U.S. MINORITY AND WOMEN OWNED SMALL BUSINESSES

A Senior Scholars Thesis

by

ANDREA LA'RAIS WRIGHT

Submitted to the Office of Undergraduate Research
Texas A&M University
In partial fulfillment of the requirements for the designation as

UNDERGRADUATE RESEARCH SCHOLAR

April 2007

Major: Maritime Business Administration

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Research Advisor: Associate Dean for Undergraduate Research: Dr. Joan Mileski Dr. Robert C. Webb

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ABSTRACT

U.S. Minority and Women Owned Small Businesses

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The purpose of this research is to explore the effects of certain factors on the success of globalization of U.S. minority and women owned small businesses. Research in this area to date has addressed minorities and women in international business. However, it has merely explored human resource management issues such as expatriate adjustment, cultural distance and the acceptance of women in business in male dominated societies (Castillo, 2005; Hofstede, 1999; Gray and Finley, 2005). Further, the studies on small businesses in the international arena have generally focused on the different entrepreneurial characteristics across culture (Ahmed, Mahajar, and Lon, 2004) and problems of capitalization for small businesses globally (Haj, Hassan, and Bashir, 2001).

In general, research has shown that a global focus for a company gains greater returns than merely a domestic focus (Dunning, 1993; Guisinger, 1985). The importance of this research is to help minority and women owned businesses achieve greater success overall and better performance in international markets. I hypothesize that those small businesses that go global achieve greater success, technology effects the performance of a small business, small businesses

that "go global" at a faster rate perform better. The results show that small businesses that globalize achieve greater success, technology has no bearing on the success of minority and women owned small businesses, and small businesses should globalize within 2-5 years of existence to achieve maximum success. This knowledge will enhance their performance in their international transactions and encourage better success of minority and women owned businesses.

DEDICATION

I would like to dedicate my work to my family for their never ending support.

ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

Mansel G. Blackford states, "[small businesses] have received little scholarly attention compared to that devoted to big business, yet they have always been a significant part-social and cultural, as well as economic and political- of American life" (1991). In order to encourage, as well as protect, those individuals in entrepreneurship ventures, Congress created the Small Business Administration (SBA) in 1953 with the passage of the Small Business Act (USinfo.state.gov, 2007). The main purpose of the SBA is to provide professional expertise and financial assistance to small business owners. Further, thirty-five percent of all dollars awarded for federal contracts are set aside for small businesses to encourage the growth of small businesses in the United States (USinfo.state.gov, 2007).

A small business is defined by the Small Business Administration as one that is independently owned and operated but is not dominant in its field of operation. Over the last decade small businesses represent about 45 percent of total U.S. economy, 99.7 percent of all U.S. employer firms, and 60 to 80 percent of net new jobs annually (SBA.gov, 2005).

This thesis follows the style and format of the Strategic Management Journal.

The percentage of small business exporters rose 250% from 1987 to 2001 (Nance-Nash, 2004). Small businesses in the United States export approximately \$1 billion worth of goods and services each day (Nance-Nash, 2004). These firms are shifting to overseas markets because foreign sales offer a hedge against the ups and downs of the United States economy.

Another aspect of the U.S. small business industry that is attractive is minority and women entrepreneurship. Entrepreneurial businesses are particularly attractive to members of disadvantaged groups, such as minorities and women, whose opportunities as wage and salary workers are limited (Loscosso and Robinson, 1991). Women owned businesses in the U.S. represented approximately 28.2% of the total business enterprises and about 14% of women owners are minorities (sba.gov, 2006).

This research plans to explore the issues relating to minority and women owned entrepreneurial ventures and their success in international exporting. Several factors have influence on the international operations of small businesses. One of the factors is the timing of global presence. I asked the following research questions: Do minority and women owned small businesses achieve greater return once they have crossed the domestic line into the international region? Does the timing of entry into international markets improve performance for minority and women owned U.S. small businesses? Is technology a factor?

I hope this research will help women and minority entrepreneurs to better manage their international activities.

CHAPTER II

SMALL BUSINESSES

Small businesses are generally defined by the Small Business Administration (SBA) as, "independently owned and operated... and not dominant in its field of operation" (Blackford, 1991). There is, however, no standard size definition. In the 1950's, the SBA considered businesses with 250 or fewer employees as "small" businesses. Years later, considering the developing sizes of businesses in the United States, the SBA deemed businesses with 500 or less employees' "small" (Blackford, 1991).

U.S. Small Businesses

U. S. Small businesses have always played a key role in America's economic evolution (Blackford, 1991). Historically, small firms were the norm. They maintained the production, as well as, the distribution of goods and services in the American economy. The reliance of small businesses continued until "big businesses" began to develop around the mid-nineteenth century. Big businesses began to dominate many industries, including railroads and industrial fields. By the early 1900's, business statistics began to evolve. One-third of all employees worked in firms with less than 500 workers, and one-third now worked for businesses with more than 500 workers (Blackford, 1991).

Although this had been a steady increase in the following years, the small business industry did not fade away. They merely adjusted to the presence of the larger businesses (Blackford, 1991).

In the 1950's and 1960's, the small business industry began to decline. This continued well into the 1970's, however, the decline soon reversed. According to the SBA, between 1980 and 1986, small business employment accounted for 64 percent of the 10.5 million new jobs created. The Office of Advocacy of the SBA stated, "Small businesses have done exceptionally well during the 1980's" (Blackford, 1991). Since then, small businesses have continued to be a driving economic force in the United States. Small businesses currently pay 45 percent of total U.S. private payroll and they represent 99.7 percent of all employer firms. These businesses also generated between 60 to 80 percent of net jobs annually over the past decade (SBA.gov, 2005).

CHAPTER III

WOMEN AND MINORITIES

Small business endeavors are continuously gaining the appeal of minority groups whose access to quality employment is limited by discrimination (Loscocco and Robinson, 1991). The role of minority and women owned businesses in the small business industry is becoming increasingly evident. The SBA states the number of self-employed women increased five times faster than the number of self-employed men and three times faster than the number of female employees (Loscocco and Robinson, 1991) and 20 percent of all women business owners are minority (SBA.gov, 2005). These businesses grow at a rate of four times faster than the general economy. According to the Small Business Administration, women owned firms accounted for 6.5% of total employment in the United States in 2002. Loscocco and Robinson (1991) also conclude that "the most significant developments in small business ownership in the U.S. have been the great influx of women seeking to create their own job opportunities". It is considered a vehicle for upward mobility.

An increasing tendency among women owned small businesses is the process in which the companies are acquired. Women tend to attain their businesses by themselves and they are more likely to have sole ownership than men (SBA.gov, 2006). *Womenof.com* agrees that this is due largely to the focal point of a woman's view of the business industry (1997-2007). They conclude that, "growth is the key focus for women

entrepreneurs." The most significant developments in small business ownership in the U.S. are the great influx of women seeking to create their own job opportunities (Loscocco, Robinson, 1991). Women owned 6.5 million businesses that generated \$950.6 billion in revenues, employed 7.2 million employees, and had \$179.6 billion in payroll in 2002 (SBA.gov, 2006). In addition, another 2.7 million firms are owned equally by both women and men (SBA.gov, 2006).

Minority owned small businesses are continuously growing, but at slower rates than non-minority owned small businesses. According to the SBA, not only do minorities have lower rates of business ownership, they also tend to be less successful on average, they have lower sales, hire fewer employees, and have smaller payrolls than their white, male counterparts (Fairlie, 2004). As a result, federal, state, and local government programs have been established to make loans available for minorities, women, and other disadvantaged groups (Fairlie, 2004).

Table 1. Women business ownership rates among ethnic groups (SBA, 2005)

White/Caucasian	34%
Asian	31%
Latino	21%
Black/African American	14%

Some of the factors that explain the differing rates of business ownership among minorities are the labor market, lending and consumer discrimination (Fairlie, 2004).

However, labor market discrimination issues are argued. On one hand, it is beneficial to some due to the disadvantages in wages and employment. It is argued on the other hand that labor market discrimination reduces the incentives for minorities to enter entrepreneurship because lenders tend to provide less favorable terms in the credit market (Fairlie, 2004). Women and minority owned businesses have found it more beneficial to participate in international markets, rather than merely domestic business.

CHAPTER IV

HYPOTHESES

In today's economic environment, exporting and importing have become fundamental assets to any U.S. company's success in the international business arena. Roughly 95 percent of the world's consumers live outside the United States (export.gov). Previous research has shown that more and more small firms are turning to international markets because foreign sales offer a way to avoid sudden changes in the U.S. economy (Nance-Nash, 2004). Their focal strength is being able to respond quickly to changing economic conditions (USinfo.state.gov, 2007). For that reason, it is better for small businesses to enter international markets.

Hypothesis #1: Small businesses that engage in international business achieve greater success.

As suggested, globalization among small businesses tends to offer a hedge against inconsistencies in the U.S. economy (Nance-Nash, 2004). Many reasons can influence a small firm to go global. One, certain business may find it necessary to internationalize to remain competitive within its particular industry (Bloodgood, Sapienza, Almeida, 1996). Another reason would be to capitalize on its resources; new technologies and innovations (Bloodgood, Sapienza, Almeida, 1996). Oviat and McDougall state, "This globalization of the world economy affects not only larger, more established businesses but also newer entrepreneurial firms seeking growth and struggling to survive

(Bloodgood, Sapienza, Almeida, 1996). The rate at which these firms "go global" is an explored issue.

Although many small businesses report success in international endeavors, owners have found that overseas business required them to invest more time and money towards technology (Nance-Nash, 2004). Contact between international buyers and sellers are dependent on World Wide Web management. It is essential for a firm with overseas clients to have a reliable means of technological communication.

Hypothesis #2: Technology improves small businesses that are international.

Previous research has indicated that the timing in which strategic decisions, such as globalization, are made can affect various organizational outcomes, including performance (Forbes, 2005). Deciding whether a small business should "go global" is a significant decision that could ultimately determine its future. The speed at which a business operates globally is a strategic decision that can determine the success and failure of a business endeavor. It is crucial for an organization to research the consequences of the determinants of decision speed. Speedy decisions, however, in selected firms can exploit opportunities by causing dramatic increases in demand and new ventures in "dynamic environments" can be significantly affected (Forbes, 2005). On the other hand, further explorations are determining whether or not new ventures should engage in rapid internationalization (Bloodgood, Sapienza, Almeida, 1996). Faster decision making contributes directly to firm performance in fast-moving environments (Forbes, 2005). Potential advantages of expansion include volume

economies, operational stability, tax arbitrage, and product improvement (Mitchell, Shaver & Yeung, 1993). Results will show that the speed of a firm's international presence will correspond with its success.

Hypothesis #3: Women and minority owned small businesses that "go global" at a faster rate achieve greater success.

CHAPTER V

METHODOLOGY

Data collection

Data was collected via a web-based survey of minority and women owned small businesses (See Figure 37). The sample is drawn randomly from a confidential list provided by the U.S. Small Business Administration. A website (http://mytamug.tamug.edu/survey/sbsurvey.htm) was created and emails were sent to 1500 small business owners. To date, 125 have responded for an 8.34% response rate. However there appears to be no non-response bias.

The dependent variable, performance is measured by firm return on investment (ROI). The variable, presence on international activity, is used to test hypothesis 1. I determined if a business had technology communication based on the existence of a company website and this variable is used to test hypothesis 2. Several variables are used to test hypothesis 3. They include business "went global" by 2 years, 5 years, 7 years, 10 years and after 10 years. There are two alternative explanations to increased performance in small businesses, size and industry. The size of SBA businesses that were used ranged from 1-500 employees with a mode of 50. Size was classified by the number of employees a small business had. Employee size fit into one of four selections; those with less than 50, 99 or fewer, between 100 and 249, and between 250 and 500. Industry was divided into ten categories; agricultural, construction, manufacturing,

wholesale trade, retail trade, transportation/warehousing, information,

finance/insurance/real state, Professional, scientific, management/administrative/waste management services, educational/health/social services. A generalized, least squares linear regression model is used to test the hypothesis. Statistical analysis is evaluated using SAS software.

CHAPTER VI

RESULTS

Variables shown in figures 1 through 36 are used to explain: international presence, size, technology, and industry. International presence was derived from those businesses that had international customers.

Legend for Figures 1-36:

SIZE/EMPLOYEE:

Less 50 – less than 50 employees F99 – 99 or fewer employees O249 – 249 or fewer employees

INTERNATIONAL PRESENCE:

By2- Businesses "went global" by 2 years O5y- Businesses "went global" by 5 years O7y- Businesses "went global" by 7 years O10y- Businesses "went global" by 10 years Aft10- Businesses "went global" after 10 years

INDUSTRY:

Ag- Agricultural Const- Construction Manu- Manufacturing Whltrd- Wholesale trade Rettrd- Retail trade Trnsp- Transportation Info- Information services Fin- Financial/Insurance Prf- Professional

Intest-International presence

Web- Technological capabilities

Figure 1. International firms and their $\ensuremath{\mathrm{ROI}}$ - mere presence

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	1	0.02133	0.02133	0.35	0.5544
Error	123	7.46667	0.06070		
Corrected Total	124	7.48800			
Root MSE	0.24638	R-Square	0.0028		
Dependent Mean	0.06400	Adj R-Sq	-0.0053		
Coeff Var	384.97351				

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	0.06667	0.02249	2.96	0.0036
Intcst	1	-0.06667	0.11246	-0.59	0.5544

Figure 2. ROI of firms that went international within 2 years

Source	DF	Sum of	Square	F Value	Pr > F
		Squares	Mean		
Model	1	0.06716	0.06716	1.11	0.2935
Error	123	7.42084	0.06033		
Corrected Total	124	7.48800			
Root MSE	0.24563	R-Square	0.0090		
Dependent Mean	0.06400	Adj R-Sq	0.0009		
Coeff Var	383.79030				

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	0.05155	0.02494	2.07	0.0408
02y	1	0.05560	0.05269	1.06	0.2935

Figure 3. ROI of firms that went international within 5 years

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	1	0.18975	0.18975	3.20	0.0762
Error	123	7.29825	0.05934		
Corrected Total	124	7.48800			
Root MSE	0.24359	R-Square	0.0253		
Dependent Mean	0.06400	Adj R-Sq	0.0174		
Coeff Var	380.60694				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.04211	0.02499	1.68	0.0946
o5y	1	0.09123	0.05101	1.79	0.0762*

 $^{^{*}}$ Significant at the .1 level

Figure 4. ROI of firms that went international within 7 years

C		Sum of	Mean	•	
Source	DF	Squares	Square	F Value	Pr > F
Model	1	0.06828	0.06828	1.13	0.2895
Error	123	7.41972	0.06032		
Corrected Total	124	7.48800			
Root MSE	0.24561	R-Square	0.0091		
Dependent Mean	0.06400	Adj R-Sq	0.0011		
Coeff Var	383.76147				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.05505	0.02352	2.34	0.0209
07y	1	0.06995	0.06575	1.06	0.2895

Figure 5. ROI of firms that went international within 10 years

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	1	0.02582	0.02582	0.43	0.5154
Error	123	7.46218	0.06067		
Corrected Total	124	7.48800			
Root MSE	0.24631	R-Square	0.0034		
Dependent Mean	0.06400	Adj R-Sq	-0.0047		
Coeff Var	384.85796				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.06723	0.02258	2.98	0.0035
o10y	1	-0.06723	0.10306	-0.65	0.5154

Figure 6. ROI of firms that went international after 10 years

C			Sum of	Mean		
Source		DF	Squares	Square	F Value	Pr > F
Model		1	0.09633	0.09633	1.60	0.2079
Error		123	7.39167			
Corrected 5	rotal	124	7.48800			
Root MSE		0.24514	R-Square	0.0129		
Dependent M	Mean	0.06400	Adj R-Sq	0.0048		
Coeff Var		383.03517				
		Paramete	r Estimates			
		Parameter	Standa	rd		
Variable	DF	Estimate			Pr > t	
Intercept	1	0.05833	0.0223	8 2.61	0.0103	
Aft10	1	0.14167	0.11189			

Figure 1 tests hypothesis one and hypothesis is not confirmed. The mere presence of international activities does not improve performance. However, Figures 2-6 test hypothesis three. They show that firms that globalize between two-five years of existence improve ROI (See Figure 3). The variable is significant at the .1 level. This partially confirms hypothesis three. It appears that prior to two years in business, learning about the international nuances may overwhelm (See Figure 2) the need to survive and after 5 years international presence is no longer a competitive edge (See Figures 4-6). Figures 7 through 36 further explore all hypotheses.

Figure 7. International firms and their ROI – mere presence and technology

Source	DF	Squares	Square	F Value	Pr > F
Model	2	0.15467	0.07733	1.29	0.2799
Error	122	7.33333	0.06011		
Corrected Total	124	7.48800			
Root MSE	0.24517	R-Square	0.0207		
Dependent Mean	0.06400	Adj R-Sq	0.0046		
Coeff Var	383.08119				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-1.2028E-17	0.05005	-0.00	1.0000
Intcst	1	-0.08333	0.11246	-0.74	0.4601
web	1	0.08333	0.05595	1.49	0.1390

Figure 8. ROI of firms that went international within 2 years and technology

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	2	0.20441	0.10220	1.71	0.1848
Error	122	7.28359	0.05970		
Corrected Total	124	7.48800			
Root MSE	0.24434	R-Square	0.0273		
Dependent Mean	0.06400	Adj R-Sq	0.0114		
Coeff Var	381.77981				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
	_				
Intercept	1	-0.01806	0.05218	-0.35	0.7299
o2y	1	0.06190	0.05258	1.18	0.2414
web	1	0.08439	0.05566	1.52	0.1321

Figure 9. ROI of firms that went international within 5 years and technology

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	2	0.33049	0.16524	2.82	0.0637
Error	122	7.15751	0.05867		
Corrected Total	124	7.48800			
Root MSE	0.24222	R-Square	0.0441		
Dependent Mean	0.06400	Adj R-Sq	0.0285		
Coeff Var	378.46103				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.02796	0.05162	-0.54	0.5890
o5y	1	0.09587	0.05081	1.89	0.0616*
web	1	0.08534	0.05510	1.55	0.1240

^{*}Significant at the .1 level

Figure 10. ROI of firms that went international within 7 years and technology

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	2	0.16967	0.08483	1.41	0.2471
Error	122	7.31833	0.05999		
Corrected Total	124	7.48800			
Root MSE	0.24492	R-Square	0.0227		
Dependent Mean Coeff Var	0.06400 382.68913	Adj R-Sq	0.0066		

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.00246	0.05007	-0.05	0.9608
o7y	1	0.05913	0.06610	0.89	0.3728
web	1	0.07289	0.05606	1.30	0.1960

Figure 11. ROI of firms that went international within 10 years and technology

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	2	0.14913	0.07456	1.24	0.2931
Error	122	7.33887	0.06015		
Corrected Total	124	7.48800			
Root MSE	0.24526	R-Square	0.0199		
Dependent Mean	0.06400	Adj R-Sq	0.0038		
Coeff Var	383.22581				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.00289	0.05025	0.06	0.9542
10 years	1	-0.06935	0.10263	-0.68	0.5005
Technology	1	0.07975	0.05570	1.43	0.1548

Figure 12. ROI of firms that went international after 10 years and technology

		Sum	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	2	0.24417	0.12209	2.06	0.1324
Error	122	7.24383	0.05938		
Corrected Total	124	7.48800			
Root MSE	0.24367	R-Square	0.0326		
Dependent Mean	0.06400	Adj R-Sq	0.0167		
Coeff Var	380.73615				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.01339	0.05061	-0.26	0.7917
Aft10y	1	0.16070	0.11187	1.44	0.1534
web	1	0.08783	0.05566	1.58	0.1172

 $\label{eq:figure 13.} \textbf{International firms and their ROI-mere presence and technology, size and industry}$

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.53704	0.04131	0.66	0.7979
Error	111	6.95096	0.06262		
Corrected Total	124	7.48800			
Dook MCE	0 25024	D. C	0 0717		
Root MSE	0.25024	R-Square	0.0717		
Dependent Mean	0.06400	Adj R-Sq	-0.0370		
Coeff Var	391.00366				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.00599	0.06514	0.09	0.9270
F99	1	-0.15224	0.13690	-1.11	0.2685
0249	1	-0.04684	0.16088	-0.29	0.7715
ag	1	0.31586	0.15327	2.06	0.0417*
const	1	-0.04497	0.18165	-0.25	0.8049
manu	1	0.00561	0.14235	0.04	0.9686
whltrd	1	0.01174	0.06320	0.19	0.8530
rettrd	1	-0.04168	0.09261	-0.45	0.6535
trnsp	1	-0.08396	0.13006	-0.65	0.5199
info	1	-0.04638	0.13242	-0.35	0.7268
fin	1	0.01901	0.06688	0.28	0.7768
prf	1	-0.07064	0.15076	-0.47	0.6403
intcst	1	-0.06861	0.12067	-0.57	0.5708
web	1	0.07798	0.06529	1.19	0.2349

^{*} Significant at the .05 level

 $\label{eq:figure 14.} \textbf{International firms and their ROI-mere presence and technology, size and industry}$

		Sum of	Mean			
Source	DF	Squares	Square	F Value	Pr > F	
Model	13	0.53704	0.04131	0.66	0.7979	
Error	111	6.95096	0.06262			
Corrected Total	124	7.48800				
Root MSE	0.25024	R-Square	0.0717			
Dependent Mean	0.06400	Adj R-Sq	-0.0370			
Coeff Var	391.00366					

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
	_	0.04005	0 16810	0.04	0 0053
Intercept	В	-0.04085	0.16710	-0.24	0.8073
less50	В	0.04684	0.16088	0.29	0.7715
f99	В	-0.10540	0.20036	-0.53	0.5999
ag	1	0.31586	0.15327	2.06	0.0417*
const	1	-0.04497	0.18165	-0.25	0.8049
manu	1	0.00561	0.14235	0.04	0.9686
whltrd	1	0.01174	0.06320	0.19	0.8530
rettrd	1	-0.04168	0.09261	-0.45	0.6535
trnsp	1	-0.08396	0.13006	-0.65	0.5199
info	1	-0.04638	0.13242	-0.35	0.7268
fin	1	0.01901	0.06688	0.28	0.7768
prf	1	-0.07064	0.15076	-0.47	0.6403
intcst	1	-0.06861	0.12067	-0.57	0.5708
web	1	0.07798	0.06529	1.19	0.2349

^{*} Significant at the .05 level

 $\label{eq:figure 15.} \textbf{International firms and their ROI-mere presence and technology, size and industry}$

·		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.27360	0.02105	0.32	0.9871
Error	111	7.21440	0.06499		
Corrected Total	124	7.48800			
Root MSE	0.25494	R-Square	0.0365		
Dependent Mean	0.06400	Adj R-Sq	-0.0763		
Coeff Var	398.34427	3 - 1			

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.01306	0.07369	0.18	0.8597
f99	1	-0.08052	0.13491	-0.60	0.5518
0249	1	-0.05271	0.16390	-0.32	0.7484
edu	1	0.01211	0.06165	0.20	0.8446
const	1	-0.04645	0.18822	-0.25	0.8055
manu	1	-0.00073243	0.14793	-0.00	0.9961
whltrd	1	0.01911	0.07431	0.26	0.7975
rettrd	1	-0.04217	0.10111	-0.42	0.6775
trnsp	1	-0.07985	0.13742	-0.58	0.5624
info	1	-0.04930	0.13539	-0.36	0.7165
fin	1	0.03611	0.07150	0.51	0.6145
prf	1	-0.08974	0.15483	-0.58	0.5634
intcst	1	-0.07197	0.12397	-0.58	0.5627
web	1	0.06679	0.06642	1.01	0.3168

 $\label{eq:figure 16.} \textbf{International firms and their ROI-mere presence and technology, size and industry}$

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.27360	0.02105	0.32	0.9871
Error	111	7.21440	0.06499		
Corrected Total	124	7.48800			
	0.05404		0.0255		
Root MSE	0.25494	R-Square	0.0365		
Dependent Mean	0.06400	Adj R-Sq	-0.0763		
Coeff Var	398.34427				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.03965	0.17270	-0.23	0.8188
less50	В	0.05271	0.16390	0.32	0.7484
f99	В	-0.02781	0.20059	-0.14	0.8900
edu	1	0.01211	0.06165	0.20	0.8446
const	1	-0.04645	0.18822	-0.25	0.8055
manu	1	-0.00073243	0.14793	-0.00	0.9961
whltrd	1	0.01911	0.07431	0.26	0.7975
rettrd	1	-0.04217	0.10111	-0.42	0.6775
trnsp	1	-0.07985	0.13742	-0.58	0.5624
info	1	-0.04930	0.13539	-0.36	0.7165
fin	1	0.03611	0.07150	0.51	0.6145
prf	1	-0.08974	0.15483	-0.58	0.5634
intcst	1	-0.07197	0.12397	-0.58	0.5627
web	1	0.06679	0.06642	1.01	0.3168

Figure 17. ROI of firms that went international within 2 years and technology, size and industry $\frac{1}{2}$

•		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.54774	0.04213	0.67	0.7847
Error	111	6.94026	0.06252		
Corrected Total	124	7.48800			
Root MSE	0.25005	R-Square	0.0731		
Dependent Mean	0.06400	Adj R-Sq	-0.0354		
Coeff Var	390.70261				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.00941	0.06911	-0.14	0.8920
f99	1	-0.14953	0.13684	-1.09	0.2769
0249	1	-0.07655	0.15522	-0.49	0.6229
ag	1	0.29911	0.15501	1.93	0.0562*
const	1	-0.05003	0.18174	-0.28	0.7836
manu	1	0.01803	0.14359	0.13	0.9003
whltrd	1	0.02007	0.06308	0.32	0.7509
rettrd	1	-0.03436	0.09383	-0.37	0.7149
trnsp	1	-0.06938	0.13053	-0.53	0.5961
info	1	-0.03449	0.13300	-0.26	0.7959
fin	1	0.02262	0.06653	0.34	0.7345
prf	1	-0.07155	0.15065	-0.47	0.6357
by2	1	0.04008	0.05698	0.70	0.4832
web	1	0.07878	0.06514	1.21	0.2291

^{*} Significant at the .10 level

Figure 18. ROI of firms that went international within 2 years and technology, size and industry $\frac{1}{2}$

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.54774	0.04213	0.67	0.7847
Error	111	6.94026	0.06252		
Corrected Total	124	7.48800			
Root MSE	0.25005	R-Square	0.0731		
Dependent Mean	0.06400	Adj R-Sq	-0.0354		
Coeff Var	390.70261				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.08596	0.16486	-0.52	0.6031
less50	В	0.07655	0.15522	0.49	0.6229
f99	В	-0.07299	0.19594	-0.37	0.7102
ag	1	0.29911	0.15501	1.93	0.0562*
const	1	-0.05003	0.18174	-0.28	0.7836
manu	1	0.01803	0.14359	0.13	0.9003
whltrd	1	0.02007	0.06308	0.32	0.7509
rettrd	1	-0.03436	0.09383	-0.37	0.7149
trnsp	1	-0.06938	0.13053	-0.53	0.5961
info	1	-0.03449	0.13300	-0.26	0.7959
fin	1	0.02262	0.06653	0.34	0.7345
prf	1	-0.07155	0.15065	-0.47	0.6357
by2	1	0.04008	0.05698	0.70	0.4832
web	1	0.07878	0.06514	1.21	0.2291

^{*} Significant at the .1 level

Figure 19. ROI of firms that went international within 2 years and technology, size and industry $\frac{1}{2}$

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.31699	0.02438	0.38	0.9744
Error	111	7.17101	0.06460		
Corrected Total	124	7.48800			
Root MSE	0.25417	D. Consono	0.0423		
		R-Square			
Dependent Mean	0.06400	Adj R-Sq	-0.0698		
Coeff Var	397.14466				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.00984	0.07778	-0.13	0.8995
f99	1	-0.08210	0.13452	-0.61	0.5429
0249	1	-0.08546	0.15774	-0.54	0.5891
edu	1	0.01090	0.06105	0.18	0.8587
const	1	-0.05444	0.18778	-0.29	0.7724
manu	1	0.01806	0.14904	0.12	0.9038
whltrd	1	0.02879	0.07452	0.39	0.7000
rettrd	1	-0.02958	0.10193	-0.29	0.7722
trnsp	1	-0.06111	0.13799	-0.44	0.6587
info	1	-0.03287	0.13580	-0.24	0.8092
fin	1	0.03848	0.07120	0.54	0.5900
prf	1	-0.08958	0.15434	-0.58	0.5628
by2	1	0.05762	0.05731	1.01	0.3169
web	1	0.07096	0.06626	1.07	0.2865

Figure 20. ROI of firms that went international within 2 years and technology, size and industry $\frac{1}{2}$

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.31699	0.02438	0.38	0.9744
Error	111	7.17101	0.06460		
Corrected Total	124	7.48800			
Root MSE	0.25417	R-Square	0.0423		
Dependent Mean	0.06400	Adj R-Sq	-0.0698		
Coeff Var	397.14466				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.09530	0.17142	-0.56	0.5794
less50	В	0.08546	0.15774	0.54	0.5891
£99	В	0.00336	0.19504	0.02	0.9863
edu	1	0.01090	0.06105	0.18	0.8587
const	1	-0.05444	0.18778	-0.29	0.7724
manu	1	0.01806	0.14904	0.12	0.9038
whltrd	1	0.02879	0.07452	0.39	0.7000
rettrd	1	-0.02958	0.10193	-0.29	0.7722
trnsp	1	-0.06111	0.13799	-0.44	0.6587
info	1	-0.03287	0.13580	-0.24	0.8092
fin	1	0.03848	0.07120	0.54	0.5900
prf	1	-0.08958	0.15434	-0.58	0.5628
by2	1	0.05762	0.05731	1.01	0.3169
web	1	0.07096	0.06626	1.07	0.2865

Figure 21. ROI of firms that went international within 5 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.76275	0.05867	0.97	0.4868
Error	111	6.72525	0.06059		
Corrected Total	124	7.48800			
Doorte MCF	0.04615	D. G	0 1010		
Root MSE	0.24615	R-Square	0.1019		
Dependent Mean	0.06400	Adj R-Sq	-0.0033		
Coeff Var	384.60295				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.03118	0.06679	-0.47	0.6415
f99	1	-0.11783	0.13573	-0.87	0.3872
0249	1	-0.07829	0.15265	-0.51	0.6090
ag	1	0.29366	0.15117	1.94	0.0546*
const	1	-0.01196	0.17933	-0.07	0.9469
manu	1	0.03645	0.14091	0.26	0.7964
whltrd	1	0.01452	0.06179	0.23	0.8147
rettrd	1	-0.07914	0.09195	-0.86	0.3912
trnsp	1	-0.13933	0.13111	-1.06	0.2902
info	1	-0.02107	0.13071	-0.16	0.8722
fin	1	0.03101	0.06563	0.47	0.6374
prf	1	-0.04702	0.14874	-0.32	0.7525
o5y	1	0.11230	0.05574	2.01	0.0463**
web	1	0.08628	0.06390	1.35	0.1796

^{**} Significant at the .05 level

 $^{^{\}star}$ Significant at the .1 level

Figure 22. ROI of firms that went international within 5 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.76275	0.05867	0.97	0.4868
Error	111	6.72525	0.06059		
Corrected Total	124	7.48800			
Doorte MCF	0.04615	D. G	0 1010		
Root MSE	0.24615	R-Square	0.1019		
Dependent Mean	0.06400	Adj R-Sq	-0.0033		
Coeff Var	384.60295				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.10948	0.16096	-0.68	0.4978
less50	В	0.07829	0.15265	0.51	0.6090
f99	В	-0.03954	0.19365	-0.20	0.8386
ag	1	0.29366	0.15117	1.94	0.0546*
const	1	-0.01196	0.17933	-0.07	0.9469
manu	1	0.03645	0.14091	0.26	0.7964
whltrd	1	0.01452	0.06179	0.23	0.8147
rettrd	1	-0.07914	0.09195	-0.86	0.3912
trnsp	1	-0.13933	0.13111	-1.06	0.2902
info	1	-0.02107	0.13071	-0.16	0.8722
fin	1	0.03101	0.06563	0.47	0.6374
prf	1	-0.04702	0.14874	-0.32	0.7525
05у	1	0.11230	0.05574	2.01	0.0463**
web	1	0.08628	0.06390	1.35	0.1796

^{**} Significant at the .05 level

 $^{^{\}star}$ Significant at the .1 level

Figure 23. ROI of firms that went international within 5 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.53417	0.04109	0.66	0.8013
Error	111	6.95383	0.06265		
Corrected Total	124	7.48800			
Dook MCE	0 25020	D. G	0.0712		
Root MSE	0.25029	R-Square	0.0713		
Dependent Mean	0.06400	Adj R-Sq	-0.0374		
Coeff Var	391.08452				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.02233	0.07440	-0.30	0.7646
£99	1	-0.04794	0.13329	-0.36	0.7198
0249	1	-0.08499	0.15519	-0.55	0.5850
edu	1	0.00185	0.06008	0.03	0.9755
const	1	-0.01637	0.18536	-0.09	0.9298
manu	1	0.02831	0.14591	0.19	0.8465
whltrd	1	0.01567	0.07296	0.21	0.8303
rettrd	1	-0.08742	0.09973	-0.88	0.3826
trnsp	1	-0.14519	0.13854	-1.05	0.2969
info	1	-0.02391	0.13339	-0.18	0.8581
fin	1	0.04404	0.07017	0.63	0.5316
prf	1	-0.05987	0.15255	-0.39	0.6955
05y	1	0.12015	0.05658	2.12	0.0359**
web	1	0.07741	0.06502	1.19	0.2364

^{**} Significant at the .05 level

Figure 24. ROI of firms that went international within 5 years and technology, size and industry

•		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.53417	0.04109	0.66	0.8013
Error	111	6.95383	0.06265		
Corrected Total	124	7.48800			
Root MSE	0.25029	R-Square	0.0713		
Dependent Mean	0.06400	Adj R-Sq	-0.0374		
Coeff Var	391.08452				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.10732	0.16692	-0.64	0.5216
less50	В	0.08499	0.15519	0.55	0.5850
£99	В	0.03705	0.19287	0.19	0.8480
edu	1	0.00185	0.06008	0.03	0.9755
const	1	-0.01637	0.18536	-0.09	0.9298
manu	1	0.02831	0.14591	0.19	0.8465
whltrd	1	0.01567	0.07296	0.21	0.8303
rettrd	1	-0.08742	0.09973	-0.88	0.3826
trnsp	1	-0.14519	0.13854	-1.05	0.2969
info	1	-0.02391	0.13339	-0.18	0.8581
fin	1	0.04404	0.07017	0.63	0.5316
prf	1	-0.05987	0.15255	-0.39	0.6955
o5y	1	0.12015	0.05658	2.12	0.0359**
web	1	0.07741	0.06502	1.19	0.2364

^{**} Significant at the .05 level

Figure 25. ROI of firms that went international within 7 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.56334	0.04333	0.69	0.7650
Error	111	6.92466	0.06238		
Corrected Total	124	7.48800			
Root MSE	0.24977	R-Square	0.0752		
		-			
Dependent Mean	0.06400	Adj R-Sq	-0.0331		
Coeff Var	390.26334				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.00921	0.06504	0.14	0.8876
£99	1	-0.14567	0.13684	-1.06	0.2894
0249	1	-0.06123	0.15527	-0.39	0.6941
ag	1	0.32430	0.15329	2.12	0.0366**
const	1	-0.04195	0.18129	-0.23	0.8174
manu	1	0.00136	0.14209	0.01	0.9924
whltrd	1	0.00837	0.06327	0.13	0.8950
rettrd	1	-0.06645	0.09455	-0.70	0.4836
trnsp	1	-0.07469	0.12971	-0.58	0.5659
info	1	-0.04229	0.13214	-0.32	0.7495
fin	1	0.00582	0.06924	0.08	0.9332
prf	1	-0.05674	0.15130	-0.38	0.7084
o7y	1	0.06259	0.07247	0.86	0.3896
web	1	0.06547	0.06499	1.01	0.3159

^{**} Significant at the .05 level

Figure 26. ROI of firms that went international within 7 years and technology, size and industry $\frac{1}{2}$

•		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.56334	0.04333	0.69	0.7650
Error	111	6.92466	0.06238		
Corrected Total	124	7.48800			
Root MSE	0.24977	R-Square	0.0752		
Dependent Mean	0.06400	Adj R-Sq	-0.0331		
Coeff Var	390.26334	PG-N CDA	0.0331		
COELL Var	<i>390.</i> ∠0 <i>33</i> 4				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.05202	0.16232	-0.32	0.7492
less50	В	0.06123	0.15527	0.39	0.6941
f99	В	-0.08444	0.19542	-0.43	0.6665
ag	1	0.32430	0.15329	2.12	0.0366**
const	1	-0.04195	0.18129	-0.23	0.8174
manu	1	0.00136	0.14209	0.01	0.9924
whltrd	1	0.00837	0.06327	0.13	0.8950
rettrd	1	-0.06645	0.09455	-0.70	0.4836
trnsp	1	-0.07469	0.12971	-0.58	0.5659
info	1	-0.04229	0.13214	-0.32	0.7495
fin	1	0.00582	0.06924	0.08	0.9332
prf	1	-0.05674	0.15130	-0.38	0.7084
o7y	1	0.06259	0.07247	0.86	0.3896
web	1	0.06547	0.06499	1.01	0.3159

^{**} Significant at the .05 level

Figure 27. ROI of firms that went international within 7 years and technology, size and industry $\frac{1}{2}$

•					
		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.28951	0.02227	0.34	0.9831
Error	111	7.19849	0.06485		
Corrected Total	124	7.48800			
Root MSE	0.25466	R-Square	0.0387		
Dependent Mean	0.06400	Adj R-Sq	-0.0739		
Coeff Var	397.90488				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.01335	0.07349	0.18	0.8562
£99	1	-0.07338	0.13502	-0.54	0.5879
0249	1	-0.06942	0.15826	-0.44	0.6617
edu	1	0.01807	0.06262	0.29	0.7734
const	1	-0.04027	0.18823	-0.21	0.8310
manu	1	-0.00230	0.14765	-0.02	0.9876
whltrd	1	0.02018	0.07420	0.27	0.7861
rettrd	1	-0.06250	0.10112	-0.62	0.5378
trnsp	1	-0.06719	0.13796	-0.49	0.6272
info	1	-0.04421	0.13532	-0.33	0.7445
fin	1	0.02698	0.07282	0.37	0.7117
prf	1	-0.07928	0.15504	-0.51	0.6102
07у	1	0.05774	0.07561	0.76	0.4467
web	1	0.05384	0.06647	0.81	0.4197

Figure 28. ROI of firms that went international within 7 years and technology, size and industry

•					
		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.28951	0.02227	0.34	0.9831
Error	111	7.19849	0.06485		
Corrected Total	124	7.48800			
Root MSE	0.25466	R-Square	0.0387		
Dependent Mean	0.06400	Adj R-Sq	-0.0739		
Coeff Var	397.90488				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.05607	0.16854	-0.33	0.7400
less50	В	0.06942	0.15826	0.44	0.6617
f99	В	-0.00396	0.19536	-0.02	0.9839
edu	1	0.01807	0.06262	0.29	0.7734
const	1	-0.04027	0.18823	-0.21	0.8310
manu	1	-0.00230	0.14765	-0.02	0.9876
whltrd	1	0.02018	0.07420	0.27	0.7861
rettrd	1	-0.06250	0.10112	-0.62	0.5378
trnsp	1	-0.06719	0.13796	-0.49	0.6272
info	1	-0.04421	0.13532	-0.33	0.7445
fin	1	0.02698	0.07282	0.37	0.7117
prf	1	-0.07928	0.15504	-0.51	0.6102
o7y	1	0.05774	0.07561	0.76	0.4467
web	1	0.05384	0.06647	0.81	0.4197

Figure 29. ROI of firms that went international within 10 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.62156	0.04781	0.77	0.6868
Error	111	6.86644	0.06186		
Corrected Total	124	7.48800			
Root MSE	0.24872	R-Square	0.0830		
Dependent Mean	0.06400	Adi R-Sq	-0.0244		
Coeff Var	388.61916	naj k ba	0.0211		

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.01068	0.06478	0.16	0.8694
f99	1	-0.17457	0.13715	-1.27	0.2057
0249	1	-0.08383	0.15451	-0.54	0.5885
ag	1	0.36329	0.15662	2.32	0.0222**
const	1	-0.04708	0.18054	-0.26	0.7947
manu	1	0.00117	0.14147	0.01	0.9934
whltrd	1	0.02461	0.06281	0.39	0.6960
rettrd	1	-0.05113	0.09157	-0.56	0.5777
trnsp	1	-0.08349	0.12907	-0.65	0.5191
info	1	-0.04738	0.13159	-0.36	0.7195
fin	1	0.02657	0.06625	0.40	0.6891
prf	1	-0.02888	0.15320	-0.19	0.8508
o10y	1	-0.14415	0.11077	-1.30	0.1958
web	1	0.07281	0.06420	1.13	0.2592

^{**} Significant at the .05 level

Figure 30. ROI of firms that went international within 10 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.62156	0.04781	0.77	0.6868
Error	111	6.86644	0.06186		
Corrected Total	124	7.48800			
Root MSE	0.24872	R-Square	0.0830		
		-			
Dependent Mean	0.06400	Adj R-Sq	-0.0244		
Coeff Var	388.61916				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.07315	0.16119	-0.45	0.6509
less50	В	0.08383	0.15451	0.54	0.5885
£99	В	-0.09074	0.19470	-0.47	0.6421
ag	1	0.36329	0.15662	2.32	0.0222
const	1	-0.04708	0.18054	-0.26	0.7947
manu	1	0.00117	0.14147	0.01	0.9934
whltrd	1	0.02461	0.06281	0.39	0.6960
rettrd	1	-0.05113	0.09157	-0.56	0.5777
trnsp	1	-0.08349	0.12907	-0.65	0.5191
info	1	-0.04738	0.13159	-0.36	0.7195
fin	1	0.02657	0.06625	0.40	0.6891
prf	1	-0.02888	0.15320	-0.19	0.8508
o10y	1	-0.14415	0.11077	-1.30	0.1958
web	1	0.07281	0.06420	1.13	0.2592

Figure 31. ROI of firms that went international within 10 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.28983	0.02229	0.34	0.9830
Error	111	7.19817	0.06485		
Corrected Total	124	7.48800			
	0 05455				
Root MSE	0.25465	R-Square	0.0387		
Dependent Mean	0.06400	Adj R-Sq	-0.0739		
Coeff Var	397.89610				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.01967	0.07348	0.27	0.7895
f99	1	-0.08660	0.13504	-0.64	0.5227
0249	1	-0.08604	0.15821	-0.54	0.5877
edu	1	0.00793	0.06107	0.13	0.8969
const	1	-0.05000	0.18804	-0.27	0.7908
manu	1	-0.00711	0.14766	-0.05	0.9617
whltrd	1	0.02592	0.07454	0.35	0.7287
rettrd	1	-0.05337	0.09999	-0.53	0.5946
trnsp	1	-0.08034	0.13726	-0.59	0.5595
info	1	-0.05021	0.13525	-0.37	0.7112
fin	1	0.04174	0.07149	0.58	0.5605
prf	1	-0.06503	0.15748	-0.41	0.6804
o10y	1	-0.08459	0.11031	-0.77	0.4448
web	1	0.06067	0.06572	0.92	0.3579

Figure 32. ROI of firms that went international within 10 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.28983	0.02229	0.34	0.9830
Error	111	7.19817	0.06485		
Corrected Total	124	7.48800			
	0.05465	D 0	0.0205		
Root MSE	0.25465	R-Square	0.0387		
Dependent Mean	0.06400	Adj R-Sq	-0.0739		
Coeff Var	397.89610				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.06637	0.16852	-0.39	0.6944
less50	В	0.08604	0.15821	0.54	0.5877
f99	В	-0.00055724	0.19535	-0.00	0.9977
edu	1	0.00793	0.06107	0.13	0.8969
const	1	-0.05000	0.18804	-0.27	0.7908
manu	1	-0.00711	0.14766	-0.05	0.9617
whltrd	1	0.02592	0.07454	0.35	0.7287
rettrd	1	-0.05337	0.09999	-0.53	0.5946
trnsp	1	-0.08034	0.13726	-0.59	0.5595
info	1	-0.05021	0.13525	-0.37	0.7112
fin	1	0.04174	0.07149	0.58	0.5605
prf	1	-0.06503	0.15748	-0.41	0.6804
o10y	1	-0.08459	0.11031	-0.77	0.4448
web	1	0.06067	0.06572	0.92	0.3579

Figure 33. ROI of firms that went international after $10\ years$ and technology, size and industry

-		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.73479	0.05652	0.93	0.5259
Error	111	6.75321	0.06084		
Corrected Total	124	7.48800			
Root MSE	0.24666	R-Square	0.0981		
Dependent Mean	0.06400	Adj R-Sq	-0.0075		
Coeff Var	385.40183				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	-0.01146	0.06492	-0.18	0.8602
f99	1	-0.15031	0.13494	-1.11	0.2677
0249	1	-0.15062	0.15859	-0.95	0.3443
ag	1	0.32543	0.15116	2.15	0.0335**
const	1	-0.03170	0.17913	-0.18	0.8598
manu	1	0.05413	0.14275	0.38	0.7053
whltrd	1	0.02089	0.06198	0.34	0.7367
rettrd	1	-0.03650	0.09094	-0.40	0.6889
trnsp	1	-0.07487	0.12799	-0.58	0.5598
info	1	-0.17069	0.14658	-1.16	0.2467
fin	1	0.01486	0.06576	0.23	0.8216
prf	1	-0.05600	0.14879	-0.38	0.7074
aft10	1	0.25091	0.13256	1.89	0.0610*
web	1	0.08633	0.06408	1.35	0.1807

^{**}Significant at the .05level

 $[\]star$ Significant at the .1 level

Figure 34. ROI of firms that went international after 10 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.73479	0.05652	0.93	0.5259
Error	111	6.75321	0.06084		
Corrected Total	124	7.48800			
Doorte MCF	0.04666	D. G	0.0001		
Root MSE	0.24666	R-Square	0.0981		
Dependent Mean	0.06400	Adj R-Sq	-0.0075		
Coeff Var	385.40183				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.16208	0.16789	-0.97	0.3364
less50	В	0.15062	0.15859	0.95	0.3443
£99	В	0.00030977	0.19768	0.00	0.9988
ag	1	0.32543	0.15116	2.15	0.0335**
const	1	-0.03170	0.17913	-0.18	0.8598
manu	1	0.05413	0.14275	0.38	0.7053
whltrd	1	0.02089	0.06198	0.34	0.7367
rettrd	1	-0.03650	0.09094	-0.40	0.6889
trnsp	1	-0.07487	0.12799	-0.58	0.5598
info	1	-0.17069	0.14658	-1.16	0.2467
fin	1	0.01486	0.06576	0.23	0.8216
prf	1	-0.05600	0.14879	-0.38	0.7074
aft10	1	0.25091	0.13256	1.89	0.0610*
web	1	0.08633	0.06408	1.35	0.1807

^{**}Significant at the .05 level

 $^{^{\}star}$ Significant at the .1 level

Figure 35. ROI of firms that went international after 10 years and technology, size and industry

•		Sum of	Mean			
Source	DF	Squares	Square	F Value	Pr > F	
Model	13	0.45281	0.03483	0.55	0.8882	
Error	111	7.03519	0.06338			
Corrected Total	124	7.48800				
Root MSE	0.25175	R-Square	0.0605			
Dependent Mean	0.06400	Adj R-Sq	-0.0496			
Coeff Var	393.36574					

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	1	0.00269	0.07294	0.04	0.9706
f99	1	-0.07511	0.13324	-0.56	0.5741
0249	1	-0.15443	0.16186	-0.95	0.3421
edu	1	0.00085355	0.06049	0.01	0.9888
const	1	-0.04017	0.18591	-0.22	0.8293
manu	1	0.04007	0.14807	0.27	0.7872
whltrd	1	0.02132	0.07335	0.29	0.7719
rettrd	1	-0.04434	0.09886	-0.45	0.6547
trnsp	1	-0.07765	0.13566	-0.57	0.5682
info	1	-0.17107	0.15048	-1.14	0.2581
fin	1	0.02854	0.07073	0.40	0.6874
prf	1	-0.07226	0.15312	-0.47	0.6379
aft10	1	0.24133	0.13548	1.78	0.0776*
web	1	0.07496	0.06540	1.15	0.2542

^{*} Significant at the .1 level

Figure 36. ROI of firms that went international after 10 years and technology, size and industry

		Sum of	Mean		
Source	DF	Squares	Square	F Value	Pr > F
Model	13	0.45281	0.03483	0.55	0.8882
Error	111	7.03519	0.06338		
Corrected Total	124	7.48800			
Root MSE	0.25175	R-Square	0.0605		
Dependent Mean	0.06400	Adj R-Sq	-0.0496		
Coeff Var	393.36574				

		Parameter	Standard		
Variable	DF	Estimate	Error	t Value	Pr > t
Intercept	В	-0.15173	0.17403	-0.87	0.3851
less50	В	0.15443	0.16186	0.95	0.3421
f99	В	0.07931	0.19842	0.40	0.6901
edu	1	0.00085355	0.06049	0.01	0.9888
const	1	-0.04017	0.18591	-0.22	0.8293
manu	1	0.04007	0.14807	0.27	0.7872
whltrd	1	0.02132	0.07335	0.29	0.7719
rettrd	1	-0.04434	0.09886	-0.45	0.6547
trnsp	1	-0.07765	0.13566	-0.57	0.5682
info	1	-0.17107	0.15048	-1.14	0.2581
fin	1	0.02854	0.07073	0.40	0.6874
prf	1	-0.07226	0.15312	-0.47	0.6379
aft10	1	0.24133	0.13548	1.78	0.0776*
web	1	0.07496	0.06540	1.15	0.2542

^{*} Significant at the .1 level

Figure 7 test hypothesis one with the test of hypothesis two. Figures 13 through 16 test hypotheses one and two with the controls of size and industry. Hypothesis 1 is again not confirmed and hypothesis two is not confirmed. Figures 8 through 12 test hypotheses two and three. Figures 17 through 36 tests hypotheses two and three with the controls of size and industry. Hypothesis three is partially confirmed showing improved performance for businesses that engaged in international business again between 2 to 5

year (see Figures 21-24) and now after 10 years (Figures 33-36). The after 10 year effect may potentially exist because the firms become very competitive domestically after a long period of time aiding the international activities attempted.

Technology showed no significance in any model (Figures 7-36). It was not shown to have any affect on a small businesses success. Size showed no significance in all models. One can conclude that the number of employees of a small, international company neither aids nor hinders the financial growth of the business. The models do show that women and minority owned small agricultural businesses (i.e. farms), achieve greater success once they have crossed the domestic lines and entered the international field at a faster rate. This rate of success continues in every model that agriculture is present (See Figures 13,14,17,18,21,22,25,26,29,33,34). Assumptions can be made that women owned farms achieve greater success because they are globalizing faster, there is not a high use for web technology in the farming industry, and agriculture is a constant demand.

CHAPTER VI

FUTURE EXPLORATIONS AND CONCLUSIONS

Future explorations

Further studies of minority and women owned businesses are likely to persist. Future questions that will be studied include:

- 1. Does the industry of entry into international markets affect performance for minority and women owned U.S. Small businesses?
- 2. Should small businesses concentrate on one specific area when participating in international activities?

This particular sector of the industry is not often explored. We hope that upcoming research will also help to improve the level of success that minority and women owned small businesses achieve.

Conclusion

Although attention to this area of business is increasing, there is still a need for more research. U.S. Minority and women owned small businesses are continuously growing, and for that reason, they should investigate international markets to reach higher levels of success, globally and domestically. The results of this study conclude that firms who engage in international activities after 2 years and before 5 years and after 10 years of

business perform better than those that do not. Further, this research supports the initiatives being taken to inform, as well as, encourage minority and women owned businesses to participate in international activities. Not only do small businesses provide another alternative for women and minorities, they are also a driving force in the U.S. economy. The conclusion of our study has significant implications for future research on small businesses owned by both women and minorities.

APPENDIX

A-1. Small Business Survey

1)	How many employees does your company have? Less than 50 employees 51 to 99 employees 100 to 249 employees 250 to 500 employees
2)	What form of ownership is your company? Please identify the form of business ownership Sole proprietorship Partnership Limited liability partnership Limited liability company S-Corporation C Corporation
3)	Does your company have a web site? Yes No
4)	Does your web site have a security system or controls? Yes No
5)	Are you satisfied with the security system/controls? Very unsatisfied Very satisfied 1 2 3 4 5
6)	Has your web site had any problems with hackers? Yes No
7)	Has your web site had any problems with computer viruses? Yes No
8)	What internal controls do you have for Ecommerce activity? Describe briefly.
9)	Do you accept payment for products and/or services over the internet? Yes No
10)	How do you accept payment over the Internet? Credit card PayPal BillPoint Other (please describe)
11)	How are customers aware of your web site?

	Advertised on company literature Web banner ads Found through Sourch on sine such as Values or Coords
	Found through Search engine such as Yahoo or Google
12)	Which of the following is available on your web site? Place to check on pending orders
	Catalog or product information
	Virtual models or tours
	Links to other web sites
	Email
	Counter to record number of hits to web sites
13)	Do you check where web hits come from?
	Yes
	No
14)	On average, how many hours per week do you spend managing or working in this business? None
	Less than 20 hours
	21-39 hours
	40 hours
	41-59 hours
	60 hours or more
15)	Please indicate your growth rate per annum.
- /	1-5%
	6-7%
	8-10%
	11-12%
	over 12%
16)	Please indicate your return on investment per annum (ROI).
	1-5%
	6-10%
	11-15%
	16-20%
	21-25%
	over 25%
17)	Size of business/annual gross revenues
	Less than \$100,000 revenue per year
	Less than \$500,000 revenue per year
	Less than \$1,000,000 revenue per year
	Less than \$10,000,000 revenue per year
	More than \$10,000,000 revenue per year
18)	What is the highest educational attainment of the owner?
	Less than high school graduate
	High school graduate-diploma or GED
	Technical, trade, or vocational school
	Some college, but no degree
	Associate degree
	Bachelor's degree

	Master's, doctorate, or professional degree
19)	When was this business originally established, purchased, or acquired by the owner? Before 1980 1980-1989 1990-1998 2000 2001 2002 2003
20)	What was/were the sources of capital used to start or acquire this business (please check all that apply). Personal/family savings of owner(s) Personal/family assets other than savings of owner(s) Personal/business credit card of owner(s) Business loan from federal, state, local government Government guaranteed loan from a bank or financial institution Outside investor None needed
21)	Which of the following have been used to finance expansion or capital improvements in your business? Personal/family savings of owner(s) Personal/family assets of owner(s) Personal/business credit card of owner(s) Business loan from federal, state, or local government Government guaranteed business loan from bank or financial institution Business loan from a bank or financial institution Outside investor none needed
22)	Your age Under 25 years old 25-34 years old 35-44 years old 45-54 years old 55-59 years old 60-64 years old 65 or older
23)	Industry in which your business operates Agriculture, forestry, fishing/hunting, mining Construction Manufacturing Wholesale trade Retail trade Transportation, warehousing, and utilities Information Finance, insurance, real estate, rental and leasing

	Professional, scientific, management, administrative, and waste management services
	Educational, health, and social services
	Arts, entertainment, recreation, accommodation, and food services
	Other services
24)	Is this business operated primarily from the owner's home?
2.,	Yes
	No
25)	Which of the following best describes the ownership of your business?
23)	White
	Alaskan native
	American Indian
	Hispanic
	Asian-American
	Chinese
	Filipino
	Japanese
	Korean
	Vietnamese
	Asian Indian
	other
	Black, or African American
	Native Hawaiian
	Bi-or multi-racial, two or more races
	Other
26)	Please check the following international activities in which you engage either through the sale of a product or service. If you have no international activities, then do not complete questions 27 through 37.
	Activity
	Exporting
	Licensing
	Franchising
	Contract Manufacturing
	Management Contracting
	Joint Venture
	Own a subsidiary.
27)	Do you receive international orders? Yes, NoIf yes, check what percentage of total
	sales do you estimate to be from international orders?
	0-10% 11-25%
	11-25%
	26-50% 50-75%
	76-100%
20)	Annual complete that you moved to see TIC move that the second of the se
28)	
	Yes No If not, check what percentage of your total services is provided to international customers?
	0-10% 11-25%
	11 20 /0

	26-50% 50-75%
	76-100%
29)	Do you directly produce any of your product or service internationally? Yes, No If so, check what percentage of your total product or service is produced directly by you internationally? 0-10% 11-25% 26-50% 50-75% 76-100%
30)	Is any of your research and development performed outside the United States? Yes, No If yes, check what percentage of your total research and development is performed internationally? 0-10% 11-25% 26-50% 50-75% 76-100%
31)	How is payment received and/or guaranteed for international orders? Please describe.
32)	Please check in what year of your existence did your international operations begin? 1-2 years 3-5 years 6-7 years 8-10 years After 10 years
33)	Please check the following reasons why you "went international." International customers inquired about our products/services Our competitors sold internationally We were the first in our industry to go international
34)	Please check in which international markets you have a presence. North America South and Central America Europe Middle East Africa Far East Asia India and Near East Asia Australia
35)	Why did you go to these markets? If different reasons exist for different markets indicate next to the reason the country/area. Reason Area of world Market was large Market was growing Lower costs in the market Resources readily available Labor less costly

	Needed to gain access to other markets through market chosen
36)	Please check what percentage of your industry is in international markets.
	0-10%
	11-25%
	26-50%
	50-75%
	75-100%
37)	Is your return on investment higher internationally than domestically?
	Yes
	No

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