Overcoming Poverty: The Impact of Entrepreneurship Training

Maureen Snow Andrade
Utah Valley University

Ronald Mellado Miller
Utah Valley University

Eugene Seeley
Utah Valley University

Educational attainment may deter entrepreneurial activity. Educated individuals have greater job choice while lacking education can drive entrepreneurship out of necessity. Entrepreneurial training helps individuals learn the skills to launch businesses and become self-reliant. This study examined the efficacy of an entrepreneurial preparation program in Mexico by analyzing survey responses related to education and motivation. Findings indicate that factors other than training had more impact on business ownership. Motivational factors were positively correlated with the likelihood of being an entrepreneur. Mother's education level was positively correlated with the likelihood of working for someone else.

Keywords: entrepreneurship, developing nations, Mexico, entrepreneurial motivation, education, training

INTRODUCTION

Economic growth and competitiveness depend on a nation's ability to produce entrepreneurial leaders with the ability to innovate (Dabić & Pietrzykowski, 2011). Entrepreneurship is associated with economic growth in developed and developing countries. It creates jobs, improves the standard of living, helps eliminate poverty, develops communities, provides self-sufficiency, encourages capital investment, and increases per capita income and gross national product (Deng & Wang, 2023; Evoma, 2017; Nexford University, 2024). However, some research suggests that entrepreneurship, defined as "any action to start a business" (Almodóvar, 2018, p. 226), impacts economies in developed countries more than developing countries. Developed countries offer more opportunities (Li˜nán and Fernández-Serrano, 2014) and produce higher quality initiatives, which may account for greater economic impact (Shane, 2009). Furthermore, entrepreneurship in developing countries often arises from opportunity motivation and in developing countries from necessity motivation (Almodóvar-González et al., 2020). The latter reflects "a passive character of entrepreneurship" as it is not based on choice but on lack of work (Almodóvar-González et al., 2020, p. 15; Sautet, 2015).

In developing countries where people live in poverty and large populations of young people face futures with no employment or intermittent employment, entrepreneurship is encouraged as a means to job creation and independence (Bischoff et al., 2014; Ertuna & Gurel, 2011). Training programs ideally should help

individuals adopt entrepreneurial behaviors such as finding opportunities, acting on ideas, innovating, taking risks, and planning and managing projects (Commission of the European Communities, 2006). Some research indicates that in developed nations, education has a negative impact on starting a business due to increased job choice and risk awareness (Carbonell et al., 2014; Metzger, 2018) although other research indicates a positive impact (Baptista et al., 2014; Block et al., 2015; Ertuna, & Gurel, 2011; Foley & Griffith, 1998; Johansen & Foss, 2013; Leffler & Svedberg, 2005; Martin et al., 2013; Nasiri & Hamelin, 2018; Orlova et al., 2016; Shinnar et al., 2014; Van der Sluis et al., 2008). Similarly, while training typically has positive outcomes in developing nations (Frese et al., 2014; Mbegu, 2023; Melyoki & Gielnik, 2020), it has not reached desired outcomes in some instances (Adjima & Perry, 2014; Cassol et al., 2022; Vélez et al., 2020; Montes et al., 2023). A variety of factors such as curriculum, culture, and participant characteristics may account for these variations. Given that effective training practices across contexts have not yet been identified, research aimed at gaining further insight into factors associated with successful entrepreneurial education in developing countries is vital. The current study examines the efficacy of an entrepreneurial preparation program in Mexico by analyzing survey responses related to education and motivation.

LITERATURE REVIEW

The literature review examines research in areas relevant to the study. Findings indicate that approaches and outcomes of entrepreneurship training vary considerably. The review also illustrates that education can be both a push and a pull factor with different impacts depending on economic conditions and other factors. While it offers advantages in terms of knowledge and skill development, it also offers more stable and safer employment choices than starting one's own business. Parental values and family entrepreneurial engagement can positively affect entrepreneurship; however, little is known about the role of parental education. Finally, the review examines motivations to entrepreneurship such as necessity and opportunity, cultural values, and individual attributes. While some general themes can be derived from the review, variations in the studies and the countries in which they occur indicate the need for additional research to inform government and non-governmental organization policies, practices, and support in specific countries and for specific populations.

Entrepreneurship Training

Entrepreneurship training in developing countries varies in curriculum, program length, and the cultural and economic context in which it is offered. Research reporting the results of such training differs in focus, sample size, methods, and quality, making comparisons and generalizations difficult (Martin et al., 2013; Nabi et al., 2017; Weers & Gielnik, 2021). Although the expectation is that training will lead to entrepreneurial intent if not business initiation (Montes et al., 2023), several studies in Latin America have shown no correlation between training and entrepreneurial intentions (Cassol et al., 2022; Vélez et al., 2020; Montes et al., 2023), with similar results in Indonesia (Atmono et al., 2023) Vietnam (Duong, 2021), and Malaysia (Dobson & Muhammad, 2022). A Ghanaian study showed training increased interest in business ownership but did not result in initiation due to a lack of external resources and practical experience (Adjima & Perry, 2014). In Turkey, nearly 91% of certificate completers did not attempt to start a business (Öztürk et al., 2016).

Other studies have identified positive effects of training on entrepreneurial activity in developing countries. Training in Uganda, aimed at helping participants develop agentic behaviors and gain entrepreneurial skills and knowledge, resulted in increased initiative and business success (Frese et al., 2014). Business sustainability improved with training in customer service, opportunity finding, and record systems in Tanzania; however, associated costs deterred enrollment (Malipula, 2023). In Mexico, training that emphasized active learning (setting goals, monitoring progress) with feedback to improve performance positively impacted entrepreneurial intentions and business creation (Eller et al., 2023). A Malaysian study found that a proactive personality accompanied by training positively impacted entrepreneurial intent (Mustafa et al., 2016). A combination of practical and applied training was found effective in Mexico

(Reyes-Cruz et al., 2019), and a comparative study in Pakistan revealed higher entrepreneurial intentions for participants than non-participants (Aslam et al., 2012). Other studies with positive outcomes are evident in India, where a positive correlation was found between entrepreneurial education and intent mediated by personality traits (Chahar, 2023), and in Vietnam, where education increased capacity leading to intent (Nguyen & Nguyen, 2023).

These studies illustrate the variations in training approaches, measures, and outcomes. Due to this variation and the absence of descriptions of pedagogical components and design in some studies (Weers & Gielnick, 2021), identifying effective elements is problematic (Nabi et al., 2017) and prevents the development of a theoretical framework (Eller, 2022). Some findings suggest that training alone is insufficient unless accompanied by additional supports (Adjima & Perry, 2014; Montes et al., 2023). Other studies have found efficacy with a combination of context-specific elements (Eller et al., 2023; Frese et al., 2014; Malipula, 2023). In spite of inconsistencies in the literature due to study design and training variations, we propose the following hypothesis:

Hypothesis #1: *Participants with entrepreneurship training will be more likely to own their own businesses.*

Higher Education

Higher education contributes to entrepreneurial aspirations, ventures, and success (Foley & Griffith, 1998; Johansen & Foss, 2013; Leffler & Svedberg, 2005; Martin et al., 2013; Orlova et al., 2016; Shinnar et al., 2014; Van der Sluis et al., 2008). It helps individuals develop analytical, communication, business, and managerial skills as well as the human and social capital needed to start a business (Baptista et al., 2014; Block et al., 2015; Dimov, 2010; Dilli & Westerhaus, 2018; Guerrero & Urbano, 2014; Lofstrom et al., 2014). Other attributes developed through higher education that contribute to success include "problem-solving, discipline, motivation, and self-confidence" (Peters & Brijlal, 2011, p. 268). Entrepreneurial performance, specifically survival, growth, and ROI, are also outcomes of formal education (Millán et al. 2014; Van Der Sluis et al. 2008). Technology-related entrepreneurship is prevalent in countries that value innovation and offer supportive social ecosystems and government initiatives (Guerrero et al., 2017). A highly educated population may contribute to increased entrepreneurship due to a well-qualified workforce, a sophisticated consumer base, and greater productivity and innovation (Dilli & Westerhuis, 2018). Educational level is typically associated with pull motivation (Nasiri & Hamelin, 2018). However, it can deter motivation as degree holders have more options for employment than those pushed out of necessity and lacking employment (Van Der Sluis et al., 2008; Van Der Zwan et al., 2013).

Entrepreneurial education in universities positively impacts intent (Bae et al., 2014; Barba-Sanchez & Atienza-Sahuquillo, 2015; Dickson et al., 2008; Dutta et al., 2018; Ertuna & Gurel, 2011; Farashah, 2013; Honig, 2004; Hunady et al., 2018; Otache et al., 2020; Popescu et al., 2014; Wang et al., 2021; Wright et al., 2022; Zhang et al., 2020), and associated knowledge and skills (Edokpolor, 2020; Mataly, 2008; Salamzadeh et al., 2022). It increases desirability and self-perceptions of abilities, readiness, and confidence (Jabid et al., 2023). However, research has also found minor or negative correlations (Montes et al., 2023). Students may have reduced intentions to start a business due to greater understanding of the difficulty (Chen et al., 2015), recognition that entrepreneurship does not suit them (von Graevenitz et al., 2010), or failure to develop human capital (Atsan & Atsan, 2006; Popescu et al., 2016) and creativity (Edwards-Schachter et al., 2015; Karimi et al., 2016; Nabi et al., 2016). Entrepreneurship education for Chinese university students positively impacted entrepreneurial intention and was more pronounced for women; students enrolled in application-oriented rather than research universities; urban students; and nonpoor students, suggesting a need for financial and psychological support as well as practice opportunities (Deng & Wang, 2023).

Research on the impact of parental education on entrepreneurship is limited. A Latin American study found no causality in parental education with entrepreneurial intention (Montes et al., 2023). Research does support the intergenerational transfer of entrepreneurial activity in developing countries (Brío et al., 2022; Hopp et al., 2019; Soares et al., 2023; Muigai et al., 2023; Martinez- Cañas et al., 2023) although results are divergent with some studies showing the opposite effect (Ghatak & Bhowmick, 2022; Ragazou et al.,

2022). Parental education impacts financial teaching and socialization (Ndou, 2023). Parents with higher levels of education are more likely to teach their children about finances. Parental values and example influence decisions related to entrepreneurship during childhood and adolescence (Aldrich & Kim, 2007; Aldrich & Cliff, 2003). The presence and encouragement of entrepreneurial family members and friends contribute to entrepreneurial activity (Davidsson, 2003; Maleki et al., 2023; Sahputri, 2023; Xu et al., 2022). Social status and income also influence entrepreneurial decisions (Grichnik et al., 2014). Parents are important as role models and in developing social capital, influencing career decisions (Bosma et al., 2012; Dufur et al., 2013; Vadnjal et al., 2023). In developing nations, parents with higher education degrees may be more likely to direct their children toward stable employment rather than entrepreneurship; those with entrepreneurial backgrounds and possibly lower levels of education, may influence their children to similar career paths similar to their own.

These studies indicate the potential positive impact of higher education in terms of skills and knowledge gained, but also a possible disincentivizing effect due to the greater career possibilities afforded by those with a degree. In developing countries, individuals who have the opportunity to attain degrees may prefer stable jobs with good salaries and benefits rather than initiating a risky business venture. Few individuals in developing countries have the prospect of higher education; many live in poverty with limited opportunities to support themselves and their families. Global poverty impacts 9.2% of the population (World Bank, 2023). Extreme poverty, or a subsistence income of less than $2.15 per day impacts 700 million people. These individuals have few choices and are likely to pursue entrepreneurship out of necessity (Colombo et al., 2004; Deli, 2011; Fossen & Büttner, 2013).

Findings from the literature review suggest the following hypotheses:

Hypothesis #2: *Participants with higher levels of education and higher parental levels of education will be less likely to own their own businesses regardless of entrepreneurship training.*

Hypothesis #3: *Participants who attended/graduated from university will be less likely to own their own businesses and will have lower levels of entrepreneurial motivation than those who had entrepreneurship training.*

Hypothesis #4: *Participants with higher levels of education will be more likely to work full-time for someone else than own their own businesses.*

Entrepreneurial Motivations

Entrepreneurship is influenced by environment, and particularly, the consistency of entrepreneurial behaviors with cultural values (Engelen, 2010; Kwon & Arenius, 2010) such as prestige and family and societal recognition (Shinnar et al., 2012; Pruett et al., 2009), or the view that hard work is more important to success than ability, as in the case of Chinese students (Shinnar et al., 2012). In Japan, the strength of social networks within a company and company loyalty are valued, which may deter individuals from independent, riskier ventures (Shinnar et al., 2012). Demotivators include the availability of stable employment with attractive salaries and benefits. This is the case in Germany where a strong economy and employment opportunities contributed to a decline in start-up companies (Metzger, 2018).

One of the most frequent deterrents to entrepreneurship is fear of failure (Metzger, 2019) and fear of the financial burden associated with business failure (Amway Global Entrepreneurship Survey, 2015). Nearly one third of working-age adults do not want to start a business if it involves risk (Kuckertz et al., 2020). Among working-age individuals in industrialized nations, Germany has one of the highest rates of fear of failure that prevents individuals from starting a business followed by France, the United Kingdom, and the U.S. (Singer et al., 2018). Generational factors (Thompson, 2016) and student debt (Morelix et al., 2016; Zetlin, 2017) also contribute to risk aversion. Although Millennials may have an entrepreneurship mentality, they lag behind other generations in actual activity (Thompson, 2016) and high levels of student debt mean delays in achieving life goals.

Another inhibitor is stigmatization, which includes damage to reputation and concern about being able to restart after failure (Metzger, 2019) although most are forgiving of failure, particularly when due to extenuating circumstances rather than skill or misjudgment (Kuckertz et al., 2020). The perception of stigmatization is greater among self-employed people who have recently left self-employment (Metzger, 2017, 2019). Those who abandon entrepreneurial activities do so due to lack of profit (Metzger, 2019), but may blame it on external factors (Metzger, 2019), which reduces learning and adoption of more effective practices (Yamakawa & Cardon, 2015). However, "failed entrepreneurs are at best equally successful on average after a renewed attempt as initial founders" (Metzger, 2019, p. 2).

Drivers of entrepreneurship include recognition of opportunity, self-confidence, and association with other entrepreneurs (Arenius & Minniti, 2005; Koellinger et al., 2005). Enablers include mentoring, education (Smith & Beasley, 2011), social networks (Casson et al., 2007; Light & Dana, 2013), and family financial and behavioral support (Schoon & Duckworth, 2012). Many individuals in developed countries believe they have the skills and knowledge for entrepreneurship---48% in the UK and 54% in the US (Singer et al., 2019).

Individual traits such as confidence, a drive for achievement, or a desire for independence also play a role (Miller, 2015).

Push and pull factors, also known as necessity and opportunity motivations, are commonly identified in the literature (Amorós et al., 2019; Carsrud & Brännback, 2011; Deli, 2011; Humbert & Drew, 2010; Reynolds et al., 2005). Necessity is caused by lack of employment (Deli, 2011; Shane, 2009) or work experience (Colombo et al., 2004), weak economies (Amorós et al., 2019), and job dissatisfaction (Fossen & Büttner, 2013) while opportunity is associated with a desire for increased income or independence (Hessels et al., 2008; Levie & Autio, 2008; Reynolds et al., 2005), well-being or self-fulfillment (Ribes-Giner et al., 2019), during conditions of low unemployment and a healthy economy (Cheung, 2014), and benefits from knowledge about industry, technology, management, and markets (Nasiri & Hamelin, 2018).

Findings from the literature review suggest the following hypotheses:

Hypothesis #5: *Participants with high levels of fear for entrepreneurship will be less likely to own their own businesses and more likely to work part- or full-time for someone else.*

Hypothesis #6: *Participants with high levels of entrepreneurial motivations will be more likely to own their own businesses.*

METHODS

Participants

Participants were the Academy for Creating Enterprise (ACE) alumni in Mexico. ACE was founded in 1999 in the Philippines by Stephen and Bette Gibson, American entrepreneurs and educators, to help Filipinos become successful, self-sufficient entrepreneurs who can support their families, contribute to their communities, and influence others through example and leadership. The ACE model has since expanded to six countries and has over 10,000 alumni in Mexico.

Students participated in an 8-week program where they learned business strategies, entrepreneurial skills and principles; gained inspiration from guest speakers; examined case studies; and developed business plans. Beyond building foundations of knowledge, ACE addresses cultural issues that may limit success such as the belief that poverty is associated with humility, the practice of sacrificing needed financial resources to benefit extended family, and lack of vision, opportunity, motivation to change, and role models.

The total number of participants was 326 who completed the ACE training and 50 who did not participate in the training but self-reported as entrepreneurs. These 50 participants acted as the comparison group for hypothesis 1. For the other hypotheses, the analyses included all self-reported entrepreneurs who responded to the survey for a total of 376.

Instrument

The ACE Alumni Survey was created to measure the outcomes of alumni related to the mission of ACE to produce economically successful individuals through entrepreneurship. The goal is to help individuals be self-sufficient, provide for their families, and contribute to their communities through jobs, money, and hope. The survey, validated in a previous study, consists of 119 questions with sections on economic success, religiosity, entrepreneurship, overseas foreign workers, and demographic items (Miller et al., 2008). This study examined a subset of 19 questions to gain insights into the impact of training, education, and motivation. See Appendix. The survey was based on questions and factors adapted from literature (Grosh & Glewwe, 1995; Welsch et al., 2005; Yunus, 2006).

Survey Distribution

ACE alumni were contacted via e-mail, mail, and phone (texting & calling) and encouraged to take the online survey; ACE alumni who lived in rural areas were sent the paper version in the mail. Comparison group respondents were collected using a snowball method and had similar ages and backgrounds as the alumni group. Participants from both groups self-reported as entrepreneurs. ACE alumni were encouraged to give names of others between the ages of 21-45. More than 1000 names were obtained, and the same contact methods were used for this sample. The online survey was designed as forced choice to ensure that all questions were answered.

Reimbursements of 50 pesos were mailed to all respondents. The majority of participants responded using the survey online, 33 respondents participated via mail by filling out the paper version. Respondents who provided incomplete information were called and asked about the missing/inaccurate items.

RESULTS

Results were analyzed using the R statistical program (R Core Team, 2021) under version 4.1 and Jamovi 2.3 (Jamovi, 2022) with R packages from Lenth (2020) and Kim (2015). Both the McFadden and Tjur pseudo r-squared statistics were included for the logistic regressions. While McFadden's is more commonly reported, a benefit of Tjur's R^2 in a binomial setting has been described thusly: "One advantage of Tjur's R^2 is its resemblance to the R^2 of the linear model, allowing its intuitive interpretation as the proportion of variance explained by the model" (Abrego & Ovaskainen, 2023; see also Tjur, 2009).

Hypothesis #1*: Participants with entrepreneurship training will be more likely to own their businesses.*

Binomial Logistic Regression

This analysis sought to determine if participants with entrepreneurship training would be more likely to own their businesses. A binomial logistic regression model was run on the data. Training did not have a significant effect on the outcome with a Chi-square (1) = 1.58, $p>0.05$, Estimate = -0.441, SE = 0.345, Z = 1.28, $p=0.201$, indicating that an increase in training did not significantly increase the log odds of owning their businesses. The pseudo-R^2 values, McFadden's R^2 and Tjur's R^2, were 0.004 and 0.005 respectively, suggesting almost no effect. See Table 1.

TABLE 1
TRAINING: MODEL COEFFICIENTS – OWN THEIR OWN BUSINESS

Predictor	Estimate	SE	Z	p
Intercept	0.726	0.315	2.31	0.021
Entrepr Training	0.441	0.345	1.28	0.201

Note. Estimates represent the log odds of "Yes" vs. "No"

Hypothesis #2: *Participants with higher levels of education and higher parental levels of education will be less likely to own their own businesses regardless of entrepreneurship training.*

This analysis examined if participants with higher levels of education and higher parental levels of education will be less likely to own their own businesses regardless of entrepreneurship training and regardless if their parents also owned a business. A binomial logistic regression model was run on the data. The overall model was significant, with Chi-square (5) = 10.3, p=0.03, one tailed. The pseudo-R^2 values, McFadden's R^2 (R^2McF) and Tjur's R^2 (R^2T), were 0.03 and 0.04 respectively, suggesting a small overall effect. Of the variables, only the mother's education level was significant, with a lower level of education of their mother being related to a higher likelihood of their owning a business. See Table 2.

TABLE 2
EDUCATION: MODEL COEFFFICIENTS – OWN THEIR OWN BUSINESS

Predictor	Estimate	SE	Z	p
Intercept	0.5418	0.63443	0.854	0.393
Personal Ed Lvl	0.1142	0.13148	0.869	0.385
Mother's Ed Lvl	-0.1374	0.05849	-2.349	0.019
Father's Ed Lvl	-0.0130	0.00999	-1.298	0.194
Entrepr Training	0.4009	0.38375	1.045	0.296
Parents own business	0.5169	0.30071	1.719	0.086

Note. Estimates represent the log odds

Hypothesis #3: *Participants who attended/graduated from university will be less likely to own their own businesses and will have lower levels of entrepreneurial motivations than those who had entrepreneurship training.*

This analysis examined if participants who attended/graduated from university would be less likely to own their own businesses and would have lower levels of entrepreneurial motivations than those who had entrepreneurship training. A binomial logistic regression model was run on the data. The overall model was significant, with Chi-square (10) = 48;4, p<0.001. The pseudo-R^2 values, McFadden's R^2 (R^2McF) and Tjur's R^2 (R^2T), were 0.136 and 0.152, respectively, suggesting a medium overall effect. See Table 3.

TABLE 3
UNIVERSITY: MODEL COEFFICIENTS – OWN THEIR OWN BUSINESS

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-3.25841	1.346	-2.4199	0.016	0.0384
Education	0.04419	0.134	0.3288	0.742	1.0452
Salary Sacrifice	0.04563	0.104	0.4398	0.660	1.0467
Whatever It Takes	0.47056	0.181	2.5953	0.009	1.6009
Another Attempt	-0.38578	0.110	-3.5228	< .001	0.6799
Personal Goals	0.23369	0.165	1.4170	0.156	1.2633
Jobs for Church	0.00930	0.112	0.0833	0.934	1.0093
Freedom	0.40320	0.139	2.8923	0.004	1.4966
Security	0.10435	0.175	0.5970	0.551	1.1100
Opportunity to Work	-0.17699	0.154	-1.1461	0.252	0.8378
Entrep Training	0.20064	0.389	0.5162	0.606	1.2222

Hypothesis #4: *Participants with higher levels of education will be more likely to work full-time for someone else than own their own businesses.*

This analysis examined if participants with higher levels of education will be more likely to work full-time for someone else than own their own businesses. A binomial logistic regression model was run on the

data. The overall model was significant, with Chi-square (2) = 54.9, p<0.001. The pseudo-R^2 values, McFadden's R^2 (R^2McF) and Tjur's R^2 (R^2T), were 0.154 and 0.177, respectively, suggesting a medium overall effect. See Table 4.

TABLE 4
LEVEL OF EDUCATION: MODEL COEFFICIENTS – OWN THEIR OWN BUSINESS

Predictor	Estimate	SE	Z	p
Intercept	206.3595	29.431	7.012	< .001
Education	0.0384	0.136	0.282	0.778
Work for someone else	-2.0246	0.290	-6.986	< .001

Note. Estimates represent the log odds.

Hypothesis #5: *Participants with high levels of fear for entrepreneurship will be less likely to own their businesses and more likely to work part- or full-time for someone else.*

Participants with high levels of fear for entrepreneurship will be less likely to have owned their businesses and more likely to work part- or full-time for someone else. A binomial logistic regression model was run on the data. The overall model was nonsignificant, with Chi-square (5) = 6.13, p>0.05. The pseudo-R^2 values, McFadden's R^2 (R^2McF) and Tjur's R^2 (R^2T), were 0.0283 and 0.0282 respectively, suggesting a small effect. See Tables 5 and 6.

TABLE 5
WORK FOR SOMEONE: MODEL COEFFICIENTS – OWNED THEIR OWN BUSINESS

Predictor	Estimate	SE	Z	p
Intercept	-65.3875	43.775	-1.494	0.135
Time with Family	0.1813	0.119	1.521	0.128
Business might fail	-0.0218	0.133	-0.164	0.870
Opportunity loss	-0.1459	0.135	-1.079	0.281
Debt	0.0881	0.133	0.661	0.509
Work for someone else	0.6556	0.433	1.515	0.130

Note. Estimates represent the log odds.

TABLE 6
WORK FOR SOMEONE ELSE: CORRELATION MATRIX

		Owned Their Own Business	Time with Family	Business might fail	Opportunity loss	Debt	Work for someone else
Owned Their Own Business	Pearson's r	—					
	df	—					
	p-value	—					
	N	—					
Time with Family	Pearson's r	0.108	—				
	df	213	—				
	p-value	0.116	—				
	N	215	—				
Business might fail	Pearson's r	-0.003	0.343 ***	—			
	df	213	242	—			
	p-value	0.969	< .001	—			
	N	215	244	—			
Opportunity loss	Pearson's r	-0.005	0.313 ***	0.469 ***	—		
	df	213	241	241	—		
	p-value	0.941	< .001	< .001	—		
	N	215	243	243	—		
Debt	Pearson's r	0.054	0.306 ***	0.360 ***	0.459 ***	—	
	df	212	240	240	240	—	
	p-value	0.435	< .001	< .001	< .001	—	
	N	214	242	242	242	—	
Work for someone else	Pearson's r	-0.006	0.079	0.044	0.117	-0.001	—
	df	283	234	234	233	233	—
	p-value	0.925	0.226	0.500	0.075	0.983	—
	N	285	236	236	235	235	—

Note. * p < .05, ** p < .01, *** p < .001

Hypothesis #6: *Participants with high levels of entrepreneurial motivations will be more likely to own their own businesses.*

Participants with high levels of entrepreneurship motivations were more likely to own their own businesses. A binomial logistic regression model was run on the data. The overall model was significant, with Chi-square (48) = 48.0, $p<0.001$. The pseudo-R^2 values, McFadden's R^2 (R^2McF) and Tjur's R^2 (R^2T), were 0.135 and 0.151 respectively, suggesting a medium overall effect. See Table 7.

TABLE 7
MODEL COEFFICIENTS – OWN THEIR OWN BUSINESS

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-2.8519	1.118	-2.5514	0.011	0.0577
Salary Sacrifice	0.0362	0.102	0.3531	0.724	1.0368
Whatever It Takes	0.4657	0.181	2.5785	0.010	1.5931
Another Attempt	-0.3908	0.109	-3.5892	< .001	0.6765
Personal Goals	0.2362	0.165	1.4332	0.152	1.2664
Jobs for Church	0.0105	0.111	0.0941	0.925	1.0105
Freedom	0.4004	0.139	2.8898	0.004	1.4924
Security	0.1096	0.173	0.6319	0.527	1.1158
Opportunity to Work	-0.1730	0.153	-1.1277	0.259	0.8412

Note. Estimates represent the log odds

DISCUSSION

Entrepreneurship drives economic growth and decreased poverty in developing countries (Landes, 2015). As such, many countries promote it (OECD Council Report, 2012). The outcomes of entrepreneurship training need to be fully understood in specific contexts. The study did not support hypothesis 1: entrepreneurship training would increase business ownership. Training would be expected to provide the skills needed to start a business and to improve its survivability (Edokpolor, 2020; Mataly, 2008; Salamzadeh et al., 2022). However, th data did not support this premise, which then questions the effectiveness of the training program. However, this is consistent with much of the literature showing both no change in entrepreneurial intent (Cassol et al., 2022; Vélez et al., 2020; Montes et al., 2023) and that training alone is insufficient unless additional supports are provided (Adjima & Perry, 2014; Montes et al., 2023). This study did not examine the quality or profitability of businesses run by alumni of the entrepreneurship program versus those who were not alumni. The study implies that other factors had more impact on entrepreneurship than training.

The second hypothesis predicted a negative relationship between education and business ownership. The analysis looked specifically at the educational level of the respondent and each of their parents. See Table 2. Although the overall model was statistically significant, the only factor that showed significance was the mother's level of education, which negatively correlated to business ownership. Much of the research related to the relationship between education and business ownership is contradictory with some research showing a positive correlation (Foley & Griffith, 1998; Johansen & Foss, 2013; Leffler & Svedberg, 2005; Martin et al., 2013; Orlova et al., 2016; Shinnar et al., 2014; Van der Sluis et al., 2008), and other research showing a negative relationship (Carbonell et al., 2014; Metzger, 2018). The negative relationship in this study may be due to greater employment options being available to those with more education, which implies that many with less education start their own businesses out of necessity (Van Der Sluis et al., 2008; Van Der Zwan et al., 2013). The significant impact of mothers' education may also be due to Mexican cultural elements that result in mothers having considerably more influence in children's lives than fathers, which they use to direct their children away from entrepreneurship into less risky jobs working for someone else.

Hypothesis 3 posits that with attendance or graduation from university, the likelihood of working for someone else increases and the level of entrepreneurial motivation is lower. Although the overall model is significant, education was not a significant factor, with p =.742. See Table 3. This does not support the hypothesis, as the model's statistical significance comes from three motivational factors (Whatever It Takes, Personal Goals, and Freedom), not education. The modest impact of education is consistent with some research (Montes et al., 2023), but contradicts others (Dutta et al., 2018; Otache et al., 2020; Wright et al., 2022).

Hypothesis 4 proposed that with higher levels of education, one would be more likely to work for someone else. This analysis examined all levels of education, from elementary school to college. Although the overall model was significant, the factor of education was not, thus the hypothesis was not supported. As with hypothesis 3, the results are consistent with other research (Montes et al., 2023).

Hypothesis 5 predicted that fear of entrepreneurship would reduce the likelihood of owning a business and increase the likelihood of working for someone else. However, the study did not support this hypothesis. All respondents self-identified as entrepreneurs; however, they may not have been working for themselves at the time of the survey. Most studies include respondents that do not self-identify as entrepreneurs (Metzger, 2019; Kuckertz et al., 2020; Singer et al., 2018). Since the study included only participants that self-identified as entrepreneurs, this may have created a selection bias away from those that do not engage in entrepreneurial activities because of fear. The remaining participants either did not fear entrepreneurship or became entrepreneurs despite it.

Hypotheses 6, which is that respondents with high levels of entrepreneurial motivation will be more likely to own their own business, was supported. This is consistent with much of the literature (Amorós et al., 2019; Carsrud & Brännback, 2011; Deli, 2011; Humbert & Drew, 2010; Reynolds et al., 2005). Those with higher levels of entrepreneurial motivations could push through difficult times and continue running their own businesses, whereas those with lower levels of motivation would be more likely to give up and return to working for someone else. This could also simply be the result of "success breeding success" in that the more time spent running one's own business, the greater one's entrepreneurial motivations, or it could mean that once one is working again for someone else, entrepreneurial motivations begin to diminish.

CONCLUSION

In an effort to reduce poverty in less developed countries, some charitable organizations have developed programs to train entrepreneurs. These programs intend to provide an alternative form of employment for those without steady work. This study looked at the impact of one of these programs in Mexico and other factors that might influence individuals to start their own businesses. Hypothesis 1 reflects the hope that most of these programs have, which is that through participation in the program more people will become entrepreneurs and go on to support themselves and their families. However, the research does not support this premise. No significant relationship was found between those that participated in the program and the likelihood of them running their own businesses. Education did show to be negatively correlated with entrepreneurship. This likely indicates that greater education brings greater opportunities for other work, so being an entrepreneur is not necessary.

Many entrepreneurship training programs in less developed countries expect that through entrepreneurship training, participants will become self-employed with increased ability to support themselves and their families. This study does not support entrepreneurship training alone will make more entrepreneurs. Instead, Entrepreneurship training should focus on taking those who desire to be entrepreneurs and giving them the tools to be successful, or at least more successful than if they strike out into the world of self-employment without the skills provided in a good training program.

Future research should exam the impact of entrepreneurship training on the quality of businesses run by entrepreneurs. Do those who receive training have businesses that employ more people, have greater revenues, or have less debt? What role does entrepreneurship training play in developing businesses run by entrepreneurs? A better understanding of the role of this training would allow programs to become more

focused on the factors that improve the economic success of small businesses, and thus benefit the economy as a whole.

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APPENDIX

Question #	Question
50	Regarding your education, what is the highest level you completed? □ Elementary school □ Some high school □ High school graduate □ Some college □ College graduate
51	What is the highest level of education your mother completed? □ Elementary school □ Some high school □ High school graduate □ Some college □ College graduate
52	What is the highest level of education your father completed? □ Elementary school □ Some high school □ High school graduate □ Some college □ College graduate
58	Do you currently have a *part-time* job working for someone else? □ Yes □ No (SKIP TO Q60)
60	Do you currently have a *full-time* job working for someone else? □ Yes □ No (SKIP TO Q62)
62	Do you currently own your own business or work as a self-employed professional? □ Yes □ No (SKIP TOQ74)
70	Think about the risks or fears you experienced when you started your business. On a scale of 1 to 6 where 1 means completely untrue and 6 means completely true, how accurately do the following statements describe a fear or risk you encountered when establishing your business? Less quality time with my family. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
71	The business might fail. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
72	Loss of opportunity in another profession. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
73	Possibility of additional debt. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6

82	The following statements can be used to describe many people. On a scale of 1 to 6 where 1 means completely untrue and 6 means completely true, how accurately do these statement describe you? I would rather own my own business than receive a higher salary employed by someone else. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
83	I will do whatever it takes to make my business a success. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
84	I would consider working somewhere else only long enough to make another attempt to establish my own business. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
85	There are many reasons an entrepreneur may decide to start his or her own business. On a scale of 1 to 6 where 1 means completely untrue and 6 means completely true, how accurately do the following statements describe a reason you may consider establishing your own business? Fulfillment of personal goals. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
86	Creation of jobs for church members. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
87	Feelings of freedom and self-expression that come with being my own boss. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
88	Having sufficient income and financial security. Completely Untrue Completely True □ 1 □ 2 □ 3 □ 4 □ 5 □ 6
102	Have you attended or graduated from [name of university]? □ Attended □ Graduated □ Neither (SKIP TO Q104)
104	Have you ever attended the Academy for Creating Enterprise? □ Yes □ No (SKIP TO Q115)