Volume 9 **ISSN 1099-9264**

INTERNATIONAL JOURNAL OF ENTREPRENEURSHIP

An official Journal of the

Academy of Entrepreneurship ®, Inc.

JoAnn and Jim Carland
Editors
Allied Academies, Inc.

Academy Information
is published on the Allied Academies web page
www.alliedacademies.org

The Academy of Entrepreneurship, Inc. is a non-profit corporation chartered under the laws of North Carolina in the United States. The Academy is an association of scholars and practitioners whose purpose is to advance the knowledge, understanding, and teaching of entrepreneurship throughout the world.

Whitney Press, Inc.

Printed by Whitney Press, Inc.
PO Box 1064, Cullowhee, NC 28723
www.whitneypress.com

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The *Academy of Entrepreneurship Journal* is published by the Allied Academies, Inc., PO Box 2689, 145 Travis Road, Cullowhee, NC 28723, USA, (828) 293-9151, FAX (828) 293-9407. Those interested in subscribing to the *Journal*, advertising in the *Journal*, or otherwise communicating with the *Journal*, should contact the Executive Director at info@alliedacademies.org.

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LETTER FROM THE EDITOR

Welcome to the *International Journal of Entrepreneurship.* We are extremely pleased to be able to present what we intend to become a primary vehicle for communication of entrepreneurship research throughout the world.

The Academy of Entrepreneurship® is a non-profit association of scholars and practitioners in entrepreneurship whose purpose is to encourage and support the advancement of knowledge, understanding and teaching of entrepreneurship throughout the world. The *International Journal of Entrepreneurship* is a principal vehicle for achieving the objectives of the organization. The editorial mission of this journal is to publish empirical and theoretical manuscripts which advance the entrepreneurship discipline. To learn more about the Academy, its affiliates, and upcoming conferences, please check our website: www.alliedacademies.org.

The manuscripts in this volume have been double blind reviewed. The acceptance rate, 25%, conforms to our editorial policy.

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MANUSCRIPTS

IMPACT AND EFFECT OF HISPANIC GROWTH ON SMALL BUSINESS AND ENTREPRENEURIAL DEVELOPMENT

Don B. Bradley III, University of Central Arkansas
Leta Stuckey, University of Central Arkansas

ABSTRACT

Hispanic growth is recognized throughout the United States of America, but nowhere is it as rapid as in the south. This report will assess the population growth in the United States since 1990 and more importantly the impact of that growth across America and Arkansas specifically. Hispanics come to America seeking better lives and job opportunities and they bring with them diverse cultures. The economic, social and educational challenges of an increasing population of immigrants must be met and dealt with on many levels. Issues, problems and opportunities will be examined as they relate to the Hispanic populous, the education arena and the business environment.

After analyzing the economic, social, and educational aspects of the Hispanic community, society must have a better understanding of what needs to be done to assimilate Hispanics into today's modern business world. Before the business community can start the assimilation into small business and entrepreneurship, one must first have an understanding of the culture and pitfalls to be overcome in order to be successful. By having this greater understanding, it will create better workers for small to medium sized companies, as well as create entrepreneurs.

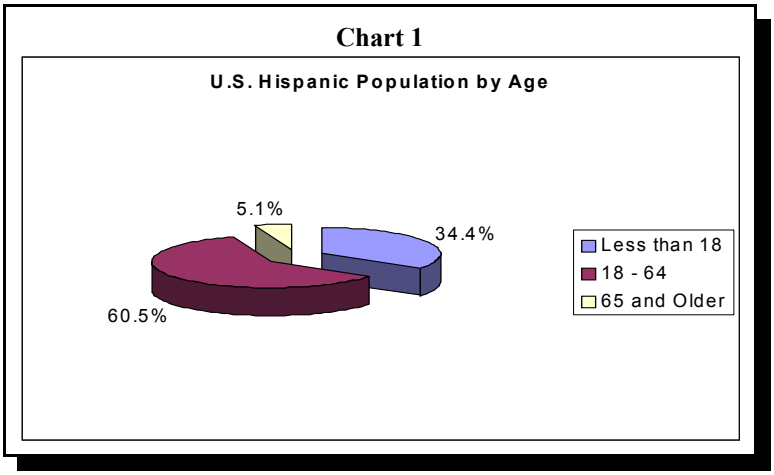
POPULATION ASSESSMENT

According to the 2000 Census Report, the Hispanic growth rate in the United States in the last decade hit an unprecedented 57.9 percent compared to a total U.S. population increase of 13.2 percent. Absolute numbers are recorded at 35,305,818 of the nations 281,421,906 residents or a saturation of 12.5 percent (U.S.

Census Bureau, Census 2000). Estimates now bring that number to over 38.8 million. Projections predict the Hispanic saturation levels will rise to 18 percent in 2025 and 25 percent in 2050 and those projections appear conservative. A look at the make-up of those 35.3 million residents reveals 31.1 million Hispanics in the United States are foreign born including 16.1 million from Latin America. One fourth of those foreign born are from Mexico, the largest number of any country (Facts for Features). Hispanics originate from nearly two-dozen different countries; they may be white or African American, new to the country or born to U.S. citizens, temporary residents or permanent residents. Some Hispanics in the United States speak Spanish while others are monolingual English speakers.

Additional examination of the Hispanic population reveals a median age of 25.8 years compared to the overall national median of 35.3 years (U.S. Census Bureau, Census 2000). Only five percent of Hispanic residents are over 65 years of age. The obvious reason for this could be an inability to obtain work visas upon initial immigration. The remaining 95 percent of all Hispanic residents either minor children, 35.0 percent are under age 18, or they are of working age, 60.1 percent are age 18-64 (Ramirez). The dispersion of Hispanics by age can be seen in Chart 1.

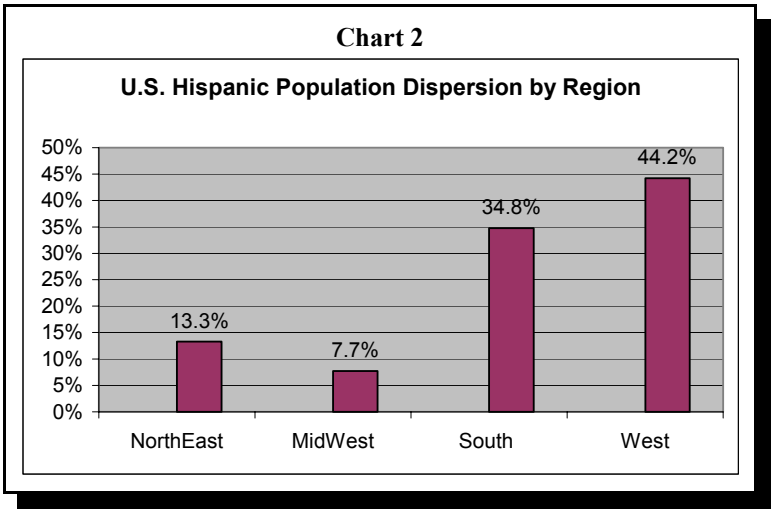
Chart 1



A look at U.S. Hispanic population concentration identifies New York City as the largest city in absolute numbers with 2.2 million, 37 percent of which are Puerto Rican. New Mexico has the highest saturation level of any state with 42 percent of their total population attributable to the Hispanic community. One-half of all Hispanics in the United States live in two states; California with 11 million and Texas with 6.7 million and additionally three out of four Hispanics live in seven

states – California, Texas, New York, Florida, Illinois, Arizona and New Jersey (Facts for Features). Regionally Hispanics are more likely to reside in the West (44.2 percent) and South (34.8 percent), as seen in Chart 2 (Ramirez).

Chart 2

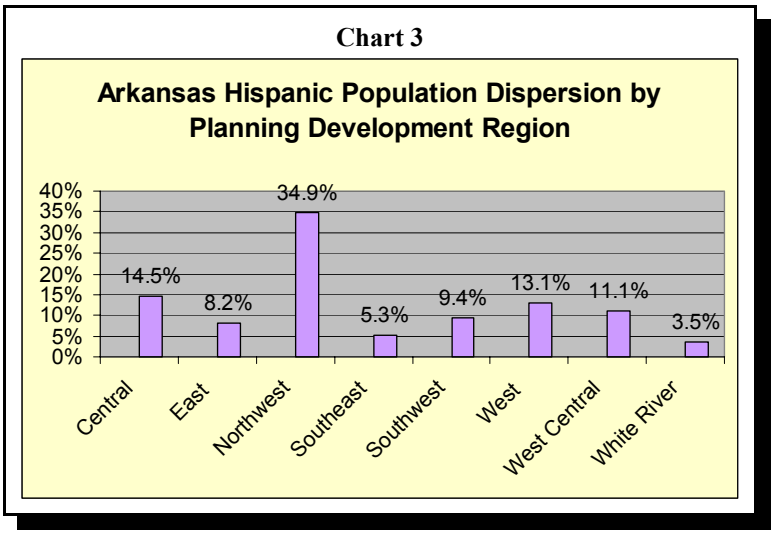


Hispanic growth in the last decade has been fastest in the South. Seven states (Alabama, Arkansas, Georgia, Nevada, North Carolina, South Carolina and Tennessee) more than tripled their Hispanic populations in the nineties; all but one of those states (Nevada) is in the south (Facts for Features).

Arkansas experienced the fastest growth (337 percent) of any state from 1990 to 2000. Total Hispanic reported on the 2000 census was 86,866. All 75 counties in the state had a positive Hispanic growth rate, even where net population decreased. Four counties attributed 100 percent of their growth to the Hispanic increase (Cossman). The heaviest Hispanic growth in Arkansas was in Washington (747 percent) and Benton (891 percent) counties where one in four new residents is Hispanic. The largest concentrations are in the Northwest, Western and Central regions, which comprise more than 60 percent of the state's total Hispanic population. Much of this is attributed to the job opportunities provided by the Tyson Foods, Wal-Mart and J.B. Hunt Transportation (Garcia).

The state's saturation is 3.2 percent with the highest levels in the northwestern (6.7 percent) and western (4.7 percent) regions of the state with the central region remaining below the state level at 2.1 percent. Within the central region Pulaski County has 2.4 percent saturation and Faulkner County is 1.8 percent (Cossman).

Chart 3



What comprises Arkansas' Hispanic population and why do they locate here? Some 70 percent of all Hispanics in Arkansas are from Mexico and estimates are 10 percent are illegal aliens. Growth is tied to two primary factors, fertility and migration. Birth rates among Hispanics average 3.2 nationally and 4.8 in Arkansas compared to a Non-Hispanic white birth rate of 1.5. Migration may be a result of employment opportunities, lower cost of living and preference to settle where other Hispanics live (Terry). They migrate to Arkansas after spending time in other states. Chart 4 shows the twenty cities in Arkansas with the highest numbers of Hispanics while Chart 5 shows the top fifteen counties in terms of Hispanic population (U.S. Census Bureau, American Fact Finder). Rapid growth in the Hispanic population is causing rapid problems in both education and communication and that growth provides numerous opportunities to those who are ready to exploit them.

COMMUNICATION

Twenty eight million U.S. residents speak Spanish at home. Only one-half of those also speak English (Facts for Features). Four percent of all residents over the age of five speak a language other than English, 70 percent of those speak Spanish. The key to integration of Hispanics into American culture is communication. Assimilation of Hispanic immigrants depends on their either learning English or having vital information available to them in Spanish. Arkansas has various Spanish publications available: *Arkansas Times* now publishes *El*

Latino, El Hispano has been published in Little Rock since 1995, many Wal-Mart stores carry *People* magazine as well as numerous CD's in Spanish (Terry).

Chart 4
2000 Arkansas Hispanic Population
Top 20 Cities

City	Population
Springdale	9,005
Rogers	7,490
Ft. Smith	7,048
Little Rock	4,889
Fayetteville	2,821
DeQueen	2,225
Siloam Springs	1,518
North Little Rock	1,463
Hope	1,431
Hot Springs	1,358
Jonesboro	1,297
Forrest City	1,221
Jacksonville	1,012
Bentonville	1,198
Clarksville	1,178
Van Buren	1,147
Danville	1,040
Conway	983
Dardanelle	908
Greenland	902

Chart 5
2000 Arkansas Hispanic Population
Top 15 Counties

County	Population
Benton	13,469
Washington	12,932
Pulaski	8,816
Sebastian	7,710
Sevier	3,107
Yell	2,691
Carroll	2,471
Garland	2,254
Hempstead	1,946
Crawford	1,743
Craighead	1,739
Johnson	1,527
Faulkner	1,509
St. Francis	1,431
White	1,264

The issue of Spanish in the public school system is still debated. English as a Second Language (ESL) is now helping students learn the skills necessary to function in classes taught only in English. In Arkansas 80 percent of all ESL students speak Spanish (Arkansas Advocates for Children & Families).

Communication and translation issues are not being faced as rapidly in many of our health care institutions and health care businesses. Arkansas Blue

Cross & Blue Shield has not yet even made their health care applications available in Spanish; businesses must rely on their own translators to communicate this information to their Spanish-speaking employees. Many hospitals have limited if any bilingual employees. According to Conway, Arkansas' Conway Regional Medical Center personnel, their hospital has only three bilingual employees and they all work day shifts. When a translation problem occurs at night they rely on translators they use on a contractual basis who must be called for that service. Imagine the problem in a life-threatening situation!

Many businesses that employ large percentages of Hispanics do not have on site translators available on a day-to-day basis. Brent & Sam's Cookies, Inc., a cookie manufacturer located in North Little Rock, Arkansas, has forty percent of their workforce made up of Hispanics. They do not however have any of their supervisory, managerial or office staff that is Hispanic or bi-lingual. Brent & Sam's rely on translators from consultants and outside agencies. Imagine the problems of communicating issues relating to payroll, benefits and safety.

The opportunities available to those who are bilingual in English and Spanish are virtually unlimited: business and health care translators (employee or consultant based); staffing agencies specializing in Hispanic placement; written translators for business, health care, safety; legal aid; counseling. Once communication issues are addressed other problems and opportunities can be more readily handled.

HOUSING

Cultural differences should be examined when considering housing. Many Hispanics live in units containing extended family members. While the average household in Arkansas is 2.5, that of Hispanics in particular is at least 3.5 and furthermore, 27 percent of all Hispanic households contain five or more family members and that number increases among Mexicans to 31 percent (Ramirez).

While Arkansas is known to remain below national income averages, the disparity is even greater among Hispanic households. The United States average income for a four family household is $63,278, Arkansas is $47,838 and Hispanics within Arkansas average even less at $28,361 (American Community Survey Profile). The need for affordable housing for the Hispanic community is obvious.

Arkansas residents surpass the national homeownership rate (66.2 percent) with a 69.4 percent rate. Nationwide Hispanics maintain a 46 percent homeownership rate (Facts for Features). The median price of owner occupied

dwelling in Arkansas is $79,043 with 30 percent of all mortgages ranging from $700 to $999. Renters on the other hand pay a median rent of $497 with 31.0 percent in the $300-$499 range and 30.8 percent in the $500-$749 range. People spending 30 percent or more of their household income on housing ranges from 22 percent of owners with mortgages to 42 percent of renters (U.S. Census Bureau, Profile of Housing). The cost of ownership is obviously outside the reach of many Hispanics living in Arkansas.

Brenda Free, an owner of local residential rental property (single family dwellings) in central Arkansas, reports common problems from renting to members of the Hispanic community. Many have been untruthful in their reporting of the number that will reside in the dwelling at the lease signing and eventually doubled and even tripled the number reported. Mrs. Free's experience has been that most Hispanics she has dealt with do not have bank accounts and often work at cash based jobs without adequate references. This property owner reports the worst incidences of damage to the dwellings and the most difficulty in evicting Hispanic tenants when problems arise, largely due to disrespect for law enforcement. Cultural differences, such as the custom of extended families living within the same household, account for part of the reason for many of these problems. Mrs. Free believes dishonesty in general is to blame for most of the problems (Free).

With the poverty level at 27.6 percent of all Hispanic residents, again the need for affordable housing for the Hispanic community is blindingly obvious (U.S. Census Bureau, Census 2000). Alternate housing opportunities must be found; housing that will accommodate extended family units should be at the forefront of the search. Lower income levels shown here indicate the direct need for changes in the area of education.

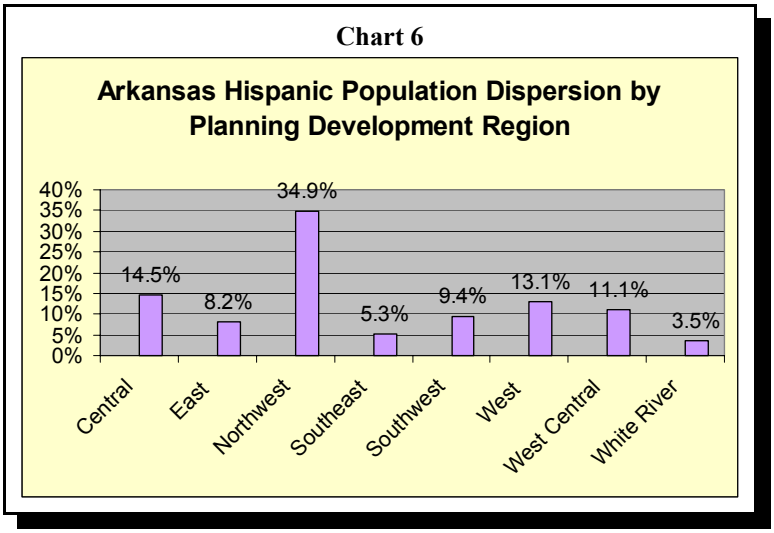
EDUCATION

Official estimates put the Hispanic community as the nation's largest minority. International migration accounting for 53 percent of recent growth and the remaining 47 percent attributed to the increase of births over deaths. More than one in three Hispanics is less than 18 years of age, indicating a staggering number in the school systems. Hispanic enrollment in the public school system has increased by 61 percent nationwide and by an astounding 309 percent in Arkansas (U.S. Department of Commerce News).

Of the 22,643 Hispanic students enrolled in 2000 on Arkansas public schools 14,241 speak a primary language other than English, of those 80 percent

speak Spanish (Arkansas Advocates for Children & Families). More recent statistics reveal 23,958 of the 452,037 or 5.3 percent students enrolled in Arkansas public schools in the 2003-2004 school year to be Hispanic. The number of dropout/withdrawals for Hispanic students during 2002 was 1,480 out of a total of 34,083. The key to improving these numbers is better communication between students, parents and school personnel . The state only employs 94 Hispanics or 0.3 percent of their 36,880 personnel leaving an obvious need for certified and non-certified Hispanic staff (Arkansas School Information Site). A view of the educational attainment of Hispanics in Arkansas can be seen in the chart below (American Community Survey Profile).

Chart 6



Conway School District is the seventh largest in Arkansas (American Community Survey Profile). According to Phyllis Simon, Technology Director of Conway Public Schools, Conway's current enrollment in grades 1-12 as of April 1, 2004 is 7,529. Of those students 273 or 3.63 percent of the total enrollment are reported to be Hispanic, of these 139 are elementary students with the remaining 134 in the secondary schools. Mrs. Simon also reported 106 ESL (English as a Second Language) students enrolled. The growth of minority-language students in the public school system will force Arkansas to act quickly to establish new programs and add personnel that address bilingual education. A breakdown of Conway's enrollment is shown in Chart 7 (Simon).

Chart 7
Conway Public School Enrollment
Grades 1-12 as of April 1,2004

Grade	Total Enrollment	Hispanic Students	ESL Students
1	646	24	12
2	660	31	19
3	607	26	12
4	616	32	19
5	625	26	7
6	673	26	6
7	675	23	7
8	703	20	6
9	672	21	5
10	597	18	2
11	571	21	8
12	484	5	3
Totals	**7529**	**273**	**106**

Hispanic members of Congress overwhelmingly voted for the "No Child Left Behind" education reform plan enacted by President George W. Bush. The law demands a quality education for all children and is based on four principles: accountability for results, increased flexibility and local control, expanded options for parents, and an emphasis on teaching methods that have already been proven to work. Every state now has accountability plans in place (Hispanics Have Good Reason to Embrace).

Hispanics have the highest dropout rate and some of the lowest test scores. Only about 17 percent of Hispanic fourth graders read at their grade level and the percentage is even higher in mathematics. The high school graduation rate is only 57 percent. No Child Left Behind promises to help remedy this by providing resources and flexibility necessary to carry out this national priority (Hispanics Have Good Reason to Embrace).

More public schools will need to hire bilingual personnel in order to communicate with Spanish speaking parents as well as provide services to ESL

students. ESL programs are designed to help students improve their language proficiency so they can attend all required classes, which are taught in English.

Hispanic children are guaranteed the opportunity to receive the same quality education as their peers. Hopefully they will not only finish high school, but also be academically prepared for college and technical schools.

President Bush has also proposed $96 million to maintain support for colleges and universities that serve large percentages of Hispanic students. Title III includes $39 million in grants in annual funding to prepare teachers of English as a second language (Hispanics Have Good Reason to Embrace.)

A survey was conducted for The Sallie Mae Fund, a charitable organization funded by Sallie Mae, the nation's largest provider of student loans. The survey consisted of 1,200 Hispanic parents of children ages 18-24 and a separate sample of 1,200 Hispanic adults ages 18-24. The results of the survey reveal the need to raise awareness about financial aid in the Hispanic community. Three out of four young Hispanic adults surveyed who were not in college said they had little knowledge of the financial aid available. More than two-thirds of the parents surveyed said they had not received information on financial aid while their children were in grades K-12. Only an estimated ten percent of Hispanics have a college degree compared to a national average of 30 percent. The Sallie Mae Fund is conducting a 20-city tour targeting Latino population areas and is hosting 40 "Paying for College" workshops in Spanish this year (CNN.com).

Even large corporations are joining the effort to better educate the Hispanic community. PepsiCo recently made a donation through the National Association of Hispanic Publications Inc. (NAHP). NAHP works to improve the quality of education particularly for those of Hispanic origin. NAHP Foundation Scholarship programs support students pursuing careers in graphic design, journalism and publishing (Hispanic PR Wire).

The Hispanic Women's Organization of Arkansas was founded in 1999 to advance educational opportunities for Hispanic women and their families, to celebrate and teach others about their culture and to become active participants within their communities (lasCulturas.com). These women are concerned about their children's future and understand the need for education.

Recognizing the need to provide quality education will result in better integration into American culture and better involvement in the business environment.

BUSINESS – PURCHASING POWER

Nowhere is the increasing Hispanic population more obvious than in the business environment. With disposable income of over $652 million in 2003, Hispanics need avenues to purchase food, clothing, automobiles and entertainment. This amount of purchasing power cannot be overlooked.

Proctor and Gamble spent $90 million on advertising directed at Latinos for 12 of their products. They maintain a 65 person bilingual team to target Hispanic needs. Kroger spent $1.8 million to convert a 59,000 sq. ft. store in Houston, Texas to an all Hispanic Super Mercado. Kroger also expanded its private label "Buena Comida" line to 105 different items. Merrill Lynch & Co. has a 350 person Hispanic unit that generated $1 billion worth of new business last year. They will be hiring and additional 100 bilingual advisers this year. The world largest retailer, Wal-Mart tailors their messages to the different Hispanic communities in an effort to better understand the marketplace. Wal-Mart continues to add to their lines of Latino food products, magazines and CD's (Brennan).

BUSINESS – LABOR

While Hispanics come to the United States in search of better job opportunities, they in turn provide opportunities to Americans by their presence in the workforce. Your Employment Service (YES), a multi-location staffing agency in Pulaski County, has a client base composed of approximately fifty percent Hispanics. While YES did not originally search for this business word-of-mouth advertising has increased this segment of their business and they now advertise in *El Latino*, a local Latino publication. YES has twenty percent of their own workforce that are Hispanic. YES provides temporary and permanent placement to companies such as Brent & Sam's Cookies, Inc. in North Little Rock.

Business Week Online reports the traditional perceived conception of the often uneducated Latino who is willing to take low-wage jobs that are often less desirable and may be easier to come by, preferring a paycheck to education. Many of these are eager to send money back home to family members. Because of this many Hispanics do not develop the skills needed to acquire white-collar jobs and often found employed in physical labor industries (Business Week Online).

On March 16, 2004, a grant of almost $1.9 million was issued through the National Hispanic Worker Initiative by the Bush Administration. The grant was awarded to the Hotel Employees and Restaurant Employees (H.E.R.E.) International

Union. It will help more than 2000 Hispanic workers receive the needed training in language and occupational skills in the hospitality industry in Las Vegas and Atlantic City. The Bush Administration has plans for more grants in connection with the Hispanic Worker Initiative (US Newswire).

The number of Hispanics who are union members has grown by 400,000 in the last decade from 1.2 million to 1.6 million (1992-2002). This is largely due to 60-70 percent of the nation's hotel workers being Latino in origin and the tradition of strong unions in Latin America (Reno Gazette-Journal). The increasing number of Hispanics in the American workforce gives rise to various concerns by employers.

BUSINESS – JOB SAFETY

Job injury rates are higher for Hispanics than Non-Hispanics. OSHA reports 10.7 percent of the workforce to be Hispanic incurring 13.8 percent of all fatal injuries. While the construction industry reported an overall decline of 9 percent in fatalities, Hispanic fatalities increased by 11 percent. American standards may be stricter; safety is somewhat of a new concept for Mexicans, hard hats are not their norm. There is a dire need for Spanish safety manuals. Companies need to make better use of diagrams, color-coding and videos to denote safety hazards (Yantis). There appears to be a wonderful opportunity for specialization in Hispanic friendly safety manuals, posters, signage, videos and translations.

BUSINESS – OCCUPATIONAL

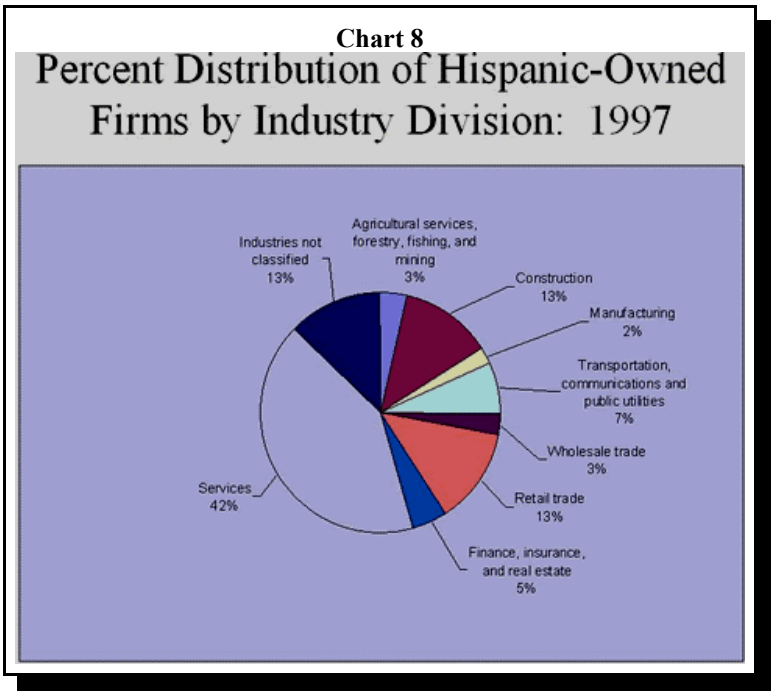
While 80 percent of all Hispanic males age 16 or over are in the labor force, that number drops to 57 percent for females. Employment in service occupations or as operators or laborers accounts for 41 percent of the Hispanic workforce. Only 14 percent are employed in managerial or professional occupations (Facts for Features).

Hispanics migrate to Arkansas in search of employment. Many of those jobs are found in the poultry industry, located primarily in northwest and western Arkansas. The construction industry in Arkansas is also employing Hispanics in increasing numbers. Many Hispanics are following the "American Dream" and are opening their own businesses.

Hispanic-owned businesses in the United States numbered 1.2 million in 1997. These businesses employed over 1.3 million people and generated over $186 billion in revenues.

Those of Mexican descent owned 472,000 firms or thirty nine percent of all Hispanic owned businesses (U.S. Census Bureau, US Businesses Owned by Hispanics). Chart 8 shows the breakdown of Hispanic owned businesses by industry.

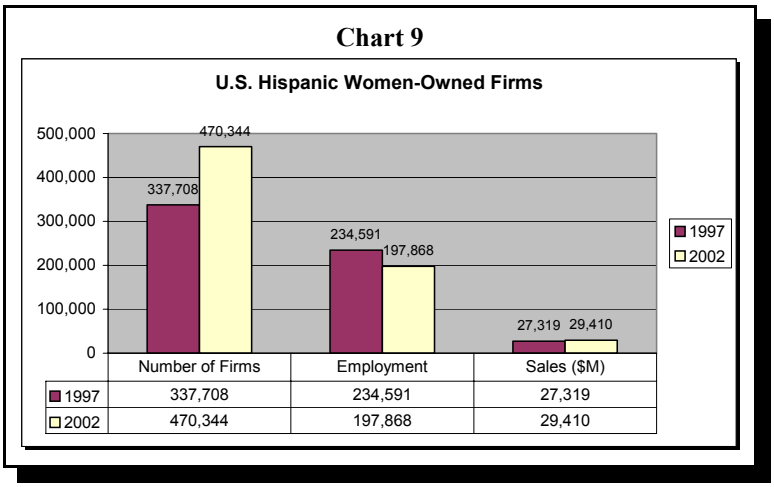
Chart 8



The Center for Women's Business Research analysis of U.S. Census data shows over 470,000 firms owned by Hispanic women in 2002. These firms employed nearly 198,000 people and produced revenues of $29.4 billion. Arkansas ranked third in the nation in growth rate of Hispanic women-owned firms from 1997 to 2002 (Center for Women's Business Research).

Hispanics equipped with proper tools and skills are achieving great strides toward assimilation into American culture. Those who are not so equipped continue to search for help.

Chart 9



	Number of Firms	Employment	Sales ($M)
1997	337,708	234,591	27,319
2002	470,344	197,868	29,410

POLITICAL IMPACT

The importance of Hispanic growth is demonstrated clearly in the current Presidential campaign. President George W. Bush, a Spanish speaking former Texas Governor, is trying to garner support through a nationwide Hispanic grass-roots mobilization effort that began this month in Orlando. President Bush is relying heavily upon his brother, Florida Governor Jeb Bush (whose wife is Mexican-American), in his effort to gain support from the large number of Hispanic voters in Florida.

Recent polls show the president lagging behind Democratic presidential nominee John Kerry. Kerry holds a 58 percent to 33 percent lead over Bush among voters who identify themselves as Hispanic. Less than half of Hispanic voters gave Bush a good or excellent job-performance rating. Sixty-two percent thought it is time for someone new (The Ledger Online).

The Hispanic voter base is traditionally Democratic from a national perspective and President Bush is hitting on the issues that play well with Hispanics, such as family values and religion. In contrast Kerry appeals to Hispanics with his pro-choice stand on abortion. Kerry is also garnering support through his attack on President Bush on the war in Iraq, with more than half of Hispanic voters opposing the U.S. effort there (Zogby International). The hurdle both candidates face is the need to get in touch with the Hispanic community on a more personal level, addressing their needs and concerns instead of offering lip service.

THE FUTURE

The underlying challenge hindering the acculturation of Hispanics goes beyond communication and education. Many Hispanic immigrants arriving in the United States speak little or no English, are uneducated and have low literacy skills in their native language. There are several government-funded programs directed toward family literacy in the United States, but are these programs being directed primarily to English literacy problems? The thousands of Hispanic immigrants coming to the United States every year have ethnic and cultural beliefs and practices that must be integrated into literacy programs if the cultures are to ever blend. Hispanic parents must learn basic literacy skills, reading and writing, in their native language before emphasis should be placed on their English literacy. Family literacy must encompass adult education as well as children's education and interactive training with parents and children. Where will the resources for these programs come from?

Toyota recently joined the National Center for Family Literacy (NCFL) with a new initiative to help Hispanic families with low literacy skills. Toyota's support of a $3.2 million grant to NCFL's new Hispanic Family Literacy Institute will help design model family literacy programs in five cities and materials to be used nationally. According to Sharon Darling, "Toyota's ongoing and generous support allows NCFL to reach those parents and their children who need support in breaking the cycle of under-educated and poverty between generations" (HispanicBusiness.com)

Winrock International conducted a Hispanic Conference in January of 2004 to address many of the issues and concerns facing the rapid growth rate of the Hispanic population in the United States: workforce, small business development, education, health care, social services, women's leadership development and governance. According to Andy Martinez of Winrock International their collective efforts will be published later this spring and should prove helpful to Arkansas as well as the rest of the nation to capture a better understanding of the inevitable changes and challenges brought about by this rapid growth rate in Hispanic population (Martinez).

With more knowledge of the challenges and less fear of the differences Americans can lead the way to a blended culture in the future. Through concentrated efforts of teaching literacy, providing educational opportunities, and training for the workplace Hispanics can become contributors to American society.

After analyzing the economic, social, and educational aspects of the Hispanic community, society must have a better understanding of what needs to be done to assimilate Hispanics into today's modern business world. Before the business community can start the assimilation into small business and entrepreneurship, one must first have an understanding of the culture and pitfalls to be overcome in order to be successful. By having this greater understanding, it will create better workers for small to medium sized companies, as well as create entrepreneurs.

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MODELING KNOWLEDGE-BASED ENTREPRENEURSHIP AND INNOVATION IN JAPANESE ORGANIZATIONS

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ABSTRACT

This manuscript describes a research framework to model an inquiry of Japanese knowledge-based entrepreneurship. It posits that a better understanding of innovation and technology transfer can be gained from the Japanese system of entrepreneurship. Japanese entrepreneurship is frequently linked with the notion of knowledge management that is presently vogue with organizational researchers. We argue that roots of knowledge management are reflected in traditional theories of organizational communication and information processing theories. Since Japanese innovators are notoriously aggressive in their search for technological information, they make an ideal setting for the study of knowledge-based entrepreneurship. The present model draws from technology-structure contingency theory and focuses on the information processing of organizational work-groups. The model poses technology transfer effectiveness as the outcome of the fit between a project's information processing requirements and its information processing capabilities. Several variables from the technology/innovation management and small group literatures are proposed to moderate relationships between fit and technology transfer effectiveness

INTRODUCTION

A growing body of researchers has considered innovation and corporate entrepreneurship as vital organizational processes contributing to firm survival and performance (see for example, Dess, Ireland, Zahra, Floyd, Janney & Lane, 2003; Zahra, 1993; Kanter, 1988; Drucker, 1985; Miller, 1983). The researchers contend that innovative behavior is a necessary prerequisite for firms of all sizes to thrive amidst intensifying global competition. Their research contributes a growing

understanding of how entrepreneurial processes emerge and leverage competitive advantage in fast-paced international markets. A recent synthesis of this research has challenged investigation within four important topic areas: the structural forms of corporate entrepreneurship, leadership and social exchange, organizational learning, and international context (Dess, Ireland, Zahra, Floyd, Janney & Lane, 2003). A critical force driving innovation and entrepreneurship within each of these areas is the creation and effective exploitation of knowledge.

Rapid internationalization of the marketplace and the evolving globalization of entrepreneurial firms suggest that research of entrepreneurship should increase its focus on international content and dimensions (McDougall & Oviatt, 2000). Within prominent scholarly journals, much of the prior research into firm-level entrepreneurship has been conducted in North American or European nations or by researchers working in English-based universities. Exceptions to this precedent have included a small number of studies from countries of origins such as Norway (Knight, 1997), Japan (Deshpande, Farley, & Webster, 1993), China (Tan, 2002), South Africa and Portugal (Morris, Davis, & Allen, 1994). In some cases researchers have begun to explore how entrepreneurial research conducted in other countries differs from the U.S. academic models (Huse & Landstrom, 1997). Inquiries encompassing a broader international scope will increase our understanding of the idiosyncratic effects of national cultures and their unique resource endowments (Zahra, Jennings & Kurato, 1999).

Of particular interest to the international body of entrepreneurial research is a period of Japanese history dating from approximately the dusk of World War II to the dawn of the 21st century. Japan experienced extraordinary economic growth during this period based on rapid domination of global markets and an unprecedented, nationwide system of entrepreneurship (Abegglen & Stalk, 1985). A cultural force was set in motion with the post-war rebuilding of Japan that fostered a growing appetite for the world's leading organizational systems and technologies (Westney, 1993). Research documented a cultural proclivity during this time for the institutionalization of technology transfer characterized by rapid product and process development, globalization of its markets, as well as the pervasive creation and exploitation of knowledge (Mansfield, 1988; Clark & Fujimoto, 1989; Nonaka & Takeuchi, 1995). Although Japan experienced severe recession and inevitable contraction during the late 1990's, its preceding expansionary period is an exciting opportunity for the study of international entrepreneurial development.

Japan's entrepreneurial resilience was to a large degree based on effective principles of technology transfer (Kodama & Morin, 1993). Japanese technology transfer was an aggressive form of knowledge creation based on information processing both within and outside corporate boundaries. Science-based universities in both the U.S. and Europe were systematically scouted by Japanese technology seekers, who contributed substantially to the nearly 42,000 contracts for foreign technology imports between 1951 and 1984 (Abegglen & Stalk, 1985). Japanese were noted for their relentless pursuit of consumer information and the exploitation of foreign markets based on quality products that were tailored to specific needs of users (Westney & Sakakibara, 1985). Information collaboration involving cross-functional teams and entire supplier/customer networks would energize early product development cycles (Clark, 1991; Nonaka & Takeuchi, 1995). These information processing strategies elevated Japan's entrepreneurial notoriety and branded the nation with a unique and dominant style of technology transfer.

Technology transfer occurs wherever systematic, rational knowledge developed by one group or institution is embodied in ways of doing things by other groups or institutions (Brooks, 1966). This implies a distinct relocation of knowledge between autonomous entities requiring the existence of both a "supplier" and a "receiver" of new technology. It further implies that relocation is "successful", or "effective", only when the transfer is complete and adds value to a receiver's competencies. Kodama and Morin (1993) argued that technology transfer is most successful when applied within a receiver-active paradigm where receivers engage aggressively in the transfer process. Fundamental to their receiver-active perspective is the notion of building knowledge through the processing of relevant information. Effective technology transfer stems from a receiving group drawing critical information not only from the technology supplier but from other sources both within and outside its organizational boundaries. Empirical research has demonstrated positive relationships between product development success and cross-functional information sharing (Sarin & McDermott, 2003; Huang & Newell, 2003; Olsen, et al, 2001), and knowledge-based interaction with users (Urban & von Hippel, 1988; Lilien et al, 2002), suppliers (Takeishi, 2001; Primo & Admundson, 2002) and other outside-the-firm service or technology providers (Starbuck, 2001; Nicholls-Nixon & Woo, 2003).

The remainder of this article offers a conceptual/theoretical framework for understanding Japanese technology transfer, since the latter is frequently perceived as a cornerstone phenomenon in corporate entrepreneurship. It develops a research framework based in structural contingency theory utilizing technology as the relevant environmental context and information processing as the corresponding structural

variable. A landscape review of the Management of Technology (MOT) literature reveals a tradition of communication and information processing research that precedes the more recent MOT emphasis on knowledge management. An examination of the Technology/Structure literature provides a theoretical justification for using a technology contingency framework. The a research framework is presented that focuses on the information processing patterns of project groups that are actively engaged in knowledge-based technology transfer (Keller, 1994). The utility of several contextual influences are argued to reflect several group and managerial processes typical of the Japanese corporate culture.

KNOWLEDGE MANAGEMENT AS COMMUNICATION AND INFORMATION PROCESSING STRUCTURE

Knowledge management is a topic of current prominence in the entrepreneurial MOT research that reinforces the arguments for a receiver-active paradigm. Cohen and Levinthal (1990) discussed the notion of "absorptive capacity" illustrating an organization's knowledge deployment for creating innovative capabilities. They defined absorptive capacity as a firm's ability "to recognize the value of new, external knowledge, assimilate it, and apply it to commercial ends" (1990:128). Although the authors viewed absorptive capacity as a firm-level construct, it is equally useful at the industry- and group-level. Following its original conceptualization, a significant body of research has linked absorptive capacity to organizational learning and to improved performance-level outcomes. Support for these relationships have been validated in R&D environments (Lane & Lubatkin, 1998; Stock, et al 2001; Chen, 2004), in SME or startup scenarios (Deeds, 2001; Liao, Welsch & Stoica, 2003), and in the context of collaborative organizational forms (den Bosch, Voberda & de Boer, 1999; Tasi, 2001; Shenkar & Li, 1999). Drawing upon the dynamic capabilities view of the firm, Zahra and Gerard (2002) showed how absorptive capacity distinguishes the gap between a firm's potential and its realized capacity to innovate.

Both the receiver-active paradigm and absorptive capacity argue that entrepreneurship thrives when innovators respond appropriately to their informational environment. Within the historical context of MOT literature, more rudimentary proxies of knowledge management are found in the studies of technical communication and information processing. The model developed in this article assumes that technology transfer imposes uncertainty and ambiguity so that receivers must deploy knowledge-based responses to effectively meet task objectives. It assumes furthermore

that these knowledge-based responses are structural manifestations of communication and information processing.

Substantial research has linked technology transfer effectiveness with structural adaptations of communication or information processing (Allen 1966; Allen & Cohen, 1966; Ettlie, 1976; Fischer, 1979; Tushman, 1977; Barley, 1990). Weick (1987 p. 87) conjectured that "interpersonal communication is the essence of organization because it creates structures that affect what else gets said and done and by whom". While organizational theorists have typically focused on the effects of formal structure on communication, communication theorists have argued that it is communication that affects structure through emergent, enacted patterns of interaction (Jablin, Putnmam, Roberts & Porter, 1987). Communication researchers posit that the most meaningful aspects of structure are found in emergent interactions among people (Monge & Eisenberg, 1987). Communication provides not only a reasonable measure of structure but also a suitable proxy of interpersonal knowledge flow. Information processing broadens the scope of communication inquiry by including all knowledge sources not just those limited to interpersonal interactions.

Early MOT literature developed a substantial linkage between R&D performance and intra- and inter-organizational communication structure (Carter & Williams, 1957; Pelz& Andrews, 1976; Allen, 1977; Allen. Lee & Tushman, 1980). Authors showed that R&D performance benefitted from the implementation of aggressive communication regimes particularly under increased levels of uncertainty. Their research investigated a variety of communication structures operationalized as frequency, centrality, and diversity (Ebadi & Utterback, 1984), the effects of internal vs external communication (Allen, 1977), and the information processing responses to uncertainty during various technology transfer stages (Rosenbloom & Wolek, 1970, Ettlie 1976). Numerous studies attempted to categorize communication sources and their impact of technology transfer effectiveness (Allen, 1966; Rothwell and Robertson, 1973, Tushman, 1977). A notable stream of evidence corroborated the role of technical gatekeepers specializing in the collection of information from various external sources (Allen & Cohen, 1969; Keller & Holland, 1975; Allen, 1977).

A focus on contingency relationships between R&D or technological uncertainty (such as research stage, routineness, or interdependence), and structural manifestations of communication or information processing emerged from these early MOT studies. Evidence built that the match between technological context and information structure in some way predicted R&D or technology transfer effectiveness (Tushman, 1977, 1978, Tushman & Katz, 1980; Allen, Lee & Tushman, 1980). A clear consensus stemming from the research was that effective research organizations

reduced technological uncertainty by processing greater amounts of relevant information.

Meanwhile, communications theory provided a parallel yet distinct group of studies based on the concept of information richness (Bodensteiner, 1970; Weick, 1979; Daft & Lengel, 1984). Weick argued that organizations must reduce environmental equivocality to better interpret ill-defined, complex problems about which they have little clear information. Equivocality (generally construed as ambiguity) can be reduced by varying the richness of communication media. Richness denotes a medium's capacity to convey information and is articulated by the degree to which personal interactivity is represented in the medium. Daft and Wiginton (1979) proposed a equivocality-reducing continuum of media sources ranging in richness from face-to-face problem solving to generalized documentation. A sizeable research inventory of .research has linked organizational effectiveness to matching media choice to either its technological uncertainty (Allen, 1977; Randolf (1978); Ebadi and Utterback (1984), or its equivocality (Daft & Macintosh, 1981, Rice, 1992; Keller, 1994). Since technology transfer environments are laden not only with uncertainty, but also equvocality (Perrow, 1967), both dimensions are important considerations for MOT contingency research.

TECHNOLOGY / STRUCTURE CONTINGENCY THEORY

Contingency theory has constituted an important element of organizational research during the past fifty years. This is particularly true regarding relationships between technology and organizational structure. A common assumption throughout all contingency theory is that work units, in order to function effectively, must structure their components to fit the contextual requirements of their environment. The studies of fit have utilized a broad range of contextual variables including environment (Burns & Stalker, 1961; Lawrence & Lorsch, 1967), size (Dewar & Hage, 1978), and organizational age (Stinchcombe, 1965). The seminal works of Woodward (1958) and Burns and Stalker (1961) sparked an enduring research stream establishing technology as a mainstream contingency variable.

As reported by Drazin and Van de Ven (1985), organizational contingency theory and technology/structure research have evolved through three distinct phases: the selection, the interaction and the systems schools. The selection school viewed fit as the simple congruence or correlation between contextual and structural variables. The interaction perspective argued that organizational performance is an explicit outcome of achieving an appropriate fit between context and structure. Scholars of the systems

school added the caveat that fit is a multidimensional, internal consistency among sets contextual and structural variables operating holistically upon performance. Research of the selection school corresponded roughly to the pre-1980 period, followed since that time by contingency studies of both the interaction and systems perspective. Within each perspective, overall results have failed to provide scholarly validation of the particular tenets.

The selection school generated considerable controversy among scholars. Fry (1982), noting this controversy, reviewed its substantial body of work and effectively recapitulating its 20 years of research. He concluded that the period's large number of technology/structure studies contained systematic confounds impairing their overall validity and generalizability. These flaws included 1) incompatible conceptualizations of technology and structure; 2) assorted levels of analysis within studies; and 3) a random mixing of objective and perceptual measures. In an attempt to clear the confusion surrounding the studies, Fry conducted a data reassessment based on a controlled meta-analysis of the studies. By employing a set of corrective methodologies to compensate for the systematic confounds, he reconstructed the overall findings within a reduced group of the studies. His findings produced a substantial generalization across the body of studies that supported the systems view for a fundamental correspondence between technology and structure within organizations

During the interaction school, technology/structure research typically included one or more criterion variables such as organizational performance or effectiveness (Aldrich, 1979; Alexander and Randolf, 1985). Similar to the selection period, these studies lacked any consensus for the predictive assumptions of interactive contingency theory. A number of the interactive studies drew on Galbraith (1973) to address the normative implications of matching information processing structure with the uncertainty of its technological environment. Schoonhoven (1981) argued that these normative relationships were more complex than most investigators tested in their research. She proposed the necessity for a set of methodological assumptions that, if incorporated within the research, would remove much of the conflicting evidence. The first of these assumptions was that contingency relationships, in order to be validly predictive, must be both symmetrical and linear (monotonic) across the full range of a contingency variable. The second was that in the normative context, criteria were influenced not only by the *interaction* of two or more independent variables but also by the *singular* effects of each predictor. As an experiment of her position, she replicated two independent tests of Galbraith's information processing theory on a single dataset. The first test, constructed under traditional constraints, failed to validate the Galbraith hypotheses. However under the constraints of her proposed assumptions, the data

clearly supported the theory. While her argument was made in the context of a single study, it helped resolve conflicting evidence of the interactive school, much as Fry's argument helped clarify mixed messages of the selection school.

Systems school researchers argued that contingency models should account for systematic, holistic evaluations of both structure and context. Using a deviation profile analysis, Drazin and Van de Ven (1985) illustrated the theoretical and methodological advantages of a systems approach to contingency theory. The methodology entailed construction of an ideal profile and resultant individual, multidimensional deviation scores that were operationlized as the measure of fit between an observation and the ideal. Results clarified the authors' point that organizations face multiple operational constraints that more effectively modeled as holistic influences than as singular attempts to explain variance. Their argument was further extended by Gresov (1989), Venkatraman and Prescott (1989), and others who applied a variety of systems-style methodologies to corroborate the power of simultaneous contingency testing. Gresov (1989) added the caveat that organizations often design for competing contingencies requiring performance tradeoffs that should be a explicit consideration of research designers. An interesting systems test Keller (1994) examined effects of technology and information processing fit on R&D project performance. Leveraging two seminal technological attributes (Perrow, 1967), Keller applied a deviation analysis to assess their fit with two corresponding information processing dimensions. While his study produced only moderate support for a systems contingency theory, its established a framework merging two previously independent streams of information processing research with an influential technological conceptualization. Contingency models of similar configuration was developed to include the additional moderating effects group process variables (Teasley, Robinson & Almeida, 2000), and to test the information requirements of progressive R&D stages (Gales, Porter & Mansour-Cole, 1992)..

THEORETICAL FRAMEWORK

Building on the receiver-active paradigm, two situational dimensions are useful to describe the information environment facing technology receivers (Perrow, 1967, Weick,1990): a) "uncertainty", which is the degree that a receiver possesses needed information about a technology, and b) "equivocality" (Daft & McIntosh, 1981), which is the degree that a technology is ambiguous to a receiver. Considered together, these two dimensions determine a technology's "information processing requirements" (Keller, 1994). Based on Perrow's notions of uncertainty, which he termed "variety", and equivocality, which he termed "analyzability", technologies can be ordered into

four unique categories: routine, craft, engineering, and non-routine. By logically partitioning the environmental context, these dimensions set the foundation for a structural contingency approach to assessing technology transfer effectiveness (Lawrence & Lorsch, 1967).

To effectively transfer technology, a project must alter its structural "information processing capabilities", to meet the contextual demands of technology's "information processing requirements". Decision makers should consider the informational requirements of their projects as they design technology transfer strategies. They can accomplish this design through influencing the information processing capabilities of receiver groups. By matching the amount of processed information to a technology's uncertainty (Galbraith, 1973; Tushman & Nadler, 1978), and matching the richness of the information to its equivocality (Daft & Lengel, 1986), managers can maximize the flow of technology through its transfer cycle. "Information amount" refers to the quantity of information gained from a relevant network of sources. "Information richness" is defined as the ability of information to enhance understanding through the utilization of various media types. Figure 1 reflects the notions of structural contingency theory with the four categories of technological requirements and their corresponding information processing capabilities of receiver groups (Perrow, 1967; Daft & McIntosh, 1981).

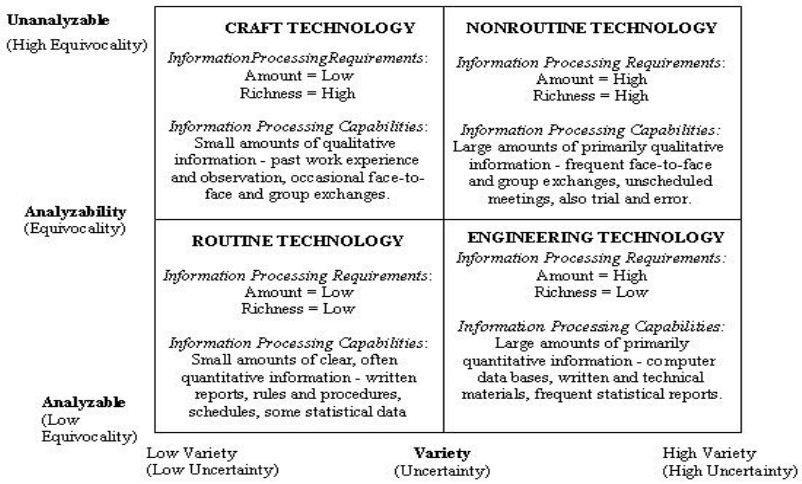

Figure 1
Information Processing Capabilities

When receiver groups develop their information processing capabilities appropriately, they achieve a "fit" (Drazin & Van de Ven, 1985, Venkatraman, 1989) with the requirements of a technology transfer. While fit leads to greater levels of technology transfer effectiveness, misfits create inefficiencies that reduce effectiveness. As technology transfer shifts from routine to craft environments, for example, it requires only moderate increases in the amount of rich information. Generating rich information in quantities greater than required creates inefficiencies due to the expense and time-consuming nature of face-to-face interaction. Similarly, as transfers shift from routine to engineering environments, the appropriate reaction is to increase only the quantity of lean, objective data. Managers can employ resources, planning and incentives to tailor appropriate information processing capabilities thereby influencing project performance. Examples of deployable informational resources might include adequate library access, network and database information, research tools, sufficient time for face-to-face interaction. Project planning might include specific research tasks, deployment of communication infrastructure, budgets for conference and on-site interviews. Incentives might include special recognition for a project's unique problem-solving methodologies or, perhaps, publicized notoriety for ground-breaking engineering discovery.

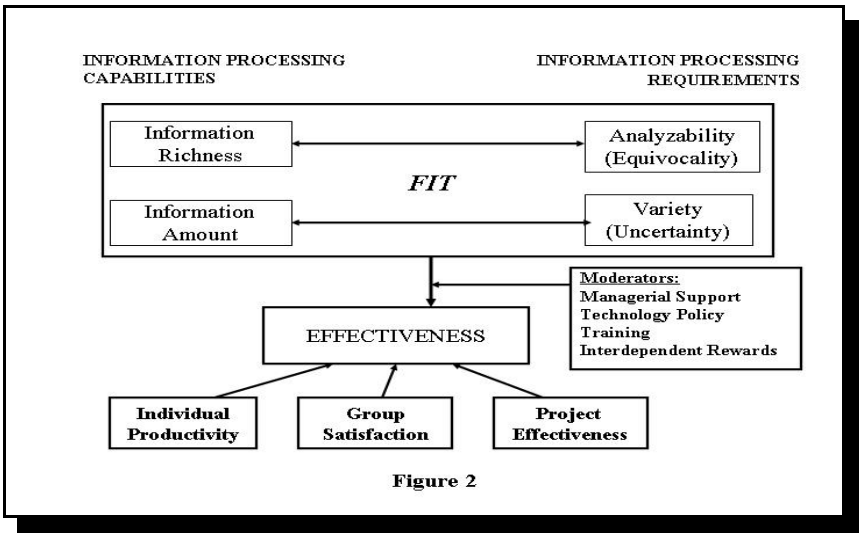

Figure 2

Figure 2 shows the expected relationships between a project's information processing requirements and capabilities, fit, technology transfer effectiveness, and a set of predicted moderating influences. These relationships lead to several contingency

propositions, a multiple fit proposition (Drazin & Van de Ven, 1985), and several moderator propositions. Effectiveness is a composite of three project-oriented, dependent variables. The first two propositions address the interaction of information amount and effectiveness in two contexts of variety. The second two address the interaction of information richness and effectiveness in the two contexts of analyzability. These four interactive propositions are based on single contextual dimensions to assess the theoretical assumptions that contingency interactions operate linearly and symmetrically across the entire range of context (Scoonhoven, 1981). The multiple fit proposition investigates both contingency interactions simultaneously.

Proposition 1a:	*When technological variety is low, increases in the amount of processed information amount will negatively influence technology transfer effectiveness.*
Proposition1b:	*When technological variety is high, increases in the amount of processed information will positively influence technology transfer effectiveness.*
Proposition 2a:	*When technological analyzability is low, increases in the richness of processed information will positively influence technology transfer effectiveness.*
Proposition 2b:	*When technological analyzability is high, increases in the richness of processed information will negatively influence technology transfer effectiveness.*
Proposition 3:	*For any value of technological variety and analyzability, there is a matched value of information amount and richness that maximizes technology transfer effectiveness. Deviations from that match in any direction will reduce technology transfer's effectiveness.*

Fry (1982) argued that technology is best studied at the group level. Technology transfer activities operate within project group environments that are influenced by the goals and the unfolding outcomes of work. Diverse constituents acted as project stakeholders and both internal and external influences impact projects from a broad range of sources. To capture the effects of these influences, an inventory of strategic and small group variables should be considered that may account for moderating variance in the model. Four moderating variables are included in the theoretical framework. Two of the variables are drawn from the technology strategy literature and reflect the degree to which project groups were

influenced by a) managerial support systems, and b) the company's explicit technology policy (Burgelman et al, 1988; Kanter, 1988). The remaining two variables are borrowed from a review of the small group literature and are measures of a project group's a) training, and b) frequency of interdependent feedback and rewards (Campion, Medsker, & Higgs, 1993). These four factors are expected to moderate the relationship between information processing fit and technology transfer effectiveness (Baron & Kenney, 1986, 1174).

"Managerial support" characterizes the extent to which employees perceive that their managers support creativity, innovation, and entrepreneurship in their organizations. Managers implement support through the allocation of psychological, physical, financial, human and technological resources. They can influence innovation, for example, by providing slack resources, granting incentives geared to creativity and risk-taking, and assuring visibility and encouragement for those projects accomplishing technically superior work (Kanter, 1988; Damanpour, 1991). When workers believe their entrepreneurial actions are recognized and explicitly supported by superiors they are motivated to higher levels of performance.

Entrepreneurial projects face more uncertainty than permanent departments regarding resource allocations, yet managers can buffer that uncertainty by accumulating slack resources to underwrite sporadic innovation (Bower, 1970; Cyert & March, 1963). Slack resources stimulate innovation by making available adequate finances, knowledge, or other supporting factors on an ad-hoc basis beyond the scope of normal budgeting processes. Damanpour (1991) found empirical association between reported rates of innovation and the presence of both slack resources and availability of technical knowledge. Kanter (1988) showed that successful innovation projects were those empowered with an abundance of financial, structural and personnel resources. Other studies have linked innovation to slack resources (Aiken & Hage, 1971), availability of personnel to implement innovations (Chakrabarti & Rubenstein, 1976), and the perception of available resources (Ancona & Caldwell 1992). Small group studies have reported improved problem solving behavior (Benbasat & Lai-Huat, 1993) and technology transfer effectiveness (Sen & Rubenstein, 1990) due to the adequate allocation of group resources.

Proposition 4: As managers incorporate greater levels of support for technology transfer teams, the effects of fit on technology transfer's effectiveness will increase in a positive direction.

"Technology Policy" is the degree that technology is emphasized in a company's strategic initiatives and structural mechanisms to facilitate creativity, innovation and entrepreneurship. Porter (1985) argued that managers should actively incorporate technology strategies that address what technologies to develop, evaluate choices between technology leadership and follower-ship roles, and actively assess technology licensing, both inbound and outbound. According to Kantner (1983), technology policy should explicitly define a technology transfer strategy, actively assess its entrepreneurial talent, break down functional barriers, and elevate innovative projects to the highest priority. Burgelman et al (1988) discussed management's capacity to articulate substantive technology development strategies, to assess the strategic importance of entrepreneurial initiatives, and to define the relatedness of those initiatives to the business unit's core capabilities. Research has linked technology policy with organizational performance. Aiken and Hage (1971) supported a positive correlation between innovation and the presence of specialization and decentralization, constructs drawn from the Burns and Stalker (1961) model of organic technology policy. Ettlie (1983) found that aggressive technology policy was a predictor of innovation implementation rates. Similarly, Godkin (1988) linked performance to project management policies such as planning, scheduling, and control, to the elevation of science and technology to high levels of visibility, and to the implementation of explicit project investment decision criteria. This evidence suggests that to the degree managers enact clearly-defined technology policies they are able to influence technology transfer and innovation within their entrepreneurial projects.

Proposition 5: The more explicit a firm's technology policy, the greater it will moderate the effects of fit on technology transfer's effectiveness in a positive direction.

"Training" refers to the level of emphasis firms place on training interventions that are designed to enhance innovation or group process. Group training programs are used to focus a group's philosophy, enhance creativity, expand its knowledge, or sharpen decision-making and interpersonal skills. Incorporating specific technology transfer training and networking topics should further enhance a group's propensity for innovation and entrepreneurship. Training is an extensively researched determinant of group performance (Dyer, 1984; Salas et al., 1992). Research generally substantiates that group familiarity with work and environment (due to training) relates positively with productivity (Goodman et al 1987). However, Campion et al. (1993) noted that

overall evidence in support of team training is mixed, methodologies of most studies have been weak, and most studies have focused on process outcomes rather than effectiveness. In their own study, Campion and colleagues (1993) demonstrated significant correlations between training and both employee satisfaction and effectiveness..

Proposition 6: The greater the presence of relevant group training, the more it will moderate the effects of fit on technology transfer's effectiveness in a positive direction.

"Interdependent feedback and rewards" is the degree to which individual recognition depends upon performance of the individual's entire group. The more groups share interdependent rewards the more they value group productivity over their personal productivity. Technology transfer depends on development tasks that should benefit from commonly-derived project goals and a clearly-defined, unified focus. Group-related feedback and rewards should strengthen cohesion and a common understanding within the entrepreneurial project team and also spills over to outside stakeholders. Research has linked group effectiveness with clear goals and interdependent purpose (Guzzo & Shea, 1992; Hackman, 1987). Campion et al. (1993) found a moderate linkage between interdependent feedback and group effectiveness. Increases of interdependent feedback and rewards are expected to influence technology transfer in a positive manner.

Proposition 7: The more that feedback and rewards are tied to group outcomes, the more they will moderate the relationship between fit and technology transfer's effectiveness in a positive direction.

THE JAPANESE TECHNOLOGY TRANSFER SETTING

As organizations struggle to survive the mounting pressures of global competition, their managers strive to stimulate entrepreneurship in all elements of production. Technology transfer is a key to entrepreneurial excellence within R&D, engineering, manufacturing, marketing, IT and logistics functions. Sources of innovation are leveraged from both within and outside organizational boundaries to enhance existing functional capabilities. As argued earlier in this paper, effective

technology transfer depends to a large extent on the pursuit and deployment of an adequate stock of competitive knowledge.

Japanese industrial groups are noted historically for powerful knowledge and information processing techniques. Many of their companies transform these intellectual competencies into rapid product development and dominant market positions worldwide (Nonaka & Takeuchi, 1995). These competencies were especially paramount during the later half of the 20th century. Japan fostered a dynamic entrepreneurialism to rise economically from its post-war ashes, to externally source much of the world's leading technology, and to deploy innovation profusely within its national systems. The nation revolutionized factory automation, institutionalized a worldwide quality paradigm, and exploited internationalization strategies based on a technological leadership that was tailored to carefully researched customer requirements. By the mid-1990's Japan had risen to the heights of global competitiveness and, in key technology-based industries, was a fierce contender for market share leadership worldwide.

Both organizational researchers and managers can benefit from a deeper understanding of Japan's entrepreneurial culture, particularly during its period of global ascendancy. Observers have noted at least two macro factors that influenced Japan's cultural dynamics during this period. One observed factor is the culture's attribute of collectivism, regarded as the wellspring of cooperation and collaboration so present within Japanese society (Tiessen, 1997). Japanese collectivism is manifest in individuals' and organizations' propensity to work together in groups, to share information, to subsume individual interests to the greater good, and to emphasize consensual decision making. Within Japan's innovation system, collectivism spawned a keiretsu style (networks of firms tied by mutual equity holdings) of product development and a profusion of collaborative R&D programs. Collaboration became the defining feature of Japanese research and a primary driver for competitiveness in many technology-intensive sectors (Levy & Samuels, 1989). Prior to 1992 over 300 full-scale R&D consortia were registered in Japan, some focused on basic research, but the majority focused on iterative improvement of exiting concepts (Hane, 1992). Collaborative R&D diffused technical knowledge and entrepreneurial best practices throughout the nation nurturing a standard of technology transfer that holds lessons for any institution seeking to advance knowledge of technological innovativeness.

Another cultural dynamic that has influenced Japan's innovation system is rooted in the nation's history of political economy. Referred to as "innovation by imitation" (Westney, 1986), this dynamic stems from the nation's century and a

half–old focus on international technology transfer. Beginning in 1600 (the Edo period), Japan was ruled by powerful Shogun families who rejected all foreign influence and consciously kept the nation isolationist in every way conceivable. Because it was an island to itself bound by strict rule and isolationist policy, it seldom, if ever, was exposed to knowledge or influences beyond its own borders. Edo rulers were eventually conquered (mid 1800's), ushering in a more enlightened period of Meijji rulers. In 1854 the American "Black Ship" arrived in Yokohama harbor laden with books, tools of war and trade, and the shocking realization that Japan was technologically antiquated in comparison to the rest of the world. The Meijji rulers and Black Ship Commadore Perry forged a concept of free trade on a thirsty people and opened the door to Western-style knowledge and technology. This sparked a modernization of the nation whereby the best systems, technologies, and institutions were systematically scouted from all corners of the globe, replicated in Japan, and tailored to the unique requirements of the home country. It was a massive transfer of technology that seeded the nation's economic infrastructure and has cultivated its competitiveness ever since. This cultural phenomenon has institutionalized such practices as global "technology scouting" and widespread "reverse engineering". As research leadership becomes more diffused across the world as it is today, scholars and practitioners should learn from Japan's time-honored ability to access and deploy competitive advantage from globally-dispersed sources of innovation.

The knowledge-based model derived in this article is particularly useful to investigate entrepreneurship in the context of the Japanese culture. Prior research has documented numerous traits suggesting that Japanese knowledge processing supports entrepreneurial excellence (Kodama 1996; Jin, 2003). Both inter- and intra-organizational cooperation within Japanese industry encourages open distribution of knowledge, communally shared rewards and incentives, and a bottoms-up system of goal setting (Branscomb & Kodama, 1993). Collinson (2001) found Japanese knowledge transfer was enhanced though multidisciplinary integration of market information, centralized R&D support, unique job-rotation and career structures, and sophistication of multidisciplinary teams. Additional research showed that Japanese R&D personnel made intensive work-related use of personal contacts, informal communication, and networks of socialization (Guido, 1999). Early involvement of component suppliers and downstream market channels in design and prototyping suggest a knowledge-based competency of Japanese innovators (Souder, et al, 1998; Wasti & Liker, et al 1996).

This article describes a knowledge-based, information processing framework to study Japanese technology transfer. By reflecting a fine-grained assessment of communication patterns, and a cross-sectional view of important group processes, it organizes research that will expose unique idiosyncrasies of Japanese entrepreneurial systems. Findings in this perspective will add considerable value to our understanding of innovation and entrepreneurship in the Japanese context. The elements of the framework are well-grounded in traditional MOT literature and constitute a logical extension into a multicultural examination.

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AN EXAMINATION OF THE STRESS EXPERIENCED BY ENTREPRENEURIAL EXPATRIATE HEALTH CARE PROFESSIONALS WORKING IN BENIN, BOLIVIA, BURKINA FASO, ETHIOPIA, GHANA, NIGER, NIGERIA, PARAGUAY, SOUTH AFRICA AND ZAMBIA

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ABSTRACT

Although numerous studies have examined the outcomes of stress and personal adjustment, relatively little research has examined the most commonly used measures of stress - especially in regards to expatriates. Using a sample of 268 expatriates/business partners who were working in Benin, Bolivia, Burkina Faso, Ethiopia, Ghana, Niger, Nigeria, Paraguay, South Africa, and Zambia, we examine the validity of Dick's (1999, 2000) measure of international stress. Our factor analysis results suggest that there are ten rather than eight dimensions of international stress - with two of his dimensions each splitting into two dimensions. In light of the newness of Dick's scale as well as the lack of cross-cultural stress research, we suggest several areas for future research.

It is estimated that direct annual costs of stress and maladjustment of expatriates to U.S. multinationals is over $2 billion (Morris & Robie, 2001) while stress itself costs American businesses over $300 billion per year (APA, 1997). The UK reports that stress costs their economy many times more the costs of strikes and is equal to the annual industry losses due to theft, or about $8 billion a year (UKNWSN, 2002). The U.S. Occupational Safety and Health Administration has declared stress a workplace hazard (APA, 1997; UKNWSN, 2002). Given the

serious economic and personal costs of stress, there has been a great amount of research on the causes and outcomes of stress (e.g., Antoniou, Davidson, and Cooper, 2003; Griffeth, Hom, and Gaertner, 2000; Sullivan and Bhagat, 1992; Taylor, Klein, Lewis, Gruenewald, Gurung, and Updegraff, 2000) especially in terms of the impact of life events on stress levels. Numerous studies (e.g., Hardie, 1997; London, 1997; Mainiero and Gibson, 2003) suggest that stressful life events can cause physical and psychological illnesses and decreased employee performance. A life event is considered stressful if "it causes changes in, and demands readjustment of, an average person's normal routine" (Kobasa, 1979, p.2).

Many types of work related events, including changes in the balance of work/family roles (Sullivan, 1992; Walls, Capella, and Greene, 2001), the transition from school to work (Crowson, Wong, and Aypay, 2000), taking a new job (London, 1997; Nelson and Sutton, 1990), discrimination, stereotyping and social isolation (Price, 2000; Shaffer, Joplin, Bell, Lau, and Oguz, 2000), job changes (Shaffera, Harrison, Gilley, and Luka, 2001), career plateaus (Duffy, 2000; Lemire, Saba, and Gagnon, 1999), job loss (Leonard-Wilkerson, 2001; London, 1997) job insecurity (Smithson and Lewis, 2000) and retirement (Budros, 2001; Potts, 2001) have been examined as stressful life events. Although many studies have been completed on stress, relatively little research has examined the most commonly used measures of stressful life events or on the measurement of the stress and adjustment of expatriates.

The purpose of this paper is to investigate Dick's (1999, 2000) measure of international stress, specifically by examining the validity of the measure with professionals in a multinational entrepreneurial organization. In the next section, we briefly review the research on the measurement of stressful life events. Next, we examine Dick's measure of international stress using a sample of 268 expatriates working in 10 countries in Africa and South America. Finally, we discuss the implications of our results for future cross-cultural research on stress.

MEASURES OF STRESSFUL LIFE EVENTS

Most of the research on stressful life events has used The Schedule of Recent Life Experiences, (Holmes and Rahe, 1967) or The Social Readjustment Rating Scale (Rahe, Lundberg, Theorell and Bennett, 1971) to determine the total amount of life stress an individual is experiencing (Miller and Rahe, 1997; Scully, Tosi, and Banning, 2000). The Schedule of Recent Life Experiences is a 43-item instrument that lists positive (e.g., marriage, vacation), negative (e.g., illness of

family member, divorce), frequent (e.g., minor traffic violation) and rare (e.g., death of child) events. Individuals respond to the survey by checking the events they have experienced during the recent past, usually the previous six months or a year. Although the Social Readjustment Rating Scale examines similar life events as the Schedule of Recent Life Experiences, the former assigns weights to each of these events. In developing the Social Readjustment Rating Scale, the item marriage was used as an arbitrary anchor point for making ratings. Based on this anchor, each event was assigned a score, or life change unit, that represents the average amount of social readjustment required by the event. The life change units of the life events experienced by an individual are summed to arrive at his/her total life stress score.

Although these two scales are the most widely used approaches to quantifying stressful life events, they are not without problems (Rabkin and Struening, 1976). One potential problem with the scales is that they operate under the assumption that all life changes are stressful regardless of their positive or negative nature. Thus, both desirable and undesirable events are combined to arrive at a total life stress score. Several studies suggest that only negative life events affect illness (for reviews, see Sarason, Johnson and Siegal, 1978; Miller and Rahe, 1997; Van Der Doef and Maes, 1999; and Segrin, 2001). Furthermore, the scales fail to account for individual differences in perceptions regarding what is a desirable or undesirable event. For example, Firth (1985) used a case studies approach with managerial and professional clients of a psychological clinic dealing with life changes. She found that job promotions could be perceived as a negative event when an individual believes the job change carries too much responsibility. Ancidotal evidence also suggests that individual differences must be considered in determining the desirability of an event. While the unexpected death of a husband is an emotional and psychological blow to his wife, it may be a more devastating event for an emotionally disturbed woman than for one who is psychological healthy. Similarly, Dohrenwend and Dohrenwend (1984) also suggest that there are problems with the universality of perceptions regarding the amount of adjustment required by stressful life events. They found differences in perceptions based on area of the U.S., (e.g., urban versus rural location), and nationality.

Another problem with the scales is how life changes are quantified. Sarason, Johnson and Siegel (1978) argue that because individuals vary in how a life event affects them, values derived from group ratings, such as those used with the Social Readjustment Rating Scale, may not accurately reflect the impact of events on specific individuals. This is especially problematic when items are ambiguous. For example, the item "a major change in financial status" can reflect bankruptcy or

gaining a large inheritance. Sarason and associates suggest that instead of using scores based on group averages, scores based on self-ratings of stressful life events should be employed. Research (e.g., Yamamoto and Kinney, 1976) has found that stress scores based on self-ratings of stressful life events were better predictors than scores derived by mean adjustment ratings similar to those of the Social Readjustment Rating**.** Moreover, Crandall (1992) has found that severity weights used with the Social Readjustment Rating Scale may not be even needed.

Hudgen (1974) questions whether the life events listed in the Schedule of Recent Life Experiences are predictors or outcomes of stress. Hudgen reported that 29 out of the 43 events listed were often the symptoms, not possible causes, of illness. Additionally, Lazarus and DeLongis (1983) question whether life event scales tend to contain events that are more likely to happen to younger than older individuals. Although research has demonstrated an inverse relationship between age and stressful life events scores, to conclude that individuals experience less stress as they age may not be accurate. Despite the rapidly increasing number of older individuals, many lists of life events do not include items that are often related to aging, such as chronic problems of infirmity, loneliness and limited energy. Future research should focus on improving scales so that they are valid across different cultures and age groups, and so that predictor and outcomes variables are not confused.

In order to overcome scale problems caused by individual differences, Sarason and associates developed the Life Experience Survey (LES). The LES, which lists 57 events, permits individuals to rate the desirability or undesirability of events and to individualize ratings of the personal impact of these events. Also, the LES has attempted to reduce ambiguity by making items more specific. For example, the Schedule of Recent Life Experiences contains the item "pregnancy," that many men fail to respond to even if their significant other is pregnant. To avoid such problems, the LES lists this item in two ways: Female: pregnancy and Male: pregnancy of wife/girlfriend. [1] Sarason and associates have reported that the scale appears to be relative free of effects of social desirability and mood states, and has moderate reliability. Although the LES has not been without its critics (Flannery, 1985), support for the possible ability to generalize the LES has even been found for individuals with personality disorders (Labonte and Paris, 1993), chronic illnesses (Littorin et al. 2001; Searle and Bennett, 2001) and across cultures (Biondi, Palma, and Pancheri, 1993; Khanna and Shirali, 1989).

Dick (1999, 2000), dissatisfied with the instruments available for measuring stress and adjustment in a cross-cultural setting, developed a multidimensional

measure appropriate for expatriates. Based upon a review of research on international stressors and expatriate adjustment, he advanced a 51-item questionnaire purported to measure eight cross-cultural dimensions of stress, and potentially the adjustment of expatriates. The eight dimensions of Dick's scale are: (1) national government interactions - the expatriates interactions with the host country government, (2) national organization interactions - the expatriates interaction with the organization's host country head offices, (3) personal care - the degree to which the expatriate has individual needs taken care of for housing and food, (4) work - job related stressors, (5) language -preparation and ability to communicate in host country languages, (6) country - factors about the country such as political instability, (7) organization - organizational specific factors such as level of communications required by the home office, and (8) support - degree of support received from home country.

Using a sample of 500 missionaries working in sixty countries, Dick conducted a validation study of his new instrument. With the use of limited information factor analyses, he found mixed support for the instrument but suggested that additional research be performed in this important area. Following from the work of Dick, the purpose of the present study is to continue the examination of the dimensional nature of Dick's international stress questionnaire for future researchers interested in cross-cultural stress and adjustment.

METHODOLOGY

Sample

In order to examine Dick's measure, we surveyed entrepreneurial/ intrapreneurial expatriates working for a large, multinational professional services organization in the health care field. The organization is co-owned by the professional employees, and therefore in many respects can be thought of as a large partnership. Surveys were sent via the organizational internal mail system to 330 employees in the ten countries in which the organization operated (Benin, Bolivia, Burkina Faso, Ethiopia, Ghana, Niger, Nigeria, Paraguay, South Africa, and Zambia). The surveys were accompanied by a letter from the Chief Executive Officer encouraging their participation. Two-hundred and sixty-eight professionals returned the survey for a response rate of 81.2%.

The sample was almost evenly split by gender: 53.7% of the sample was men and 46.3% was women. The average age of the respondents was 43 years old,

with an average of 8 years of organizational tenure and a medium of three international postings. The respondents were highly educated: 100% of them had post graduate training, as they consisted of physicians, dentists, and pharmacists who jointly co-owned the organization. Within each country the expatriates also worked together in teams with each team having a wide degree of latitude in order to bring in revenues for the organization. Each work team in essence operated as its own small business independently contracting with the government and hospitals within their service area.

Instruments

The primary instrument examined was Dick's (1999, 2000) 51-item international stressors scale, which Dick purports to contain eight dimensions related to expatriate stress. Items are measured using a Likert-like format with responses ranging from "Strongly Dissatisfied" (1) to "Strongly Satisfied" (5).

The secondary instruments include Hemphill's (1956) 12 item viscidity index (viscidity is defined as the degree to which the members of a group function as a team), Brayfield and Rothe's (1951), 13 item Index of Job Satisfaction, and Kahn's (1964) 14 item from the Index of Job-related tensions in Organizations. These three scales have been proposed to be associated with antecedents of expatriate adjustment (Black, Mendenhall, and Oddou, 1991; Hechanova, Beehr, and Christiansen, 2003; Joshi, Labianca, and Caligiuri, 2002; Tsang, 2001). All three had coefficient alpha estimates of reliability of at least .93.

ANALYSES AND RESULTS

Because the dimensional stability of Dick's scale has not been established, we performed two principal components analyses, one orthogonal and one oblique. Based upon a hyperplane count from the two analyses (275 to 285), support was found for using the orthogonal results. The parallel analysis criterion (a sample based adaptation of the eigenvalue greater than one criterion) was used to determine the number of dimensions to retain. As can be seen in Table 1 a clear ten dimensional structure was supported by the data - and this was also supported by a scree test. The ten orthogonal dimensions we found are: (1) language preparation, (2) host country home life, (3) host country job demands, (4) interpersonal work related stressors, (5) organizational communications, (6) home country support, (7) ability to speak local languages, (8) national government interactions, (9)

educational opportunities for the expatriate's children, and (10) country political factors (i.e., how stable is the country). Surprisingly, these dimensions are similar to those found by Dick (1999, 2000), with two of his dimensions - personal care and language - splitting into two dimensions each: host country home life and educational opportunities for children, and language preparation and ability to speak local languages, respectively. The coefficient alpha estimates of reliabilities for the scales ranged from .69 to .95 with a median of .78.

Table 1 - Principal Components Analyses

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Paperwork (host)	.059	.120	-.049	-.179	-.109	-.022	.298	.494	.020	-.305
Housing	-.006	.284	-.017	.069	.329	.175	.117	.197	.109	-.168
Housing rates	.085	-.059	.104	-.041	.407	.272	.052	.173	-.220	-.379
Relation (loc. gov)	.038	-.058	.198	.062	.132	.029	.012	.714	-.063	.016
Relation (host gov)	.108	-.007	.171	.032	.138	-.106	.024	.738	.047	-.024
Relation (supervisor)	.052	-.014	.081	.660	.129	.169	-.016	.008	-.043	.066
Relation (expat. coworkers)	.103	.362	.017	.466	.176	-.253	.076	-.024	-.047	-.211
Relation (host coworkers)	-.031	.094	.317	.299	.110	-.008	-.007	-.057	-.006	.344
Relation (subordinates)	.010	.242	.104	.040	.330	-.137	-.019	-.133	.009	.231
Children's Education Opp.	.052	.128	.122	-.001	.067	.053	.058	-.014	.860	-.025
Quality of Education	.110	.081	.002	-.064	.117	.101	-.030	.041	.867	.017
Quality of Medical Care	-.072	.330	.383	.065	-.071	.018	.123	.286	.209	.016
National Client Demands	.052	.035	.807	.112	.027	-.054	.005	.164	.068	-.067
National Org. Demands	.041	.033	.781	.030	.073	-.013	-.045	.194	-.041	.035
Local Org. Demands	.136	.145	.785	-.004	-.009	.101	-.024	.004	-.003	-.074
Local Client Demands	.045	.003	.653	.089	.177	.139	-.129	-.007	.107	.039
Home Country Client exp.	-.034	.100	.099	.014	.032	.889	.028	-.054	.097	-.082
Home Country Org. exp.	.011	.191	.113	-.022	.101	.875	.068	-.051	.049	-.049
Location Isolation	-.110	.331	.343	.139	.077	.255	-.105	.296	-.175	.039
Communication facilities	.155	.477	.283	.158	-.110	.044	-.059	-.014	-.022	-.080
Climatic conditions	.230	.466	.201	-.165	-.050	.210	.104	-.241	-.000	.216
Home Gov. Paperwork	.108	.234	.013	.039	.486	-.067	-.033	.140	-.285	.181
Family Member Health	-.063	.550	.086	.001	.269	-.088	.050	.063	.046	-.199
My health	-.096	.537	.128	-.057	.253	.035	-.116	-.002	-.005	-.026
Time Preparation Meals	.018	.645	-.033	.116	-.051	.118	-.147	-.000	.107	.021
Time Household Functioning	.064	.644	-.023	.167	.045	.109	-.095	.026	.104	.068
Work Demands supervisor	-.005	.127	-.036	.361	.157	.340	-.250	.137	.070	.091
Home Org. Paperwork	.080	.222	-.023	-.028	.547	.108	-.129	.012	-.047	-.023
Friends Available	.202	.405	.163	.218	.174	.043	.138	-.042	-.104	-.063
Local Job tensions	.349	.216	.332	.271	-.071	.082	.257	-.092	-.164	.169

Table 1 - Principal Components Analyses

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Work/Family tensions	.238	.270	.061	.543	-.108	-.038	.029	-.043	-.046	-.151
Orientation of Interns	.080	.098	.144	.500	-.226	.004	-.037	.313	.056	-.108
Host Org. Communications	-.003	.002	.111	.613	.388	-.018	.050	.081	.109	.063
Head Org. Communications	.097	-.056	.143	.256	.680	.005	.178	.049	.208	-.059
Depart. Org. Commun.	-.023	-.024	.076	.066	.722	.114	.131	.088	.262	-.095
Workload	.004	.398	-.187	.199	.091	.267	-.230	.185	.056	.158
Spouse's workload	.143	.306	-.010	.089	.063	.237	-.127	.303	.173	.050
Pre-field language training	.317	-.162	.091	.330	-.023	.066	-.248	.265	-.080	.021
Length of time for training	.466	-.192	.047	.270	.108	-.022	-.340	.045	.051	-.191
Development Plan Prep.	.249	.063	-.142	.383	.107	-.043	-.278	.205	-.054	.091
Field access to lang. res.	.636	.165	-.006	.135	.112	-.004	-.268	.065	.120	.064
Clear exp. Int. Lang. learn	.776	-.071	.021	.216	.016	-.029	-.095	-.030	.082	-.090
Clear exp. Ongoing lang.	.797	.051	.076	.196	.060	-.115	-.083	.068	.090	-.055
Methods eval. Lang. learning	.863	.121	.042	-.023	-.001	-.023	.010	.111	.033	.015
Regular eval. Lang. learn	.833	.095	-.023	-.001	.014	-.007	.054	.064	.053	.035
Need learn 2 + lang.	.521	-.039	.134	-.082	.020	.156	-.039	-.055	-.173	-.045
Work diff. Between cowork	-.105	-.254	-.068	-.478	.031	.067	-.094	.179	.050	.038
Political instability Host	-.098	-.139	-.113	-.016	.029	.057	-.095	-.122	-.082	.724
Violent lawlessness Host	.038	.025	.050	-.135	-.144	-.115	.230	.128	.040	.716
Abli. to undstand lang.	-.172	-.168	-.118	.068	.121	.011	.825	.074	.023	.031
Abil. to speak trade lang.	-.160	-.146	-.076	.025	.099	.027	.837	.076	.035	.041
Eigenvalues	6.866	3.797	2.777	2.576	2.318	2.027	1.871	1.796	1.647	1.604
Coefficient Alpha	.85	.72	.78	.74	.69	.93	.95	.78	.89	.72

F1 = Language Preparation
F2 = Host Country Home Life
F3 = Host Country Job Demands
F4 = Interpersonal Work Related Stressors
F5 = Organizational Communications
F6 = Home Country Support
F7 = Ability to Speak Local Languages
F8 = National Government Interactions
F9 = Educational Opportunities for Children
F10 = Country Political Factors

In order to compare the dimensions to other job facets related to stress and adjustment, in Table 2 we report the correlation of the ten dimensions with responses to Hemphill's viscidity index (how well does the work team function together), Brayfield and Rothe's job satisfaction index, and Kahn's index of job-related tensions. We found viscidity was related to the expatriate's host country job demands, their ability to speak the local language, and the interpersonal work related

stressors. These findings suggest that work teams would likely function better if expatriates knew the language so that they could overcome language barriers in order to communicate effectively, if interpersonal work related stressors were lower, and if host country work demands were lower [as can be seen in Table 2 there is a negative relationship between host country job demands and viscidity]. Interpersonal work related stressors were also significant statistically when related to job satisfaction and job-related tensions, highlighting the important influence of interpersonal relationships for both the individual and organization. Host country home life was also significant statistically when related to job tension, supporting the notion that stress from the home life can creep into the workplace. There was also a surprisingly positive relationship between country political factors and job satisfaction indicating that the health care professionals who accept these challenging assignments tend to thrive in situations where the political tension is greater.

Table 2: Correlations of 10 Dimensions of International Stressors with Viscidity, Job Satisfaction, and Job Tension
n ranges from 219 to 227 due to `missing values`)

Correlations:	VISCIDIT	JOBSAT	JOBTENS
F1	.1225	.0720	.0814
	P=.065	P= .283	P= .230
F2	.0456	.0680	.1900
	P= .494	P= .311	P= .005
F3	-.1348	-.0051	.0779
	P= .042	P= .939	P= .251
F4	.2663	.2940	.2196
	P= .001	P= .001	P= .001
F5	.1021	.0599	-.0953
	P= .125	P= .372	P= .160
F6	.0858	.0272	-.0473
	P= .198	P= .686	P= .487
F7	.1302	-.1179	-.0560
	P= .050	P= .078	P= .409

Table 2: Correlations of 10 Dimensions of International Stressors with Viscidity, Job Satisfaction, and Job Tension
n ranges from 219 to 227 due to missing values)

Correlations:	VISCIDIT	JOBSAT	JOBTENS
F8	.0732	.0118	-.0300
	P= .272	P= .861	P= .659
F9	.0492	.0282	-.0269
	P= .461	P= .675	P= .692
F10	-.0695	.1502	.0515
	P= .297	P= .025	P= .448

F1 = Language Preparation
F2 = Host Country Home Life
F3 = Host Country Job Demands
F4 = Interpersonal Work Related Stressors
F5 = Organizational Communications
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F8 = National Government Interactions
F9 = Educational Opportunities for Children
F10 = Country Political Factors

DISCUSSION

The theme of research on life events is that change may be stressful and require adaptation. Therefore, individuals who have recently experienced many life changes are more susceptible to the harmful effects of stress and are less likely to perform well as expatriates. Dick (1999, 2000) developed an instrument to measure the specific life event stress of being an expatriate. Our study attempted to validate this scale and indicated the need for future validation research. Although Dick proposed an eight dimensional scale, we found ten distinct dimensions with the dimensions being highly similar to his eight dimensions. We believe that the similarity in the results add strong support to the validity of Dick's scale due to the differences in the samples employed. Dick used missionaries who were members of a religious order, while we used health care professionals who were part of an

employee-owned professional service organization. Although both samples were highly educated, the motivations for becoming expatriates likely varied between the two samples (Carraher, Carraher, and Whitely, 2003; Carraher and Whitely, 1998; Navara and James, 2002).

Another interesting line for future research could be the integration of ideas from the transition literature into the literature on stressful life events. For instance, the literature on transitions (Bauer and McAdams, 2004; Nicholson, 1987; Schlossberg, 1981) suggests that previous transitions influence future transitions. Anecdotal evidence, as well as life stage research (Krane, Greenleaf, and Snow, 1997; Kulik, 2001; London, 1997; Sullivan, 1999), suggest that early adversity can lead to increased performance later in life. Further research needs to be completed in order to examine whether early life events produce an "inoculation effect" that lessens the impact of other negative events and is able to increase the performance of expatriates in potentially trying overseas assignments.

While more than 220 published and unpublished papers have been written which examined issues related to the impact of cross cultural training on adjustment or job performance in international settings, most lack empirical support (Morris and Robie, 2001). In the most recent published meta analysis on the antecedents and consequences of employees' adjustment to overseas assignments, no empirical studies were identified which examined the impact of cross-cultural training on the stress of expatriates (Hechanova, Beehr, and Christiansen, 2003). Moreover, little research (e.g., Rowe, 2000) has examined formal programs aimed at decreasing the effects of any stressful life events. For example, Saam, Wodtke and Hains (1995) using a sample of 42 employed managers demonstrated that those managers who participated in structured, weekly counseling sessions had significantly lower levels of stress and were reemployed sooner than mangers who received unstructured information about stress management. Similarly, in this study, we found that well designed language and culture training could potentially reduce the stress levels of expatriates. More evaluation of such programs would aid organizations in helping their members cope with stressful life events and identify what types of programs can assist first time expatriates.

An additional area for research is to examine what organizationally related and demographic variables may be able to serve as a proxy for stress level and the ability to handle stress in cross-cultural situations. For instance, drawing from the research on the matching model of occupational choice (Hollenbeck, 2000; Vandenberg and Scarpello, 1990) it is possible that occupations requiring higher levels of stress are likely to attract individuals who possess the ability to deal with

higher levels of stress. Thus, it is possible that one's occupation may serve as a proxy for one's ability to cope with life stress. Alternatively, it is also possible that differences in age (Trevor, 2001), organizational tenure (Cable & Parsons, 2001), job tenure (Chowdhury and Geringer, 2001), compensation systems (seniority vs merit systems; Balkin and Montemayor, 2000), organizational hierarchical levels (Carraher and Buckley, 1996; Cotton and McKenna, 1994; Goodwin and Ziegler, 1998), and/or work and team structures (job rotation vs no job rotation; Burke and Moore; 2000; Cotton, 1977) may be related to individual's ability to handle stress and thus should be examined as potential proxies for an individual's ability to handle life stress in international assignments.

Finally, although some research has examined gender differences in response to stressful life events, relatively little focus has been given to minorities or cultural differences (Bradley, Fryar, and Van Riper, 2003; Carraher and Whitely, 1998). We suggest that additional cross-cultural research be performed and factors that may be unique about cross-cultural and global sources of stress, dissatisfaction, and illnesses should be examined. Dick's international stress scale is one step in this direction, and we recommend that further validation studies of the international stress questionnaire be conducted.

In conclusion, the purpose of this paper was to examine measures of stressful life events and specifically conduct a validation study of the international stress scale recently developed by Dick (1999, 2000). We found support for a ten dimensional structure as opposed to an eight dimensional structure suggested by Dick, but the dimensions were similar to those proposed by Dick. Correlation analysis did find several of the dimensions to be statistically related to scales measuring viscidity, job satisfaction, and job related tensions. Finally, we recommended a number of areas for future research on stressful life events, with an emphasis on increasing the potential performance of expatriates. With the increasingly global entrepreneurship the expatriate experience is likely to become even more common in the future and therefore further study could be helpful. We hope that this modest beginning encourages other scholars to research Dick's measure of international stress as well as other measures of stressful life events in expatriate samples working in cross-cultural entrepreneurial organizations.

ENDNOTES

[1] Social norms and medical advances continue to evolve, this item may also need to be modified to include the pregnancy of women in same sex relationships, such as illustrated by celebrities including Melissa Ederigde, or the use of surrogate mothers. Moreover, the increasing impact of technologically-induced stress may not be adequately captured by current measures.

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ENTREPRENEURIAL CAREERS AMONG BUSINESS GRADUATES: MATCH- MAKING USING THEORY OF PLANNED BEHAVIOR

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ABSTRACT

Research on entrepreneurial area has increased since its influence on the economic and the social development has been acknowledged. Most of the researchers were interested in identifying successful entrepreneurs, specifically on the traits and behaviors. With the governments across various countries create policy and measures in creating entrepreneurs, this further adds to the importance of research in the entrepreneurial area. This research attempts to identify potential entrepreneurs among business undergraduates in Malaysia. Using the Theory of Planned Behavior and the personal values associated with an entrepreneur, the research conducted an identity matching. Thus, the influencing factors are determined. The findings of the research revealed that components of Theory of Planned Behavior, which consists of subjective norm, attitude towards behavior and perceived behavioral control, are factors that influence entrepreneurial career. Demographics characteristics such as gender and parents occupational background have influence too. The findings inform to ensure quality entrepreneurs are produced, and concentration should target at these influencing factors.

INTRODUCTION

Entrepreneurs play an integral part in today's economy. According to Association of University Technology Managers (2001), entrepreneurship accounts for 70% of all new jobs and is a crucial topic for the 21st century. Countries such as Brazil, Korea and United States lead the world in entrepreneurial activities.

Similarly, countries such as Singapore, Hong Kong, Japan, South Korea, and Taiwan largely owed their substantial growth to entrepreneurial activities. Over the past 35 years, they have transformed themselves from being technologically backward and poor into modern prosperous economies.

In Malaysia, entrepreneurship has undergone a period of rapid growth in the last 10 to 15 years. It is acknowledged to be a critical area that provides the support on the process of economic development in achieving a developed nation status. The Ministry of Entrepreneurial Development has set the objective to generate and develop entrepreneurs who are resilient, successful and competitive in all the potential growth sectors of the economy. Another agency, the Small and Medium Industries Corporation (SMIDEC) was established in 1996 to produce capable Small and Medium Industries (SMIs) that can compete in the liberalized market. The establishment of SMIDEC was in recognition of the need for a specialized agency to further promote the development of SMIs. Among the areas of assistance are through advisory service, fiscal and financial assistance, infrastructure facilities and other support programs.

One of the sources identified by the Malaysian government in promoting and creating entrepreneurs are university graduates. Graduates are considered valuables resources that will affect the quality of the future society. Furthermore, they play critical roles in assuring the continued development of the economy of a country. Among the steps the government has introduced is training scheme for graduates who are interested in venturing into entrepreneurship.

At present, most Malaysian universities offer courses in business, which also includes entrepreneurship. Surveys indicated that popular courses among the undergraduate business students in Malaysia are accounting, finance, marketing, human resources and entrepreneurial development (Fairco Online, 2000). Other than entrepreneurship programs, most Malaysian universities own entrepreneurial development courses and entrepreneurship-related clubs and societies. Incubator centers to encourage the development of entrepreneurship among graduates are available in some universities and colleges. Consultancy services on entrepreneurial development are also available to assist students in developing their entrepreneurial skills.

While the literature on entrepreneurship in Malaysia is still growing, studies on reasons why entrepreneurial careers are pursued instead of being employed in organizations are limited. Furthermore, existing studies are confined to the western countries. Thus, there is a gap in relation to this area of study in the eastern environment. Furthermore, if the findings are found to be similar, then it can be

assumed that cross-cultural factors are not the discriminating factors, rather the theory is applicable worldwide. Further, to meet the aim of creating quality entrepreneurs, it is important that the potential entrepreneurs are recognized at the early stages and given the proper knowledge and skills accordingly. The research intends to answer who and what motivates towards an entrepreneurial career, applying the match making technique, using the Theory of Planned Behavior.

ENTREPRENEURIAL INTENTION AS PREDICTOR

In the psychological literature, intentions have been suggested to be the best predictor of planned behavior, particularly when that behavior is rare, hard to observe, or involves unpredictable time lags. Several researchers have highlighted the importance and role of entrepreneurs' intention (Bird, 1988; 1989; 1992; Bird & Jelinek, 1988). According to Bird, entrepreneurs' ideas and intentions form the initial strategic template of new organizations and are important underpinnings of new venture development. Entrepreneurial intentions are aimed at either creating a new venture or creating new values in existing ventures. The model suggests that intention is based on a dimension of both rational thinking (goal directed behavior) and intuitive or holistic thinking. As noted by Krueger (1993), intentions models offer a coherent parsimonious and robust framework for pursuing a better understanding of entrepreneurial processes. Following the intention literature, Shapero (1982) defines entrepreneurial intentions as the commitment to starting a new business. In addition to that, Boyd and Vozikis (1994) also argue that the stronger the entrepreneurial intentions, the higher the probability of entrepreneurial actions. Entrepreneurship is exactly the type of planned behaviour (Bird, 1992; Katz, 1992) for which intention models are ideally suited and be viewed as the first step in an evolving, long-term process. This research uses the term intention to identify the entrepreneurial career aspirations of undergraduates. Self-employed is referred solely to entrepreneurial choice intentions.

MODELS ON ENTREPRENEURIAL INTENTIONS

According to Krueger and Carsrud (1993) and Krueger and Brazeal (1994), the model that focuses on entrepreneurial intentions has been the subject of considerable interest. Further, Krueger and Brazeal (1994) argue that there are two dominant and overlapping models of behavioral intentions consisting of Shapero's model of entrepreneurial event (SEE) (Shapero, 1975; Shapero & Sokol, 1982); and

Ajzen's Theory of Planned Behavior (TPB) (Ajzen, 1988, 1991). Shapero argues that entrepreneurial intentions should derive from feasibility and desirability perceptions plus a propensity to act on opportunities. However, Ajzen argues that intentions in general depend on perceptions of personal attractiveness, social norms, and feasibility. According to the TPB (Ajzen, 1991), there are three conceptually independent antecedents of intention, which are the attitude towards behavior, subjective norms, and perceived behavioral control.

COMPONENTS OF THEORY OF PLANNED BEHAVIOR

Attitude towards behavior refers to the degree in which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. Rosenberg and Hovland (1960) and Shaver (1987) note that attitude is defined as predisposition to respond in a generally favorable or unfavorable manner with respect to the object of the attitude under social psychological context. Ajzen (1988, 1991) in reference to the expectancy value model, mentions attitude towards behavior is determined by the individual's belief about the consequences of performing the behavior weighted by the evaluation of the consequences. Further, attitude theory has a substantial history of research and offers both theoretical and practical benefits to the study of entrepreneurship (Robinson, et. al, 1991). Subjective norm refers to perceived social pressure to engage or not in a particular behavior (Ajzen 1988; 1991). This means that individuals will develop intentions because they believe others will like them to do it (Ajzen & Fishbein, 1980). Supporting this, Wood and Bandura (1989) state that if people receive positive encouragement, they will be more likely to exert greater effort. Perceived behavioral control, according to Ajzen (1988, 1991), refers to people's perceptions of their ability to perform a given behavior. In other words, perceived behavioral control indicates that a person's motivation is influenced by how difficult the behaviors are perceived, as well as the perception of how successfully the individual can or cannot in performing the activity (Mackezie & Jurs, 1993). Boyd and Vozikis (1994) support this notion, mentioning that people with strong beliefs about their capabilities will be more persistent in their efforts and exert greater effort to master challenges.

In recent years, Ajzen's (1988,1991) theory of planned behavior has become one of the most widely used psychological theories to explain and predict human behaviors. The theory has been used with good success in practical applications as well as in basic research (Krueger & Carsrud, 1993). The theory of planned behavior

is an extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), which assumed that most human social behavior is under volitional control and, hence, can be predicted from intentions alone. Besides that, Kolvereid (1996b) has used this theory to predict employment status choice intentions among undergraduates' business students whereas Autio, Keeley, Klofsten and Ulfstedt (1997) have used this theory to test on students of science and technology faculties regarding their intention of becoming entrepreneurs. This theory has also been used to predict employment status choice intentions among Russian students and successfully proven its strength (Tkachev & Kolvereid, 1999). As such, the Theory of Planned Behaviour (TPB) is considered appropriate for this research.

OTHER FACTORS

In addition, personal values or personal traits are also considered in this research. This is due to the fact that personal values provide a potentially powerful explanation of human behavior and serves as standards or criteria of conduct (Williams, 1965), tend to be limited in number (Rokeach, 1973), and remarkably stable over time (Ingleheart, 1985; Rokeach, 1973). Rokeach (1973) shows that personal values influence all behavior. Holland (1985a, 1985b), Holland and Gottfredshon, (1992) and Holland and Rayman (1996) have proven that personality traits are essential factors. This finding is reinforced by Kamakura and Mason (1991) who note that the concepts of personal values and value systems have been used to predict various kinds of behavior. Personal values involve self-awareness and consciously influence choice and behavior. Personal values are standards against which evaluations and judgments are made (Williams, 1965). In short, individuals who value entrepreneurial characteristics would deliberately influence his or her intentions of becoming an entrepreneur. Such relationship is assumed to be valid because personal value has been used to predict various kinds of behaviors (Kamakura & Mason, 1991) while intentions are assumed to be the immediate antecedent of behaviors (Ajzen, 1988; 1991). Similarly, Sonnenfield and Kotter's (1982) study relating to decision to enter self-employment, used static personality differences to refer to how people make career choices that match their personality. Traits that are commonly associated with the entrepreneurs include innovation, risk-taking (Hull, Bosley & Udell, 1980; Sexton & Bowman, 1983, 1984; 1986), independence (Bird, 1989; Boyd & Gumpert, 1983; Woo, Cooper and Dunkelberg, 1991), hard working (Lankard, 1991; Eden 1973), self-confidence (Phillipson, 1995) and locus of control (Levenson, 1981; Rotter, 1990).

Empirically, situational variables such as employment status or informational cues and individual variables such as demographic characteristics or personality traits are poor predictors. That is, predicting entrepreneurial activities by modeling only situational or personal factors usually resulted in disappointingly small explanatory power and even smaller predictive validity. Furthermore, demographic characteristics are not included in Shapero's model of entrepreneurial event or in Ajzen's theory of planned behavior. Robinson, Stimpson, Huefner and Hunt (1991) argue that there is no direct link between demographic variables and entrepreneurial behavior. Gartner (1989) also posits that individuals seldom behave consistently in different times and situations, and that personality traits are not good predictors of future action. However, advocates of demographic and tracking models have suggested and found empirical support for the hypothesis that family background, gender, and past entrepreneurial experience are related to entrepreneurial intentions (Matthews & Moser, 1995). Therefore, intention models would be more appropriate if it offers significant opportunity to increase the ability to understand and predict entrepreneurial activity.

METHOD

The model used in this research incorporates components of Theory of Planned Behavior (TPB), personal background and desired personal values. These represent the independent variables while student entrepreneurial choice intention (ECI) represents the dependent variable.

Eight hypotheses were developed. The first three hypotheses examine the differences in the respondents' background (parent's entrepreneurial occupation, gender, and past entrepreneurial experience) as predictors of entrepreneurial choice intention (ECI). ECI is measured on a 4-point scale ranging from employed by someone to self-employed.

H_1: *Individuals whose parents are entrepreneurs have higher ECI than those who do not.*

H_2 : *Males have higher ECI than females.*

H_3: *Individuals with entrepreneurial experiences have higher ECI than those without.*

The next three hypotheses test on the relationships of each factor under the Theory of Planned Behavior (attitude towards behavior, subjective norm, and perceived behavioral control) against ECI. Again, a 4-scale response is used for attitude towards behavior ranging from strongly disagree to strongly agree. For subjective norm a 4-scale response is also used ranging from should not to should. Similarly, a 4-scale response is used for perceived behavioral control, however the response used differs. Table 2 indicates the specific responses used according to the statements.

H_4: *There is a significant relationship between attitude towards behavior and entrepreneurial choice intentions.*

H_5: *There is a significant relationship between subjective norm and entrepreneurial choice intentions.*

H_6: *There is a significant relationship between perceived behavioral control and entrepreneurial choice intentions*

The next hypothesis tested the relationship between the desired personal values and ECI. Desired personal values are measured on a 4-point scale from very unimportant to very important.

H_7: *There is a significant relationship between desired personal values and entrepreneurial choice intentions.*

The final hypothesis tested the relationship between all the components of TPB and ECI.

H_8: *At least one independent variable will influence entrepreneurial choice intentions.*

A questionnaire was developed and pre-tested through a pilot survey. About twenty undergraduate business students from a Malaysian private university were chosen to participate in this pilot test. Feedback from participants was evaluated and modifications were made based on their responses and comments before the actual survey was carried out. Participants were assured that their responses would be treated, as confidential and only aggregate responses would be reported. All questions were close-ended and required ticking the appropriate response in the

answer squares, hence minimizing the completion time. The questionnaires were administered personally to each respondent.

The respondents for this study consist of undergraduate business students from both public as well as private universities in Malaysia. About 800 questionnaires were distributed and from than 762 were found to be usable.

RESULTS AND DISCUSSION

Analyses on the demographic profile of the respondents revealed that the age of these undergraduate students range from 18 to 26 years old. It is notable that majority (76.3%) of the respondents age lies within 20 to 22 years old and are single (98.6%). As for gender, about 72.9% of the respondents are females. Although this shows a bias in terms of gender, however, this is true in Malaysian higher educational institutions where female do exceeds male. The analysis on race found that more than half of the respondents are Malaysian Chinese (55%), followed by Malays (34.3%) and Indians (8.5%).

With regards to the occupations of fathers, majority of the respondents indicated that their fathers have mostly been employed (62.8%). There are also respondents whose fathers are self-employed or entrepreneurs (36%). Respondents, whose mothers have mostly been employed constituted the highest percentage (41.3%), followed by unemployed (38.1%) and self-employed (20.5%).

Most of the respondents (80.1%) have no past entrepreneurial experience. Only 19.9% of the students claimed that they had previously earned income by creating new business ventures alone or together with someone else. In terms of specialization of the students, the highest group was from respondents majoring in accounting (46.0%), followed by banking and finance (13.8%). Other majors constituted less than 10% each.

Table 1 presents the results on mean score for the independent and dependent variables. The result shows that most of the respondents have high ECI, as the mean score of 2.91 out of 4 was considered to be rather high. The respondents show that they have the tendency to become entrepreneurs in the future.

Six variables were used to test self-employment, economic opportunity, self-realization, authority, autonomy, participating in the whole process, and job challenge. The mean score for self-employment attitude are mostly above 3.20, indicating a strong entrepreneurial attitude. Economic opportunity is found to have the highest mean (mean = 3.52). This revealed that the respondents place high emphasis in generating financial return. In fact, profit is important because

individuals who earn high profits would assure a better living than those who do not. According to Kolvereid (1996b), individuals who emphasize on economic opportunity would involve in self-employment activity rather than organizational employment. This is consistent with Bryant's (1999) study confirming that those with economic opportunity objectives are more inclined towards entrepreneurial activities. Similarly, self-realization, authority and autonomy are attractive factors for self-employment attitude.

Table 1: The Mean Score for Entrepreneur Choice Intentions, Attitude towards Behavior, Subjective Norm, Perceived Behavior Control and Desired Personal Values
(scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree; unless stated otherwise)

Variables & Items	Mean
Entrepreneurial Choice Intention (1=very likely to be employed, 2=likely to be employed, 3=likely to be self-employed, 4=very likely to be self employed)	***2.91***
Attitude towards Behavior: Organizational Employment	***2.94***
Job security	3.50
Career opportunity	3.37
Social environment	3.23
Less Workload	2.45
Responsibility avoidance	2.16
Attitude Towards Behavior: Self Employment	***3.36***
Economic opportunity	3.52
Self-realization	3.47
Authority	3.37
Autonomy	3.28
Participate in the whole process	3.27
Job Challenge	3.21
Subjective Norm	***2.85***
Perception from *closest family* towards my self-employment	2.86
Perception from *closest friends* towards my self-employment	2.84
Perception from *people that are important to me* towards my self-employment	2.84

Table 1: The Mean Score for Entrepreneur Choice Intentions, Attitude towards Behavior, Subjective Norm, Perceived Behavior Control and Desired Personal Values
(scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree; unless stated otherwise)

Variables & Items	Mean
Perceived Behavior Control	***2.41***
If I become self-employed the chances of success would be … (very low to very high)	2.91
If I wanted to, I could easily pursue a career as self-employed. ...(strongly disagree to strongly agree)	2.52
If I become self-employed the chances of failure would be … (very high to very low)	2.48
The number of event outside my control which could prevent me from being employed are … numerous to very few)	2.22
For me, self-employment would be … (very difficult to very easy)	1.93
Desired Personal Values	***3.42***
Self-confidence	3.62
Hard-working	3.53
Need for achievement	3.48
Independence	3.40
Innovative	3.38
Locus of control	3.36
Risk-taking	3.17

In addition, another three variables that are associated with organizational employment attitude were tested. The mean score for job security is 3.50, which scored the second highest mean. This is logical as job security is important in one's career as it ensures that a person would receive regular income to support their cost of living. Furthermore, as an individual who is starting his or her career, job security is the most important criteria to some of them. According to Kolvereid (1996b), individuals who wish for job security would prefer being organizationally employed rather than becoming self-employed. This is because self-employment has a higher propensity of risk compared to other employment (Hull, Bosley & Udell, 1980; Sexton & Bowman, 1983, 1984; 1986).

Two items are found to score below 2.50; namely workload (mean = 2.45) and responsibility avoidance (mean = 2.16). This suggests that these two are the

undesirable factors for organizational employment. This demonstrated that the respondents were more to disagree that these factors are important to consider when choosing their future career path. In reality, individuals who opt for less workload or less responsibility would hardly become entrepreneurs, as an entrepreneur needs to hold high responsibility and involve in heavy work load in order to ensure that their business runs smoothly.

For subjective norm of the respondents towards self-employment primarily, all three items' responses were inclined towards the intention of being self-employed. The result revealed that the perception from closest family that the respondents should pursue a career as self-employed has the highest mean score. This is supported by Ajzen's (1998) study where such perception would reinforce the respondents' likelihood of becoming self-employed. Several other studies also observed that family plays a significant role in influencing the students' career decision, particularly on the decision to pursue entrepreneurship (Bohmer & Sitton, 1993; Carroll & Mosakowski, 1987; Deivasenapathy, 1986; Fraboni & Saltstone, 1990; Hisrich & Peter, 1995; Korin, 1989; Scherer, Brodzinski & Wiebe, 1991). The two remaining items, perception from closest friend and people, are also important in influencing entrepreneurial choice intentions. These results were supported by Nelson (1989) and Shapero and Sokol's (1982) who found that family, friends and other important people are considered as the key influencing individuals in influencing whether or not a person decides to start a new business venture.

As shown in Table 1, the average mean score for perceived behavior control was 2.41. According to Ajzen (1991), a high level of perceived control would strengthen a person's intention to perform the behavior. The respondents perceived that if they become self-employed the chances of success to be high (mean = 2.91), while they perceived that the chances of failure would be less (mean = 2.48). This shows a positive perceived behavior towards self-employment.

The respondents perceived that the number of event outside their control which could prevent them to be self-employed to be moderately low (mean = 2.22) since they have not experienced such events before. The respondents also perceived that self-employment would be difficult, which resulted to the lowest mean score of 1.93. These perceptions might affect the respondents' preference on becoming entrepreneurs. The reason behind this could due to the fact that entrepreneurship involves high risk, and the respondents were unprepared to take risk, as they have not been trained to make much risky decisions in their schooling life. This is supported by Mill (1848) when he stated that the willingness to take risks is noted in one of the earliest works concerned with the entrepreneur. The final result in

Table 1 is on the seven desired personal values for entrepreneurs. The average mean was 3.42. Three desired personal values were found to score above the average mean, self-confidence (mean = 3.62), hard working (mean = 3.53) and need for achievement (mean = 3.48). Alternatively, the remaining four desired personal values such as independence, innovative, locus of control, and risk taking had considerably high mean values even though they were below the average mean score. Evidently, risk taking was found to score the lowest mean of 3.17. This may be due to the reason that most of the respondents do not have much exposure to risk-taking events throughout their schooling years as compared to those already working with extensive experiences.

HYPOTHESES TESTS

The mean analyses performed earlier provided us with a good descriptive state on the variables of interest. The next set of statistical operations attempts to examine meaningful relationships among the variables studied. The results are shown in Table 2 and discussed below.

The first three hypotheses that are related to background is substantiated. The t-test results suggested students with parents who are entrepreneurs have higher ECI and the difference is significant. This result is consistent with past findings that individuals with entrepreneurial parents are more likely to express entrepreneurial intentions (Hisrich & Peters, 1995; Krueger 1993a; Scott & Twomey, 1988). Males have higher ECI compared to females and the difference is signficant. The finding is in line with past studies where male students tend to have a stronger entrepreneurship aspiration than females (Crant, 1996; De Wit & Van Winden, 1989; Kourilsky & Walstad, 1998; Matthews & Moser, 1996). Even though there appears to be a trend toward increasing numbers of females owning small businesses, prior literature suggests that males, in general, are more likely to be interested in owning a small business than females (Hagan, Rivchun, & Sexton, 1989; Scherer, Adam, Carinski, & Wiebe, 1990). Entrepreneurial experience is also found to have significant influence toward ECI. The t-test result shows respondents with past entrepreneurial experiences tend to have higher intentions of becoming entrepreneurs. This is consistent with past studies by Kent, Sexton and Vesper (1982) whereby work experience during the influential years has a positive impact upon the decision to become an entrepreneur. Furthermore, this finding is consistent with Ronstadt's (1988) study whereby prior entrepreneurial experience is positively related to entrepreneurial behavior.

Table 2: Hypotheses Test Results

HYPOTHESES						Support?
H1: Individuals whose parents are entrepreneurs have higher ECI than those who do not.						Yes
T-test:	*N*	*Mean*	*t*	*Mean Difference*	*Significance*	
(1) Entrepreneurs	321	3.02	2.359	(1)-(2): 0.19	0.019	
(2) Non-entrepreneurs	436	2.83				
Total	757					
H2: Males have higher ECI than females.						Yes
T-test:	*N*	*Mean*	*t*	*Mean Difference*	*Significance*	
(1) Males	202	3.11	3.120	(1)-(2): 0.27	0.002	
(2) Females	554	2.84				
Total	756					
H3: Individuals with entrepreneurial experiences have higher ECI than those without.						Yes
T-test:	*N*	*Mean*	*t*	*Mean Difference*	*Significance*	
(1) Yes	148	3.09	2.424	(1)-(2): 0.19	0.016	
(2) No	605	2.86				
Total	753					
H4: There is a significant relationship between attitude towards behavior and ECI						
Pearson Correlation:						Partial
				Pearson Correlation	Significance	
ECI – Job security				-0.061	0.092	
ECI – Career opportunity				0.016	0.662	
ECI – Social environment				-0.008	0.837	
ECI – Less workload				-0.009	0.804	
ECI – Responsibility avoidance				0.013	0.714	
ECI – Economic opportunity				0.078	0.032	
ECI – Self-realization				0.135	0.000	
ECI – Authority				0.143	0.000	
ECI – Autonomy				0.149	0.000	
ECI – Participate in the whole process				0.083	0.022	
ECI – Job challenge				0.058	0.110	

Table 2: Hypotheses Test Results

HYPOTHESES			Support?
H5: There is a significant relationship between subjective norm and ECI.			Yes
Pearson Correlation	Pearson Correlation	Significance	
ECI – Perception from *closest family* towards my self-employment	0.409	0.000	
ECI – Perception from *closest friends* towards my self-employment	0.324	0.000	
ECI – Perception from *people that are important to me* towards my self-employment	0.340	0.000	
H6: There is a significant relationship between perceived behavioral control and ECI.			Partial
Pearson Correlation	Pearson Correlation	Significance	
ECI – If I become self-employed, the chances of success would be … (very low to very high)	0.304	0.000	
ECI – If I wanted to, I could easily pursue a career as self-employed. (strongly disagree to strongly agree)	0.175	0.000	
ECI – If I become self-employed, the chances of failure would be …(very high to very low)	0.164	0.000	
ECI – The number of event outside my control which could prevent me from being employed are … (numerous to very few)	0.026	0.475	
ECI – For me, self-employment would be … (very difficult to very easy)	0.096	0.008	
H7: There is a significant relationship between desired personal values and ECI.			Partial
Pearson Correlation	Pearson Correlation	Significance	
ECI – Self-confidence	0.055	0.129	
ECI – Hard-working	0.057	0.116	
ECI – Need for achievement	-0.014	0.696	
ECI – Independence	0.006	0.860	
ECI – Innovative	0.103	0.005	
ECI – Locus of control	0.025	0.497	
ECI – Risk-taking	0.084	0.021	

The next group of hypotheses test on the relationships between the components of Theory of Planned Behavior against ECI. Pearson Correlation was used to test the relationship.

For attitude towards behavior five out of eleven items turned out to be significantly and positively correlated with entrepreneurial choice intentions. These include economic opportunity, autonomy, authority, self-realization, and participate in whole process. The results suggest these factors influence the intention to become entrepreneur. This is consistent with Bryant's (1999) study confirming that those with economic opportunity objectives are more inclined towards entrepreneurial activities. Collins, Moore and Unwalla (1964) and Hornaday and Bunker (1970) who found autonomy to be the characteristic of entrepreneurs support this result. Coherent to Kolvereid's (1996b) study, authority means having the power to make decisions, having full control over the job and able to take responsibility. Accordingly, it was found that higher preference for authority in one's career path eventually creates a higher intention for self-employment. Marjorie's (1998) study discovers that high need to attain self-realization leads individuals towards being more entrepreneurial in nature, thus having a higher entrepreneurial intentions. Finally, the findings of high preference for the question 'participate in whole process' is parallel with findings by Kolvereid (1996b) whereby preference for participating in the whole process would lead a person towards self-employment.

In terms of subjective norm the hypothesis is substantiated. All three items tested showed significant positive relationship with the entrepreneurial choice intentions, namely perception from closest family, perception from closest friends, and perception from people that are important. This shows that the more the respondents' families believe that the respondent should pursue a career as self-employed, the higher will the respondents' entrepreneurial choice intentions. The findings is supported by previous research by Nelson (1989) and Shapero and Sokol (1982), demonstrating that family refers to one of the key role people in influencing a person's decision to start a new business venture. Friends can also be considered as key inspiration (Nelson, 1989; Shapero and Sokol, 1982). In general, perceptions from people that are important do also influence ECI. This is in line with past studies whereby an individual would perform certain behaviors in consideration of what those people important to them think (Ajzen, 1998).

Four out of five items in perceived behavioral control showed significant positive correlation with the entrepreneurial choice intentions. Those items were:

"If I become self-employed the chances of success would be…"
"If I wanted to, I could easily pursue a career as self-employed"
"If I become self-employed, the chances of failure would be…" and
"For me self-employment would be…" ,

The results suggest that the factors such as the ability to succeed, the easiness to be an entrepreneur, the abilities to confront challenges and the overall view of entrepreneurship influence ECI. All the findings above corroborate with Ajzen's (1988, 1991) theory that perceived behavioral control is likely to affect intentions. When all else equal, a high level of perceived behavioral control should strengthen a person's intentions to perform the entrepreneurial choice intentions behavior, and increase effort and perseverance.

For personal values, the results of hypothesis testing using Pearson Correlation test show only two out of seven desired personal values that turned out to be significantly positively correlated with the entrepreneurial choice intentions. These include innovative and risk-taking. This is consistent with studies by Bird (1989) and Tibbits (1979), confirming that the ability to be innovative is an important characteristic to an entrepreneur. Higher desire for innovative will unconsciously lead individuals towards entrepreneurship. For risk taking, it is proven to be an important characteristics of an entrepreneur. Entrepreneurs tend to have a higher inclination for risk-taking than other groups (Hull, Bosley & Udell, 1980; Sexton & Bowman, 1983, 1984, 1986).

The final hypothesis attempts to identify the predictors of ECI. Stepwise multiple regression was performed and Table 3 showed that five out of eight independent variables were significant to explain the changes with respect to the entrepreneurial choice intentions. The results revealed that contributors to the model include subjective norm, perceived behavioral control, attitude toward behavior, gender and parents' occupational background. This result is in line with findings of Kolvereid (1996b) that attitude and subjective norm contribute significantly to the explanation of the variance in intentions.

CONCLUSION

The study has revealed and reinforced several important findings. First, the TPB is universal and usage of this method does produce similar findings regardless of culture. Personal background has been found as an important predictor towards the entrepreneurial choice intentions among Malaysian business undergraduates.

Table 3: Stepwise Regression Coefficients For Predictors of Entrepreneurial Choice Intentions

Model	Predictors	Unstandardized Coefficient		Standardized Coefficient	*t*	*Sig.*	R^2
		B	Std. Error	Beta			
1	(Constant)	1.044	.146		7.172	.000	.188
	Subjective norm	.656	.050	.434	13.191	.000	
2	(Constant)	.601	.207		2.906	.004	.198
	Subjective norm	.599	.053	.397	11.332	.000	
	PBC	.251	.083	.105	3.007	.003	
3	(Constant)	.989	.249		3.977	.000	.206
	Subjective norm	.592	.053	.392	11.225	.000	
	PBC	.253	.083	.106	3.044	.002	
	Gender	-.214	.077	-.091	-2.782	.006	
4	(Constant)	.317	.358		.884	.377	.213
	Subjective norm	.576	.053	.381	10.888	.000	
	PBC	.246	.083	.103	2.980	.003	
	Gender	-.201	.077	-.085	-2.618	.009	
	ATB	.212	.081	.085	2.601	.009	
5	(Constant)	.529	.370		1.428	.154	.218
	Subjective norm	.573	.053	.379	10.863	.000	
	PBC	.239	.083	.100	2.893	.004	
	Gender	-.197	.077	-.084	-2.572	.010	
	ATB	.224	.081	.090	2.754	.006	
	Parent occupation	-.149	.069	-.071	-2.173	.030	

a. Dependent Variable: Entrepreneurial Choice Intentions

Students who have entrepreneurial parents show higher entrepreneurial intentions. Besides that, being a male and entrepreneurial experience are also found to be indicators for higher entrepreneurial intentions. This means that women need

further encouragement to consider entrepreneurial career. The absence of entrepreneurial experience among women should not be a demotivating factor towards entrepreneurship. All the components of TPB showed that they are influencing factors toward entrepreneurial choice intentions. Specifically, the students are interested in their entrepreneurial career choice due to the benefits such as economic opportunity, autonomy, authority, self-realization and able to participate in the whole process. Their positive perception on the entrepreneurial field influences their decision. Similarly, people closes to them affect their career choice. It is found to be the most significant positive predictor of entrepreneurial choice intentions.

The relevant governmental agencies could harness the findings of the "theory of planned behavior" to pinpoint specific areas where entrepreneurial intentions are prevalent. Programs and campaigns can be targeted to parents. Thus, these parents will play their role to educate and encourage their children to be entrepreneurs. As for the peer or friend factor in motivating the entrepreneurial intention, majority of the students must be well informed on the advantage of being entrepreneurs. It is like a chain reaction whereby students will follow their friends who are keen to be entrepreneurs. One of the ways is to set up activities relating to entrepreneurship in order to make known the advantages of becoming an entrepreneur. Through these clubs, members could actively establish small ventures as groups to start simple businesses.

Next is the influence of people who are important to the students on the entrepreneurial intentions. Important people include loved ones, relatives, role models, mentors, and successful entrepreneurs who are deemed important to the students. In fact, the information furnished through this study enables educationalist to enhance the design and development of curricular to better cater the needs of students and to provide guidance for improved entrepreneurial career counseling. Various media in Malaysia should also carry out their role in broadcasting more success stories of entrepreneurs to serve as an example and role model to the younger generations of Malaysia. These important people should play their role in encouraging students to be self-employed.

Traits such as innovative and risk taking are found to be necessary in their pursuits of entrepreneur choice intention. This implies that it is important that the students need to understand the importance of the choice of area of study. Students who have clearly indicate entrepreneurial to be their career choice must be mould with multiple skills. Educational institutions play an important role in providing and serving the students with the appropriate skills. Thus, a combination of theoretical as well as practical skills is very critical in achieving this aim.

There are several limitations faced in this study. To begin with, this research was conducted on a fairly small sample of business undergraduates in Malaysia. Furthermore, the concentration is on business students. The present survey opens several possibilities for future research. Future study is recommended to use larger sample size to represent the actual total population. Another suggestion is to include undergraduate students from different majors and other educational institutions or colleges. In addition, it would be helpful if future studies would include more comprehensive sets of independent variables that influence the entrepreneurial choice intentions. Nevertheless, another area of study would be on the longitudinal research nature.

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REGULATORY, COGNITIVE AND NORMATIVE FACTORS AFFECTING SMALL BUSINESS DEVELOPMENT IN NORTHERN MEXICO

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ABSTRACT

Recent reforms in Mexico are beginning to have a positive impact on economic development, investment activity, and international trade. The Mexican small business community, however, has failed to reap the benefits of these economic reforms. After reviewing the scant literature in this area, we employed the Country Institutional Profile (CIP) instrument to explore problem areas for small business development in the northern Mexico state of Chihuahua. We compare the Mexico results with the previously reported CIP of the U.S. and conclude that northern Mexico is lacking on all three dimensions evaluated by the CIP—regulatory, cognitive, and normative. We conclude that reform policy has been ineffective as it pertains to small business development.

INTRODUCTION

Mexico is, in many ways, a nation on the rise. Recent reforms, conceived in the 1980s and accelerated by President Vicente Fox, are beginning to have a positive impact on economic development, investment activity, and international trade. Mexico is indeed well along in its emergence from many decades of political unrest, economic stagnation, resistance to foreign business activity, and distrust of adjoining nations as noted a decade ago by Sanderson and Hayes (1990).

Despite the recent success of the reform agenda, Mexican small business owners have failed to reap the benefits of economic reforms (Craddock, 2000; Chen, 2001; Pacheco, 2002). Their exclusion is a surprise given the rich tradition of entrepreneurial and creative activity by the Mexican people (Reynolds, Camp,

Bygrave, Autio, & Hay, 2001; Pacheco, 2002). It is even more surprising given Vicente Fox's stated priorities and campaign promises (Peters, 2002). Even though the Mexican government has substantially increased efforts to promote business activity in general, little has been done to specifically address the growth and development needs of the small business community. Around every resource allocation decision of the Fox administration, the message small business owners seem to hear is, "*Paciencia, mañana es otro día*" (Have patience, tomorrow is another day).

There are, of course, some valid reasons why the Fox agenda has not been more successful. The Mexican economy is heavily dependent on the U. S. economy (Smith & Lindblad, 2001), which has recently experienced slow growth. Security concerns following the September 11 terrorist attacks have slowed the flow of tourists and commerce at border crossing. In addition, the Mexican political and social systems have exhibited extreme resistance to change (Rendon, 2002).

In spite of these formidable challenges, the research presented in this paper raises an additional concern—that the Fox administration's policies represent a poor fit with the actual needs of Mexico's small business community. We seek to address this research question in two ways. First, we review the academic and popular literature with an eye toward identifying policy gaps affecting small business development in Mexico. Then, we develop an institutional profile (Busenitz, Gomez, & Spencer, 2000) in one northern Mexican state in an effort to determine problem areas that need to be addressed for small business development to be successful.

BACKGROUND AND LITERATURE REVIEW

The literature on entrepreneurial development in Mexico is sparse at best. The few published accounts tend to focus on two primary issues, capital formation and education.

Lack of equity financing has long hampered economic development in Mexico. There are relatively few Mexican firms listed on the Bolsa de Valores and initial public offerings (IPOs) are extremely rare (Sargent, 2001). In addition, ownership in Mexico's largest companies tends to be heavily concentrated and family dominated. Ownership concentration (proportion of equity owned by the top three shareholders) in the largest firms is 0.64 in Mexico compared to 0.20 in the U.S. (La Porta, Lopez-de-Silanes, & Shleifer, 1999). While efforts have been made to increase the flow of foreign equity to Mexican corporations, these large family dominated firms have been extremely reluctant to dilute their ownership and control.

In addition to systemic problems with equity financing, debt financing is also a major issue identified in the literature. La Porta, Lopez-de-Silanes and Shleifer (1999) rated creditor rights in Mexico as a zero (0) on a 0-4 scale, compared to a rating of 2.4 for all countries. Business loans for small companies have been especially problematic, as noted by Chen (2001). According to Mexico's National Chamber of Transforming Industries, over 95 percent of Mexican businesses are small firms, the majority of which have absolutely no access to credit (Chen, 2001). That situation has not markedly improved under the Vicente Fox reform program.

One business segment has noticeably benefited from Fox's attempts to increase access to capital. The Mexican business economy is dominated by Grupos, or alliances of large firms that seek to coordinate their activities as a strategy for overcoming problems in navigating the Mexican bureaucracy (Sargent, 2001). These Grupos have benefited under the Fox administration, largely through easier access to debt capital, increased foreign trade, and the otherwise sluggish pace of the reform movement.

Using insights from the Resource Based View (Wernerfelt, 1984; Barney, 1991; Barney, 1997), Guillen (2000) argued that Mexican Grupos can only hold a competitive advantage in their industries as long as current investment and trade conditions hold. The numerous advantages these firms hold arise largely because they have been able to develop their own internal capital and labor markets through their alliances with other members of the Grupo (Sargent, 2001). As a result of the economic clout of the Grupos, over 80 percent of Mexico's exports come from just 300 large companies (Chen, 2001). Because of their economic dominance and concentrated ownership by Mexico's most powerful families, such firms tend to hold a great deal of political and economic clout in Mexico (Mizrahi, 1994), even under the Fox reforms.

In addition to these capital formation problems, another issue that has been noted in the literature is lack of educational programs to develop entrepreneurial talent and business expertise. Young and Welsch (1993) studied entrepreneurial development in central Mexico and concluded that lack of support and information were key obstacles to small business development. Callahan (2000) noted that the relatively poor quality of supplies obtained from Mexican companies by U.S. and Canadian firms occurs in large part due to lack of training in Mexico. Shadlen (2000) observed that small businesses in Mexico have an informational and training disadvantage when compared to larger competitors.

The education policy of the Fox administration has tended to place primary emphasis on basic education to the detriment of business and entrepreneurial training

(Kastelein, 2000). The business training that is publicly supported prepares students for employment rather than entrepreneurial careers (Reynolds et al., 2001). Entrepreneurial and business training in Mexico is available primarily through Institute Tecnologico y de Estudios Superiores de Monterrey (ITESM), a private university with 26 campuses throughout the country (Castan & Rojas, 1995).

One category of businesses in Mexico has benefited directly from reform policy as it pertains to training and access to debt capital. Self-employed street vendors are the targets of a government initiative to increase income, both to the vendors and to the government through additional tax revenues. Coordinated through the State System of Development Financing, Mexico now provides a variety of microloan programs that provide both debt capital and training to the self-employed (Craddock, 2000).

To summarize the literature reviewed above, two categories of businesses seem to be faring well under Mexico's reform movement—the large Grupos and self-employed micro-entrepreneurs. Firms that are members of Grupos fare well because of increased trade, new sources of credit, and the sluggish pace of the reform movement, which has allowed them to maintain their competitive position. Micro-entrepreneurs are faring well because Mexican reform policy has specifically targeted them for financial and training resources. The remainder of Mexico's business community has yet to share in the successes of the reform movement.

In addition to the regulatory issues noted in the literature reviewed above, it is quite likely that other significant factors affect small business development in Mexico. Kouriloff (2000) argued that the most pressing barriers to entrepreneurial activity are non-economic in nature. Personal and cultural barriers may play as large a role in Mexico's reform movement as financing and education policy. As a result, a multi-dimensional approach may have utility for understanding the lack of progress of entrepreneurial development under contemporary Mexico's reform movement.

Fortunately, recent progress in the study of entrepreneurship has yielded a new tool for analyzing the entrepreneurial development potential of entire nations, states, or regions. Busenitz, Gomez, and Spencer (2000), building on the work of Kostova (1997), developed a reliable and valid instrument for measuring a region's institutional profile for entrepreneurship and small business development. The instrument evaluates entrepreneurial potential on the basis of three dimensions—regulatory, cognitive and normative. We used the Country Institutional Profile (CIP) instrument to profile the northern Mexican state of Chihuahua to better understand the small business development issues in the region.

METHODS

We obtained the Spanish language version of the CIP instrument from Lowell Busenitz. This is the version that Busenitz, Gomez and Spencer (2000) used to validate the CIP instrument in Spain. Since there are some minor differences between the Spanish language as spoken in Spain and Mexico, a native Mexican university professor (the second author) read the instrument and made the necessary revisions. We administered the revised instrument to business students from two campuses of a university in the state of Chihuahua, Mexico. Busenitz, Gomez, and Spencer (2000) argued that business students are the preferred respondents for the CIP, since small business owners and entrepreneurs are likely to be biased because of their chosen career paths.

We chose Chihuahua for our study for a number of reasons. It is Mexico's largest land mass and one of its fastest growing states, both in terms of population and business activity. Chihuahua is the epitome of the spirit of the reform movement because of its historical significance as the epicenter of the Mexican Revolution. The state's northern location makes it a vital link for U.S.-Mexico and Canada-Mexico trade, with major commercial ports-of-entry at El Paso, Texas and Santa Teresa, New Mexico. In addition, the authors' contacts and close proximity to the region afforded us data collection opportunities that would have been extremely difficult elsewhere in Mexico.

We administered the questionnaire to 184 respondents in March, 2002. Missing data reduced the number of useable questionnaires to 182. Of the respondents, 43.4 percent were male and 89 percent were less than 35 years old.

RESULTS

Table 1 displays northern Mexico's CIP alongside the U.S. profile as reported by Busenitz, Gomez and Spencer (2000). The overall mean profile for Mexico is lower than the U.S. and Mexico lags the U.S. in all three of the dimensions evaluated by the CIP. We include the U.S. data only for ease of comparison of northern Mexico's profile with that of a fully industrialized nation. Our purpose is not to imply that Mexico is inferior to the U.S.—instead we use the C.I.P to identify problem areas that have relevance for public policy, one of the several applications of the CIP recommended by Busenitz, Gomez and Spencer (2000).

Table 1: Country Institutional Profile, Mexico vs. U.S.								
	Institutional Profile		Regulatory		Cognitive		Normative	
Country	Mean	*s.d.*	Mean	*s.d.*	Mean	*s.d.*	Mean	*s.d.*
U. S.	4.75	0.61	4.32	0.87	4.18	0.92	5.86	0.94
Mexico	3.39	0.92	2.92	1.09	3.21	1.20	4.12	1.43

Table 2 reports the means and standard deviations for northern Mexico for each of the thirteen items on the CIP. An examination of the table indicates a number of potential problem areas. The CIP instrument employs a seven point Likert scale. Every item in each of the three dimensions is below the midpoint level of four except the last two items in the normative dimension. These results suggest that Mexico's reform policies are not working well for entrepreneurship and small business development. Government assistance for small businesses is especially problematic, as is the entire range of regulatory issues measured by the CIP.

Table 2: CIP Regulatory, Cognitive and Normative Items, Mexico		
Item	**Mean**	***s.d.***
Regulatory Dimension		
Government organizations in this country assist individuals with starting their own business.	3.09	1.59
The government sets aside government contracts for new and small businesses.	3.53	1.58
Local and national governments have special support available for individuals who want to start a new business.	2.89	1.35
The government sponsors organizations that help new businesses develop.	2.99	1,45
Even after failing in an earlier business, the government assists entrepreneurs in starting again.	2.10	1.24
Cognitive Dimension		
Individuals know how to legally protect a new business.	3.35	1.54
Those who start new businesses know how to deal with much risk.	2.99	1.46
Those who start new businesses know how to manage risk.	3.10	1.41
Most people know where to find information about markets for their products.	3.37	1.55

Table 2: CIP Regulatory, Cognitive and Normative Items, Mexico		
Item	**Mean**	***s.d.***
Normative Dimension		
Turning new ideas into businesses is an admired career path in this country.	3.97	1.89
In this country, innovative and creative thinking is viewed as the route to success.	3.91	1.90
Entrepreneurs are admired in this country.	4.39	1.72
People in this country tend to greatly admire those who start their own business.	4.25	1.72

The cognitive dimension deals with personal knowledge, skills, and information access that are relevant to entrepreneurial development. Our findings are in agreement with Young and Welch (1993) in that they provide evidence that business information and entrepreneurial training are severely lacking in northern Mexico as they are in central Mexico.

The normative scores are relatively higher than the scores on the regulatory and cognitive dimensions, although they lag the U.S. scores as indicated in Table 1. The authors are somewhat surprised that the normative scores are not even higher given that Mexico ranks highest in level of entrepreneurship among all of the 26 countries included in the most recent Global Entrepreneurship Monitor (Reynolds et al., 2001).

CONCLUSIONS

The research reported herein is exploratory in nature. Our aim was not to identify every single issue of importance in small business development in Mexico. Rather, we sought to explore some basic reasons why Mexico's small business community has not shared in the success of Mexico's reform movement.

The issues that our research has identified are largely consistent with popular press accounts as well as academic research reported well before Vicente Fox was elected. We conclude that small business development in Mexico is being impeded by government policies that seem to be tailored only for the large Grupos and the very smallest of enterprises, the self-employed. As revealed by their responses to the CIP instrument, Mexicans perceive that their government is not doing very much to assist the small business owner. In addition, the training and informational issues identified by Young and Welch (1993) are still relevant nearly a decade later—an

indication of the lack of progress of Fox policies in addressing these important needs of the small business community.

The Mexican government's focus on the very largest and the very smallest enterprises is somewhat understandable given the background of Vicente Fox. President Fox is a Harvard Business School graduate who used to run Coca-Cola's Mexico operations, making him well-versed in large firm operations and needs. Fox also has substantial expertise in promoting self-employment. As Governor of Guanajuato, he learned first hand of the political and economic gains accruing from the microloan program (Hecht, 2001) targeted at these micro-entrepreneurs.

Mexico, however, cannot afford to rely exclusively on Grupos and self-employed street vendors to create jobs for its citizens. The Grupos, taking lessons from the large firms in the U.S., have recently been laying off employees with each downturn in the economy. The self-employed, while providing significant benefits to the economic and social structure of Mexico, do not tend to employ others. Only the entrepreneurial small business community can provide the estimated 1.3 million new jobs annually that are needed to employ Mexico's next generation of workers (Malkin, 2001).

Further research is warranted to investigate more fully the needs of the Mexican small business owner before specific policy initiatives can be suggested, a topic that is beyond the scope of this paper. In addition, our research warrants replication on a nationwide basis. In spite of these limitations, we believe that our research has utility in understanding why small business development in Mexico has not been more robust under the Fox reform policies. We believe that small business development represents the fatal flaw in Vicente Fox's policies, and hence one of Mexico's most pressing problem for the new millennium.

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ENTREPRENEURSHIP: A POTENT TRADE TOOL FOR PROMOTING NIGERIA'S EXPORTS TO THE EU

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ABSTRACT

In recent years, exports of commodities from Nigeria to different destinations seem to be assuming a declining trend. Against this backdrop, this paper takes a critical analysis of Nigeria's exports to the EU. The paper builds on the evolution of the economic links between Nigeria and the EU, first as a colonial entity under European powers and later within the framework of special trade relations between the EU and the Africa, Caribbean and the Pacific (ACP) countries.

The paper adopts various descriptive statistics as the analytical tools assessing the post-1960 trade relations between Nigeria and the EU.

Finally, the paper highlights some on domestically feasible measures to promote entrepreneurial development in Nigeria. It emphasises the role of entrepreneurship in fostering beneficial trade between the two partners.

INTRODUCTION

Entrepreneurial development is one of the most effective tools for ending global poverty and achieving sustainable development. Some of the economic benefits of entrepreneurship are:[1] Provision of employment opportunities. [2] Conservation of foreign exchange. [3] Promotion of effective domestic resource utilisation. [4] Promotion of effective domestic resource utilisation. [5] Equitable distribution of income and wealth.[6] Interdependence among businesses (Emmanuel, 2002).

Significance of the Study

The rationale for undertaking this study are stated as follows:

> Drawing from the evolution of trade between Nigeria and the EU, the significance of this paper is underscored by the gravity of international trade

for the Nigeria's economy. Since Nigeria, like any other nation, inhabits a global economic system and is therefore prone to the forces of the global economic environment, it has increasing tendency to depend on trade. Unlike such countries like Germany, Japan and USA, with comparatively less dependence on trade to the tune of 8 per cent, 10 per cent, and 8 per cent of their respective GDPs (Matambalya, 1999).

For a long time, the EU has been one of Nigeria's major trade partner, in terms of both the latter's exports and imports. While at the country level, Germany and the UK dominate Nigeria's export and import trade scene, in general, the EU countries as a regional community, are the country's major trading partners.

Partly in response to the conclusion of the Uruguay Round of Trade negotiations, and partly in response to the collapse of the cold war and convergence of international economic policies, Nigeria has since the mid – 1980s implemented major reforms from a centrally controlled economic system to a market economy.

In addition, the shifts in the Multilateral Trading System (MTS) towards a more international trade policy convergence, will considerable influence the international trade prospects for Nigeria. In other words, the increasing significance of the study in the emerging trade paradigm is due to the interplay between the dynamics in the MTS and Nigeria's trade policy stance.

Objectives of the Study

This study is aimed at achieving the following objectives:
Discuss the changing trade relations between Nigeria and the EU,
Expatiate on the evolution of trade policy measures in Nigeria,
Discuss Nigeria's export incentive schemes,
Highlight the EU trade policy,
Discuss the elements of entrepreneurship,
Analyse empirically Nigeria's exports to the EU, in terms of magnitude and direction,
Explain the factors restraining Nigeria's Exports to the EU, and
Make policy recommendations towards promoting Nigeria's exports to the EU.

Organisation of the Paper

The introduction is followed by a review of conceptual issues. The third section presents an empirical analysis of Nigeria's exports to the EU. Section 4 dwells on the way forward and section 5 concludes the paper.

REVIEW OF CONCEPTUAL ISSUES

Evolution of Institutional Base for Trade Relations between Nigeria and the EU

In order to understand the economic relations between Nigeria and the EU, a proper comprehension of their historical setting is very relevant. Notably, economic relations between the two partners build on a long tradition of fraternisation between the members of the EU and their former colonies in the ACP states. The special trade relations between the ACP and the EU have a long history. Although, the ACP-EU trade regimes under which Nigeria also benefits, have been products of voluntary arrangements between sovereign groups of states, they also have their roots in the colonial period.

In 1957, the Convention of Application of the Treaty of Rome was signed and it came into effect in 1958. The Convention regulated the mode of cooperation between the European Economic Community (EEC) of 6 and Overseas Countries and Territories (OCTs) and other dependent states of France, Belgium, Italy and the Netherlands. Furthermore, the convention of Application was followed by subsequent arrangements between the EEC and the Association of African States and Madagascar (AASM) under Yaounde I (signed in 1963 and effective in 1964) (Matambalya, 1999).

Having noted that the framework for trade between present day Nigeria and the EU is a matter of dynamic history, the bottom line of these trade regimes has been to accord special and preferential treatment to ACP exports to the EU, alongside a number of other indirect trade supporting measures.

However, since the conclusion of the Uruguay round of negotiations in 1994, international trade relations have called for greater compliance with the provisions of the MTS, discipline, predictability, and universality of international trade relations. Hence such special trading arrangements between developed and developing countries as the Lome trade regime, needed to be reformed to become WTO compatible.

In June 2000, the Cotonou Agreement was signed between the EU on the one hand and 77 countries of ACP on the other. Cotonou is the successor agreements that pursued the close relationship between the EU and many of its former colonies since

the early 1970s. an essential part of the Lome Framework had been the preferential trade benefits that the ACP group of countries enjoy.

Trade Policy Measures in Nigeria

This sub-section presents an evaluation of the trade policies within the Nigerian macroeconomic context. It is possible to identify two well-defined periods. The first period is from 1970 to 1986, the pre-liberalisation era. The second period is the deregulation era from July 1986 to 2000.

Nigeria had no well spelt-out trade policy before 1986. Trade policy during the pre-liberalisation era was formulated to satisfy three basic needs: to provide revenue for the government; to protect the local industries, and to correct the country's external trade disequilibrium. Before 1972, revenue generation and the need to protect domestic industries formed the basis of the trade policy. In fact, Nigeria's balance of payments (BOPs) problems of the 1960s largely dictated the trade policies of the 1970s. This pre-deregulation period experienced considerable restrictions and regulations – high import duties to discourage importation, and quantitative restrictions on some food imports through import licensing.

Between 1973 and 1981, the relative importance of these three basic determinants of trade policy in Nigeria were alternated. For instance, with the emergence of crude oil, the importance of tariff as a major source of government revenue declined. The buoyant oil revenue in the mid-70s and its resultant effect on the favourability of BOPs position provided the basis for food importation. In addition, there was a drastic increase in government expenditures, which was designed to expand infrastructures and improve non-oil, productive capacity. Specifically, the trade restriction between 1976 and 1978 was as a result of the dwindling oil revenue and its associated balance of payments problems.

The 1982 – 86 period was characterized by trade restriction. This led to the imposition of a general ban on non-essential imports. Increases in tariffs were effected on certain items and new duties placed on others. The era recorded unprecedented economic changes due to high volatility in the world crude oil market. The direct consequence of this was BOP crisis, deep and general economic depression, severe stagflation and fiscal crisis with the budget deficit rising annually.

Contrarily, the focus of export policy during the pre-liberalisation was mainly on exportable cash crops with the primary purpose of raising revenue and regulating farmers' returns and domestic food prices. This is achieved through the policy instruments of exports duties, sales taxes and centralized marketing.

On coming to power in August 1985, the General Ibrahim Babangida government recognized the need to approach the daunting macroeconomic problems

bedeviling the nation through the World Bank IMF's structural Adjustment Programme (SAP).

In 1986, certain measures were introduced to arrest the lingering deterioration in the socio-economic environment. Trade liberalisation policy featured prominently as one of the key components of SAP. It included "abolition of import licensing system; reduction of import restriction; modification of advance payment of import duties; overhauling of custom and excise duty schedules; establishment of tariff review boards; abolition of commodity boards and establishment of export development fund guarantee scheme; insurance scheme' and export promotion zone".

The major liberalized trade policy framework during trade liberalisation era is as follows:

a) Abolition of the commodity boards, which led to liberal pricing system for agricultural commodities in both domestic and foreign markets with implications for inducement of production and farm incomes.

b) Import substitution measures which included the selective use of import regulations to restrict or ban importation of many types of food and industrial raw materials in order to encourage or protect their local production; and

c) Retention of 100 per cent of the foreign exchange earnings repatriated from non-oil exports. This was expected to encourage agricultural production through easier access to foreign exchange for importing inputs. This measure is designed to work effectively with other measures such as devaluation of export guarantee scheme and export adjustment facility.

In conclusion, the trade decontrols era experienced considerable liberalization of trade following the adoption of SAP in 1986. A liberal trade policy with an array of incentives to stimulate non-oil exports was introduced. All regulations, controls, and quantitative restrictions that prevented private sector participation in Nigeria's export trade were abolished. In addition, the import licensing policy and the monopoly vested in the primary produce was abolished. The Exchange Control Act of 1962 was also abrogated. The Foreign Exchange Market (FEM) through which the exchange rate of the Naira could be determined by market forces, was introduced. It was designed among other things; to ensure the reduction of foreign exchange outflow and the price competitiveness of locally produced goods.

Nigeria's Export Incentive Schemes

Table 2.1 presents a plethora of export incentives that are eventually available to Nigerian exporters. These incentives include: export assistance to exporter based on the percentage of repatriated export proceeds, duty drawback scheme under which exporters are reimbursed for import duties, surcharges, as well as excise duties paid on imported inputs used in the production for export and duty-free or concessionary rate of duty on importation of raw materials and intermediate inputs used in manufacturing for exports (Ogunkola and Oyejide, 1999). Others are corporate tax holidays; exemption from corporate income tax provided that such proceeds are repatriated to Nigeria and used exclusively for the purchase of raw materials, equipment and spare parts; accelerated capital depreciation allowance; tax relief on interest accruing to banks for loans extended to export activities; and establishment of export processing zones. Most of these measures are directed at minimising administrative obstacles; these measures also provide subsidies.

Table 2.1: A Summary of Export Incentive Schemes in Nigeria

	Incentive Scheme	Operating Agent	Objective and Remark
1	Refinancing and rediscounting facility (RRF) and foreign input facility (FIF)	Central Bank of Nigeria (CBN/NEXIM)	To provide liquidity to banks in support of their export finance business directed at exports promotions and development
2	Currency Retention Scheme	CBN and the Commercial Merchant Banks	To enable exporters to hold export proceeds in foreign currency in their banks.
3	Tax relief on Export earned by banks on export credit	Banks and Federal Board of Inland Revenue	To encourage banks to finance exports by reducing their tax buden.
4	Export Credit Guarantee and Insurance	CBN/NEXIM	Assists banks to bear the risks in export business and, thereby, facilitating export financing and export volumes.
5	Duty Drawback Scheme	Customs Department, Standard Organisation of Nigeria (SON), NEPC, Commercial and Merchant Banks and CBN	To reimburse customs duty paid by exporters on imported inputs used for export production. This has not been widely used by exporters due to the cumbersome procedural requirements involved, although the fund has been increased to $50million.
6	Export Expansion Grant	Nigerian Export Promotion Council (NEPC)	To encourage companies to engage in export business rather than domestic business, especially exporters who have exported N50, 000 worth of semi-manufactured or manufactured products.

Table 2.1: A Summary of Export Incentive Schemes in Nigeria

	Incentive Scheme	Operating Agent	Objective and Remark
7	Export Price Adjustment	NEPC	This is a form of export subsidy designed to compensate exporters of products whose foreign prices become relatively unattractive due to factors beyond their control.
8	Subsidy Scheme for use of local raw materials in export production	NEPC	To encourage exporters to use local raw materials in export production
9	Export Development Fund	NEPC	To assist exporters in partly paying the costs of participation in trade fairs, foreign market research, etc
10	Abolition of Export Licensing	Federal Ministry of Commerce and Tourism	To remove administrative obstacles from the export sector as much as possible.
11	Supplementary allowance in favour of Pioneer companies	Federal Ministry of Commerce and Tourism	To extend supplementary incentives to pioneer companies that export their products.
12	Accelerated depreciation and capital allowance	Federal Ministry of Commerce and Tourism	To extend supplementary incentives to industrial organisations for export of their products.
13	Manufacturing in Bond Scheme.	Federal Ministry of Commerce and Tourism	To assist potential exporters of manufactured products to import free of duty raw materials for production of exportable products.
14	Export Liberalisation Measures Buy-back Arrangement	Federal Ministry of Commerce and Tourism	To liberalise and promote export trade.
15	Export Processing Zone	Federal Ministry of Commerce and Tourism	Opened in mid-1996 in Calabar to facilitate and enhance exports.

Source: Ogunkola and Agah (1999)

EU Trade and Development Policy

Trade and development and considerably interconnected issues. Thus, the EU considers them as crucial factors in the achievement of the Millenium Development Goals (MDGs). Some of these goals and their respective targets are stated in Table 2.2

Table 2.1: A Summary of Export Incentive Schemes in Nigeria		
S/N	**Goals**	**Targets**
1	Eradicate extreme poverty and hunger	Reduce global population living on less than $1 a day by 50 per cent
2	Achieve universal primary education	Ensure all boys and girls complete primary school
3	Promote gender equality and empower women	Eliminate gender disparities in primary and secondary education by 2010, all levels by 2015
4	Reduce child mortality	Reduce women dying in childbith by three-quarters.
5	Improve maternal health	Reduce women dying in childbirth by three-quarters.
6	Combat HIV/AIDS, malaria, tuberculosis, and other diseases	Halt and reverse the spread of HIV/AIDS, malaria, tuberculosis, and other diseases.
7	Ensure environmental sustainability	Incorporating sustainable development into country policies, halve proportion of world population without clean water and sanitation
8	Develop a global partnership for development	Make progress on a set of targets relating to debt relief, good governance, access to medications, access to new technologies, and employment for young people.
Source: 'Special EU Advertising Supplement', *Foreign Policy*, September, 2005, p. eufocus 3		

The European Union was established as a common market with a single external trading regime. The EU is one of the major global trading blocs. It is the world's single largest trading entity, accounting for 20 per cent of global exports and imports (Foreign Policy, September 2005). Furthermore, it is the principal and most accessible trading partner of the world's poorer countries – 40 per cent of EU imports originate in developing countries, amounting to 362 billion work of trade in 2004 (Foreign Policy, September 2005).

It is pertinent to state that the EU plays a central role in global trade negotiations and is a major player in the WTO negotiations. The European Commission negotiates trade agreements on behalf of the EU member states. For most developing countries, the EU is an important trading partner – even when the volume of trade from those countries is very small for the EU itself. The EU aims to expand the number of its bilateral and regional trade agreements with different parts of the developing world.

The EU is a strong supporter of the World Trade Organisation (WTO) and is working for a successful round of trade negotiations under the Doha Development

Agenda, which specifically addresses issues of great relevance to developing countries. The round is based on the following vital areas among others:

Agriculture

As the mainstay of the livelihood of the vast majority of poor people in the developing world, agricultural support is a central element of the Doha agenda. Reducing state support for agricultural production in the EU, the U.S. and other developed countries will raise world market prices for agricultural commodities and allow developing countries to compete in a more open market. The EU supports an agreement by which export subsidies will be phased out entirely over time. Under the reform of the Common Agricultural Policy (CAP) adopted in 2003, domestic support for farmers has already been 'decoupled' from the quantities produced, thereby reducing trade distortions.

Non-Agricultural Market Access

This means that the reduction of tariffs on manufactured products will provide opportunities for poorer countries, including the possibility to increase exports to more advanced developing countries.

Services

The services sector of most developing countries is becoming more important in terms of generation of revenues. Therefore, the liberalisation of the services sector, particularly telecommunications, financial services, transport and business-related services, represents an untapped potential for growth, income, and employment in both developed and developing countries. While the EU is the world's largest exporter and importer of services, developing countries account for nearly 30 per cent of global services trade (Foreign Policy, September 2005).

Trade Facilitation

Improving customs systems and procedures will expand global trade by reducing costs, red tape, and delays related to moving goods around the world.

The EU's Economic Partnership Agreements (EPAs), which are negotiated between the EU and regional groupings of the ACP are replacing the unilateral trade preferences granted to ACP countries in the past. EPAs are to serve as tools for both trade and development since they will foster greater inter-regional trade ties between ACP countries and will gradually lead to the development of free trade areas to

strengthen regional integration, improve the level of specialisation, and reduce production and transaction costs, thereby increasing ACP country competitiveness.

A complex hierarchy of trade arrangements between the EU ad specific groups of developing countries parallels the product – wise hierarchy of EU trade concessions. Since its creation, the EU has entered into a number of different kinds of trade agreements with a number of countries, by virtue of which EU imports from the latter receive preferential treatment.

Thus, the EU has deviated widely from the non-discrimination principle of the General Agreement of Tariffs and Trade (GATT), and it applies different policies to different regions and trading blocs. These country-specific trade concessions in part reflect the multiplicity of the EU's foreign policy interests, ranging from old colonial responsibilities to military-strategic considerations (Matambalya, 1999).

By ranking the groups of the trading partners of the EU according to increasing degrees of preferential treatment, the following rough classification emerges. Non-beneficiaries are those developed countries, mainly non-European, which, being contracting members of WTO, enjoy nothing more than most-favoured nation (MFN) tariff treatment. Next to these categories come those developing countries, which are subject to treatment under the EU's GSP scheme.

Elements of Entrepreneurship

First and foremost, an entrepreneur is an individual who coordinates other factors of production and bears the risks of uncertainty. He is the business owner and he takes managerial decision such as planning, staffing, organising, developing of the enterprise. He is characterised by numerous business ideas, originality, ingenuity, vision, and foresight about what to produce, or how to best produce it. Furthermore, he is an innovator who manages a business organisation with the ultimate aim of maximising profits.

According to Emmanuel (2002), entrepreneurship is the 'process of using available capital in any form, for business endeavours in an open and free market economy for the sole purpose of making profit and it includes all enterprises in new fields or in older ones at all risk levels. Entrepreneurship is the process of devoting time and effort to the creation of something new with added value. It is the willingness and ability of an individual to seek out an investment opportunity, establish an enterprise based on this and run it profitably.

Emmanuel (2002) noted that entrepreneurship is linked with the following activities: generation of business ideas; identification of investment opportunities; making decisions towards exploiting such opportunities; formulating organisation objectives; conducting market research and survey; putting together scarce resources (human, financial and physical); establishing an enterprise; starting off the actual

business operation; distributing and promoting an organisation's products; organising and managing the human and material resources for the attainment of the objectives of the enterprise; bearing of risks and uncertainties; and innovation and diversification.

EMPIRICAL ANALYSIS OF NIGERIA'S EXPORTS TO THE EU

Structure and Direction of Nigeria's Exports

A critical analysis of Nigeria's exports is presented in Table 3.1. It shows that agricultural exports dominated the non-oil exports. However, the value of agricultural exports declined from about $410 million in 1965 to about $152 million in 1995 (except in 1980 when the value rose to about $511 million) (Ogunkola and Oyejide, 1999).

In Table 3.1, the export of manufactures is categorised as *others*. This includes such manufactures as chemicals (petroleum products, inorganic elements, fertilizers and plastic materials), leather and textiles. The manufacturing sub-sector records an all-time low value of $50.2 million in 1970. Subsequently, it started to rise and it peaked at $318.8 million in 1985. Thereafter, the sector has been recording a declining trend.

Table 3.1: Structure of Nigeria's Exports, 1960 – 1995, $ million

	1960	1965	1970	1975	1980	1985	1990	1995
A. Major Agricultural Products	351.4	410.7	360.7	348.4	511.3	233.5	211.4	152.2
Groundnut	64.1	105.9	60.8	0.0	0.0	0.0	3.0	0.0
Groundnut oil	14.8	28.0	32.6	0.3	0.0	0.0	0.0	0.0
Cocoa beans	103.0	119.5	186.3	294.1	450.0	204.1	138.0	76.7
Palm Kernels	73.1	74.3	30.4	30.0	31.0	6.9	4.0	1.3
Palm oil	39.2	38.1	1.6	6.3	5.2	0.0	0.1	0.0
Rubber	39.38	30.8	24.6	17.7	25.0	22.0	62.0	58.1
Raw cotton	17.4	9.2	18.5	0.0	0.0	0.0	4.5	16.1
Cotton seeds	0.0	4.9	5.9	0.1	0.1	0.4	2.8	0.0

B. Manufacturers of Agricultural Products	4.5	15.3	51.2	56.5	110.2	72.9	19.3	8.4
Groundnut cake	4.5	14.7	15.5	0.9	0.2	0.0	0.0	0.0
Cocoa paste	0.0	3.0	3.0	6.8	0.0	0.0	0.0	0.2
Cocoa butter	0.0	0.0	18.6	33.2	48.0	52.5	10.7	4.6
Cocoa powder	0.0	0.0	0.2	0.4	18.0	11.5	0.9	0.2
Cocoa cake	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Palm kernel oil	0.0	0.3	11.7	12.0	34.0	3.7	0.4	0.0
Palm kernel cake	0.1	0.3	2.4	3.1	10.0	5.3	7.3	0.0
C. Others	96.5	72.0	50.2	92.8	72.2	318.8	174.8	119.6
(A) as % of non-oil exports	77.67	82.47	78.06	70.00	73.71	37.35	52.13	54.32
(B) as % of non-oil exports	0.99	3.07	11.08	11.35	15.89	11.66	4.76	3.0
(C) as % of non-oil exports	21.33	14.46	10.86	18.65	10.41	50.99	43.11	42.68
Total	452.4	498.0	462.1	497.7	693.7	625.2	405.5	280.2
Source: Ogunkola and Oyejide, 1999								

In spite of the declining value of agricultural exports, its contribution in non-oil exports has remained above 50 per cent (except for 1985). The share of manufactured exports in non-oil exports increased gradually from about 1 per cent in 1960 to about 16 per cent in 1980. Thereafter, it fell to about 3 per cent of the value of non-oil exports in 1995. With respect to exports of other manufactures, especially after an initial period of instability, its share jumped to about 51 per cent of non-oil exports in 1985 and has since stabilised at about 43 per cent of non-oil exports (see Table3.1)

The direction of Nigeria's exports to the EU manifests its past colonial economic ties. Table 3.2 captures both the magnitude and direction of trade between Nigeria and the EU. It attempts to show the quantity of Nigeria's exports to the EU and its annual percentage change. However, between 2000 and 2004, Nigeria recorded the highest exports value of 6, 733 million to the EU. Subsequently, Nigeria's exports fell for two years before it regained growth in 2003. Thus, the average annual growth rate for the five-year period is –8.5. Also, between 2001 and 2004, EU's share of Nigeria's total exports declined gradually from 24.39 per cent to 18.82 per cent. This represents an average annual growth rate of 22.53 per cent, implying that Nigeria depends heavily on the EU for its export earnings. This fact is corroborated in Table 3.3, where 2004, the EU is Nigeria's second trading partner

after the USA. In this year, the EU's share of Nigeria's total exports to the world is 18.8 per cent.

During the period under review, EU's exports to Nigeria displayed an increasing trend with a slight decline in 2003. Consequently, the average annual growth rate for the five-year period is 7.5 per cent (Table 3.2). Disappointingly, Nigeria's share in EU's total exports recorded the highest value in 2002 and 2003 at 0.58 per cent. This results in an average annual growth rate of 0.55. Interestingly, this fact is corroborated in Table 3.3, where in 2004, the USA is EU's major export partner and the EU's exports to the USA represents 24.3 per cent of its 963, 709 million global exports. The percentage of EU's exports to Nigeria in 2004 is 0.5 per cent (Table 3.3). The bottom line of this export analysis is that from EU's point of view, Nigeria is not an important trade partner.

Table 3.2: Nigeria-EU and EU-Nigeria Exports (Million Euros) 2000 - 2004

Year	Nigeria's Exports to the EU			EU's Exports to Nigeria		
	Exports	Yearly % Change	EU's Share of Nigeria's Total Exports	Exports	Yearly % Change	Nigeria's Share of EU's Total Exports
2000	6, 733		23.25	3, 914		0.46
2001	4, 852	-27.9	24.39	5, 128	31.0	0.57
2002	4, 633	-4.5	24.10	5, 210	1.6	0.58
2003	4, 647	0.3	22.07	5, 076	-2.6	0.58
2004	4, 723	1.6	18.82	5, 231	3.1	0.54
AAG*	-8.5		22.53	7.5		0.55

* Annual Average Growth
Source: EUROSTAT website and author's calculations

Table 3.4 reveals the trends in the destinations of Nigeria's exports. From its concentration in Europe, Nigeria's export markets have gradually expanded to include America and to a lesser extent Africa and Asia. In the 1960s and up to early 1970s, Europe provided about 77 per cent of the market for Nigeria's exports. However, since 1975, Europe has been providing only 45 per cent of the market. The share of Nigeria's exports destined for America increased gradually from about 9 per cent in 1960 to about 48 per cent in 1980. Except for 1985 when the share of America was about 37.5 per cent. America has continued to provide up to 45 per cent of market for Nigeria's exports. The share of Nigeria's exports going to Japan has also increased from about 1.5 per cent in 1960 to about 8 per cent in 1995. Similarly, the

share of Nigeria's exports to the rest of Africa has increased from about 2.6 per cent in 1960 to about 5.7 per cent in1995.

Table 3.3: EU and Nigeria's Major Export Partners – 2004

	EU Major Export Partners			Nigeria Major Export Partners		
S/N	Partners	Million Euros	Percentage	Partners	Million Euros	Percentage
1	World	963, 709	100.00	World	25, 095	100.00
2	USA	234, 140	24.3	USA	12, 202	48.6
3	Switzerland	75, 035	7.8	EU	4, 728	18.8
4	China	48, 131	5.0	India	2, 044	8.1
5	Russia	45, 712	4.7	Brazil	1, 398	5.6
6	Japan	43, 210	4.5	Japan	1, 044	4.2
7	Turkey	38, 024	3.9	South Africa	646	2.6
8	Norway	30, 752	3.2	Indonesia	578	2.3
9	Canada	21, 950	2.3	Ghana	388	1.5
10	Australia	19, 858	2.1	Cote d'Ivoire	308	1.2
11	Hong Kong	19, 164	2.0	China	283	1.1
12	United Arab Emirate	18, 639	1.9	Cameroon	267	1.1
13	Romania	18, 014	1.8	Chile	239	1.0
14	Korea	17, 815	1.8	Senegal	217	0.9
15	India	17, 031	1.7	Turkey	130	0.5
16	South Africa	16, 106	1.7	Korea	85	0.3
17	Singapore	16, 061	1.7	Canada	59	0.2
18	Mexico	14, 654	1.5	Peru	50	0.2
19	Brazil	14, 123	1.5	Singapore	29	0.1
20	Taiwan	12, 827	1.3	Argentina	28	0.1
21	Israel	12, 758	1.3	Thailand	28	0.1
22	Nigeria	5, 231	0.5			

Source: EUROSTAT website

Table 3.4: Direction of Nigeria's Exports, 1960 to 1996, in Percentage									
Continent/ Year	1960	1965	1970	1975	1980	1985	1990	1995	1996
America	9.4	9.8	11.47	28.98	47.9	37.5	53.4	49.8	43.0
Europe	78.8	76.8	76.82	49.32	49.2	60.7	44.6	36.1	42.8
Asia	1.5	1.2	0.77	3.49	0.9	0.5	0.8	12.7	8.0
Africa	2.6	1.4	3.93	2.57	2	1.2	1.2	1.4	5.7
Others	7.7	10.8	7.01	15.63	-	-	-	-	0.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Source: Ogunkola and Oyejide, 1999									

FACTORS RESTRAINING NIGERIA'S EXPORTS TO THE EU

Some of the factors restraining Nigeria's exports to the EU are considerable entrepreneurial in nature. Some of them are discussed below:

Lack of Entrepreneurial Policies

Entrepreneurial policies promote systematic entrepreneurship, thus increasing the potential for international competitiveness of domestic enterprises. In Nigeria, like most other African economies, governments tend to be overly administrative rather than entrepreneurial. Consequently, such policies do not create a conducive environment for systematic entrepreneurship development and competitive economic transformation over time.

Entrepreneurial Deficits

International trade is carried out mostly by international enterprises, which undertake their economic activities in various countries, and to various degrees. These big and largely oligopolistic enterprises possess huge market power that make them independent actors in the global economic system. Thus economies with a large share of active participation in international economics are likely to perform better in their international business activities (including exporting). However, since the theory of entrepreneurship development states that internally engaged enterprises are the true agents of international economic interactions and Nigeria's poor export performance can be correctly attributed to the absence of a well-developed network of international enterprises.

Restricted Knowledge of International Trade Opportunities and Operations

Although domestic trade dominate in total global trade transactions, opportunities for international trade abound as demonstrated by the growing volume of such trade. The management of export operations may require special (organisational) structures like exporting agents, exporting managers, sales representatives' abroad, foreign subsidiary, et cetera. The actual structure depends on the level of internationalisation of the exporting enterprises. Nevertheless, in Nigeria there is a knowledge gap concerning international trade opportunities and mechanisms. This can be attributed to poor information flows and lack of business intelligence and research.

Restricted Knowledge of International Trade Law

Knowledge of international trade law is a crucial tool, with which business people, business consultants and other business professionals should be equipped with. However, it is conspicuous that rather few people, even among those engaged in international business, are sufficiently equipped with pertinent knowledge in law. This situation is partly attributed to deficits in the curricula of Nigeria's institutions of higher learning. A quick review of business and law courses in Nigeria reveals that issues related to international trade law are taught in a fragmented manner (scattered in such courses as Commercial Law, International Marketing, International Finance, International Economics, et cetera) and that International Trade Law as a subject has, not been mainstreamed. However, since most employees of Nigerian businesses went through the country's educational system this means that many people working in management and other positions of Nigeria's business are not sufficiently initiated in international trade law.

STRATEGIES TO PROMOTE NIGERIA ARE EXPORTS TO EU.

Selected entrepreneurial strategies are needed in order to bolster Nigeria's exports to the EU in particular and its international trade prospects in general. In this context, some of these measures include:

Quantitative Diversification of Exports

Nigeria's exports promotion strategy should also aim at extending the country's export base, by increasing the absolute number of exports products and product groups. However, Nigeria has a broadly distributed portfolio of export products when compared to many other developing economies.

Qualitative Diversification of Exports

In addition to the need to increase the number of exported commodities, there is the dire need to include in the export portfolio, products with a higher content of value added. This is because, despite a rather broadly distributed portfolio of export products, the portfolio is dominated by agricultural and mineral raw materials. It has to be emphasised that the valuable products are those which dominate global trade (that is, manufactured goods due to the high content of value added, and rare commodities like gold and diamonds). Hence, while pursuing the goal of qualitative diversification of exports, it should be stressed that the product portfolio be diversified to include the commodities with higher content of value added.

Strategic Issues Focused on Entrepreneurship

An entrepreneurial policy should be made in order to mobilise resources, cope with the emerging challenges and to exploit the increasing opportunities available in the global market. Furthermore, a private sector driven economy is the universal trend and dominating philosophy of business management. This underscores the economic role of entrepreneurs who are the prime actors of the private sector. Hence, for a developing country like Nigeria, entrepreneurship skills development is important in order to expose the entrepreneurs to the rigours of international business. Thus, in order to improve Nigeria export potentials, entrepreneurs should be trained in export marketing skills.

SUMMARY AND CONCLUDING REMARKS

This paper has analysed the performance of Nigeria's exports to EU. The analysis reveals the negative average annual growth rate of Nigeria's exports to the EU. Furthermore, it shows the considerable dependence of the exports from Nigeria on the EU market. Nigeria's exports to EU remained very low.

However, external market factors alone cannot fully explain the performance of Nigeria's exports to EU. Thus, domestic policies that are consistent with international agreement are required. In specific terms, export policies in the country should promote entrepreneurial development through measures that provide conducive business environment, and promote local technological advancement.

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