEG	0.171	0.067	0.011	t-stat
32	SWEV	0.256	0.090	0.004	t-stat
33	SING[3]	-0.002	0.001	0.070	t-stat
34	SINV	0.176	0.078	0.023	t-stat
35	SPAG	0.184	0.066	0.005	ged
36	SPAV	0.166	0.082	0.042	ged
37	SWIG	0.162	0.097	0.094	ged
38	SWIV	0.209	0.086	0.015	t-stat
39	UKG	0.030	0.012	0.011	ged
40	UKV	0.115	0.097	0.238	ged
41	USAG[3]	-0.001	0.001	0.029	ged
42	USAV	0.194	0.087	0.026	ged
43	EAFEG	0.147	0.065	0.023	t-stat
44	EAFEV	0.250	0.065	0.000	t-stat
45	EMUG[3]	-0.002	0.001	0.036	ged
46	EMUV	0.249	0.085	0.004	ged
47	EURV	0.292	0.080	0.000	ged
48	EURG	0.192	0.086	0.027	ged
49	WORG	0.219	0.090	0.015	ged
50	WORV	0.201	0.089	0.024	ged
The GARCH-M models:			$R_t = \alpha + \lambda\sigma^2_t + \varepsilon_t$ (1)		
$R_t = \alpha + \lambda\sigma_t + \varepsilon_t$ (2)			$R_t = \alpha + \lambda\log(\sigma_t) + \varepsilon_t$ (3)		

SUMMARY

This paper has investigated the risk-return relation among major international value and growth equity markets using several GARCH models. The evidence provided supports a positive risk-return relation for most of international value and growth stock indexes.

In contrast with some of the previous studies, exclusion of constant term resulted in significant relationships among indexes when using Component GARCH model. The result for

Threshold GARCH model was quite similar to CGARCH model. Finally, the result of this study is consistent with other studies such as Engle and Lee (1999) and Christofferson et al. (2004) when the constant term was excluded from the stock return equation.

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ENHANCING EXPATRIATE SELECTION: MEASURING THE STRENGTH OF ACCULTURATION

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ABSTRACT

In this paper we present a new method to help International Human Resource (IHR) select the best candidates for an expatriate position. We present an argument, based on Hofstede's cross cultural theory, in favor of measuring the acculturation score of each potential candidate for the expatriate position. Thanks to this measurement, we advance that IHR will be able to reduce the risk of expatriate failure.

INTRODUCTION

In 1962, Marshall McLuhan coined the idea of "global village" where the world is now considered to act like a village. As far as businesses are concerned that idea is certainly embraced. Indeed, more and more organizations realize that they can run their business all over the world, buying, selling, or even producing doesn't have to be restrained by borders. What was once the realm of just the large multinational corporation is now available for any businesses; with the emergence of electronic media and the decreased costs of transportation, even small business can compete internationally (Furnham, 1997). Furthermore, for some companies, the cost of research and development, increased competitive pressures from local and international rivals, and/or legal restrictions may force firms to have a global presence in order to stay in business.

However, doing business all over the world creates a new set of agency issue for these corporations: How can I be sure that people working for me on the other side of the planet are indeed doing so? As owners discovered in the early 1900's that they needed managers to help them take care of their business, managers are faced with finding a solution to that question. One of the solution that business came up with in order to solve that issue was to send one of their own to be their eyes and hears, their trusted representative in that international location. We call these managers expatriates.

Expatriates are home country nationals sent abroad by their company to live and work temporarily in another country where the company is doing business. The length of stay and the goals of the expatriates can be diverse. For instance, expatriates are very likely to be used in the initial stage of international development: their main goal in that instance is then to oversee the development of appropriate procedures consistent with the way the parent company do business, facilitate the transfer of knowledge from the parent company to the international subsidiary or partner, and/or to set the new venture on the right track. In the advanced stages of international expansion, the need and use of expatriates depends on many factors such as the nature of the

business, the country in which the subsidiary is established, or even the culture of the parent company.

However, the use of expatriates has several drawbacks. First of all, expatriates are expensive. Expatriation is a considerable investment for corporations, the costs of which include an individual's salary, preparatory costs (e.g. training, coursework), travel expenses for both the expatriate and his or her family, housing, as well as other compensation expenses (Haile, Jones, & Emmanuel, 2007; Bakers & Roberts, 2006). As far as monetary value is concerned, an expatriation can range from US$250,000 up to US$1 million annually (Black & Gregersen, 1999; Baruch & Altman, 2002), which could easily be "the single largest expenditure most companies make on any one individuals save perhaps the CEO" (Selmer, 2001). However, that investment is no guarantee for success, as the other main downside with expatriation is the fact that an expatriate can fail in his or her assignment.

Consequently, we need to be able to pick the right person for an expatriate mission. With such high costs at stake, the success of an expatriate assignment is an important consideration for the organizations. As a result, expatriation received some attention in the literature. In the next section, we will offer a review of the expatriate literature, specifically on expatriate failure and expatriate selection. Then, we will use the findings from these research efforts to propose an additional method to enhance the selection of expatriate by reducing the possibility of failure.

LITERATURE REVIEW

Expatriate failure

As we mentioned before, the cost of expatriates is high, therefore it is no surprise that the volume of literature regarding the subject is large (McEvoy, 2011; Lee, 2007; Bakers & Roberts, 2006; Harzing, 1995; Mendenhall & Oddou, 1985, Tung, 1982, 1981). However, most of the literature lacks empirical evidence, focus mainly on US expatriates, is outdated, and does not have a commonly accepted definition (McEvoy, 2011; Lee, 2007; McEvoy & Parker, 2000).

As far as the failure rate is concerned, Tung's (1981, 1982) research is one of the cornerstones of the literature. She is one of the few researchers that have conducted empirical research on the topic, and to this day her study is used as a primary foundation in expatriate failure studies. She used a sample of 80 US, 29 West European, and 35 Japanese multinational firms with international subsidiaries and surveyed staffing policy, selection criteria, procedures to determine the suitability of a potential expatriate, the type and extent of pre-departure training, and the success rate of expatriates. She defined expatriate failure as expatriates who had to be recalled before the end of their international assignment. She found that that 7% of US multinationals experienced a 20 to 40% recall rate, 69% had a recall rate between 10 to 20%, and 24% had below 10% of their expatriates recalled. As far as European multinationals are concerned, only 3% of the companies surveyed had a recall rate between 11 and 15%, 38% had a rate between 6 to 10%, and 59% of the European MNCs experienced less than 5% recall. Regarding the Japanese MNCs, 14% had a recall rate between 11 to 19%, 10% had a rate between 6 to 10%, and 76% saw less than 5% of their expatriate recalled.

The other seminal paper on expatriate failure is by Mendenhall and Oddou (1985). They are considered "one of the most crucial articles on expatriate failure rates" (Harzing, 1995:458). They state: "It has been estimated that the expatriate failure rate from 1965 to the present has fluctuated between 25 percent and 40%" (Henry, 1965; Misa & Fabricatore, 1979; Tung 1981)" (Mendenhall & Oddou,1985:39). This quote is very widely used in expatriate failure literature; according to Google scholar citation count, their 1985 piece is cited 648 times (by comparison, Tung's (1981) is cited 628 times). According to Mendenhall and Oddou, the reason for expatriate failure is the inability of expatriate managers to adjust to the host culture's social and business environment; that the culture shock that these expatriates experience overwhelms them and prevent them to be successful. Based on that acculturation problem, they propose four dimensions that a candidate need to have in order to have a successful expatriation (these will be developed in the next section).

More recently, several studies have found high failures rates (Simeon & Fujiu, 2000; Shaffer & Harrison, 1998; Ashamalla and Crocitto, 1997; Naumann, 1993; Shilling, 1993; Gray, 1991), but all of these studies use premature return as the calculating proxy for failure rate which several authors contend is misleading (McEvoy, 2011; Lee, 2007; Harzing, 2002, 1995). Lee (2007) and Harzing (2002, 1995) argue that this proxy is flawed as it would implies that the expatriate assignment has been successful if the expatriate remains for the full duration of his or her assignment. Also, Harzing (1995) strongly questioned the origin of the data and/or the conclusions reached by several studies (such as Desatnick & Bennett, 1978; Holmes & Piker, 1980; Scullion, 1991, Zeira & Banai, 1985).Furthermore, McEvoy (2011) cites a survey of 180 organizations by GMAC Global Relocation Services (GMAC, 2007) in which 24% of expatriates left during their assignment. However, many of these expatriates left for other reasons than cross-cultural adaption difficulties. Most left for better jobs at other companies, utilizing their experience and network gained during their international assignment (too successful rather than failure). Other returned early because the assignment was completed ahead of schedule (success rather than failure), and some returned early as their own company recalled them to take another position within the company (promotion are not usually a reward for failure).

Despites the disagreement about how to define expatriate failure and assess the true failure rate, it is clear throughout the literature that failure does exist and that it is expensive, not only in term of cash invested in the expatriate (tangible loss) but also in term of goodwill and opportunity lost (intangible loss). As a result, many studies focused on how to select the right candidate for an expatriate assignment.

Selection of expatriates

Selecting the right person for an expatriate assignment is not an easy task. Shell (1993) note that changing work ethos and dual career couples have reduced the employees' willingness to consider accepting an international assignment. Harzing (1995) agrees with Shell that the pool of applicants is shrinking which makes selecting the right person even more important for two reasons: lower failure would mean reducing the number of candidates needed and a high failure rate would most likely discourage potential candidates even more. As a result, the literature on selecting expatriates is abundant and many scales have been designed in order to help IRH to

select the best candidates (Downes, Varner, & Hemmasi, 2010; Downes, Varner, & Musinski, 2007; Graf & Harland, 2004; Graf, 2004; Werner, 2000).

One of these scales has been created by Tucker (1983). Tucker's Overseas Assignment Inventory (OAI) was designed to assess the adjustment capability of an individual being considered for an international assignment. The OAI is composed of 14 predictors:

Expectations (7 items). It measures expectations about an international assignment in terms of the difficulty of an international move, living in a foreign country and the possibility of speaking another language.

Open-mindedness (7 items). It quantifies the degree to which people are receptive to and non-judgmental of the ideas and ways of other countries, cultures and ethnic groups.

Respect for other beliefs (6 items). It calculates the ability of the expatriate to respect its host religious and political beliefs.

Trust in people (7 items). It computes the capacity to assume trust in creating a new relationship and to build relationships on the basis of trust without placing a great deal of conditions on it.

Tolerance (6 items). It measures the willingness and ability to adapt to physical and social surroundings and circumstances that are different or less comfortable.

Locus of control (7 items). It quantifies the extent to which individuals believe that they can control events affecting them.

Flexibility (7 items). It calculates the capability to accept new ideas and see more than one's own way of approaching and solving problems.

Patience (5 items). It computes the capacity to show patience in frustrating situations and also with other people.

Social adaptability (5 items). It measures a willingness and comfort in new and unfamiliar social situations.

Initiative (5 items). It quantifies the willingness to take action in new and challenging situations and to speak up and take the lead in a group.

Risk taking (6 items). It calculates the ability to go beyond one's comfort zone in trying new things.

Sense of Humor (5 items). It computes the ability to use humor to cope with difficulty, tense or confusing situations and to take mistakes in stride and learn from them.

Interpersonal interest (7 items). It measures the expatriate ability in establishing meaningful relationships.

Spousal communication (4 items). It computes the quality of communication between spouses or partners who are considering international assignment.

Another string of expatriate selection research is based on Mendenhall & Oddou (1985). Their investigation of overseas managers revealed four adjustment dimensions related to a successful expatriate acculturation:

Self-oriented, the ability to reduce one's stress, one's technical competence, and the ability to find/substitute pleasing activities.

Other-oriented, the ability to develop relationship and willingness to communicate.

Perceptual, the ability to understand why foreigners behave the way they do.

Cultural Toughness, some cultures are harder to adjust to than others.

A third tool that IHR uses is the Myers-Briggs Type Indicator (Anastasi and Urbina, 1997). It also has four dimensions and it attempts to analyze managers into four types:

Introverts/Extroverts, managers obtain their energy and drive either from within or from interaction with others.

Sensing/Intuitive, managers obtain information through the senses or by seing relationships and making connections.

Thinking/Feeling, this dimension measures how managers make decisions, either by logic or because "it feels right"

Judging/Perception, it measures the degree of certainty that managers need.

Another mainstream in the expatriate selection literature focuses on the personality traits of managers as predictors of expatriate effectiveness.

In 1996, Harvey investigated personality and psychological traits, his finding suggest that the assessment of individual characteristics is needed in the expatriate selection process and that standardized tests performed adequately for that purpose.

Spreitzer, McCalland Mahoney (1997) developed "The Prospector", a survey instrument for identifying potential international executives (including but not limited to expatriates). The prospector is composed of end-state competencies (sensitivity to cultural differences, business knowledge, courage to take a stand, ability to bring out the best in people, integrity, insight, commitment to success, and willingness to take risks) and learning-oriented competencies (using feedback, being culturally adventurous, seeking opportunities to learn, being open to criticism, seeking feedback, and flexibility). They empirically found that both competencies positively predict potential.

Leiba-O'Sullivan (1999) focused on self-maintenance, relationship, and perceptual competencies. Within these competencies, she distinguished between those which are dynamics and those that are stable. She argued that Knowledge, Skills, Abilities, and Other Characteristics (KSAOs) represent competencies that are dynamics (KS) and stable (AO) and that stable competencies are necessary to acquire dynamic competencies, and thus may be more important for expatriate effectiveness.

In 2000, Caligiuri conducted an empirical study using the big five personality characteristics (extroversion, agreeableness, conscientiousness, emotional stability, and openness). He found that extroversion, agreeableness, and emotional stability to be negatively related to the expatriate's desire to terminate his or her assignment early, and found conscientiousness positively related to performance ratings by supervisors.

Kriegl (2000), surveyed expatriates and asked them to ranks a number of skills in term of their perceived importance. Cultural sensitivity was ranked first, followed by interpersonal skills, managerial flexibility, adaptive leadership, international motivation, intercultural competence, ability to work with limited resources, understanding of international business, interest, international etiquette, stress management, functional skills, and technical skills was last.

Tye and Chen (2005) surveyed HR professionals asking them to weight expatriates profiles (composed of gender, domestic performance, extraversion, international experience, and stress tolerance data) and rank their likelihood of having a successful expatriate assignment. The results of the study showed that qualitative international experience was more important than the total sum of experience, and that extraversion and stress tolerance were preferred.

Finally, in 2010, Downes, Varner, and Hemmasi, surveyed 118 current and past expatriates. They found that expatriate adjustment and job performance can be predicted by personality traits. They also found that expatriates who are extraverted, emotionally stable, and open adjusted better abroad than those who didn't had these traits. Contrary to Caligiuri (2000), they found no relationship with conscientiousness but had agreeableness linked with job performance.

Enhancing the selection process

As we can see through the literature, the selection process of expatriates is strongly focused on measuring the capabilities of the candidates. Whether it's to measure their ability to adjust to a new culture, interact with others, or how they would "fit" in, the focus is to see if the candidate will be able to transform oneself in order to function in his or her international assignment. This line of thought make sense since there will be some cultural shock for the expatriate. Despite McLuhan's global village concept, there are still quite some differences between the north, south, east, and west corners of that village. However, while we agree that adjustment skills and competencies will be necessary to have a successful expatriation, we believe that it is an incomplete way to search for potential expatriates. Being able to adjust is one thing, but the size of the adjustment may also need to be considered. Nonetheless, that concept doesn't seem to be considered in the literature. In order to address that gap, we will propose a theory based model that would provide a way for IHR to measure each candidate's acculturation.

Hofstede's dimensions of national culture

Hofstede (1980) used 116,000 questionnaires administered to IBM employees in 72 countries to develop cross cultural dimensions. These dimensions were constructed in such way that they addressed basic issues that all societies have to deal with. He argued that most national differences in work-related values, beliefs, norms, as well as many societal mores could be explained in term of their statistical and conceptual associations with the following four major dimensions of national culture:

Power distance, which measures social inequality and relationship to authority.
Individualism/Collectivism, which focus on the relationship between the individual and the group.
Masculinity/Feminity, which emphasis the emotional implications of having been born as a boy or a girl.
Uncertainty avoidance, which stress the extent to which a society feel threatened by ambiguous or unknown situation.

Measuring the strength of acculturation

Based on Hostede's dimensions, we believe that we can create an acculturation score (AS) for IHR. Indeed, we can develop a measurement for every candidate on each dimension and compare it with the host's score. As every human being is different, each candidate has the potential to have a different dimensional score. As an example, envision that candidate A has a 50, candidate B has an 85, and the host has an 80 in power distance. Candidate A would have a difference of 30, while candidate B would only have a difference of 5. We are confident that the smaller score differential for candidate B would represent an easier adjustment for him or her compared to candidate A as far as power distance is concerned. Once all dimensions have been measured and contrasted to the host score, we would have a proxy of the acculturation that each candidate would face if selected for that specific expatriation assignment.

Calculating the host dimensional scores will need to be refined as the value developed by Hofstede may not be accurate enough. Hostede's measurement of the four dimensions is an overall national view. However, the expatriate will not be facing the whole nation but a smaller subset of it: the region around his or her new location of employment. We believed that an expatriate sent to New York City would experience a different acculturation than another expatriate sent to San Francisco. Therefore, using the U.S. score from Hofstede could be misleading. Furthermore, Hosftede's scores are nearly 40 years old and cultures do slowly evolve as Ingelhart's (2008) study of Western European countries showed. Even if Inglehart (2008) found that Western European cultures didn't reverse themselves, he did found some incomplete convergence. Which mean that from 1970 to 2006, Western European cultures did evolve and, as Mcluhan (1962) forecasted, these cultures are getting closer to one another. As a result, a newer, more focused score would be beneficial for IHR and it should be feasible for them to survey their host national employees and other locals at the targeted expatriation location. That sample makes sense since the expatriate is going to be spending a major portion of his or her time with these people. Once the survey is done, a simple averaging of the answers would give IHR the host score for all of Hofstede's dimensions.

As far as potential expatriate are concerned, IHR will need to use the same survey for the candidates and their families if they are to follow the expatriate to the international location. Consequently, IRH will be able to calculate an AS for each potential expatriate with the following equation:

$$AS = \sum_{x=e}^{n}|PDx - PDh| + \sum_{x=e}^{n}|ICx - ICh| + \sum_{x=e}^{n}|MFx - MFh| + \sum_{x=e}^{n}|UAx - UAh|$$

Where: $\sum_{x=e}^{n}$ represents the sum of the difference from x= e (expatriate) to n (spouse, $child_1$, $child_2$…$child_n$).
PDx represents the power distance score of x.
PDh represents the power distance score of the host.
ICx represents the individualism/collectivism score of x.
ICh represents the individualism/collectivism score of the host.
MFx represents the masculinity/feminity score of x.
MFh represents the masculinity/feminity score of the host.
UAx represents the uncertainty avoidance score of x.
UAh represents the uncertainty avoidance score of the host.
| | represents the absolute value* of the difference in scores between x and the host.
* Since the difference in score between the expatriate and the host can either be positive or negative, absolute values are needed to truly measure the gap between them.

We advance that determining the AS of potential expatriate will be beneficial for IHR as it would reduce the potential for failure and increase the pool of candidates. For candidates with the same skill level, the applicant with the lowest AS will have an easier task since his or her

adjustment will be smaller. As an example, if we have two runners with the same skills set and one has to run a full marathon and the other just a half-marathon, the chance of failure should be lower for the one running the half-marathon than the one running the full one. Hence, a lower AS should translate into a lower failure rate. Based on the same reasoning, IHR may not need to have the same level of adjustment skills as previously recommended by the literature. Indeed, if IHR can determine that the expatriate will only have a small incremental adjustment to achieve, then the skills level needed may be lowered while still maintaining a high chance of success. To continue with our running analogy, there are more people capable of running a half marathon than runners accomplished enough to complete a full one. We infer that a candidate with less adjustment skills and a lower AS could be as good as or even better than an applicant with better skills but a higher AS. If we are able to lower the necessary attributes needed for a successful expatriation, more people will then have the acceptable skills set to become a successful expatriate and, depending on their AS, that should result in an increase in the applicant pool for expatriation.

CONCLUSION

In 1980, Heller said that the attributes required of an international manager were to have the stamina of an Olympic runner, the mental agility of an Einstein, the detachment of a judge, the tact of a diplomat, and the perseverance of an Egyptian pyramid builder. While we agree that such a candidate would have little or no trouble in experiencing a successful expatriation, we believe that most companies will either not have access to that kind of candidates or would not have enough of them for their expatriation need. Consequently, as IHR still need expatriates, they have to settle with candidates with a lower skills set; which in turn increases the possibility of failure and reduces the pool of potential expatriates.

With our proposed acculturation score model, we are shifting the focus from the necessary skills set to be able to adjust to a new environment to the potency of the acculturation. By determining how big of a challenge the expatriate will be faced with, IHR should be able to fine-tune the skills set needed depending on the AS of the candidate. To mirror Heller, there is no need to be an Olympic runner if all you need to run is 10 yards. Therein lays the value of the acculturation score model as it provides IHR not only with a way to reduce the potential for failure but also increase the size of the applicant pool.

However, further research is needed in order to validate our model. Evidently, an empirical test is going to be necessary to prove its value. Once we have empirical data, we may even be able to enhance the model: for instance should each dimension be weighted, i.e. is power distance more relevant than masculinity/feminity? In the same manner, should we assign weight within the family calculation? One could argue that the expatriate score is more significant than his or her spouse score. Nevertheless, we believe that we are offering a new source of information to select the best candidate possible for a successful expatriation assignment.

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GLOBALIZATION AND DEVELOPMENT: FOUR PARADIGMATIC VIEWS

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ABSTRACT

Any explanation of globalization and development is based on a worldview. The premise of this paper is that any worldview can be associated with one of the four broad paradigms: functionalist, interpretive, radical humanist, and radical structuralist. This paper takes the case of globalization and development and discusses it from the four different viewpoints. It emphasizes that the four views expressed are equally scientific and informative; they look at the phenomenon from their certain paradigmatic viewpoint; and together they provide a more balanced understanding of the phenomenon under consideration.

INTRODUCTION

Any adequate analysis of globalization and development necessarily requires a fundamental understanding of the worldviews underlying the views expressed with respect to the nature and role of globalization and development. Four general views with respect to globalization and development, corresponding to four broad worldviews, are discussed. These four views with respect to the nature and role of globalization and development are equally scientific and informative; each looks at the nature of globalization and development and its role from a certain paradigmatic viewpoint.

The paper takes the case of globalization and development as an example and emphasizes that, in general, any phenomenon may be seen and analyzed from different viewpoints and that each viewpoint exposes a certain aspect of the phenomenon under consideration. Collectively, they provide a much broader and deeper understanding of the phenomenon. Therefore, each paradigm can benefit much from contributions coming from the other paradigms.

These different perspectives should be regarded as polar ideal types. The work of certain authors helps to define the logically coherent form of a certain polar ideal type. But, the work of many authors who share more than one perspective is located between the poles of the spectrum defined by the polar ideal types. The purpose of this paper is not to put people into boxes. It is rather to recommend that a satisfactory perspective may draw upon several of the ideal types.

The ancient parable of six blind scholars and their experience with the elephant illustrates the benefits of paradigm diversity. There were six blind scholars who did not know what the elephant looked like and had never even heard its name. They decided to obtain a mental picture, i.e. knowledge, by touching the animal. The first blind scholar felt the elephant's trunk and

argued that the elephant was like a lively snake. The second bind scholar rubbed along one of the elephant's enormous legs and likened the animal to a rough column of massive proportions. The third blind scholar took hold of the elephant's tail and insisted that the elephant resembled a large, flexible brush. The fourth blind scholar felt the elephant's sharp tusk and declared it to be like a great spear. The fifth blind scholar examined the elephant's waving ear and was convinced that the animal was some sort of a fan. The sixth blind scholar, who occupied the space between the elephant's front and hid legs, could not touch any parts of the elephant and consequently asserted that there were no such beasts as elephant at all and accused his colleagues of making up fantastic stories about non-existing things. Each of the six blind scholars held firmly to their understanding of an elephant and they argued and fought about which story contained the correct understanding of the elephant. As a result, their entire community was torn apart, and suspicion and distrust became the order of the day.

This parable contains many valuable lessons. First, probably reality is too complex to be fully grasped by imperfect human beings. Second, although each person might correctly identify one aspect of reality, each may incorrectly attempt to reduce the entire phenomenon to their own partial and narrow experience. Third, the maintenance of communal peace and harmony might be worth much more than stubbornly clinging to one's understanding of the world. Fourth, it might be wise for each person to return to reality and exchange positions with others to better appreciate the whole of the reality. This parable is taken from Steger (2002).

Social theory can usefully be conceived in terms of four key paradigms: functionalist, interpretive, radical humanist, and radical structuralist. The four paradigms are founded upon different assumptions about the nature of social science and the nature of society. Each generates theories, concepts, and analytical tools which are different from those of other paradigms.

All theories are based on a philosophy of science and a theory of society. Many theorists appear to be unaware of, or ignore, the assumptions underlying these philosophies. They emphasize only some aspects of the phenomenon and ignore others. Unless they bring out the basic philosophical assumptions of the theories, their analysis can be misleading; since by emphasizing differences between theories, they imply diversity in approach. While there appear to be different kinds of theory, they are founded on a certain philosophy, worldview, or paradigm. This becomes evident when these theories are related to the wider background of social theory.

The functionalist paradigm has provided the framework for current mainstream academic fields, and accounts for the largest proportion of theory and research in academia. In order to understand a new paradigm, theorists should be fully aware of assumptions upon which their own paradigm is based. Moreover, to understand a new paradigm one has to explore it from within, since the concepts in one paradigm cannot easily be interpreted in terms of those of another. No attempt should be made to criticize or evaluate a paradigm from the outside. This is self-defeating since it is based on a separate paradigm. All four paradigms can be easily criticized and ruined in this way.

These four paradigms are of paramount importance to any scientist, because the process of learning about a favored paradigm is also the process of learning what that paradigm is not. The knowledge of paradigms makes scientists aware of the boundaries within which they approach their subject. Each of the four paradigms implies a different way of social theorizing.

Before discussing each paradigm, it is useful to look at the notion of "paradigm." Burrell and Morgan (1979) regard the:

> ... four paradigms as being defined by very basic meta-theoretical assumptions which underwrite the frame of reference, mode of theorizing and modus operandi of the social theorists who operate within them. It is a term which is intended to emphasize the commonality of perspective which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problematic.
>
> The paradigm does ... have an underlying unity in terms of its basic and often "taken for granted" assumptions, which separate a group of theorists in a very fundamental way from theorists located in other paradigms. The "unity" of the paradigm thus derives from reference to alternative views of reality which lie outside its boundaries and which may not necessarily even be recognized as existing. (pages 23–24)

Each theory can be related to one of the four broad worldviews. These adhere to different sets of fundamental assumptions about; the nature of science (i.e., the subjective-objective dimension), and the nature of society (i.e., the dimension of regulation-radical change), as in Exhibit 1. See Burrell and Morgan (1979) for the original work. Ardalan (2000a, 2000b, 2000c, 2001, 2002a, 2002b, 2003a, 2003b, 2003c, 2003d, 2003e, 2005, 2006, and 2007) and Bettner, Robinson, and McGoun (1994) have used this approach. This work borrows heavily from the ideas and insights of Burrell and Morgan (1979).

Assumptions related to the nature of science are assumptions with respect to ontology, epistemology, human nature, and methodology. The assumptions about ontology are assumptions regarding the very essence of the phenomenon under investigation. That is, to what extent the phenomenon is objective and external to the individual or it is subjective and the product of individual's mind.

The assumptions about epistemology are assumptions about the nature of knowledge - about how one might go about understanding the world, and communicate such knowledge to others. That is, what constitutes knowledge and to what extent it is something which can be acquired or it is something which has to be personally experienced.

The assumptions about human nature are concerned with human nature and, in particular, the relationship between individuals and their environment, which is the object and subject of social sciences. That is, to what extent human beings and their experiences are the products of their environment or human beings are creators of their environment.

The assumptions about methodology are related to the way in which one attempts to investigate and obtain knowledge about the social world. That is, to what extent the methodology treats the social world as being real hard and external to the individual or it is as being of a much

softer, personal and more subjective quality. In the former, the focus is on the universal relationship among elements of the phenomenon, whereas in the latter, the focus is on the understanding of the way in which the individual creates, modifies, and interprets the situation which is experienced.

The assumptions related to the nature of society are concerned with the extent of regulation of the society or radical change in the society. Sociology of regulation provides explanation of society based on the assumption of its unity and cohesiveness. It focuses on the need to understand and explain why society tends to hold together rather than fall apart.

Sociology of radical change provides explanation of society based on the assumption of its deep-seated structural conflict, modes of domination, and structural contradiction. It focuses on the deprivation of human beings, both material and psychic, and it looks towards alternatives rather than the acceptance of *status quo*.

The subjective-objective dimension and the regulation-radical change dimension together define four paradigms, each of which share common fundamental assumptions about the nature of social science and the nature of society. Each paradigm has a fundamentally unique perspective for the analysis of social phenomena.

The aim of this paper is not so much to create a new piece of puzzle as it is to fit the existing pieces of puzzle together in order to make sense of it. The following four sections, first, each lays down the foundation by discussing one of the four paradigms. Then, each presents the nature and role of globalization and development from the point of view of the respective paradigm. The last section concludes the paper.

FUNCTIONALIST PARADIGM

The functionalist paradigm assumes that society has a concrete existence and follows certain order. These assumptions lead to the existence of an objective and value-free social science which can produce true explanatory and predictive knowledge of the reality "out there." It assumes scientific theories can be assessed objectively by reference to empirical evidence. Scientists do not see any roles for themselves, within the phenomenon which they analyze, through the rigor and technique of the scientific method. It attributes independence to the observer from the observed. That is, an ability to observe "what is" without affecting it. It assumes there are universal standards of science, which determine what constitutes an adequate explanation of what is observed. It assumes there are external rules and regulations governing the external world. The goal of scientists is to find the orders that prevail within that phenomenon.

Exhibit 1: The Four Paradigms

Each paradigm adheres to a set of fundamental assumptions about the nature of science (i.e., the subjective-objective dimension), and the nature of society (i.e., the dimension of regulation-radical change).

The Sociology of Radical Change

	The Sociology of Radical Change	
S U B J E C T I V E	Radical Humanist	Radical Structuralist
	Interpretive	Functionalist

(left axis labeled **SUBJECTIVE**, right axis labeled **OBJECTIVE**)

The Sociology of Regulation
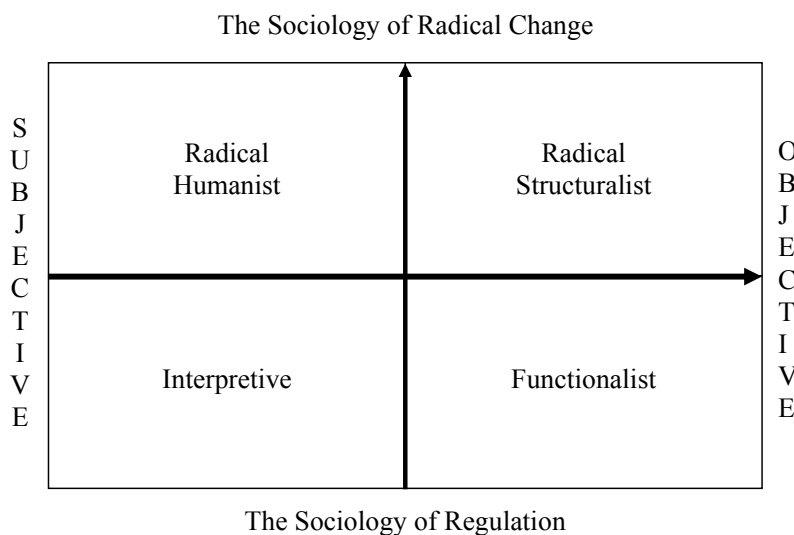
The functionalist paradigm seeks to provide rational explanations of social affairs and generate regulative sociology. It assumes a continuing order, pattern, and coherence and tries to explain what is. It emphasizes the importance of understanding order, equilibrium and stability in society and the way in which these can be maintained. It is concerned with the regulation and control of social affairs. It believes in social engineering as a basis for social reform.

The rationality which underlies functionalist science is used to explain the rationality of society. Science provides the basis for structuring and ordering the social world, similar to the structure and order in the natural world. The methods of natural science are used to generate explanations of the social world. The use of mechanical and biological analogies for modeling and understanding the social phenomena are particularly favored.

Functionalists are individualists. That is, the properties of the aggregate are determined by the properties of its units.

Their approach to social science is rooted in the tradition of positivism. It assumes that the social world is concrete, meaning it can be identified, studied and measured through approaches derived from the natural sciences.

Functionalists believe that the positivist methods which have triumphed in natural sciences should prevail in social sciences, as well. In addition, the functionalist paradigm has

become dominant in academic sociology and mainstream academic fields. The social world is treated as a place of concrete reality, characterized by uniformities and regularities which can be understood and explained in terms of causes and effects. Given these assumptions, the individual is regarded as taking on a passive role; his or her behavior is being determined by the economic environment.

Functionalists are pragmatic in orientation and are concerned to understand society so that the knowledge thus generated can be used in society. It is problem orientated in approach as it is concerned to provide practical solutions to practical problems.

In Exhibit 1, the functionalist paradigm occupies the south-east quadrant. Schools of thought within this paradigm can be located on the objective-subjective continuum. From right to left they are: Objectivism, Social System Theory, Integrative Theory, Interactionism, and Social Action Theory.

Functionalist paradigm's views with respect to the nature and role of globalization and development are presented next. For this literature, see Alesina and Peroti (1994), Black (1966), Bryan and Farrell (1996), Chenery and Srinivasan (1988), Chow (1987), Greenway and Chong (1988), Hoselitz et al. (1960), Kuznets (1988), Lal (1983), Lerner (1964, 1968), Lim (1994), Little (1982), Reynolds (1985), Rostow (1960, 1980), and World Bank (1991). This section is based on Rostow (1960).

Any given society falls in one of following five categories: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass-consumption.

The Traditional Society: The structure of a traditional society is developed with limited production capabilities, which is based on pre-Newtonian attitudes towards the physical world such as pre-Newtonian science and technology, and so on. Symbolically, here Newton stands for the widely held belief that the external world is subject to a few knowable laws that can systematically change the production function. Traditional societies have limited productivity and consequently devote a very high proportion of their resources to agriculture. Due to agricultural system, there is a hierarchical social structure with limited vertical social mobility. Family relationship plays a major role in social status in the social organization. The value system of traditional societies is one of long-run fatalism. That is, the assumption is that the range of options open to one's grandchildren is almost the same as what it was for one's grandparents. In a traditional society, there is a central political rule that transcends the relatively self-sufficient regions through its entourage of civil servants and soldiers imbued with attitudes and controlled by interests transcending the regions. However, the political power generally remains with the landlords in the regions. The landowner maintains fluctuating but profound influence over the central political power. The post-traditional societies changed each of the major characteristics of the traditional society so as to permit regular growth in their politics, social structure, values, and economy.

The Preconditions for Take-Off: This period involves the transformation of a traditional society in order to exploit the benefits of modern science to avoid diminishing returns. The preconditions for take-off were clearly developed first in Western Europe in the late seventeenth and early eighteenth centuries. This happened when modern science began to be applied to the production processes of both agriculture and industry within the context of the lateral expansion of world markets and the international competition. In most other countries, the stage of preconditions came about not through internal forces but from external forces, i.e., more advanced societies. These external forces broke-up the traditional society and initiated the process of constructing a modern alternative to the traditional society. The external forces help to spread the idea that economic progress is possible and it leads to other desirable outcomes such as national dignity, private profit, the general welfare, and a better life for future generations. Education transforms to serve the needs of the activities in the modern economy. New groups of enterprising men mobilize savings and take risks in pursuit of profit or modernization. Banks and other financial institutions help in mobilizing capital. Investment increases in different industries, notably in transport, communications, and raw materials. The scope of commerce widens both nationally and internationally. Modern manufacturing enterprises become widespread and use the new methods. However, all these changes take place at a slow pace because the economy and the society are still mainly characterized by traditional low-productivity methods, by the old social structure and values, and by the regionally based political institutions. In many recent cases, the traditional society continued to co-exist with modern economic activities, which were conducted by a colonial or quasi-colonial power for limited economic purposes. The period of transition also involved the building of the centralized national state based on the new nationalism and in opposition to the traditional regional landed interests, the colonial power, or both. It acted as a decisive and necessary aspect of the preconditions for take-off.

The Take-Off: It is the period during which the forces of economic progress expand and dominate the society. Growth becomes the norm in society. Compound interest becomes part of the institutional structure of society. In Britain, United States, and Canada the crucial factor for take-off was technological progress. In most other cases, the take-off was the result of the build-up of social overhead capital, the improvement in technology in industry and agriculture, and the political will of a powerful group to modernize the economy. During the take-off, new industries expand rapidly and yield profits, which would provide a source of financing for investment in new plant. Such new industries stimulate a further expansion in both the urban areas and other modern industries. The expansion in the modern sector results in an increase in income which in turn results in high savings and investment rates. The expanding class of entrepreneurs manages the growing flows of investment. New production techniques are used in agriculture as well and agriculture becomes commercialized. The substantial increases in agricultural productivity are an essential condition for successful take-off. This is because modernization drastically increases society's demand for agricultural products. In a decade or two the basic economic, social, and political structure of the society is transformed such that a steady rate of growth can be sustained.

The Drive to Maturity: After take-off there is a long period of sustained, maybe fluctuating, progress. In this period, the growing economy tends to extend the modern technology to all economic activities. The steady investment allows growth in output to outstrip the increase in population. As new production techniques improve, new industries accelerate and older ones level off. The economy stabilizes in the international economy: goods formerly imported are now produced at home; new import requirements develop, and new exports to match them are produced. The society allocates resources based on the requirements of modern efficient production, and it enhances the new against the older values and institutions in order to enhance rather than to deteriorate the growth process. In drive to maturity, the economy has the technological and entrepreneurial skills to produce anything that it decides to produce. It may lack the raw materials or other inputs required to produce a certain output economically, but its dependence is a matter of economic and political choice rather than a technological or institutional necessity.

The Age of High Mass-Consumption: In the age of high mass-consumption the leading sectors shift towards production of consumers' durable goods and services. This is the stage from which America is beginning to emerge and Western Europe and Japan are beginning to probe. In the twentieth century, some societies achieved maturity and their real income per capita rose so high that a large segment of the population was able to consume beyond basic food, shelter, and clothing. The structure of the work force changed such that both the proportion of urban to total population and the proportion of office workers and skilled factory workers increased and they enjoyed the high consumption of the mature economy. In this stage, resources are increasingly directed to the production of consumers' durable goods and to the provision of services on a mass basis with the consequent sovereignty of the consumers. The sewing-machine, the bicycle, and various electric-powered household equipments were spread. The cheap production and mass distribution of cars played a decisive role in this process and had a quite revolutionary social and economic effect on the society.

In summary, the stages of growth were discussed in an impressionistic rather than an analytic way. These stages of growth start when a traditional society begins its modernization. The society goes through a transitional period when the preconditions for take-off are created in most cases in response to the intrusion of a foreign power and in consolidation with certain domestic forces that prepares the society for modernization and the take-off itself. Then it takes about two generations for the society to reach maturity. Finally, when the rise of real per capita income has matched the spread of technological progress the society diverts the fully mature economy to the provision of durable consumers' goods and services and constructs the welfare state.

INTERPRETIVE PARADIGM

The interpretive paradigm assumes that social reality is the result of the subjective interpretations of individuals. It sees the social world as a process which is created by individuals. Social reality, insofar as it exists outside the consciousness of any individual, is regarded as being a network of assumptions and intersubjectively shared meanings. This assumption leads to the belief that there are shared multiple realities which are sustained and changed. Researchers recognize their role within the phenomenon under investigation. Their frame of reference is one of participant, as opposed to observer. The goal of the interpretive researchers is to find the orders that prevail within the phenomenon under consideration; however, they are not objective.

The interpretive paradigm is concerned with understanding the world as it is, at the level of subjective experience. It seeks explanations within the realm of individual consciousness and subjectivity. Its analysis of the social world produces sociology of regulation. Its views are underwritten by the assumptions that the social world is cohesive, ordered, and integrated.

Interpretive sociologists seek to understand the source of social reality. They often delve into the depth of human consciousness and subjectivity in their quest for the meanings in social life. They reject the use of mathematics and biological analogies in learning about the society and their approach places emphasis on understanding the social world from the vantage point of the individuals who are actually engaged in social activities.

The interpretive paradigm views the functionalist position as unsatisfactory for two reasons. First, human values affect the process of scientific enquiry. That is, scientific method is not value-free, since the frame of reference of the scientific observer determines the way in which scientific knowledge is obtained. Second, in cultural sciences the subject matter is spiritual in nature. That is, human beings cannot be studied by the methods of the natural sciences, which aim to establish general laws. In the cultural sphere human beings are perceived as free. An understanding of their lives and actions can be obtained by the intuition of the total wholes, which is bound to break down by atomistic analysis of functionalist paradigm.

Cultural phenomena are seen as the external manifestations of inner experience. The cultural sciences, therefore, need to apply analytical methods based on "understanding;" through which the scientist can seek to understand human beings, their minds, and their feelings, and the way these are expressed in their outward actions. The notion of "understanding" is a defining characteristic of all theories located within this paradigm.

The interpretive paradigm believes that science is based on "taken for granted" assumptions; and, like any other social practice, must be understood within a specific context. Therefore, it cannot generate objective and value-free knowledge. Scientific knowledge is socially constructed and socially sustained; its significance and meaning can only be understood within its immediate social context.

The interpretive paradigm regards mainstream academic theorists as belonging to a small and self-sustaining community, which believes that social reality exists in a concrete world. They theorize about concepts which have little significance to people outside the community, which practices social theory, and the limited community which social theorists may attempt to serve.

Mainstream academic theorists tend to treat their subject of study as a hard, concrete and tangible empirical phenomenon which exists "out there" in the "real world." Interpretive researchers are opposed to such structural absolution. They emphasize that the social world is no more than the subjective construction of individual human beings who create and sustain a social world of intersubjectively shared meaning, which is in a continuous process of reaffirmation or change. Therefore, there are no universally valid rules of science. Interpretive research enables scientists to examine human behavior together with ethical, cultural, political, and social issues.

In Exhibit 1, the interpretive paradigm occupies the south-west quadrant. Schools of thought within this paradigm can be located on the objective-subjective continuum. From left to right they are: Solipsism, Phenomenology, Phenomenological Sociology, and Hermeneutics.

Interpretive paradigm's views with respect to the nature and role of globalization and development are presented next. For this literature, see Amsden (1985, 1989), Appelbaum and Henderson (1992), Berger (1987, 1988), Bienefeld (1988), Carnoy (1993), Deyo (1987), Doner and Hawes (1995), Dosi, Tyson, and Zysman (1989), Duina (2006), Evans (1995), Haggard (1990), Hanusch (1988), Johnson (1981, 1986), Jones and Sakong (1980), Karagiannis and Madjd-Sadjadi (2007), Landes (1999), Nolan (1990), Stein (1995), Wade (2004), Wade and Wolf (2002), White (1988), and Zysman (1982). This section is based on Dosi, Tyson, and Zysman (1989).

A government's development strategy may target industries that are deemed to have potential for technological change and economic growth. Price competition, which is the focus of most traditional economic analysis, is less important in determining the long-term national economic development than traditionally thought. Furthermore, under conditions of technological change and market imperfections, long-term economic welfare cannot be necessarily assumed to be more improved by market signals than by government targeting policies. Under those conditions, even short-term policies can have long-term effects. This is because when there are increasing returns in an industry, several market outcomes are possible, and policy measures aimed at one of them can have self-reinforcing and spillover effects over time.

Since technological change plays a key role in economic development, standard economic models that take such change as given do not provide a good understanding of the dynamics of market competition and the effects of policy on such competition. Until the late 1970s, comparative advantage formed the basis of the mainstream international trade theory. It states that countries export from those sectors in which they have a comparative production advantage and import in those sectors in which they have a comparative production disadvantage.

The new theory abandons the assumption of perfect competition and explores how competition and government intervention can create a strategic logic to trade. It demonstrates that in many circumstances government targeting can have a long-term welfare-improving effect. Two conditions lead to this result. First, imperfectly competitive industries generate high returns. Therefore, national welfare may improve if the government policy results in larger world market shares for domestic producers. Secondly, externalities or spillover effects of one industry generate benefits for the rest of the economy. Therefore, government policies that support such industries can improve national welfare.

Technological knowledge tends to generate positive externalities. The benefits of this knowledge cannot be completely appropriated by the private agents who pay the costs for the generation of such knowledge. Therefore, the social returns to investment in research and development exceed the private returns. This provides the basis for policies that improve national economic welfare.

The new trade theory, however, is mostly static in its orientation and is concerned with the optimal allocation of existing resources. It deals with the once-and-for-all effects of government policies on trade and economic welfare. It does not consider how the current national patterns of production and trade can affect the nation's growth and technological trajectory over time.

To model this dynamic relationship a distinction needs to be made between two forms of economic efficiency: allocative efficiency and growth efficiency. The allocative efficiency obtains when the allocation of resources among industries and activities is based on current measures of social profitability and under conditions of non-increasing returns. That is, it maximizes or improves current economic welfare. In the presence of market imperfections and externalities, the realization of allocative efficiency may require government intervention. In the case of increasing returns, there exist several possible outcomes with allocative efficiency. Which one of the outcomes is realized depends in part on government policy. The growth efficiency obtains when the allocation of resources among industries and activities is based on its effects on both the long-term rates of growth of economic activity and the pace and direction of technological change.

In the presence of imperfect competition and technological change, an allocation of resources that is allocative efficient – in other words, efficient by current market indicators – may not be growth efficient. The future economic growth and technological development of a nation are influenced by its current composition of industries and activities, that is, by its current allocation of resources. Each country has its own distinct past economic history therefore each country is on its own distinct developmental trajectory. A nation's development trajectory depends on the current composition of its production and on their view about how to develop and use technology. These are, in turn, formed by the market conditions faced by the nation's private and public economic actors and by the institutional structures that constrain their strategies.

Economic development is mostly the outcome of technological change. A meaningful understanding of different national development trajectories requires a fundamental understanding of the process of technological change. Formal economic theory takes technology as given. More specifically, in traditional economic theory changes in technology are assumed to be independent of the current allocation of resources. Traditional economic growth models find that technological progress significantly affects economic growth, then how is it possible to have a theory of growth without a theory of technological change?

Studies of the process and history of technical change indicate that technological improvement is not necessarily the same as scientific advances that occur independently of the production process rather it is a joint outcome of the production process. The pace, direction, and diffusion of technological innovation are formed by the production process and market position. Technological knowledge is not a piece of information that can be bought or sold in the market rather it is a set of insights that develops in the process of production. That is, technological knowledge is not disembodied knowledge rather it is based on the process of design and production.

This perspective implies that different mixes of production at the current period mean different technological opportunities and different technological capabilities in the future. At any given time, there are different technological opportunities with respect to different products and industries. Consequently, a firm's or a nation's current decision to specialize in production in certain product or industry will affect its potential future technological dynamism. These insights mean that the current decision with respect to the allocation of resources has a crucial effect on the direction and rate of technological advance over time.

This implies that national policies should target those industries and activities that have greatest technological potential. This argument, in turn, depends on the failure of market signals to yield optimal outcomes. That is, there is a trade-off between patterns of resource allocation that are efficient on the short run basis and those that are efficient on the long run basis. The explanation for these arguments lies in the spillover effects and market imperfections inherent in the process of technological change.

Technological knowledge is not only subject to increasing return to scale but also it is subject to economies of scope. With the existence of increasing returns and spillover effects, the market fails to signal to private agents the unintended consequences of their collective action. In other words, markets cannot convey information about or discount the payoffs in the future states of the world whose occurrences are themselves externalities determined by the interaction of the current decisions of unrelated private agents. Consequently, there may be trade-offs between efficiency on a short-term basis and efficiency on a long-term basis. Therefore, policies aimed at activities and industries that have the greatest potential for generating technological knowledge with economy-wide applicability may improve economic welfare over time. Recall the notion that current patterns of resource allocation influence the trajectory of national technological

change. Then, the potential gains from policy intervention are not once and for all but dynamic and affect the entire future trajectory of technological progress and economic growth.

RADICAL HUMANIST PARADIGM

The radical humanist paradigm provides critiques of the status quo and is concerned to articulate, from a subjective standpoint, the sociology of radical change, modes of domination, emancipation, deprivation, and potentiality. Based on its subjectivist approach, it places great emphasis on human consciousness. It tends to view society as anti-human. It views the process of reality creation as feeding back on itself; such that individuals and society are prevented from reaching their highest possible potential. That is, the consciousness of human beings is dominated by the ideological superstructures of the social system, which results in their alienation or false consciousness. This, in turn, prevents true human fulfillment. The social theorist regards the orders that prevail in the society as instruments of ideological domination.

The major concern for theorists is with the way this occurs and finding ways in which human beings can release themselves from constraints which existing social arrangements place upon realization of their full potential. They seek to change the social world through a change in consciousness.

Radical humanists believe that everything must be grasped as a whole, because the whole dominates the parts in an all-embracing sense. Moreover, truth is historically specific, relative to a given set of circumstances, so that one should not search for generalizations for the laws of motion of societies.

The radical humanists believe the functionalist paradigm accepts purposive rationality, logic of science, positive functions of technology, and neutrality of language, and uses them in the construction of "value-free" social theories. The radical humanist theorists intend to demolish this structure, emphasizing the political and repressive nature of it. They aim to show the role that science, ideology, technology, language, and other aspects of the superstructure play in sustaining and developing the system of power and domination, within the totality of the social formation. Their function is to influence the consciousness of human beings for eventual emancipation and formation of alternative social formations.

The radical humanists note that functionalist sociologists create and sustain a view of social reality which maintains the *status quo* and which forms one aspect of the network of ideological domination of the society.

The focus of the radical humanists upon the "superstructural" aspects of society reflects their attempt to move away from the economism of orthodox Marxism and emphasize the Hegelian dialectics. It is through the dialectic that the objective and subjective aspects of social life interact. The superstructure of society is believed to be the medium through which the consciousness of human beings is controlled and molded to fit the requirements of the social formation as a whole. The concepts of structural conflict, contradiction, and crisis do not play a

major role in this paradigm, because these are more objectivist view of social reality, that is, the ones which fall in the radical structuralist paradigm. In the radical humanist paradigm, the concepts of consciousness, alienation, and critique form their concerns.

In Exhibit 1, the radical humanist paradigm occupies the north-west quadrant. Schools of thought within this paradigm can be located on the objective-subjective continuum. From left to right they are: Solipsism, French Existentialism, Anarchistic Individualism, and Critical Theory.

Radical humanist paradigm's views with respect to the nature and role of ideology are presented next. For this literature, see Cox (1981, 1987), Dunning (2003), Gill (1993), Grinspun and Kreklewich (1994), Hettne (1994, 1995), Hoogvelt (1982, 1997), Hurrell and Woods (1995), Jomo and Nagaraj (2001), Larrain (1989), Mahler (1994), McMichael (1996), Onwuka (1989), Payne (2005), Shaw (1979), Snidal (1985), Staniland (1985), Strange (2006), and Thomas and Wilkin (1999). This section is based on Cox (1981).

The development of countries, especially the developing countries, should be examined within the worldwide imperial system. The imperial system is a world order structure that draws support from a specific combination of social forces, national and transnational, and of core and periphery states. "Structures" form constraints on action, and they are not to be confused with actors. The imperial system, without actually usurping the state power, exerts pressure on states through formal and less formal organizations at the system level. The behavior of entities, such as states or organized economic and social interests, is formed within the larger totality of the imperial system. Such behavior is formed either directly under pressures projected through the system or indirectly through actors' awareness of the constraints imposed by the system. The imperial system includes actors, such as states and multinationals which are also dominant elements in the system, however, the system as a structure is more than the sum of them. According to the principle of dialectic, the imperial system, even when it is a hegemonic structure, has its counter-structure, even a latent one, that seeks out its possible bases of support and elements of cohesion.

For instance, the imperial system through a particular configuration of power, ideology and institutions became hegemonic outside the soviet sphere. That is, it gained the consent of states outside the Soviet sphere and provided sufficient support and benefit to the associated and subordinate elements in order to obtain and maintain their acquiescence. However, consent was weaker in the periphery, where the element of resistant force was always present. It was in the periphery that the imperial system was first challenged.

The imperial system's basic principles consist of relatively free movement of goods, capital, and technology, and managed exchange rates. Its ideology emphasizes that an open trading world is a necessary condition of peace; and supports its ideology by expressing confidence in ever-rising productivity and economic growth that lead to moderating and controlling conflict. The post-war hegemony was institutionalized and the main function of its institutions was to reconcile domestic social pressures with the requirements of a liberal world economy. The International Monetary Fund's main task was to provide loans to countries with

balance of payments deficits in order for them to have time to make the necessary adjustments and to reduce the sharp deflationary effect of an automatic gold standard. The World Bank's main task was to provide longer term financial assistance. The system provided economically weak countries with assistance, either directly through the system's institutions or by other states which were certified by the system's institutions. These institutions enforced the system's norms and made financial assistance conditional on observing the norms.

This system of surveillance, which was first employed by the western allies and then by all industrialized capitalist countries, was complimented by a system of the harmonization of national policies. International obligation and cooperation were extended. Thus, adjustments were regarded as responses to the needs of the system as a whole and not to the dictates of dominant countries. Accordingly, external pressures on national policies were internationalized. This internationalized policy process was based on the existence of a central dominant government, which indeed was the US government. Policy harmonization became a constant ingredient in international behavior.

The internationalization of the state takes place at the time of the adjustment of domestic to international economic policy. This change gives precedence to state agencies that play key roles in the adjustment process, i.e., ministries of finance and prime ministers' offices. A new international policy network linked the key central agencies of government with big business.

The internationalization of the state not only took place in advanced capitalist core countries but also in peripheral countries. In these countries, international institutions as a condition for debt renewal have required policies which could only be maintained by a coalition of conservative forces. In the case of some countries, creditors required that IMF officials be placed within the key ministries of the borrowing state to supervise the fulfillment of the debt renewal conditions.

The internationalization of the state is associated with the internationalization of production. This refers to the integration of production processes on a transnational scale, where different phases of a single production process are performed in different countries. International production has been having formative effect on the structure of states and world order, which is similar to the role that national manufacturing and commercial capital played in the mid-Nineteenth century. International production takes place through direct investment. In this arrangement, various components are integrated into the world production system.

International production through mobilizing social forces generates political consequences with respect to the nature of states and the future world orders.

At the top of the emerging global class structure is the transnational managerial class. It has its own ideology, strategy, and institutions of collective action and therefore it is both a class in itself and for itself. Its major organizations – the Trilateral Commission, World Bank, IMF, and OECD – develop both a framework for thoughts and guidelines for policies. Based on these and through the process of internationalization of the state, class action penetrates into countries. The members of this transnational class are not only those who perform functions at the global

level – such as executives of multinational corporations and senior officials of international agencies – but also those who manage the internationally-oriented sectors within countries – such as the finance ministry officials, local managers of enterprises linked into international production systems, and so on.

The international production organization allows the center to move the physical production of goods to peripheral locations – in which there is an abundant supply of relatively cheap non-established labor – and to maintain the control of the process and of the research and development on which its future technological progress depends.

When workers are mobilized in peripheral countries in response to international production, governments in peripheral countries have very often tried to bring them under control. Governments in peripheral countries through their control over local labor gain additional leverage with international capital regarding the terms of direct investment.

Even if international production were to penetrate into the peripheral countries and local governments were able to control their industrial workforces, most of the populations of these countries would be worse off. This is because new industrial jobs are created at a slower rate than increases in the workforce, while changes in agriculture dispossess many in the rural population. Even if international production spreads fast, a large proportion of the world's population living in the poorest areas remains marginal to the world economy. They have no jobs, no income, and no purchasing power. A major dilemma for international capital hegemony is how to overcome this marginalization of about one-third of the worlds' population in order to prevent its poverty from fuelling revolt.

RADICAL STRUCTURALIST PARADIGM

The radical structuralist paradigm assumes that reality is objective and concrete, as it is rooted in the materialist view of natural and social world. The social world, similar to the natural world, has an independent existence, that is, it exists outside the minds of human beings. Sociologists aim at discovering and understanding the patterns and regularities which characterize the social world. Scientists do not see any roles for themselves in the phenomenon under investigation. They use scientific methods to find the order that prevails in the phenomenon. This paradigm views society as a potentially dominating force. Sociologists working within this paradigm have an objectivist standpoint and are committed to radical change, emancipation, and potentiality. In their analysis they emphasize structural conflict, modes of domination, contradiction, and deprivation. They analyze the basic interrelationships within the total social formation and emphasize the fact that radical change is inherent in the structure of society and the radical change takes place though political and economic crises. This radical change necessarily disrupts the *status quo* and replaces it by a radically different social formation. It is through this radical change that the emancipation of human beings from the social structure is materialized.

For radical structuralists, an understanding of classes in society is essential for understanding the nature of knowledge. They argue that all knowledge is class specific. That is, it is determined by the place one occupies in the productive process. Knowledge is more than a reflection of the material world in thought. It is determined by one's relation to that reality. Since different classes occupy different positions in the process of material transformation, there are different kinds of knowledge. Hence class knowledge is produced by and for classes, and exists in a struggle for domination. Knowledge is thus ideological. That is, it formulates views of reality and solves problems from class points of view.

Radical structuralists reject the idea that it is possible to verify knowledge in an absolute sense through comparison with socially neutral theories or data. But, emphasize that there is the possibility of producing a "correct" knowledge from a class standpoint. They argue that the dominated class is uniquely positioned to obtain an objectively "correct" knowledge of social reality and its contradictions. It is the class with the most direct and widest access to the process of material transformation that ultimately produces and reproduces that reality.

Radical structuralists' analysis indicates that the social scientist, as a producer of class-based knowledge, is a part of the class struggle. Radical structuralists believe truth is the whole, and emphasize the need to understand the social order as a totality rather than as a collection of small truths about various parts and aspects of society. The financial empiricists are seen as relying almost exclusively upon a number of seemingly disparate, data-packed, problem-centered studies. Such studies, therefore, are irrelevant exercises in mathematical methods.

This paradigm is based on four central notions. First, there is the notion of totality. All theories address the total social formation. This notion emphasizes that the parts reflect the totality, not the totality the parts.

Second, there is the notion of structure. The focus is upon the configurations of social relationships, called structures, which are treated as persistent and enduring concrete facilities.

The third notion is that of contradiction. Structures, or social formations, contain contradictory and antagonistic relationships within them which act as seeds of their own decay.

The fourth notion is that of crisis. Contradictions within a given totality reach a point at which they can no longer be contained. The resulting political, economic crises indicate the point of transformation from one totality to another, in which one set of structures is replaced by another of a fundamentally different kind.

In Exhibit 1, the radical structuralist paradigm occupies the north-east quadrant. Schools of thought within this paradigm can be located on the objective-subjective continuum. From right to left they are: Russian Social Theory, Conflict Theory, and Contemporary Mediterranean Marxism.

Radical structuralist paradigm's views with respect to the nature and role of globalization and development are presented next. For this literature, see Amin (1977), Baran (1957), Brewer (1999), Bukharin (1917), Cardoso (1977), Cardoso and Faletto (1979), Chase-Dunn and Grimes (1995), Chilcote (1984), Chilcote and Johnson (1983), Dos Santos (1970), Evans (1979a, 1979b,

1985), Frank (1966, 1969), Galtung (1971), Hilferding (1910), Hymer (1975), Jomo (2006), Lenin (1916), Luxemburg (1951), Marshall (1996), Palma (1978), Radice (1975), Raghavan et al. (1996), Rodney (1972), Roxborough (1979), Shannon (1996), Sklair (1994), Trotsky (1928), and Wallerstein (1974a, 1974b, 1979a, 1979b, 2000). This section is based on Shannon (1996).

The underlying developmental structure of the world-system can be better understood by examining its three types of countries: (1) the core, (2) the periphery, and (3) the semi-periphery.

1.   The Core Countries:

The combined wealth, technological expertise, and military power of the core have been above those of the other countries. The core has had the most technologically advanced, capital-intensive, wage production. The core has maintained its capitalist form of political-economy in a system of competitive nation-states. It has sustained the highest per capita income in the world.

The United States is the dominant core country. With its military, economic, and political power, the U.S. has assumed the role of leader and protector of the world-system and has projected its power into the periphery. Although the U.S. economic position has eroded in the recent past, it is still the most powerful core state, and is the only superpower with global military capacity.

In the core, there were major shifts in industrial activities. Due to intense inter-core competition, traditional mass-manufacturing industries (such as steel, autos, and textiles) encountered declining markets and profit rates. Therefore, production moved to semi-peripheral (or even peripheral) countries for their lower wage rates. In the core, newer industries (such as the high-tech manufacture of electronics) took the place of traditional industries.

The general tendency has been towards higher economic concentration: a few large corporations (oligopolies) have dominated their markets, many corporations have acquired others involved in several separate markets (conglomerate firms), and a few multinational corporations have dominated world markets (world-oligopolies).

The capitalist class has had a crucial influence in the core and their long-term interests have determined most core state policies. Although the demand on the part of the lower social classes for greater political participation tends to force core states to accommodate these demands for the sake of political stability, states would to do so only if the process of capital accumulation is not hampered.

2.   The Peripheral Countries:

Most peripheral countries gained their independence after World War II. However, most core powers (with the support of the United States) minimized the extent of the change from the colonial to the neo-colonial period. Core powers installed client governments of native political elites that would maintain their political ties with their former rulers and continue the existing capitalist pattern of production, trade, foreign investment, and modernization. Core powers

offered the elites economic aid and military assistance in order to maintain themselves in power (and to enrich themselves). They promised the client governments modest foreign aid, loans, technology, and markets. Most often the elites were allies of domestic conservative landowning, merchant, or other business interests. Core powers continued their involvement in peripheral economies and prevented radical political elements from gaining power.

Peripheral states have formal independence, but it is severely limited. This is because they remain subordinate to the core states, they have to follow policies mostly in core's interests, they have extremely weak economies and militaries, and they lack the necessary resources for more rapid economic development. Peripheral states need the capital and technology of the core countries, therefore, these states have to continue participating in the world-economy under conditions dictated by its requirements. Some of these requirements became severely binding when the loss of the Soviet Union as an alternative source of aid and the pressures from growing debt forced many peripheral states to restructure their economies based on the requirements of their major lenders: greater emphasis on producing exports to earn foreign exchange; relying on market mechanisms in domestic economies; and reducing government regulation, social expenditures, and ownership of productive enterprises.

The periphery still is the primary location of coerced and highly-exploited low-wage labor. The core continues to obtain much of the surplus value created in the periphery. In most of the periphery, raw materials and agricultural exports form the major part of their exports. Most of the labor force is involved in agricultural production, both for domestic consumption and export. As usual, demand and prices for these products in the world markets are erratic and often low.

Debt has become a more important mechanism for peripheral exploitation. Peripheral governments and businesses borrowed heavily from the core, usually at high interest rates. Peripheral export earnings have been used to pay off core loans, and in most peripheral countries foreign loans used for investment in export production (traditional or industrial) have not generated enough new wealth to further develop their economies. Therefore, debt repayment has become a process through which surplus value produced in the periphery goes to the core.

Overall, periphery's economic conditions have made only limited improvement. The world-economy continues its uneven development, with the periphery lagging further and further behind the core.

3.   The Semi-Peripheral Countries:

Semi-peripheral states have a greater degree of independence from the core than peripheral states do and can pursue policies that prevent them from being forced into a peripheral economic relationship with the core. But, as in the case of peripheral states, the United States applies a set of levers to press them to forge ahead with domestic and international policies that preserve the interests of the U.S. The larger peripheral states have become regional powers with substantial influence over the peripheral countries in their regions.

Semi-peripheral countries have experienced significant industrialization. The most successful states in the semi-periphery, the newly industrialized countries (NICs) which include Brazil, South Korea, Taiwan, Hong Kong, Singapore, and Mexico before its economic difficulties in the 1980s, began their industrialization with the expansion of light manufacturing facilities to produce consumer goods for the domestic market (import-substitution) and continued with heavy manufacturing (steel, autos), and a larger percentage of their production was exported either to the core or the periphery. Most of this industrial development, as in the case of periphery, was the result of investment undertaken by local capitalists and/or the state, where most of the capital was obtained from private lenders in the core. These countries tightly controlled the amount of total debt owed to foreign lenders to the level that export earnings could support. Increases in their per capita income have approximated that of the core so that the economic position of the semi-periphery relative to that of the core has remained stable. The NICs have shown that raising a country's status in the world-economy is possible.

Semi-peripheral countries export to the periphery, to each other, and to the core. In their export to periphery, they act somewhat like core countries exporting to peripheral countries. Semi-peripheral states continue to function as regional trading and financial centers. They export more traditional, peripheral-like products to the core. In this respect, in their relationship with the core, semi-peripheral countries are in the same exploitative relationship as are peripheral countries. Semi-peripheral countries also export manufactured goods to the core. These exports are from the old, declining industries of the core whose technology of traditional mass production was easily transferable to the semi-periphery in order to take advantage of low-wage, semi-skilled labor to capture a segment of the world market. The semi-peripheral states mobilized their power to intervene in the economy to speed capital accumulation and protect domestic industry. However, this strategy has generated political tensions, mass unrest, and state repression.

Overall, the basic structure of the world-system remains the same, despite the fact that some states have changed their position in the system. Most of the world's population still resides in the periphery. Core capitalists continue their harsh exploitation, political and economic coercion, and the consequent mass poverty. The rate of economic growth in the periphery continues to lag behind the core, and the economic gap between the two zones continues to widen. Although peripheral states are hostile to the core, core powers continue to intervene there. This intervention, or the threat of it, forces weak peripheral states to remain integrated into the world division of labor, accept its norms, and obey the core states.

CONCLUSION

This paper briefly discussed four views expressed with respect to the nature and role of globalization and development. The functionalist paradigm views it as modernization, the interpretive paradigm views it as task for people and their government, the radical humanist

paradigm views it as a political and economic phenomenon, and the radical structuralist paradigm views it as a class-based phenomenon.

The diversity of theories presented in this paper is vast. While each paradigm advocates a research strategy that is logically coherent, in terms of underlying assumptions, these vary from paradigm to paradigm. The phenomenon to be researched is conceptualized and studied in many different ways, each generating distinctive kinds of insight and understanding. There are many different ways of studying the same social phenomenon, and given that the insights generated by any one approach are at best partial and incomplete, the social researcher can gain much by reflecting on the nature and merits of different approaches before engaging in a particular mode of research practice. For instance, the mainstream Economics and Finance limit their perspective to the functionalist paradigm. On this matter see Ardalan (2008).

All theories are based on a philosophy of science and a theory of society. Many theorists appear to be unaware of, or ignore, the assumptions underlying these philosophies. They emphasize only some aspects of the phenomenon and ignore others. Unless they bring out the basic philosophical assumptions of the theories, their analysis can be misleading; since by emphasizing differences between theories, they imply diversity in approach. While there appear to be different kinds of theory, they are founded on a certain philosophy, worldview, or paradigm. This becomes evident when these theories are related to the wider background of social theory.

In order to understand a new paradigm, theorists should explore it from within, since the concepts in one paradigm cannot easily be interpreted in terms of those of another. The four paradigms are of paramount importance to any scientist, because the process of learning about a favored paradigm is also the process of learning what that paradigm is not. The knowledge of paradigms makes scientists aware of the boundaries within which they approach their subject.

Scientists often approach their subject from a frame of reference based upon assumptions that are taken-for-granted. Since these assumptions are continually affirmed and reinforced, they remain not only unquestioned, but also beyond conscious awareness. The partial nature of this view only becomes apparent when the researcher exposes basic assumptions to the challenge of alternative ways of seeing, and starts to appreciate these alternatives in their own terms.

Researchers can gain much by exploiting the new perspectives coming from the other paradigms. An understanding of different paradigms leads to a better understanding of the multi-faceted nature of the phenomenon researched. Although a researcher may decide to conduct research from the point of view of a certain paradigm, an understanding of the nature of other paradigms leads to a better understanding of what one is doing.

The plea for paradigm diversity is based on the idea that more than one theoretical construction can be placed upon a given collection of data. In other words, any single theory, research method, or particular empirical study is incapable of explaining the nature of reality in all of its complexities.

It is possible to establish exact solutions to problems, i.e., truth, if one defines the boundary and domain of reality, i.e., reductionism. For instance, functionalist research, through its research approach, defines an area in which objectivity and truth can be found. Any change in the research approach, or any change in the area of applicability, would tend to result in the break-down of such objectivity and truth. The knowledge generated through functionalist research relates to certain aspects of the phenomenon under consideration. Recognition of the existence of the phenomenon beyond that dictated by the research approach, results in the recognition of the limitations of the knowledge generated within the confines of that approach.

There is no unique evaluative perspective for assessing knowledge generated by different research approaches. Therefore, it becomes necessary to get beyond the idea that knowledge is foundational and can be evaluated in an absolute way. Researchers are encouraged to explore what is possible by identifying untapped possibilities. By comparing a favored research approach in relation to others, the nature, strengths, and limitations of the favored approach become evident. By understanding what others do, researchers are able to understand what they are not doing. This leads to the development and refinement of the favored research approach. The concern is not about deciding which research approach is best, or with substituting one for another. The concern is about the merits of diversity, which seeks to enrich research rather than constrain it, through a search for an optimum way of doing diverse research. The number of ways of generating new knowledge is bounded only by the ingenuity of researchers in inventing new approaches.

Different research approaches provide different interpretations of a phenomenon, and understand the phenomenon in a particular way. Some may be supporting a traditional view, others saying something new. In this way, knowledge is treated as being tentative rather than absolute.

All research approaches have something to contribute. The interaction among them may lead to synthesis, compromise, consensus, transformation, polarization, completion, or simply clarification and improved understanding of differences. Such interaction, which is based on differences of viewpoints, is not concerned with reaching consensus or an end point that establishes a foundational truth. On the contrary, it is concerned with learning from the process itself, and to encourage the interaction to continue so long as disagreement lasts. Likewise, it is not concerned with producing uniformity, but promoting improved diversity.

The functionalist paradigm regards research as a technical activity and depersonalizes the research process. It removes responsibility from the researcher and reduces him or her to an agent engaged in what the institutionalized research demands. Paradigm diversity reorients the role of the researchers and places responsibility for the conduct and consequences of research directly with them. Researchers examine the nature of their activity to choose an appropriate approach and develop a capacity to observe and question what they are doing, and take responsibility for making intelligent choices which are open to realize the many potential types of knowledge.

It is interesting to note that this recommendation is consistent, in certain respects, with the four paradigms: (1) It increases efficiency in research: This is because, diversity in the research approach prevents or delays reaching the point of diminishing marginal return. Therefore, the recommendation is consistent with the functionalist paradigm, which emphasizes purposive rationality and the benefit of diversification. (2) It advocates diversity in research approach: This is consistent with the interpretive paradigm, which emphasizes shared multiple realities. (3) It leads to the realization of researchers' full potentials: This is consistent with the radical humanist paradigm, which emphasizes human beings' emancipation from the structures which limit their potential for development. (4) It enhances class awareness: This is consistent with the radical structuralist paradigm, which emphasizes class struggle.

Knowledge of Economics and Finance, or any other field of the social sciences ultimately is a product of the researcher's paradigmatic approach to the multifaceted phenomena he studies. Viewed from this angle, the pursuit of social science is seen as much an ethical, moral, ideological, and political activity as a technical one. Since no single perspective can capture all, researchers should gain more from paradigm diversity.

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THE COMPETITIVE ADVANTAGE OF THE UNITED STATES VERSUS CHINA IN THE GULF COOPERATION COUNCIL (GCC) COUNTRIES

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ABSTRACT

The political and military relationship between the United States and the Gulf Cooperation Council (GCC) countries of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates is strategic and deeply rooted. The relationship is expected to manifest itself in extensive and rapidly growing trade ties between the parties involved. This paper investigated U.S. merchandise exports to the GCC countries in comparison to Chinese exports between 1999 and 2009 to highlight trade links. It was found that, although U.S. exports were more than doubled, the country's competitive advantage with regard to market share was eroded while, at the same time, that of China was increased drastically. Tentative evidence suggests that China's performance in gaining market share was at the expense of the U.S as well as some European countries.

To take advantage of the rapidly expanding market opportunity as a result of skyrocketing oil prices, U.S. firms need to reexamine their export strategies to the GCC region by emphasizing product innovation, quality, and price. U. S. firms must also study future trends in trade relations with China relative to the GCC and other regions of Africa. The question to address is whether China can continue its penetration into this market at the same rate in the future. Research discussed below suggests that this will be more of a challenge for China in the future.

INTRODUCTION

A salient feature of globalization is a process by which business firms of different nationalities recognize, explore, and exploit opportunities in worldwide markets. A country encourages its business firms to participate in globalization so that the nation can enjoy many benefits, including accelerated economic growth. Refusal to participate, although difficult to do, is deemed to be economic suicide. Countries get involved in globalization in various ways. Trade, investment, and technology transfer are the most common forms. Many internal and external factors dictate the form of involvement in globalization. The intensity of participation, through exports for instance, is typically governed by a country's competitiveness. Competitiveness manifests itself in the ability of the country's business sector to deliver innovative goods and services in international markets, an output that meets customers' expectations in terms of quality, reliability, and price.

A measure of competitiveness is the status of the country's merchandise trade balance over a reasonable period of time. A country's consistent trade deficit, for example, could indicate the absence (or weakening) of its competitiveness. On the other hand, a consistent trade surplus could signify the existence and/or growth of the country's competitiveness. The long-term position of a country's trade balance is a representation of its international market share. In general, increasing international market share is consistent with a trade surplus for the country concerned while diminishing market share is consistent with a trade deficit.

Over past decades, there have been numerous business and other linkages between the United States and the Gulf countries through, for example, trade, technology transfer, joint ventures, portfolio investment, and military cooperation. The purpose of this paper is to assess the United States' market position, relative to that of China's, in the Gulf Cooperation Council (GCC) countries between 1999 and 2009. The discussion is confined to merchandise exports to the GCC members. The paper's focus on the GCC countries is for the following reasons:

- o The United States and the GCC countries have long been in a strategic alliance to achieve common goals such as the stability of the Gulf region and its security. As Abdelal et al. (2008) pointed out, the U.S. has always provided the security umbrella to protect the GCC regimes.
- o The growing economic influence of China in the Middle East, Africa, and elsewhere around the world is often perceived by political circles to be a threat to the United States' vital global interests.
- o The Unites States and China have increasingly become, in recent years, key competitors vying for the same markets around the globe.
- o The GCC countries supply about 21 percent of the world's annual petroleum needs, and 14 percent of the annual needs of the United States (EIA, 2011).
- o The rising price of petroleum will mean more wealth going to the GCC countries. This wealth will, in part, be spent on imported goods from around the world. This makes the study of demand patterns and resource allocation to identify future market opportunities especially important to U.S. companies.

OVERVIEW OF THE GCC MEMBERS

The Gulf Cooperation Council, which came into existence in 1981, encompasses six Arab Middle Eastern countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. The achievement of economic integration and the preservation of the region's security have been the primary goals of Council's members. Islamic religion, Arabic language, and a Bedouin cultural value system are the most striking similarities among the native people of these countries. The similarities are profound and have long been recognized. As Gardner (1959) observed, the Arab Gulf is a cultural area of its own.

With an estimated 63 percent (458 billion barrels) of the Middle East petroleum reserve, these oil-rich states are affluent and, as a group, are in a position to wield significant global economic influence, especially at a time when a barrel of petroleum is about $100. In describing a spending pattern of oil revenues, Hvidt (2011, p. 85) indicated that each GCC emirate or

sultanate seeks "to establish [a] skyline in glass, artificial islands with luxury homes, marina, gulf courses, and themed shopping malls". In 2008, the Middle East Monitor reported that many Kuwaitis typically leave their air-conditioning units on in their homes while they are away for up to three months during the summer.

Table 1 below reveals some vital data about the GCC countries. In 2009, the countries total population was 37.8 million, their gross domestic product (GDP) was $919 billion, and their GDP per capita was $24,295. Saudi Arabia is by far the largest country in terms of population (25.4 million), accounting for more than 67 percent of the bloc's total population. The country, however, was ranked lowest among its peers in terms of GDP per capita ($14,799) in 2009. Qatar occupied the highest position in terms of GDP per capita ($69,775), followed by Kuwait ($52,960) and the United Arab Emirates ($50,966). The data imply that the countries under consideration are at different levels of economic growth and, hence, differ in their ability to import goods and services. They are very similar in their economic structures in that they are oil-based entities (Dar and Presley, 2001). They, however, have implemented plans to diversify their economies, as reflected in their needs for industrial goods such machinery and equipment to support economic development efforts (Jones and Jones, 2010). In terms of labor force, the GCC countries are unique among the world's sovereign nations because the bulk of their economic activities are largely performed by foreigners. De Boer and Turner (2007) estimated that foreign personnel throughout the region accounted for more than 40 percent of the labor force and in some countries constituted 90 percent of the private sector employment.

Table 1: Population and GDP of GCC Member Countries, 2009			
Country (1)	Population (Thousands) (2)	GDP ($Millions) (3)	GDP per capita ($) (3÷2)
Bahrain	791	$20,595	$26,036
Kuwait	2,795	148,024*	52,960
Oman	2,845	46,114	16,209
Qatar	1,409	98,313	69,775
Saudi Arabia	25,391	375,766	14,799
United Arab Emirates	4,599	230,252	50,066
Total	37,830	919,064	24,295
* Figure is for 2008. Source: World Bank, http://databank.worldbank.org/ddp/home. Data were retrieved on April 21, 2011			

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THE UNITED STATES AND CHINA

The increasing economic influence of China in the oil-producing Middle East region, Africa, and elsewhere around the world in recent years has caused alarm in many circles in the

United States. As an indication of the uneasiness, Glaser (2011, p. 80) asked in a recent article the following questions: "Will an era of U.S.-China tension be as dangerous as the Cold War?" "Will China ascent increase the probability of great-power war?" The fear of rising economic power of China stems largely from the belief that the country's global clout could erode the United States' international competitive position and jeopardize its standing in the world. Qureshi and Wan (2008) concluded in their research that China poses threats to the United States and most European countries, especially in medium-to high technology industries. Moreover, in a news dispatch entitled "Clinton Warns Africa of China's Economic Embrace", Reuters (2011) reported that the U.S. Secretary of State Hillary Clinton said that the U.S is concerned that China's foreign assistance and investment practices in Africa have not always been consistent with international norms of transparency and good governance.

THE ROLE OF EXPORTS

Under the standard assumptions of trade theory, a country's trade competitiveness depends largely on its ability to expand its global reach by selling goods and services in international markets. Exports generate additional domestic investment, create employment, boost output, and increase national wealth. As Verity argued (1988), the payoff from greater exports will be increased profits, additional job opportunities, and faster growth. It is widely believed that China's remarkable export success is mainly attributable to the country's wide range of practices, including undervalued currency, cheap labor, and low-quality products. Schott (2008) found out that Chinese export varieties exhibit relatively low prices as compared to countries with similar per capita GDP, and that this 'China discount' widens with time. The author also stated that China's export bundle overlaps significantly with that of the advance economies of the organization for Economic Cooperation and Development (OECD). Many scholars (e.g., Marquez and Schindler, 2007; Thorbecke and Zhang, 2009) believe that an appreciation of the Chinese currency could noticeably reduce the country's aggregate exports. Specifically, Thorbecke and Smith (2010) found out that a 10 percent appreciation of the renminbi could reduce China's ordinary exports (i.e., simple, labor-intensive goods) by 12 percent and processed exports (i.e., sophisticated, capital-intensive goods) by 10 percent. On the other hand, in reporting about the rampant piracy in China, a Wall Street Journal article by Fletcher and Dean on May 27, 2011, the authors pointed out that copies of Microsoft Office and Window programs are available on Chinese streets for $3 or $4 each, despite the company's efforts to curb thefts of its products. On the basis of practices outlined above, it could be concluded that, in a fair trade environment, China might be unable to attain a position of prominence in international trade as it currently enjoys.

The current world economic crisis also suggests that China may not be able to export as effectively in the future. Many of China's export customers are in countries where government are looking for ways to improve their own economies and deal with large amounts of debt accumulated over years of deficit spending. One way to do this is the "inflate" away the debt by devaluing their currencies (Mauldin, 2011). When this is done, the value of money used to repay

debt is reduced, exports to other countries become cheaper to buy and imports from other countries like China become more expensive. Furthermore, any currencies China has accumulated through trade with these countries will become less valuable. All of these developments create exporting challenges for China in economies all over the world including the United States and the European Community. This may mean even more focus on this part of the world as a result of oil money. This may not be enough to offset worldwide decline in demand for goods imported from China. This may be exacerbated by recent research which suggests that up market exports, like those demanded in affluent countries in the GCC, are coming more from other countries and regions like the United States and the EU while cheaper lower quality goods are being imported from China. (Schott, 2008). These facts suggest that China would be well served by lessening its economic dependence on exports. Recent data and research reported in the Financial Times is consistent with this strategy (Rabinovitch, 2011). These factors balance the following analysis and discussion which clearly shows that, today, China is an aggressive growing force in trade with the GCC countries.

WHAT DOES CHINA EXPORT?

Like industrial countries, China's exports include a variety of consumer and industrial goods such as machinery, digital products, textiles, television sets, sports footwear, iron, cooking equipment, beverages, and tobacco. Sung (2007) observed that the country's exports are increasingly becoming dominated by low value-added processing exports of foreign affiliates. The author also pointed out that China has since 2004 attracted higher quality foreign investment as well as upgraded its processing exports in order to transform itself from a world sweatshop to an international manufacturing center.

According to Philip M. Parker in China Economic Studies (2007), the following were China's exports that exceeded $10 billion in the following categories in 2007:

1. Machinery and transport equipment ($359 billion).
2. Manufactured goods ($106 billion).
3. Parts and accessories for office machines and data processing machines ($50 billion).
4. Data processing input and output units ($34 billion).
5. Sound and video recording apparatus ($26 billion).
6. Parts and accessories for telecommunication and sound recording ($26 billion).
7. Children toys and indoor games ($26 billion).
8. Food and live animals ($20 billion).
9. Mineral fuels, lubricants, and related material ($20 billion).
10. Electronic integrated circuits and micro assemblies ($14 billion).
11. Inedible crude material excluding fuel ($11 billion).
12. Knitted or crocheted jerseys, pullovers, and the like ($11 billion).

GCC MERCHANDISE IMPORTS

The GCC members as a group increased their imports from $301.8 billion in 1999 to $783.8 billion in 2009, an increase of 285 percent (Table 2). In terms of percentage increase, Qatar achieved the fastest rate of import growth (820 percent), followed by the United Arab Emirates (341 percent) and Oman (275 percent). The jump in the GCC imports is largely due to the countries' steady increase in oil revenue during the period in question. For the United Arab Emirates, the huge jump in imports in 2009 is also partly due to the Emirates' external borrowing. It is highly probable that the GCC demand for foreign goods and services will continue to be robust in the future, because of expected continuation of a strong worldwide demand for petroleum and petroleum products as a result of relative absence of economically or technologically viable alternative sources of energy. This view is reinforced by the fact that Germany decided in May 2011 to shut down all of its nuclear energy plants by 2022, an action that will probably be followed by other countries.

As shown in Table 2 above, the largest importer in 2009 was the United Arab Emirates ($140.0 billion), followed by Saudi Arabia ($95.6 billion), and Qatar ($23.0 billion).It may seem surprising to find out that Saudi Arabia, the largest country and biggest crude petroleum exporter among the GCC countries, was not the largest merchandise importer in 1999 or 2009. An explanation for this is that the country has actively been involved in recent years in building its military capability through the purchase of advanced defensive and offensive weapons, a move that limits its spending power on imports for non-military purposes such as construction material, medical equipment, manufactured goods, and other civilian supplies.

Table 2: Total Merchandise Imports of the GCC Countries, 1999 and 2009 ($ Millions)			
Country	1999	2009	% increase
Bahrain	$3,698	$7,300	97
Kuwait	7,617	17,920	135
Oman	4,801	18,020	275
Qatar	2,500	23,000	820
Saudi Arabia	28,011	95,567	241
United Arab Emirates	31,721	140,000	341
Total	78,348	301,807	285
Source: IMF, Direction of Trade Statistics, http:// www2.imfstatistics.org./DOT. Data were retrieved on April 21, 2010.			

MAJOR EXPORTERS

Although the GCC members import goods and services from a large number of developed and developing countries, only a few of the exporting countries can be considered as major trading partners. Table 3 below shows the value of merchandise imports from eleven such

partners. The value of the GCC's total imports from these countries amounted to $39.5 billion in 1999 and $173.2 billion in 2009, an increase of 338 percent. The import figures from these partners represented 50 percent and 57 percent of the GCC's total imports between 1999 and 2009, respectively. In terms of export value, China ($34.4 billion), the United States ($32.2 billion), India ($29.6 billion), and Germany ($21.1 billion) were the most active exporters to the GCC members in 2009. Incidentally, the United Kingdom – the main player in the establishment of the GCC states and the preserver of the rules of their governing families – occupied fifth position among key trading partners with $13.4 billion worth of exports in 2009.

Table 3: Major Exporters to the GCC Countries, 1999 and 2009 ($ Millions)			
Country	1999	2009	% increase
Canada	$ 684	$ 2,802	310
China	2,979	34,444	1,056
France	4,086	12,663	210
Germany	5,167	21,102	308
India	3,549	29,585	734
Italy	3,759	12,942	244
Malaysia	1,250	5,364	329
Pakistan	815	2,606	220
Thailand	1,068	6,014	463
United Kingdom	6,001	13,426	124
United States	10,172	32,228	217
Total	39,530	73, 176	338
Source: IMF, Direction of Trade Statistics, http:// www2.imfstatistics.org./DOT. Data were retrieved on April 21, 2010.			

A RACE FOR A MARKET SHARE: THE UNITED STATES VERSUS CHINA

The relative share of a country's exports in foreign markets over a period of time – as compared to competing exporters – is a clear indication of the success (or failure) of its export strategies in the target markets. Table 4 below reveals market share of the United States and China in the GCC countries in past years. While U. S. exports to the countries concerned increased from $10.2 billion in 1999 to $32.2 billion in 2009 (an increase of a little bit more than threefold), Chinese exports increased from $3.0 billion to $34.4 billion (a jump of about eleven fold). The table below also highlights that China was an active exporter to all of the GCC countries as compared to the U.S. Moreover, in terms of export value, China was particularly aggressive in its export drive into the largest two markets of the region: the United Arab Emirates and Saudi Arabia. On the other hand, in 1999, the United States was the largest exporter to the Gulf region, while China occupied seventh position after India and Italy. The data in Tables 2, 3 and 4 clearly demonstrate the importance of the GCC markets to the United States

and China as well as other exporting nations. As Antonia Branston once remarked in the Retail Digest that the GCC is small but mighty (Branston, 2009)

Table 4: GCC Merchandise Imports from the United States and China, 1999 and 2009 ($ Millions)						
Country	1999		2009		Percent increase	
	China	U.S.	China	U.S.	China	U.S.
Bahrain	$ 35	$ 394	$ 524	$ 735	1,397	87
Kuwait	247	936	1,719	2,147	596	129
Oman	53	300	857	1,152	1,517	284
Qatar	74	285	960	2,992	1,197	950
Saudi Arabia	982	5, 309	9,882	11,884	906	124
U.A.E.	1,588	2,948	20,502	13,318	1,191	352
Total	2,979	10,172	34,444	32, 228	1,056	217
Source: IMF, Direction of Trade Statistics, http:// www2.imfstatistics.org./DOT. Data were retrieved on April 21, 2010.						

As mentioned earlier, many countries vie for a share of the GCC market. Table 5 below displays the change in market share of the United States, China, and other main exporters to the countries under study. From 1999 to 2009, the share of the Unites States in the GCC market declined from 13.0 percent to 10.7 percent, while that of China jumped from 3.8 percent to 11.4 percent. In addition to China, Germany, India, Malaysia, and Thailand also increased their share of the target market, though at much lower rate of growth. Like the United States, France, Italy, and the United Kingdom also lost market share in the GCC region in 2009. Clearly, there are a host of factors that influence a nation's share in other countries' market. The factors included trade policies, export prices, nature of goods exported, the intensity of demand for foreign products, and export strategies of competing nations.

Table 5: Market Share in the GCC Countries of Selected Exporting Countries, 1999 and 2009 (%)		
Country	1999	2009
China	3.8%	11.4%
France	5.2	4.2
Germany	6.6	7.0
India	4.5	9.8
Italy	4.8	4.3
Malaysia	1.6	1.8
Thailand	1.4	2.0
United Kingdom	7.7	4.4
United States	13.0	10.7
Total Share	48.6	55.6
Source: the percentages are calculated from the data presented in previous tables.		

DISCUSSION

This paper explored the competitive advantage of the United States vis-a-vis China in the Gulf Cooperation Council (GCC) countries in 1990 and 2009. The growth rate of merchandise exports and market share of the exporting countries were used as rough proxies for their competitive advantage. Tentative evidence indicates that China is rapidly penetrating the GCC markets, and it is gaining market share at the expense of the United States as well as some European countries. Given China's past export performance, it appears that the country is destined for overwhelming domination of target markets unless other exporters adopt more aggressive export strategies. In China, Inc., Fishman writes extensively about this and also briefly touches on future challenges which focus on China's ability to increase quality and sophistication of exports while maintaining the "China price" (Fishman, 2006) (Rodrick, 2006). It is often said that China competitive advantage in international trade is attributable to a confluence of factors, including undervalued currency, low-wages, and dumping. Research has shown that, although these factors may be legitimate, there is more to China's import success (Rodrick, 2006).

Clearly, China's astonishing market penetration is not confined to only the GCC countries; it is a grand strategy that seems to be aimed at capturing worldwide markets. As a result, exports of many countries especially developing nations have severely been affected. For instance, Gallagher and Porzecanski (2007) found out that over 70 percent of Mexico's exports to the United States were under threat from China, including Mexico's most dynamic export sectors such as electronics. Amann, Lau, and Nixson (2009) found that China's textile exports posed great threat to the textile exports of other Asian countries. Moreover, in a study about the impact of China's exports on African countries, Giovannetti and Sanfilippo (2009) concluded that Africa has proven to be particularly vulnerable to the competitive threat posed by China, because China has started flooding African markets with its low-cost manufactures often at the expense of local producers. The authors added that whereas China and Africa compete, an annual increase in China's exports has corresponded to a decrease in Africa's exports. Finally, in an article subtitled 'Africans are asking whether China is making their lunch or eating it', the Economist pointed out that hundreds of textile factories in Nigeria closed their doors because of intense competition from the Chinese garment industry. Thus, thousands of jobs were lost.

CONCLUSION

The data and discussion above clearly show China to be extremely aggressive about exporting to the GCC and the rest of the world. There is evidence that suggest that this trend will continue in the future. This high level of exports generates trade surpluses which contribute to an annual growth rate of between 8 and 10 percent for the Chinese economy. There are, however, economic and political factors which suggest this will become more challenging for China in the future. In "Outrageous Fortunes" by Daniel Altman, the author details some of these factors that suggest short term success for China but serious long term challenges that will

significantly limit future economic growth and development. These strategic factors should be the focus of future studies in this area.

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AN EVALUATION OF MOTIVATION IN THE BANKING INDUSTRY IN GUATEMALA UTILIZING THE HACKMAN AND OLDHAM JOB CHARACTERISTICS MODEL

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ABSTRACT

The Hackman and Oldham's (1975) Model was tested in a bank in Guatemala City, Guatemala and evaluated several of the dimensions of the model. This study compared the characteristics of high work motivation obtained from the bank in Guatemala to those obtained from manufacturing, retail, service and sales sector industries to determine if there are any significant differences among these industries. The research evaluated the relationships across industries in skill variety and task identity, task significance and autonomy as well as the relationship between feedback and autonomy. This study evaluated the model across four industries and in Guatemala City, Guatemala. The study also evaluated possible cultural issues associated with the model.

Keywords: Job characteristics model, motivation, job redesign, skill variety

INTRODUCTION

In order to survive in today's global economy; many U.S. companies are downsizing or reorganizing. Unfortunately this strategy does not consider the effects of this decision on the motivation of the individual.

This strategy has proven to be flawed. When a workforce has been downsized or reorganized, the results are employees could be assigned to new positions that they perceive as not challenging. Performance could then decline, and have a significant negative influence on productivity.

The Hackman & Oldham Model was developed to specify how job characteristics and individual differences interact to affect the satisfaction, motivation, and productivity of individuals at work. The model is helpful in planning and carrying out changes in the design of jobs.

In developing their model, Hackman & Oldham (1976) built upon the foundation of Herzberg's two-factor theory (Herzberg, Mausner & Synderman, 1959) with some theoretical underpinnings directly from the expectancy theory (Evans, Kiggundu & House, 1979).

REVIEW OF THE LITERATURE

What motivates an individual to perform at his or her best? This question has intrigued management and inspired much research and interest. This research has focused on job design and its interaction with the motivation of the individual.

The theory of work redesign is based upon the motivation literature specifically on Hackman & Oldham's Job Characteristics Theory (Hackman & Oldham, 1980).

The Hackman & Oldham model was developed to specify how job characteristics and individual differences interact to affect the satisfaction, motivation, and the productivity of individuals at work. The model is specifically for use in planning and carrying out changes in the design of work. Several studies have supported the theory of motivation through job redesign (Ford, 1969; Lawler, 1973; Maher, 1971; Meyers, 1970; Special Task Force, HEW, 1973; Vroom, 1964). Studies of job redesign have found this technique can (1) significantly reduce turnover and absenteeism, (2) improve job satisfaction, (3) improve quality of products, and (4) improve productivity and outputs rates (Steers and Porter, 1987).

Several researchers started the job redesign movement (Walker & Guest, 1952; Herzberg, 1966; Davis, 1957; Herzberg, Mausner & Snyderman, 1959). Job redesign has become a useful tool in developing ergonomic programs, resulting in increased motivation and fewer injuries (Mier, 1992). Using job redesign to introduce technology into the workplace will be very important in the future for there will be a shift from a tightly controlled management structure with narrowly defined jobs to a style that gives employees satisfaction, thus increasing motivation (Iadipaolo, 1992).
Work redesign is a unique approach to motivation and company reorganization for four reasons: (1) Work redesign alters the basic relationship between a person and what he or she does in the job; (2) Work redesign directly changes behavior, which tends to stay changed; (3) Work redesign offers and sometimes forces into one's hands numerous opportunities for initiating other organizational changes; and (4) Work redesign, in the long term, can result in organizations that rehumanize rather than dehumanize the people who work in them (Hackman, 1977). The entire concept of job redesign is based upon the theories of motivation and the motivation literature.

Motivation may be defined as psychological forces that determine the direction of a person's level of effort, and a person's level of persistence in the face of obstacles (Kanfer, 1990). Or motivation is simply, why people behave as they do on the job. Motivation stimulates people to do things with the use of inducements and incentives. People are motivated to reach an objective only if they feel it is in their best interest to do so (Bernard, 1938).

Organizations hire people to obtain important inputs. An input is anything a person contributes to his or her organization, such as time, effort, education, experience, skills, knowledge, and actual work behaviors (Jones, George & Hill, 1998).

Recent trends in motivation seem to be in the area of job redesign to determine why people work and what really motivates an employee or manager (Kovach, 1987). The theories of motivation are still being utilized to better understand and motivate people. They have been tested and utilized in a variety of cultures (Geert, 1980). Job performance and its relationship to motivation has continued to be an important issue of study (Katerberg & Vkaym, 1987).

Basically, motivation theory has evolved into two distinct categories, content theories and process theories. Content theories focus on the importance of the work itself and the challenges, growth opportunities, and responsibilities work provides for employees. Thus, these theories deal with the content of motivation, that is, with the specific needs that motivate and direct human behavior. Process theories do not focus directly on the work but rather deal with the cognitive processes we use in making decisions and choices about our work (Schultz & Schultz, 1998).

METHODOLOGY

The sample for the first study was derived from a manufacturing plant in northwest Arkansas and the second study from a large retail company in Arkansas. A total of 192 employees out of a plant population of 1,000 completed the questionnaire at this location. The second survey was of 89 stores selected out of a sample of 1,953 stores and 534 employees were surveyed. The response rate for the second study was 62 percent or 330 responses. A random number generator was utilized to determine participants in the study. Also in the hospital study 300 were sampled with 89 surveys completed or a 30 percent response rate. In the bank survey in Nicaragua, 600 were surveyed with 233 returned or a 39 percent response rate. In the bank in Guatemala 400 were surveyed with 152 completing the survey for a 38 percent response rate.

This data was then utilized to statistically determine if the researcher would reject or fail to reject the hypotheses. A two-tailed **t**-test was used to determine if a significant relationship exists for each hypothesis. The level of significance was placed at $<.05$.

JDS has been utilized with many organizations as well as subjected to several empirical tests (Cathcart, Goddard, Youngblood, 1978, Duhham, 1976, Aldag & Brief, 1977; Ohdham, Hackman and Stepina, 1979; Pierce & Dunham, 1978; Stone, Ganster, Woodman & Fuslier, in press; Stone & Porter, 1977; Barr & Aldag, 1978).

Internal consistency reliabilities range from a high f .88 (growth need strength, in the "would like" format) to a low of .56 (social satisfaction) to .28 (growth satisfaction). In general, the results suggest that both the validity of the items are satisfactory. While it is to the credit of the instrument that it discriminates well between the job (and families of jobs), it takes many research studies relating a concept to other variables to firmly establish the meaning of the concept. The substantive validity of the instrument has been established (Hackman & Oldham, 1974) as well as

the intercorrelation of the job dimensions themselves (Hackman & Lawler, 1971), (Hackman & Oldham, 1974), and (Taber & Taylor, 1990).

INSTRUMENTATION

The Job Diagnostic Survey (JDS) is an instrument designed to measure the key elements of the job characteristics theory. The survey measures several job characteristics, employee's experienced psychological states, employees' satisfaction with their jobs and work context, and the growth need strength of respondents. The instrument has a variety of scales depending on the section. Sections 1 through 5 will utilize a 7 point scale. Section six will utilize a 10 point scale, and sections 7 and 8 will utilize a 5 point scale.

The JDS is designed to be completed by the incumbents of the job or jobs in question-not by individuals outside the job. An instrument designed for the latter purpose is entitled the Job Rating Form (JRF) and will be completed only by management personnel. The Job Rating Form uses a 7 point scale for all three sections.

The JDS is not copyrighted and, therefore, may be used without the author's permission.

RELIABILITY OF THE INSTRUMENTS

The Job Diagnostic Survey is intended for use in (a) diagnostic activities to determine whether (and how) existing jobs can be improved to increase employee motivation, performance, and satisfaction; and (b) evaluation studies of the effects of work design.

Since the JDS was originally published (Hackman & Oldham, 1974 & 1975), the instrument has been used in many organizations and subjected to several empirical tests (Cathcart, Goddard, and Youngblood, 1978; Dunham, 1976; Dunham, Aldag & Brief, 1977; Oldham, Hackman & Stepina, 1979; Pierce & Dunham, 1978; Stone, Ganster, Woodman & Fuslier, in press; Stone & Porter, 1977; Barr & Aldag, 1978).

Experience with the JDS, and studies of its properties, have highlighted a number of limitations and suggest several cautions in using the JDS survey instrument. The Job Characteristics, as measured by the JDS, are not independent of one another. When a job is high on one characteristic (such as skill variety) it also tends to be high on one or more others (such as autonomy and/or feedback). The positive intercorrelations among the job characteristics may reflect problems in how they are measured in the JDS. Or, it may be that most "good" jobs really are good in many ways, and jobs that are poorly designed tend to be low on most or all of the job characteristics. The authors of the JDS are not sure if they have an instrument problem or an ecological phenomenon to over interpret JDS scores for any single job characteristic considered. The authors of the instrument suggest it is just as good empirically-and usually-better to simply add up the scores of the five motivating job characteristics to get an overall estimate of formula for the motivating potential score (MPS) as it is to compute them individually. The advantage of

the MPS score is that it derives directly from the motivational theory on which the JDS was based. The disadvantage is that computation of the score involves multiplying the job characteristics, which is generally a dubious proposition with measures that are less than perfectly reliable, and especially so when those measures tend to be intercorrelated.

RESULTS/CONCLUSIONS

In review, the researchers found the Hackman & Oldham model to work for the variables that were used. The results of this study could be utilized in the redesign of current jobs and to evaluate and increase motivation in the manufacturing sector.

OBJECTIVES AND HYPOTHESES

The objectives of this study were to test the Hackman and Oldham's (1975) Model in a bank in Guatemala City, Guatemala and evaluated several of the dimensions of the model. This study compared the characteristic of skill variety, task identity, task significance, autonomy and feedback high internal work motivation obtained from the bank in Guatemala to those obtained from manufacturing, retail, service and sales sector industries to determine if there are any significant differences among these industries. The study also looked at a study of a bank in Nicaragua and evaluated those results in comparison to the other surveys. The results of the study found there is a marginal significance between the industries and the study in Guatemala. The results also found there were a substantial difference in the scores of the banks in Guatemala and Nicaragua and the companies here in the United States.

> *Ho1 (Null)*   *There is no difference among the mean for the manufacturing, sales, service*
> *industry and the bank in Guatemala.*

> *Ho2 (Alt)*   *There is a difference among the mean for the manufacturing, sales, service industry*
> *and the bank in Guatemala.*

DATA COLLECTION

The bank in Nicaragua has a population of 600 with 233 sampled. This represented a 39 percent response rate. The bank in Guatemala had a population sample of 400 with 152 responding or a 38 percent response rate. Comparison studies were done in a major retail company, manufacturing company and a service company. From the survey sample of 534 employees of the retail company, 330 responses were returned, indicating a 62 percent response rate. Another survey of a major manufacturer of electric motors was collected. The sample was taken from one plant with all three shifts sampled. The plant has a population of 1,000 with 200 sampled. In another service industry a survey was conducted. From the survey sample of 300, 89 responded or

30 percent. All of these studies utilized the Job Diagnostic Survey. Employees completed the JDS survey and returned it in to a collection box in the bank. The survey instrument was scored and the results related to the Hackman and Oldham model of work redesign and motivation.

Also in the hospital study 300 were sampled with 89 surveys completed or a 30 percent response rate. In the bank survey in Nicaragua, 600 were surveyed with 233 returned or a 39 percent response rate. In the bank in Guatemala 400 were surveyed with 152 completing the survey for a 38 percent response rate.

The researcher obtained the permission of the company to conduct the survey. The instrument is not under a copyright and may be reproduced and utilized.

The initial step in the research design was to gain corporate permission to administer the instrument. A meeting was held on site between the researcher and the manager of human resources and the director of operations and compliance. A memo to all department managers was given to the manager of human resources outlining information about the project and to ask for their voluntary participation. A follow-up meeting was conducted between the researcher, manager of human resources, and all department managers to answer any questions pertaining to the study. The research study had complete instructions for the managers to use in explaining to all participants the survey instrument. Before the data collection started, all participants were told about the nature and purpose of the research and given an opportunity to not participate if they so wished. It was relayed to all participants that all information given would be held in confidence and that no one would have access to the individual responses except the researcher.

The survey was distributed to the employees with the completed survey being returned to collection boxes and picked up by the researcher. They were told that they will find in the questionnaire different kinds of questions about their job. Specific instructions were given at the start of each section. They were told to please read all instructions and questions carefully. They were also informed it would not take more than 25 minutes to complete the entire questionnaire. They were asked to read through it quickly. The participants were also told the questions were designed to obtain their perception of their job and their reaction to it. They were informed there were no trick questions and their individual answers would be kept completely confidential. The participants were asked to answer each question as honestly and frankly as possible.

The JDS has been used for most jobs in many kinds of organizations. Blue-collar, white-collar, professional, and lower level management personnel, as well as those in business, service and public organizations have taken the JDS. It is less appropriate for middle-and upper-level managers whose jobs are much more strongly defined by role relationships than by concrete tasks to perform. Since the primary language of the employees was Spanish, the research instrument was translated into Spanish.

Table 1: Means for the Bank in Guatemala and Nicaragua			
Dimension	Bank in Nicaragua	Bank in Guatemala	Variance
Skill Variety	3.77	3.71	.06
Task Identity	3.01	3.35	-.34
Task Significance	2.5	3.10	-.6
Autonomy	2.86	2.72	.14
Feedback	3.5	3.48	.02
Motivating Potential Score	31.79	32.05	-.26

Table 2: Means for the Studies in the Service, Manufacturing, Retail and Manufacturing Industry							
Dimension	Hospital (Service)	Retail	Manufacturing	Mean for Sales Industry	Mean for Manufacturing Industry	Bank in Nicaragua (Service)	Bank in Guatemala
Skill Variety	4.05	4.46	4.89	4.80	4.2	3.77	3.71
Task Identity	3.89	5.25	3.94	4.4	4.3	3.01	3.35
Task Significance	4.48	5.59	5.31	5.5	5.3	2.5	3.10
Autonomy	3.56	5.3	4.67	4.80	4.5	2.86	2.72
Feedback	3.36	4.05	4.07	4.44	4.7	3.50	3.48
Motivating Potential Score	49.52	109.47	89.59	104.52	97.29	31.79	32.05

CONCLUSIONS

In the study of four industries**,** the researchers found there was a marginal relationship with respect to skill variety, task identity, task significance autonomy and feedback when evaluating the service, manufacturing, retail and a bank in Guatemala. The survey also found a significance variance in the scores of the companies surveyed in the United States and the two banks in Nicaragua and Guatemala. It appeared there may be a cultural issue.

RECOMMENDATION FOR FUTURE RESEARCH

The researches recommend additional research be done to determine if there culture is playing a part in the variations of the scores, and the instrument be tested in other industries and countries.

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