

MISSOURI HIGH-GROWTH BUSINESS OWNERS AND/OR DECISION MAKERS  
PARTICIPATION IN CONTINUING BUSINESS EDUCATION PROGRAMS

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by  
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PARTICIPATION IN CONTINUING BUSINESS EDUCATION PROGRAMS

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## Dedication

This is dedicated to my family.  
Without you this would not have been possible.  
You are my inspiration.

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The completion of my doctorate has been a very long journey, and I cannot begin to thank my family enough for all their encouragement, support, and understanding. Their support of my education has been very encouraging and is what assisted in my final completion of the last few chapters of my dissertation. To my kids, Taylor and Jared, thank you for continually reminding me to work on my dissertation, and to my wonderful husband Pete, I offer my love and appreciation for his faith in me and his amazing encouragement and support... thank you!

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## LIST OF ABBREVIATIONS

BDP	Business Development Program
D&B	Dunn and Bradstreet
MERIC	Missouri Economic Research and Information Center
NAICS	North American Industry Classification System
PRS	Participation Reason Scale
SBDC	Small Business Development Center
UMEBDP	University of Missouri Extension Business Development Program

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ABSTRACT

The primary purpose of this study was to identify motivational reasons related to participation of Missouri high-growth business owners and/or decision makers in continuing business education programs as measured by the Participation Reasons Scale (PRS) (Grotelueschen, 1985). The secondary purpose was to determine how the factors of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education explained variances in participation in continuing business education programs.

1,142 business owners and/or decision makers completed a web-based survey in 2009 to identify motivations for participation, based on the Participation Reason Scale (Grotelueschen, 1985). Various statistical analyses, including a factor analysis were conducted to glean the factors associated with motivations for participation.

Variables which showed significant statistical predictor ability for both continuing business education programs as well as University of Missouri Extension Business Development Program (UMEBDP) programs were those related to region and customer performance. Variables found to be significantly related to participation in continuing education programs were education level, NAICS code of construction and retail, region, and quality improvement, while the variables found to be significantly related to participation in UMEBDP were age, NAICS code of construction, and region.

## CHAPTER ONE

Adult continuing education is a rapidly growing sector of the education industry. The importance of adult education and learning has grown in recent years, and much research has been and continues to be undertaken to further understand adult learners and the factors that affect their participation in continuing education. Merriam, Caffarella, and Baumgartner (2006) state that, “Learning in adulthood is an intensely personal activity. Yet, at the same time, a multi-billion dollar enterprise has arisen in response to adult learning . . .” (p. xi).

### Importance of Continuing Education

While the entire field of continuing education has been growing, continuing education in the business field has also expanded in the 21<sup>st</sup> century. The importance of adult and continuing education in business has been highlighted in works by Knowles and Swanson (2005) and Burns (2002). Burns states, “Lifelong education involving all aspects of skills and adult education will be the basis of the twenty-first century iconology and society” (p. x). Adult business education is a foundation of the stability and growth of businesses around the world. Business and individuals working to define themselves and to prosper in the new and emerging business markets associated with the New Economy must understand the importance of understanding and fostering change and growth in the business world, which is highly dependent on adult continuing business education (Gordon, 2000).

Understanding and aiding the growth of businesses in Missouri is the mission of the University of Missouri Extension Business Development Program (UMEBDP). In order to expand and improve the educational programs offered by the UMEBDP, the

program must successfully assist business owners in their educational pursuit. This, in turn, will allow their endeavors to be successful. According to the U. S. Bureau of Statistics (2006), small businesses have created over 92% of all new jobs from 1983-2003. Additionally, recent research (Romitti & Bruton, 2007) demonstrates the economic importance of high-growth businesses (those businesses that doubled employment over a recent five-year period) in Missouri and the overwhelming contribution to job growth in the state's economy. Small businesses, with the inclusion of high-growth businesses, are the engine for the Missouri economy (Wennekers & Thurik, 1999). Effectively educating businesses owners and/or decision makers and helping them grow is the core mission of the UMEBDP. Assisting small businesses with their growth fosters a stronger economic state. The funding of the UMEBDP depends on the economic success of the businesses it serves, which assists with the continued success of the program.

Adult participants in educational activities have been the focus of several research studies (e.g. Brookfield, 1986; Cranton, 1991; Cross, 1981), that concentrated on increased participation. Many institutions of higher education have begun to increase their offerings in adult and continuing education and generally have been met with overwhelming support for their programs (Kim & Bonk, 2006). Despite this research, it is still unclear what really encourages adults to engage in learning opportunities, as well as what factors affect participation in business programs for the adult learner. Merriam, Caffarella, and Baumgartner (2006) stress the importance of knowing who is participating, why they are participating, and what conditions promote participation. Often, providers of continuing education focus only on the planning and implementation of their programs, giving little attention to factors that affect participation, outcomes and

economic effects (Merriam et al., 2006). These actions often leave these providers with programs that are unsustainable and not recognizable for the contributions they are making to those whom they serve and those who fund them.

#### University of Missouri Extension Business Development Program

The UMEBDP offers continuing education courses to entrepreneurs, business owners and/or decision makers, and employees throughout the state of Missouri. The UMEBDP is a service of the University of Missouri Extension Program and has offices throughout the state of Missouri. The UMEBDP employs Business Development Specialists that work with small businesses and entrepreneurs by offering continuing business education in the areas of management, marketing, finance, technology, human resources and other important business education. The success of this program depends upon the participation, economic stability, and growth of Missouri's small businesses. As with other institutions offering adult and continuing education courses, the UMEBDP is faced with limited resources and workforce; therefore, the program must find ways to offer valuable learning experiences that can benefit the small business owner and/or decision maker. Valuable educational offerings need to be made available to the adult learner who needs the program, as well as in a manner that meets the expectations of the learner. Additionally, the program must be able to target specific markets within the business community to create the highest impact. Missouri high-growth business owners and/or decision makers are one of the program's important targets.

Understanding the satisfaction of past participants is one way the program can enhance and improve its services. Currently, the UMEBDP surveys participants at the close of each course to determine if the course objectives were met, if the instructor was

knowledgeable and competent, and if the participants gained useful information. In addition, 6 to 12 months after completion of a course, surveys are used to obtain data to determine if participants were able to use the knowledge that was presented and if the course helped lead to desirable outcomes. Until now, most evaluations have been centered on actual participants of the UMEBDP. However, an interesting study conducted by Richtemeyer (2003), who investigated the learning preferences of owners and/or decision makers of small businesses in Missouri, provides an exception. Richtemeyer's study researched over 10,000 Missouri small business owners and/or decision makers identified from the Dunn & Bradstreet (D&B) database and offered significant insight into both adult learning preferences, as well as an awareness of the UMEBDP. According to this study, only 3-5% of business owners and/or decision makers surveyed used the adult education offerings sponsored by MU Extension for their continuing business education needs. This initial finding has created a need to further understand factors that affect participation in the educational offerings of the UMEBDP. No other formal research has been done to determine the factors affecting participation.

### The Problem

A key element in the success of participation is the continual challenge for program administrators to market the educational offerings of the program. Investigation of the factors that affect participation will allow administrators to create a more open dialogue with their target markets, which will span a gap in the designing and marketing of UMEBDP. The UMEBDP offers a wide array of programs to over 10,000 small business owners and/or decision makers and employees each year. Using the Small Business Administration's (SBA) data on the number of businesses in Missouri, it

appears the UMEBDP is reaching only 4% of the business population each year.

Similarly, the market that the program has traditionally met has not included a significant number of high-growth businesses. The success of the UMEBDP depends on enabling business owners and/or decision makers to expand and prosper.

One of the first steps in helping small business owners and/or decision makers is attracting them to specific programs that help meet their educational needs. Historical data from the UMEBDP indicate strong economic successes of the businesses that have owners and/or decision makers participating in the formal educational offerings of the program. Increasing the participation in business programs increases the opportunities for Extension to help businesses, thus strengthening the Missouri economy.

A greater understanding of what factors affect participation in UMEBDP could allow administrators to better design, market, and offer educational programs in the business area, specifically in the high-growth business area. Additionally, the UMEBDP has seen the need to segment its market and has identified their three key markets. These markets include: lifestyle businesses (small businesses in which the owners and/or decision makers have created the business to create a job for themselves with no plans for growth, only stability); foundation businesses (small businesses in which the owners or decision makers are actively involved with the business and seek knowledge and information to help the business grow and prosper); and high-growth businesses (small businesses that have doubled their employment over the last 5 years). Research (Richtemeyer, 2003) on these markets has identified the high-growth businesses as those that offer the greatest opportunity for outcomes and impact.



Understanding which market segments offer the potential for the highest economic success is very important in today's economy, as well as for the funding of educational programs. As national and state funding pools have decreased, programs such as the UMEBDP are faced with the reality that their funding is very volatile and unstable. This has created an urgency to diversify funding pools, making the UMEBDP aware of the need to better understand and serve the unique market of high-growth businesses. Throughout the last ten years, research on the topic has increased; that research has shown the one consistent variable in identifying high-growth businesses is job growth (Davidsson, Delmar & Wiklund, 2006). The research reference in the Romitti and Bruton (2007) essay describes businesses as high-growth if they had doubled their employment over a 5-year period. These businesses are very important to the Missouri economy. They have shown a job growth rate of 250% as opposed to the state average job growth rate of 2.5% for that same period (Romitti & Bruton, 2007). Current research on high-growth businesses in Missouri identifies the obstacles these business owners and/or decision makers had overcome at their beginnings, as well as the following obstacles they are currently facing. Romitti and Bruton identified these challenges as a trained workforce, management of time, and capital access. To better understand this distinct population, additional studies would be very beneficial to the UMEBDP.

### The Purpose

This study explored the factors associated with participation of owners and/or decision makers of high-growth businesses in adult education programs offered by the UMEBDP, as well as any other continuing business education programs. Similarly, this study investigated the relationship between factors such as industry, business size based

on business sales, owner and/or decision maker gender, geographic location, and owner and/or decision maker education level to participation rates and perceptions regarding the programs.

As previously presented, segmentation of the continuing business education market is important in successfully planning and marketing business programs. Currently, the UMEBDP is in its infancy in segmenting its markets, and little data or research guide the UMEBDP in understanding the factors that affect adult participation in these segments. The results of this study should help the UMEBDP better understand the reasons for participation of owners and/or decision makers of high-growth businesses in continuing business education offerings. This will assist the program to better align its courses with current and potential target markets. High-growth businesses are very important to the Missouri economy, which makes them very important to the UMEBDP. Using high-growth business owners and/or decision makers as participants for this study allows a better understanding of reasons for participation.

#### Literature/Conceptual Framework

A strong understanding of past research in participation is important for this study. Past studies have viewed participation in adult programs based on the phenomenon of participation or the reasons adults participate. In researching why adults participate, the study of Grotelueschen, Harneisch and Kenny (1979) articulate that two approaches can be taken for reasons of participation: (a) confirmed approach that views participation as an end or (b) exploratory approach that views participation as a means to achieve a specific desired outcome. The first model sees casual factors in participation while the second sees decisive reasons for participation. Reasons for participation can be studied

from psychological, sociological, and educational perspectives (Grotelueschen et al. 1979).

In further studies of adult participation, Grotelueschen et al., (1979) discussed the shortcomings of early research, noting that:

Participation is treated as a means to an end in this line of research. There is a need for an alternative approach to research on reasons for participation in continuing professional education which address the particular needs of this area of practice and narrows the gap between educational theory and practice (p. 18).

This challenge led to the Participation Reasons Scale (PRS). The PRS is based on three assumptions for participation: (a) should be purposeful and based on contextual factors, (b) should be studied in relation to intended outcomes, and (c) should exhibit a view of both the professional and continuing professional education.

Understanding participation also means understanding the importance of marketing in adult education programs. Darkenwald (1977) discusses the importance of marketing in adult education by stating, “Since adult education has a service to offer and lacks a captive clientele, it seems appropriate to borrow the term marketing from the business world to refer to the process of effectively reaching the clientele we wish to serve” (p. 11). Marketing adult programs and understanding the motivations of adult learners are important for the UMEBDP. Beder (1986a) discusses the need for market segmentation and positioning, along with other concepts and principles that constitute a successful marketing plan. Beder continues by defining the key aspects of the marketing of continuing education programs. To further define and understand marketing concepts and needs of the market, Beder (1990) researched the motivational factors that affect

adult participation. Realizing and understanding marketing of adult programs, as well as factors that affect the participation rates of the UMEBDP, assists in better understanding the learners and offering learning that meets their needs.

Further defining and understanding the marketing of adult education programs requires recognition of the needs of various segments in adult learning including, and most especially, the business learner. Grotelueschen (1985) suggests that understanding participation from the perspective that both professional participation reasons and educational value reasons impact the importance of program planning, development, and evaluation. This research can be used in conjunction with other studies, including Beder's (1986b), to further promote, market, and increase participation in the UMEBDP.

#### Research Questions

Research questions addressed in the study are:

1. What are the motivational reasons related to participation of high-growth business owners and/or decision makers in programs offered by the UMEBDP or any other continuing business education programs?
2. How does linear combination of the factors of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level explain variances in participation in the programs offered by the UMEBDP and other continuing business education programs?

#### Methods Used to Address the Research Questions

A quantitative study using the PRS (Grotelueschen et al., 1979) was used to research factors related to participation in formal continuing business education programs

in business. This study employed survey methods for data collection. The Missouri Economic Research and Information Center (MERIC) list of high-growth business owners and/or decision makers was used as the population. This list was compiled by the Bureau of Labor Statistics for owner and/or decision maker of businesses that have doubled their employment from 2002-2007 (based on unemployment records). The total list of 6,225 business owners and/or decision makers represented the total population for use with the study.

The dependent variable of participation was a yes or no question survey of high-growth business owners and/or decision makers and their participation in continuing business education and in programs offered by the UMEBDP within the last 12 months. Independent variables included the reasons for participation from the PRS, as well as owner and/or decision maker gender, owner and/or decision maker education level, business industry, number of employees, business size based on sales, geographic location, owner and/or decision maker race, owner and/or decision maker gender, and age of business owner and/or decision maker. Factor analysis, correlation analysis, and logistic regression were then used to analyze the factors that affect participation.

#### *Limitations of the Study*

This study does encounter limitations including, but not limited to, the following issues: (a) the use of the MERIC list of high-growth businesses, (b) the recognition that there are many small businesses that are active in Missouri that do not fit the parameters of high-growth that offer major economic importance to the Missouri economy.

This study focused on Missouri businesses and cannot be generalized to include businesses throughout the nation. In addition, this study focused on continuing business

education only, as defined in the definitions and on the PRS, and will be generalized only to other programs offering formal continuing business education offerings.

Historical data from the UMEBDP show that certain geographic locations have higher participation rates in the current Extension programs. Higher levels of participation from business people living in the urban areas, which include St. Louis and Kansas City have been recorded; lower levels of participation of individuals living in rural areas, such as West Plains, Kirksville, and Mexico, have been noted. This historical data is based on all participation in the UMEBDP, not specific to the high-growth business owners and/or decision makers.

Furthermore, since I am a past employee of the UMEBDP, my own experiences and assumptions offer a small degree of research bias. Separation of my views as a past employee assisted in controlling this bias. A discussion of assumptions follows.

#### *Assumptions*

Assumptions made in conducting this study:

1. Participants were honest in their responses.
2. The survey reached and was completed by the business owner and/or decision maker.
3. Participation rates within specific industries are higher than in others. Certain industries require continuing education to retain certification, which may have increased participation from owners and/or decision makers in these industries. Examples of this include healthcare industries, legal professions, and licensed professions.

### *Definition of Terms*

Key terms used in this study follow:

*Adult education* -“A process whereby persons whose major social roles are characteristic of adult status undertake systematic and sustained learning activities for the purpose of bringing about changes in knowledge, attitudes, values or skills.”

(Darkenwald & Merriam, 1982, p. 9)

*Business Size* - Size in relationship to sales of the business.

*Continuing business education*—Adult continuing education directed to business professionals who wish to develop and expand business knowledge and raise their level of education within the field of business.

*Foundation Business* - A small business in which the owner and/or decision maker is actively involved with the business and seeks knowledge and information to help the business grow and prosper.

*Geographic Location* - As defined by the University of Missouri Extension eight regions throughout the state. (Appendix A.)

*High-growth Business* - A small business in Missouri that has doubled its number of employees (based on Bureau of Labor Statistics data) from 2002-2007.

*Industry* - A basic category of business activity, based on the North American Industry Classification System (NAICS).

*Lifestyle Business* - A small business in which the owner and/or decision maker has created the business to create a job for himself/herself, with no plan for growth, only stability.

*Number of Employees* - The number of employees a business employs on a regular basis, including full-time and part-time.

*Owner and/or Decision Maker* - Designated by the Bureau of Labor and Statistics through unemployment records, the individual who either owns the business or is in charge of decisions regarding growth and success.

*Owner and/or Decision Maker Education* - Education level of the business owner and/or decision maker. Levels include: less than grade 9, grades 9 to 12, no completion of high school, high school completion (includes equivalency), some college with no degree, associate degree, bachelor's, master's, professional, or doctorate (based on National Center for Education Statistics).

*Owner and/or Decision Maker Race* – Race of business owner and/or decision maker. For purposes of this study, the data were coded as either white or non-white.

*Participation* - Engaging in continuing business education programs at least once in the past year.

*Participation in UMEBDP* - Engaging in programs offered by the UMEBDP at least once in the past year.

*Participation Reasons* - Statement of reasons for the participation in adult continuing education offerings identified by statements on the Participation Reasons Scale (Grotelueschen, 1985).



*Rural* - Businesses not in the Kansas City or St. Louis area (based on the Department of Economic Development regions).

*Small Business* - Any legal business in the state of Missouri with less than 500 employees.

*University of Missouri Extension Business Development Program* - A networked business program hosted by the University of Missouri Extension that consists of UMEBDP Specialists and Business Counselors throughout the state of Missouri. The core mission is to enhance the economic success of small businesses through business education.

*Urban* - Kansas City and St. Louis area businesses (based on the UMEBDP regions).

#### *Significance of the Study*

This study has the potential to strengthen the UMEBDP recruitment of clients and training attendees by offering a better understanding of adult participation in the business setting, specific to the high-growth business segment in Missouri. Furthermore, an increased rate of participation with this target segment of high-growth business owners and/or decision makers may create significant economic impacts for the state of Missouri by assisting this segment with stronger business skills and practices.

Further research that adds understanding of how and why high-growth businesses owners and/or decision makers select the UMEBDP for their business education needs is paramount in future segmenting and marketing of the UMEBDP offerings. Past research demonstrates that high-growth businesses employment growth is ten times higher than other businesses, and they offer strong economic impact in their community (Romitti and

Bruton, 2007). The ability to better engage this high-growth market and offer business education will allow the UMEBDP a stronger success rate in assisting Missouri businesses with their growth and success.

High-growth businesses are often discussed throughout Missouri and the nation; however, little research and specific data on this segment exist. This study, coupled with the recent MERIC study (Romitti & Bruton, 2007), has created a research foundation for further research in the area of high-growth businesses and education.

### Summary

The continued success of adult continuing education is highly dependent on participation and satisfaction from the adult learner. The UMEBDP takes great care in offering a variety of business programs geared to the education needs of Missouri's small business owners and/or decision makers and employees. Additionally, the UMEBDP sees the need to segment its business markets, with one section of essential importance—the high-growth business market. A better understanding of adult participation in UMEBDP will be invaluable to the UMEBDP. Investigating the factors that affect participation in the programs offered generated findings that can be used to create a stronger and more successful UMEBDP.

Historically, Extension, as a nationwide program, has been slow to change and has not fully focused on the learning needs and participation factors of those it has served (Alter, 2003). Recent financial issues, as well as a rapidly changing society, are forcing Extension to re-evaluate the programs it offers and the audiences it serves. Statewide, little effort is made to gain valuable insights from past participants and prospective participants regarding their educational needs and factors affecting their participation.

Understanding the factors that affect the participation of adult business education learners can assist the UMEBDP in bringing its offerings and marketing to a higher level and in becoming a more valued provider in the field of continuing business education.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

The purpose of this chapter is to review literature and research that relate to this study. Three threads of literature are reviewed for this chapter. They are participation, continuing business education, and high-growth businesses. This review is designed to create a foundation, which will determine the factors that affect participation of owners and/or decision makers of high-growth businesses in the continuing business education programs offered by the UMEBDP and other educational programs.

#### Formal Adult Education

Formal adult education has been the topic of many books, papers, and publications over the last 80 years. As the traditional aspects of higher education moved to a more non-traditional educational platform, the importance of adult education and business education became the focal point of many research studies. With this, the importance and relevance of the land-grant mission of many universities took center stage in meeting the needs of adult learners. Numerous studies have been done to learn more about adult participation in continuing education. Participation is such a multi-faceted phenomenon that many authors state there is not one theory on participation but several models that take into account various dimensions of adult participation (Rubenson, 1982; Cervero, 1988; Merriam et al., 2006).

Darkenwald and Merriam (1982) built on the previous work of Knowles (1964) to describe and classify formal institutional settings where adult education is offered, including independent adult education providers, educational institutions, quasi-

educational organizations and non-educational organizations. University of Missouri Extension, a part of the Federal Adult Education Agency (Houle, 1961), offers educational outreach in a variety of settings to a variety of markets.

### Participation in Formal Adult Education

Merriam, et al. (2006) state, “Knowledge about participations is useful to policy makers in terms of funding and to those who plan and implement programs” (p. 46). When studying participation in adult education, researchers have used various instruments, including some that are more specific to individuals in occupations. Houle (1961) identified learning orientations that led to researchers using various instruments attempting to validate Houle’s typology of these learning orientations and reasons for participation. The instruments included the Continuing Learning Orientation Index (Sheffield, 1964), Reason for Participation (Burgess, 1970; Grabowski, 1972), and Educational Participation Scale (Boshier, 1971, 1973, 1976, 1977; Boshier & Riddell, 1978; Morstain & Smart, 1974; O’Conner, 1979). Grotelueschen, et al. (1980) suggests that instruments derived from Houle’s typology used to study the general adult population are inadequate for exploring the reasons for professional participation. They grounded their reasons on (a) sampling techniques that are not consistent with the constructs of the learning orientations; (b) item construction based on Houle’s broad typology is not conceptually sound when studying professionals; and (c) these studies view participation as means to an end, not a purposeful, educative means to achieve personal, professional, or organizational goals. Grotelueschen, et al. (1979) developed the PRS, which is based on this alternative approach to the study of participation in continuing professional education.

## Participation

When researching participation in adult education, various models on participation can be identified. Reasons for participation have traditionally been studied from three perspectives: psychological, sociological, and educational (Cervero, 1988; Courtney, 1992; Deshler & Hagan, 1989; Grotelueschen, et al.1980). The psychological perspective includes a focus on two main themes for participation, including the study of reasons and motivations and the study of deterrents (Henry & Basile, 1994).

Understanding why current and potential participants are participating is very important to all adult education offerings (Burgess, 1971). Ganesh, Arnold, and Reynolds (2000) identify the importance of knowing why individuals participate and importance of keeping them as customers. Merriam et al., (2006) contend that it is very important to know who is participating and why and what conditions encourage participations; however, they also note, “conversely, knowing who is not involved can be important information for providers who wish to attract new learners” (p. 45). Motivations that lead adults to engage in formal learning opportunities are of utmost importance to the UMEBDP. In addition, other organizations that offer adult learning opportunities are beginning to see the importance of participants’ motivation and access. Previous studies have grouped motivational factors and participation deterrents in efforts to understand adult learners. Findings show that employment-related issues usually encourage adults to engage in educational offerings, and a vast percentage of adult learners are “white, middle-class, employed, younger, and better educated” (Merriam et al., 2006, p. 71).

Several conceptual models have been used in researching reasons for participation. Participation has been the center of various studies for years, beginning

with an inquiry sponsored by the Carnegie Corporation in 1962 on the nature of adult education in America by researchers Johnstone and Rivera (1965). This study found that 22% of adults engaged in adult learning and offered demographic and characteristic information on the participants. Beginning with the National Center for Education Statistics in 1969, trends in participation have also been the focus of research. Most recent data, provided by the National Center for Education Statistics in 2004-2005, found that over the 12-month period ending in spring 2005, 44% of adults reported having participated in formal adult educational activities, excluding full-time only enrollments in college/university or vocational/technical credential programs. More adults reported “participating in work-related courses or training (27%) than any other type of activity” (National Center for Education Statistics, 2006, p. 1). These studies have shown a steady increase in participants in adult learning activities.

Johnstone and Rivera (1965), as well as others (Anderson & Darkenwald, 1979; Cross, 1981), have looked at various variables and their relation to adult participation. Gender, age, race, income levels, occupation, education level and other variables have been studied to better understand their influence on participation. Cross (1981) studied the previous level of education in relation to the educational participation and found them to be highly related. Anderson and Darkenwald (1979) found age and participation to have a high correlation, with higher age associated with lower likelihood of engaging in formal learning.

Using data from the Adult Education and Lifelong Learning Survey of the 2001 National Household Education Survey Programs, Kim, Hagedorn and Williamson (2004) reported the adult learner with the following characteristics; (1) more likely to be a

woman than a man, (2) is most likely under the age of 50, (3) is more likely to have a college degree than a high school diploma or less, (4) is more likely to participate in continuing education if the household income is at least \$50,000, (5) represents all races and ethnicities.

### *Education Participation Scale*

Houle (1961) studied participation and found three motivational orientations for participation: goal-oriented, activity-oriented, and learning-oriented. Houle's work has been a strong foundation for many other studies that tested his typology in order to identify more precise reasons why adults participate in formal education. The Education Participation Scale (EPS) (Boshier, 1976) was created and refined using Houle's typology and has been used for decades in the quest for understanding adult participation. While Boshier's 1976 study found that Houle's typology could neither be rejected nor accepted, it did lead to another study a decade later in which Boshier and Collins (1985) conducted a cluster analysis using the EPS data from learners in five different countries. This analysis found the goal and learning orientations to be as Houle described; however, the activity orientation was much more complex than Houle's earlier typology had envisioned.

Over the last 30 years, several hundred dissertations have used the EPS, including various non-English translations. The EPS, used on every continent and completed by thousands of individuals (Boshier, 1991), has been employed to study the motivations and characteristics of a diverse adult student body participating in a broad program of continuing education (Fujita-Starck, 1996). The results confirmed Boshier's seven-factor typology and found the reliability of the EPS to be acceptable.



Past research has found that the most commonly cited motive for engaging in adult education has been job-related (Merriam et al., 2006). In 1974, Morstain and Smart tested Boshier's EPS and uncovered a six-factor solution with factors related to social relations, external expectations, social welfare, professional advancement, escape/stimulation and cognitive interest. This line of research related to adult learning and participation in education has been continued by Boshier and colleagues up to the present. One key group of adult learners that has been identified through these various research projects is the professional adult learner (Cervero, 1988). The following literature review and discussion outlines the uniqueness of adult learners in specific professions. Understanding this context, the PRS will be used in this study.

#### *Participation in Specific Professions*

In contrast to a focus on reasons for participation of a general adult audience, described in the first part of this literature review, Grotelueschen's (1997) work focused on reasons for participation among members of various professions, including business. Grotelueschen's focus, rooted in the rationale that continuing professional education is different from general adult education, developed his research on a set of assumptions particular to membership in an occupational group like the professions. These assumptions include that participation: (a) is purposeful and based on contextual factors, (b) should be studied as it relates to the intended outcomes, and (c) should be viewed holistically with the context of the work-life of the professional. Grotelueschen et al., (1979) suggested that current instruments for measuring reasons for participation were inadequate because of inconsistent sampling techniques, basing items construction on Houle's broad typology and viewing the study as a journey without an end as opposed to

purposeful continual learning. The PRS was designed by Grotelueschen (1985) as an alternative to past participation models and will be used in this study. The PRS research provides information for continuing education practitioners, as well as researchers; identifies relationships between profession and person-related characteristics; and identifies reasons for participation and the differences among reasons, both within a profession and across professions. The PRS has been customized for use in the study of various professions, including business. Cervero (1988) used the PRS for a study on physicians; Catlin (1981) used the tool for research on judges, while Grotelueschen et al., (1979) used the tool with business professionals. In Grotelueschen and colleagues' later study four factors determined the reasons for participation, which included learning and interaction, job security, professional development, and professional service or requirements.

Within professions, certain requirements and needs for continuing education also affect participation in business training (Valentine, 1997). Various licensed professions, including those in the area of real estate, law, medicine, accounting, and engineering (Cervero, 2000) require yearly continuing education credits. As a result, business owners or decision makers in these fields show higher rates of participation in adult education offerings.

Understanding and determining the differences between traditional adult education and professional education is important. However limited understanding of the differences has been the norm (Smutz & Queeney, 1990). Similarities among the professions are important; Houle stated (1961) that within each profession are distinct unique patterns of education, while contrasting certain domain perceptions that guide all

professions. These similarities across both adult and professional education, as well as across professions, can be useful information when studying both adult and professional participation.

#### *Studies Using the Participation Reasons Scale*

Grotelueschen, et al. (1979) conducted a study of 404 business professionals using a 19- item PRS. Using factor analysis of responses, they determined four factors in describing business professionals' reasons for participation in continuing professional education. These factors, ranked in order, were (a) collegial learning/interaction, (b) personal benefit/job security, (c) professional improvement and development, and (d) professional services. Grotelueschen, Kenny, Harneisch, and Cervero (1988) conducted a study of over 1,700 individuals in five professional groups (veterinarians, judges, business professionals, physicians, and nurses). Their study revealed five factors of reasons for participation, ranked in order, were (a) professional improvement and development, (b) professional commitment, (c) personal benefit and job security, (d) professional service, and (e) collegial learning and interaction. Grotelueschen, et al. (1981) then compared mean ratings of each profession on each factor and found professionals had significant differences for each factor. Age of the respondent was also related to differences in the professional commitment and personal benefit/job security factor. The judges and physicians demonstrated rating patterns different from nurses and business professionals. Judges and physicians rated the personal benefit/job security lower than nurses and business professionals.

## Continuing Business Education

Over the last decade, many individuals have worked to further pursue their education (Rees, 1997) and have allowed it to take center stage. Extension programs throughout the nation are called upon to offer timely, educational programs to various constituents and stakeholders. Business-centered adult education is an important element in the success of individual businesses and the nation's economy (Kearns, 2002). Muske and Standforth (2000) state, “. . . future economic expansion will depend on the continued success of small business owners, while one factor predicting business success is education and training of the small business owner” (p. 24). Burns (2002) and Berns (1991) also discuss the importance of small businesses engaging in continuing education in financial management, personnel, marketing, and business planning. Engagement in continuing education assists small businesses in making more informed, knowledgeable decisions that will lead to increased economic success and viability.

Continuing business education programs specialize in assisting business owners and employees with building stronger business skills and building specific solutions to their organizational and business challenges (Jarboe, 2009). Successful business owners and employees must find ways to stay competitive in today's business setting. Continuing business education programs assist businesses in spotting relevance, pushing efficiency, cutting cost and staying flexible (Jarboe, 2009). Participation in continuing business education assists business owners, decision makers and employees in acquiring the skills sets needed in today's ever changing economy (Gordon, 2000).

Business education is key in helping to prevent small businesses from failing. Research indicates that nearly 60% of small businesses fail within 5 years of startup

(Case, 1996; Kirchoff, 1993). Education and training are valued by business owners and/or by decision makers as ways to increase business success rates (Danco, 1996; Ede, Calcich, & Panigrahi, 1998; Jenkins & Jenkins, 1997; LUISER, 1995; Robinson & Sexton, 1994; Sage, 1993).

Businesses are segmented by various industrial standards, including sales, employees, and industry (U. S. Dept. of Commerce, Bureau of the Census and International, 2006). These variables determine many standards and regulations within which the particular business must operate. Various regulatory entities, such as the Office of Safety and Health Administration, U.S. Department of Commerce and the U.S. Department of Labor, use these business classifications to determine regulations and laws. These variables play a strong role in the operational and financial performance of small businesses throughout the nation. These variables also play a role in determining the continuing business education programs needed by the owner and/or decision maker as well as the employees of the business.

Small businesses represented 99.7% of all employer firms; generated 60-80% of new jobs annually, hired 40% of high-tech workers, and produced 13 times more patents per employee than larger businesses (U. S. Dept. of Commerce, Bureau of the Census and International, 2006). Along with this importance to the economy, there also comes the need for continuing education and access to business expertise. The majority of small business owners and/or decision makers are very skilled in their specific technical skills; however, over 80% lack the key managerial, financial, and/or marketing skills needed to manage and develop a successful business (Gerber, 1996). Small business owners and/or

decision makers must educate and train their employees and staff, while understanding their ability to offer in-house education is restricted by financial and time constraints.

Small business owners or decision makers, in addition to employees, benefit from continuing business education to gain knowledge and skills in various business areas. Small business competitiveness can be enhanced through business education (Gibb, 1997), yet small businesses often overlook the importance of business education and training, thus limiting their chances of success (Storey & Westhead, 2007). The importance of offering business education to small businesses is met with the equally important need to market these programs and increase participation rates.

Throughout the nation, Cooperative Extension programs are a leading provider of continuing business education. Various studies have demonstrated the need for continuing business education programs and the market they serve. In a study by Burns (1994), seventy-four percent of home-based business owners in one southern state were determined to depend on continuing education to fulfill their educational needs. Similar studies by Burns in 2002 and Berns in 1991 demonstrate the need for Extension services to offer continuing business education programs.

When discussing continuing business education, an emerging segment centers on entrepreneurship education. Literature related to this segment of continuing business education discusses a number of problems associated with entrepreneurship education (Garavan & Cinneide, 1994). Studies show the major problem refers to the inability to balance theory and action. This equates to entrepreneurs wanting more group learning, project teams and peer exchanges, while the educational structure is based on knowledge

exchange, information transfer, and theoretically driven educational design (Garavan & Cinneide, 1994).

Additionally, comparative research to identify differences and commonalities in various entrepreneurial programs is lacking. There is also a lack of evidence on how learning actually develops entrepreneurial competencies and business success (Low & MacMillian, 1988). Entrepreneurial education is a growing segment of the continuing business education field, and research continues to build a better understanding of the effectiveness of such programs.

The UMEBDP offers education specifically to small businesses in Missouri. The UMEBDP contracts with the SBA to deliver education to small businesses through the Missouri Small Business and Technology Development Centers. Small business owners and/or decision makers rely heavily on outside providers such as the UMEBDP to offer training to assist with business growth and education.

Continuing business education is offered through a variety of programs throughout Missouri and the nation. Other entities in Missouri that offer continuing business education programs include Missouri Enterprise, Missouri Innovation Center, Missouri Training Institute and various other adult education programs offered to business owners and employees. These programs differ from the UMEBDP as they are specialized for specific industries and are not available to all Missouri business owners and/or decision makers. Additionally, many institutions of higher education have developed specific offerings targeting the growing population of small business owners and employees (Burns, 2002). With this in mind, it is important this study analyze both

participation in continuing business education offered by UMEBDP, as well as participation in programs provided by other continuing business education providers.

### High-Growth Businesses

The last strand of literature reviewed for this study concentrates on high-growth businesses. This type of business has recently received much publicity and focus of the business world. This area of research is diverse and shows various perspectives, approaches and methods. The research in this field is in its infancy and research to further define and better understand high-growth businesses throughout the world is slowly developing. Birch (1987) coined the term “gazelle” to identify the small number of firms (an estimated 3-5% of the total) undergoing periods of unusually fast growth and expansion. According to Birch, gazelles create most of the jobs in an economy, rather than the other types of employers. Recent research adopts the “gazelle” phrase and also refers to these companies as high-impact (Acs, Parsons, & Tracy, 2008), while Romitti and Bruton (2007) coined the phrase “cheetah” when referring to high-growth businesses. The various studies on high-growth companies differ in their definition of what criteria or factors are considered when establishing designation as high-growth. Criteria that have been studied in conjunction with high-growth businesses include job growth, sales, profits, and market share. Understanding what makes some businesses grow at a fast pace and why others do not is a core focus of the high-growth literature. Davidsson and Wiklund (2000) state that there really is no unified theory in researching high-growth businesses. This has pushed various researchers into efforts to better understand high-growth businesses and to work to create theories for their growth (Barkham, et al. 1996). In 2007, Storey and Westhead identified three components necessary for rapid growth:



resources, the firm, and the strategy. Storey and Westhead made one of the first attempts to create a theory to use in studying high-growth businesses based on past research, as well as using the theory to empirically test in quantitative studies. Nevertheless, many find this theory insufficient as a tool in understanding high-growth businesses (Cooper, 1995; Wiklund, 1998).

Delmar (1997) reviewed 55 empirical studies on small business growth and identified job growth as one of the main indicators of high-growth. Davidsson and Wiklund (2006) state, “Employment growth is the indicator that has the highest correlation with other alternative growth measures . . . .” (p. 8). Davidsson and Wiklund (2006) also studied opportunity as a role in small firm growth and developed a model in which external conditions and entrepreneurs’ perceptions are the building blocks of high-growth. They state that only firms with growth motivation strive to grow successfully.

Although the research base for high-growth businesses is weak, the importance of these businesses in the Missouri economy, as well as the nation, is receiving increased attention and need for understanding. A constant in the research shows that high-growth businesses, although a very small part of the economy (Birch, 1998), have a tremendous impact on the employment and profit rates of businesses (Romitti & Bruton, 2007). This continues to drive both academic and business research of high-growth businesses in a quest to better understand and support them.

The Missouri Economic Research and Information Center conducted a study on high-growth businesses in Missouri in 2007. Romitti and Bruton (2007) designed the study around the variable of employment, building on the work of Davidsson and Wiklund (2006), who used this variable as the most highly correlated indicator of growth.

Over 6,000 Missouri businesses were identified as high-growth and then surveyed by telephone to identify obstacles to their growth, as well as opportunities for new growth. Romitti and Bruton's (2007) study elaborated on the work of Davidsson and Wiklund (2006), as it demonstrated that the owners had a quest for growth and were able to identify opportunities in the market and offer quality products and services to expand their sales and growth.

The interest in high-growth businesses continues and the recent release of new research at the International Council for Small Business 2008 World Conference by Acs et al., (2008), entitled "High-Impact Firms: Gazelles Revisited," defines high-impact firms as those having sales that had at least doubled over a 4-year period and those that had an employment "growth quantifier" (the firm's absolute change in employment multiplied by the percent change) of two or more. This new definition combines the employment growth with sales, which is a new way of defining high-growth businesses.

A constant throughout the research is the inability to easily identify factors that lead businesses into high-growth, which translates to the inability to predict those firms that will be high-growth and those that will not (Davidsson & Wiklund, 2006). Various research projects are currently underway across the nation looking at this phenomenon and ways in which high-growth businesses can be identified in their infancy (Ekhardt & Shane, 2010; Baum & Bird, 2010; Stam, Suddle, Hessels, & van Stel, 2009).

Research on the educational needs of high-growth businesses is also in its infancy. A 2003 study by the Small Business and Technology Development Center in North Carolina (Cortright & Mayer, 2001) demonstrated the value of these high-growth businesses, by stating, "the median firm was capitalized with \$30,000, while the value

today of each company averages sales of over \$4.0 million”. These high-growth business owners and/or decision makers remarked that their rapid growth created obstacles and needed education in areas such as tax issues, financial management, marketing, and project management. Additionally, these business owners and/or decision makers stated their top five issues related to their continued success were, (1) hiring quality employees, (2) controlling costs, (3) motivating employees, (4) training employees, and (5) wise use of capital (Cortright & Mayer, 2001).

The above research echoes the recent findings on Missouri high-growth businesses and the challenges facing their owners and/or decision makers. Romitti and Bruton, (2007), found that Missouri high-growth businesses listed their top five issues related to their continued success were, (1) finding qualified employees, (2) dealing with increased administrative duties, (3) paying for higher healthcare, (4) accounting for higher office cost and cash flow needs, and (5) staying competitive. This study (Romitti & Bruton, 2007) also found the top three educational/training needs of high-growth business owners and/or decision makers were business management, accounting, and organizational management and communications. The results of this study (Romitti & Bruton, 2007) echo the past study of Cortright & Mayer (2001) in identifying the educational needs of high-growth business owners and/or decision makers. As stated above, the research on the educational needs of high-growth business owners and/or decision makers is still relatively new, but with the increased importance of these businesses to the new economy, it is realistic to envision a strong line of research and findings to be undertaken in the years to come.

## Conclusion and Summary

Adult education continues to be a strong complement to traditional education in Missouri, as well as throughout the United States (Kim & Bonk, 2006). Additionally, adult continuing education within the business profession for business owners and/or decision makers is the key to the success of Missouri businesses and their growth. High-growth businesses in Missouri produce over 250% more jobs than traditional businesses and the owners of such businesses describe themselves as educated, risk-takers, and students of the trade (Romitti & Bruton, 2007). This literature review was designed to create a foundation, which can assist in determining the factors that affect participation of owners and/or decision makers of high-growth businesses in the continuing business education programs offered by the UMEBDP and other educational programs.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

This chapter describes how the research design was chosen and implemented. The first chapter introduced the study and its intent, while the second chapter provided an overview of the literature on adult continuing education participation, continuing business education and high-growth businesses. This chapter describes: (a) the rationale for the research design, (b) purpose of the study and research questions, (c) design of the study, (d) population of the study, and (e) data collection and analysis, including instrumentation.

#### **Rationale for the Research Design**

Exploration of the factors that affect participation in continuing business education by high-growth business owners and/or decision makers in Missouri is the focus of this research. High-growth business owners and/or decision makers were surveyed to determine their reasons for participation as well as to collect demographic variables associated with their businesses. A survey research design was used, based on the many advantages survey research offers. First, surveys are flexible and versatile. They are an excellent way to measure frequency of attitudes, beliefs, and behaviors of respondents (Weisberg et al., 1996). Surveys are a cost-effective mechanism to gain information. Also, data can be collected through surveys in a variety of ways, including web-based surveys and can be designed according to the amount of data that is needed. A web-based questionnaire based on the PRS was designed (Grotelueschen, 1985). Due to the ability to use an electronic database of email contacts for the population of high-

growth business owners and/or decision makers, the full population was sampled. The email database of the population allowed for broad representation of the various factors being researched. The representativeness of the sample offered generalizations for the owners and/or decision makers of high-growth businesses of Missouri. Data were gathered, using the methods of Dillman (2007), and were analyzed using descriptive, correlation, and regression analysis. Dillman (2007) offers specific strategies for surveys, specific to web-based surveys, to increase response rates. Dillman (2007) suggests a survey framework that creates trust with the participant, while Dillman also outlines a timeline and strategy for follow-up with the population in efforts to increase response rates. The data were analyzed in order to understand the motivations that affect participation and the relations of various demographic variables to participation.

#### Purpose of the Study and Research Questions

This study explored the factors associated with participation of owners and/or decision makers of Missouri's high-growth businesses in the continuing business education programs offered by the UMEBDP and other adult business education programs. Similarly, this study investigated the relationship between the factors of the reasons for participation from the PRS, as well as owner and/or decision maker education level, owner and/or decision maker race, business industry, number of employees, business size based on sales, geographic location, owner and/or decision maker gender, and age of business owner and/or decision maker.

Segmentation of the adult education market is important in successfully planning and marketing business programs. Currently, the UMEBDP is in its infancy in segmenting its markets. Little data or research guides the program in segmenting markets

and understanding the factors that affect adult participation in these segments. This research will assist the UMEBDP in better alignment of its courses with current and potential target markets.

### *Research Questions*

Research questions addressed in the study were:

1. What are the motivational reasons related to participation of high-growth business owners and/or decision makers in programs offered by the UMEBDP or any other continuing business education programs?
2. How does linear combination of the factors of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level explain variances in participation in the programs offered by the UMEBDP and other continuing business education programs?

### Design of the Study

A correlational study design using survey data collection was employed as the design of the study. A survey design using the PRS (Grotelueschen, 1985) was employed to research the factors related to participation in continuing education programs in business. Additional factors associated with businesses, such as owner and/or decision maker education level, owner and/or decision maker race, business industry, number of employees, business size based on sales, geographic location, owner and/or decision maker gender, and age of business owner and/or decision maker were also studied. The study was administered through internet surveys and was based on Dillman's (2007)

work in creating trust, motivation, and reducing the cost (time) associated with taking the survey, as well as capitalizing on ease of submission.

Analysis of the responses to the PRS and the additional variables included descriptive measures, correlations, factor analysis, and logistical regression. These approaches were used to determine the leading reasons adults report for participation in UMEBDP offerings.

### Population

Participants for this study included the businesses listed in the MERIC high-growth business list that was created by the Bureau of Labor & Statistics in 2007. This list consisted of 6,500 businesses in Missouri that have doubled their employment from 2001-2007. This list identified the high-growth business owner and/or decision maker. A database of the contact email for the owner and/or decision maker of this population was created and was used for the survey. Of the total population, over 90% demonstrated valid email addresses.

### *Selection of Participants*

Of the 6,500 businesses defined above, 5,400 had valid email addresses, which was 83% of the businesses. All of the high-growth business owners and/or decision makers with valid emails were selected as participants of the study. All high-growth business owners and/or decision makers were contacted via email and given the opportunity to participate in the study through completing the online survey. High-growth business owners and/or decision makers that had not completed the online survey were reminded about the survey and given the opportunity to participate by three follow-up emails that were spaced approximately two weeks apart. A total of 1,142 responses from



the total population of 6,500 Missouri high-growth businesses were received, yielding a 17% response rate. Of the 6,500 businesses, 5,400 had valid email addresses, which was 83% of the businesses. A response rate specific to those businesses that had valid email addresses was 21%.

### Data Collection and Analysis

An internet survey was designed and delivered through software provided by Enginettech. The survey was created based on the structure and design of Dillman's 2007 Total Design Method, as well as the needs of the audience, was offered by means of self-administration using an electronic questionnaire (Appendix B). Common business terms were used and the survey was designed for readability, encouragement of trust, and efficiency of time. Permission to use the Participation Reasons Scale was obtained before data were collected. The demographic data form was drawn from common business factors and variables presented in research question two. A partnership with MERIC allowed for use of the list of high-growth businesses based on employment reporting. The survey was sent electronically to all high-growth businesses owners and/or decision makers in Missouri. Return rates were monitored and additional electronic reminders were sent to those not responding. These reminders were sent electronically to all those who had not responded every two weeks for a total of three reminders. To ensure confidentiality of the survey, a coding method offered through the survey instrument was used to identify respondents and demographic data. Data collection was guided by the use of the PRS. This instrument has been widely used and has been selected for its use in the study for its proven reliability and ease of use (Grotelueschen, 1985).

The specific steps for the study began with the electronic distribution of the survey to the email database (Parsons, 2007). Participants were given eight weeks to respond to the survey. The electronic survey used identifiers to track respondents and non-respondents. After two weeks, non-respondents were e-mailed a reminder and were given two more weeks for submissions. A third e-mailing was sent to participants in efforts to increase the response rate, when necessary. All responses were then analyzed with the use of SPSS.

#### *Variables and Procedure for Analyzing Data*

Data compiled from the PRS survey were analyzed using SPSS, Version 17.0 (2008). The dependent variable for this study was the dichotomous variable to participate in continuing business education offerings, which was a yes or no question. Additionally, a second dependent variable was included for additional study, which was the dichotomous variable to participate in continuing business education offered by the UMEBDP. Respondents answered whether or not they had participated in a formal continuing business education program in the last year. For this study, continuing business education consists of face-to-face, formal business education offered in a formal setting in a group setting. The independent variables included the reasons (factors) for participation based on the PRS, as well as demographic data, including the variables of owner and/or decision maker education level, owner and/or decision maker race, business industry, number of employees, business size based on sales, geographic location, owner and/or decision maker gender, and age of business owner and/or decision maker.

Table 3.1

Variables

Dependent Variable	Independent Variables
Participation	Industry - Defined by North American Industry Classification System Number of employees - Defined by segmentation for employee regulations Business size - Defined by the businesses gross sales Geographic location - Defined by University of Missouri Extension regions Owner and/or decision maker gender - Defined as male or female Owner and/or decision maker race – Defined as white or non-white Owner and/or decision maker education - Defined by National Center for Education Statistics

The data were then reduced to create dichotomous variables, including dummy variables as needed, for each of the above independent variables. Table 3.2 outlines each variable and the collection of variables for each dichotomous variable.

Table 3.2

## Independent Variable Coding

Variable	0	1
Region	Urban	Rural
Age	Under 45	45 or older
Gender	Male	Female
Jobs	25 and under	Over 25
Race	White	Non-White
Education Level	High School Level or Less	Above High School Level
Mid Sales	Less than \$250,000	\$250,000 or more
High Sales	Less than \$1,000,000	\$1,000,000 or more
NAICS Construction	Non-Construction	Construction
NAICS Retail	Non-Retail	Retail

The data analyzed in SPSS were used for descriptive computations, factor analysis, correlation analysis and regression analysis. Analysis of correlation coefficient significance is based on context and purpose of the study (Cohen, 1988).

Oblique rotation factor analysis of the PRS items was conducted to reduce the number of variables (Kim & Mueller, 1978) to answer the first research question. Oblique rotation procedures were chosen, based upon the assumption that the extracted factors would be associated with one another (Grotelueschen, 1985). Correlational analyses were used to explore the relationships among all the variables. Finally to answer the second research question two logistic regressions were performed to explore the

associations between the independent and dependent variables. These regressions generated odds ratios (effect sizes) that assisted in the interpretation of results (Babbie, 2001). A chi square overall model evaluation test was conducted to determine the significance of the regression models. In addition, a Hosmer and Lemeshow test statistic was calculated to verify that both models fit the observed data (Field, 2006).

### *Instrument*

Data for this study were collected using the PRS developed by Grotelueschen (1985). The standard PRS is a 30-item instrument, while variations on this are acceptable (Grotelueschen, 1985). The PRS reliability or internal consistency was reported with a coefficient alpha level of .84 (Grotelueschen, et al. 1980). Additional variables were gathered based on common business variables and demographic data. Both were designed for electronic submission and were self-administered. A 7-point Likert type scale was used to assess the relative importance of different reasons for participation as viewed by the high-growth business owners and/or decision makers in Missouri. The instrument directs respondent to indicate on a seven-point scale the relative importance of the reasons for participation in continuing business education (one represents not important, while seven represents extremely important).

The PRS is based on three assumptions: (a) the act of the participation is a purposeful activity not just a casual activity. The act of participating is undertaken as a means rather than an end. (b) Research on reasons for participation in continuing education should have an educational focus, meaning that learning is used to attain a goal that is part of professional practice. (c) Research should address reasons for participation such as collegial learning, collegial interaction, job security, and relationship to a

profession, not just to build on general knowledge. These three assumptions insures that the PRS is relevant to program planning, educational accountability and development (Groteulueschen, Kenny, & Harnisch, 1980), therefore making it beneficial for future program planning in continuing business education and programs offered by the UMEBDP.

The survey was designed to encourage response using Dillman's Total Design Method (2007) using business terms and was designed for participants to complete the survey within 15 minutes.

#### *Validity and Reliability*

The PRS instrument used in this study has demonstrated a reliability of .84 (Grotelueschen, et al. 1979). This tool was developed specifically to measure relative importance of the reasons for participation in continuing education. Grotelueschen (1985) stated that administration of the PRS to various professions confirm that the PRS factor scales exhibit satisfactory levels of reliability with internal consistency coefficients rating from a low of .78 to a high of .92.

The PRS was developed to identify relationships between profession and person-related characteristics, as well as identify reasons for participation and the differences among reasons, both within a profession and across professions. The instrument has been refined over time as new data have been collected and analyzed. The scale has had various iterations, differing by the number of items and applicability to the various professions. The original PRS began as a 19-item sale, evolved into a 35 item scale and then changed into its final forms as a 30 item form. The authors of the scale were

concerned with keeping the instrument concise while still maintaining reliability and validity (Grotelueschen, 1985).

The factor structure of the current PRS was created by DeSilets (1990). Factor analysis is a statistical tool used to reduce large sets of data into manageable factors.

### *Generalization*

Generalizing study results across the state is very important. The need for generalization led to the decision to use the full population of all Missouri high-growth business owners and/or decision-makers who had an email address (which was 90% of the total population) to ensure accurate representation across the state, as well as from urban and rural populations. The total population of the list was evenly distributed between urban and rural representation, which is comparable to the data from the Romitti and Bruton (2007) study. The use of total population sampling, along with a sufficient response rate and comparison data from this study to the previous study on this population, allowed for generalization of this study's findings to high growth small business owners and/or decision-makers in Missouri.

### Summary

This study, designed to evaluate the reasons for participation in the programs offered by the UMEBDP, was developed to determine the factors that affect participation of high-growth business owners and/or decision makers enrolled in continuing business education programs as well as continuing business education programs offered by the UMEBDP. Additionally, this study investigated the relationship among the demographic variables, including the variables of owner and/or decision maker education level, owner and/or decision maker race, business industry, number of employees, business size based

on sales, geographic location, owner and/or decision maker gender, and age of business  
owner and/or decision maker



## CHAPTER FOUR

### RESULTS

The purpose of this chapter is to present the results of the survey of reasons for participation in adult business continuing education among Missouri high-growth business owners and/or decision makers. The analysis consists of three parts, (1) a discussion of the characteristics of the demographics of the Missouri high-growth business owner and/or decision maker respondents, (2) a discussion of the reasons for participation scale and the resulting extracted factors for participation, and (3) discussion of the findings regarding the association between participation and reasons for participation and respondent demographics.

#### Descriptive Statistics

Data obtained from the survey were imported into SPSS version 17.0 (2008). The data set contained 1,142 responses from the total population of 6,500 Missouri high-growth businesses, yielding a 17% response rate. Of the 6,500 businesses, 5,400 had valid email addresses, which is 83% of the businesses. A response rate specific to those businesses that had valid email addresses was 21%. This rate is viewed as a strong response rate with this population. Missouri high-growth business owners and/or decision makers routinely discuss the demands on their time and their challenging schedules (Romitti and Bruton, 2007). The level of respondents for this survey demonstrates a strong response rate. The following sections will provide descriptive statistics of the entire data set, as well as the factor analysis, correlation analysis and logistic regression analysis.

## Demographics of Missouri High-growth Business Owners and/or Decision Makers

In 2008 6,500 Missouri businesses were identified by MERIC as high-growth businesses based on the criteria discussed in Chapter 2, which consisted of businesses in Missouri that have doubled their employment from 2001-2007. Of these high-growth businesses, a total of 5,400 businesses had valid email addresses for use in an online survey. A total of 1,142 subjects responded to a survey from June to September of 2009.

### *Geographic Location*

The respondents were categorized into the eight regions of the University of Missouri Extension program. Of these regions, the two urban regions (Kansas City and St. Louis) were combined to create an urban category, while the other regions were combined to create the rural category. Urban high-growth businesses accounted for 549 or 48% of the respondents, while rural businesses were 593 or 52%. These results reflect the distribution of high-growth businesses throughout the state, as the MERIC study showed 50% of businesses in urban areas (St. Louis and Kansas City) and 50% in the rural areas (all other areas of the state).

### *Participation*

The subjects were asked to identify if they had participated in any formal continuing business education in the previous year. They were also asked if they had participated in an offering brought to them by the UMEBDP. Overall, 408 or 35.7% of respondents indicated that they had participated in continuing business education within the last year, while 160 or 14% indicated they had attended an educational event sponsored by the UMEBDP.

### *Owner and/or Decision Maker Age*

Each subject's age was recorded in categories, and these categories were combined to create two age groups. 413 or 36.2% of the respondents were under age 45; while 729 or 63.8% reported they were 45 and over. This compares closely to the national average of 66% of small business owners being 55 or over (U. S. Bureau of Census and the Office of Advocacy, 2008)

#### *Owner and/or Decision Maker Gender*

Respondents showed that the male owner and/or decision maker was most prevalent, with 734 or 64% being male, while 408 or 36% were female. This too mirrors the national averages which exhibit that 66% of small business owners are male.

#### *Business Size*

Respondents reported their yearly gross sales with; 576 or 50.4% having sales between \$250,000 and \$1,000,000, 371 or 32.5% had sales under \$250,000, while 195 or 17.1% reported sales over \$1,000,000.

#### *Number of Employees*

Respondents indicated that 25 and under employees was the most prevalent, with 754 or 66% indicating this number of employees. Three hundred eighty-eight or 34% stated they had over 25 employees.

#### *Industry*

The top level NAICS codes were used to identify type of business. The NAICS codes offer twenty industry classifications. Retail trade was the highest ranking NAICS category, with 128 or 11.2% of respondents indicating this type of business, followed by construction with 199 or 10%. These results were compared to the data offered from the

full population list of Missouri high-growth businesses and the results were very similar to the full population. Results about business type are presented in Table 4.1.

Table 4.1

Industry Based on North American Industry Classification System

Industry	Frequency	Percent	Percent in Population
11- Agriculture	18	1.6	0.9
21 – Mining	5	0.4	0.2
22 – Utilities	30	2.6	0.2
23- Construction	119	10.4	16.5
31 - 33- Manufacturing	65	5.7	5.8
42- Wholesale Trade	61	5.3	7.7
44-45 - Retail Trade	128	11.2	10.5
48-49 - Transportation and Warehousing	44	3.9	4
51 – Information	77	6.7	3.3
52- Finance and Insurance	82	7.2	4.9
53- Real estate, rental and leasing	64	5.6	3.6
54 - Professional and scientific services	103	9	9.6
55- Management of companies, enterprises	41	3.6	2.6
56- Administrative and waste management	58	5.1	6.7
61- Educational Services	57	5	0.9
62 -Health care and social assistance	74	6.5	8.4
71- Art, entertainment, recreation	31	2.7	1.5
72- Accommodation and food services	41	3.6	5.4
92- Public Administration	29	2.5	6.4
Other	15	1.3	1

*Race*

Respondents showed little diversity, with 1080 or 94.6% being white and 62 or 5.4% being non-white. In this latter group, 3% were Black, 1% were Asian and less than 1% Pacific Islander or Native American.

*Education Levels*

Survey results were grouped into two major education levels. Seven hundred eighty-five or 68.7% of respondents had a high school education or less, while 357 or 31.3% stated they had education beyond a high school degree.

#### Participation Reasons Scale Factor Analysis

The Participation Reasons Scale responses were analyzed by running an item total correlation for each item. In efforts to find the leading factors associated with participation in adult continuing business education, a principal component factor analysis with promax (oblique) rotation with Kaiser Normalization was performed on responses to the 30 items of the PRS 30. This analysis resulted in the identification of four factors that met the statistical criterion or eigenvalue greater than 1.0 (Gorsuch, 1983). Four factors were retained for rotation. Those four factors are described as follows:

*Factor 1: Quality Improvement:* Five participation reasons loaded on this factor. The majority of the items loading on this factor were associated with quality and improvement. The questions grouped for this factor were question 17, “sharpening my perspective in the industry,” question 18 “to help me keep abreast of new developments,” question 20 “to assess the direction my business is going,” question 25, “to increase my individual service to my business and community,” and question 30, “to reflect on the value of my business.”

*Factor 2: Customer Performance:* Seven participation reasons loaded on this factor. The majority of the items loading on this factor were associated with customer performance. The questions grouped in this factor are question 4 “better meet customer expectations,” question 5 “maintain current skills and abilities,” question 14 “increase my proficiency

with customers,” question 19 “increase likelihood that customers are better served,” question 23” to be challenged in my thinking,” question 24” to enhance the image of my business,” and question 27 “develop proficiencies to maintain quality performance.”

*Factor 3: Strategy:* Two factors loaded on this factor, and they were associated with strategy. Question 15 “to consider changing the emphasis of my current business,” and question 22 “to increase the likelihood of business advancement.”

*Factor 4: Networking and Profitability:* Two factors loaded on this factor, which dealt with business networking and profitability: Question 11, “to increase the likelihood of business profitability,” and question 12, “to learn from interaction with others.”

Coefficient Alphas were determined for each factor. Factor 1 had a reliability coefficient of .855. Factor 2 had a reliability coefficient of .644. Factor 3 had a reliability coefficient of .952, while Factor 4 had a reliability coefficient of .898. The reliabilities for each factor were found to be high, therefore, the factors were found to have sufficient internal consistency to be further analyzed. Table 4.2 presents the reliability, mean, scale items and alpha for each of the four factors extracted from results from the PRS. Table 4.3 presents the scree plot which demonstrated four variables which evolved from the factor analysis.

Table 4.2

Reliability for the Participation Reasons Scale (N=1142)

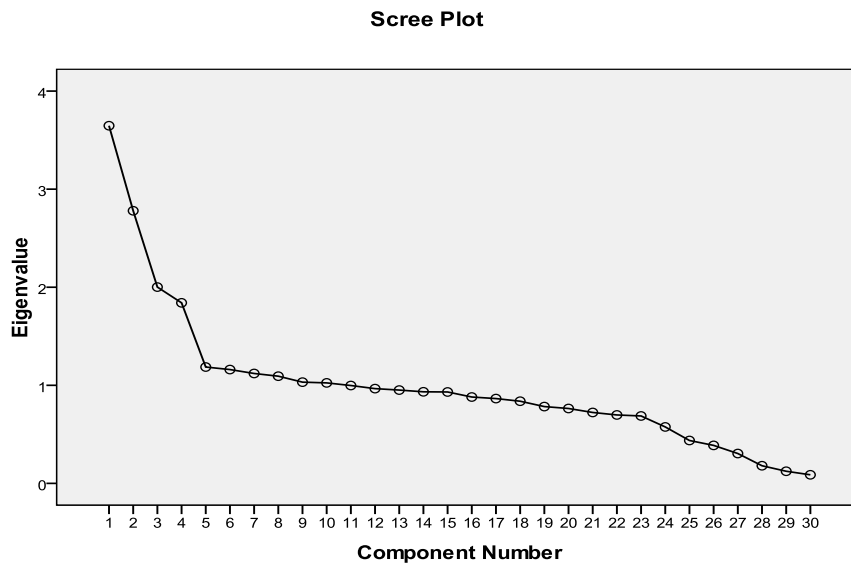
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Scale	Mean	Adjusted Mean	Number of Items	Alpha	Scale Items
Factor 1	25.0065	5.0013	5	0.855	17, 18, 20, 25, 30
Factor 2	31.2844	4.4692	7	0.644	4, 5, 14, 19, 23, 24, 27
Factor 3	7.8196	3.9098	2	0.952	15, 22
Factor 4	11.3528	5.6764	2	0.898	11, 12

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Table 4.3

Scree Plot



The items and factor loadings for participation reasons and attitudes are presented in Table 4.4.

Table 4.4

Four Factor Scale for Participation Reasons with Loading Items

Factor Loading	Item Loading	Reason
Factor 1: Quality Improvement		
0.714	Q17.	To sharpen my perspective of my industry.
0.559	Q18.	To help me keep abreast of new development in my industry.
0.647	Q20.	To assess the direction in which my business is going.
0.757	Q25.	To improve my service to the public as business owner and/or decision maker.
0.682	Q30.	To reflect on the value of my business.
Factor 2: Customer Performance		
0.291	Q4.	To enable me to better meet customer expectations.
0.571	Q5.	To maintain my current skills and abilities.
0.335	Q14.	To increase my proficiency with customers.
0.38	Q19.	To help me increase the likelihood that customers are better served.
0.293	Q23.	To be challenged by the thinking of other business owners and/or decision makers
0.551	Q24.	To enhance the image of my business.
0.315	Q27.	To develop proficiencies necessary to maintain quality performance.
Factor 3: Strategy		
0.900	Q15.	To consider changing the emphasis of my current business.
0.909	Q22.	To increase the likelihood of business advancement.
Factor 4: Networking & Profitability		
0.817	Q11.	To increase the likelihood of business profitability.
0.871	Q12.	To learn from the interaction with other business owners and/or decisions makers.



## Participation in Continuing Business Education

Participants responded to survey question number one by answering if they had participated in formal continuing business education in the last year. They were then asked if they had participated in a formal continuing business education offered by the UMEBDP in the last year. The following results first demonstrate the correlation analysis results for those businesses who responded that they had participated in a formal continuing business education program in the last year (not specific to programs offered by the UMEBDP), while the second shows results specific to UMEBDP participants.

### *Correlation Analysis*

Correlation analysis and logistic regression were used to determine how strongly demographic variables were associated with participation in continuing business education programs. The correlations among all variables are displayed in Table 4.5 and 4.6. The predictors were the demographic variables of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level. The four factors that emerged from the PRS were also analyzed in this fashion, and those factors included quality improvement, customer performance, strategy, and networking and profitability

### *PRS Factors*

When the factors derived from the PRS were analyzed in relation to participation, all factors had a positive correlation, while two showed significant correlations. The highest correlation was associated with customer performance ( $r = .096$ ;  $p = .01$ ). Additionally, quality improvement demonstrated a significant positive correlation ( $r = .068$ ;  $p = .023$ ). Strategy did not meet the significant level ( $r = .053$ ;  $p = .074$ ) while

networking offered did not either ( $r = .001$ ;  $p = .969$ ). Both strategy and networking did not meet the significance level of .05; therefore they were determined to offer no significance in relation to participation. Table 4.4 demonstrates the findings, which does demonstrate a statistical significance between participation and the factors of customer performance and quality improvement. While the correlations are statistically significant, they are not strong enough to support meaningful and practical significance.

Table 4.5

Correlations of Factors for Participation

		Participation	Quality Improvement	Customer Performance	Strategy	Networking
Participation	R	1				
	P					
Quality Improvement	R	.068	1			
	p	.023				
Customer Performance	R	.096	.131	1		
	p	.001	.000			
Strategy	r	.053		.029	1	
	p	.074	.010	.326		
Networking	r	.001	.046	.046	-.039	1
	p	.969	.121	.121	.191	

Note.  $r$ = Pearson Correlation;  $p$ =Significance Level (2-tailed)

### *Demographic Variables*

The demographic variables of industry type, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level were also used in a correlation

analysis to determine if any of the demographic variables were associated with participation of Missouri high-growth business owners and/or decision makers in continuing business education programs. Table 4.6 demonstrates the results of the correlation analysis. The factors of age, gender, current employees, race, and sales lacked significant correlations with participation. Variables which demonstrated significant correlations are discussed in the following paragraphs.

#### *Education Level*

Respondents with reported higher levels of education were less likely to participate in continuing business education offerings ( $r = -.057$ ;  $p = .053$ ). The significance level of .053 is slightly above the .05 level so there is no statistical significance demonstrated for participation based on education level, but it was close enough to significance to warrant presentation.

#### *NAICS Construction*

Respondents that owned or made decisions in designated construction companies based on their two digit NAICS code showed a negative correlation with participation. Construction businesses owners/decision-makers reported were less likely to participate in continuing business education offerings ( $r = -.153$ ;  $p = .000$ ). The high significance level demonstrates that there is a statistical significance, with construction businesses less likely to participate in continuing business education programs.

#### *NAICS Retail*

Respondents who owned or were decision-makers in retail companies based on their two digit NAICS code showed a negative correlation with participation as well. Retail business owners and/or decision-makers were less likely to participate in

continuing business education offerings ( $r = -.103$ ;  $p = .001$ ). Again the high significance level demonstrates a statistical significance, with retail businesses less likely to participate in continuing business education programs.

### *Region*

Respondents who were rural business owners and/or decision makers showed a positive correlation with participation ( $r = .344$ ;  $p = .000$ ). This correlation level demonstrated the highest level of statistical significance in the study, demonstrating that rural high-growth business owners and/or decision makers are more likely to participate in continuing business education than their urban counterparts.

Table 4.6

Correlations of Demographic Variables for Participation

		Participation	Age	Gender	Current Employees	Race	Education Level
Participation	r	1					
	p						
Age	r	.010	1				
	p	.743					
Gender	r	.054	-.028	1			
	p	.067	.339				
Current Employees	r	.032	.017	.025	1		
	p	.275	.575	.406			
Race	r	-.033	.084	-.001	-.041	1	
	p	.258	.005	.967	.163		
Education Level	r	-.057	-.011	-.073	-.061	.030	1
	p	.053	.701	.013	.039	.308	

Note.  $r$ = Pearson Correlation;  $p$ =Significance Level (2-tailed)

Table 4.6 (continued)

## Correlations of Demographic Variables for Participation

		Participation	Mid Sales	High Sales	NAICS Construction	NAICS Retail	Region
Participation	r	1					
	p						
Mid Sales	r	-.003	1				
	p	.923					
High Sales	r	.011	-.458	1			
	p	.702	.000				
NAICS Construction	r	-.153	.109	-.025	1		
	p	.000	.000	.393			
NAICS Retail	r	-.103	-.286	.097	-.121	1	
	p	.001	.000	.001	.000		
Region	r	.344	.052	.036	-.223	.031	1
	p	.000	.078	.223	.000	.299	

Note. r= Pearson Correlation; p=Significance Level (2-tailed)

## Logistic Regression

Finally, a logistic regression (Tabachnick & Fidell, 1996) was used to explore the relationship between the variables of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level, owner education, quality improvement, customer performance, strategy and networking to determine what linear combination of factors was associated with participation in continuing business education programs. The direct or enter method of logistic regression was used, and Table 4.7

details the overall evaluation of the logistic regression model generated and the goodness of fit for the model. The chi square overall model evaluation test demonstrates that the model is significant. In addition, the Hosmer and Lemeshow test demonstrated that both models fit the observed data (Field, 2006).

Table 4.7

Logistic Regression Analysis for Participation

Model	X <sup>2</sup>	Df	P
Overall Model Evaluation			
Omnibus Test	196.70	14	.000
Goodness-of-fit test			
Hosmer and Lemeshow	13.160	8	.106

Predictor Variables Wald Statistics and Odds Ratios for Participation in Any Business Continuing Education Programs

The demographic and participation factors were also analyzed by computing the Wald Statistic and Odds Ratio for each variable. These statistics offered additional results in determining the significance of the contribution each variable contributed to the probability of participation in any business continuing education programs Table 4.8 illustrates the results of this particular analysis. Those variables that met the level of significance were: region, education level, customer performance, construction NAICS, and retail NAICS. Detail about the results of these variables is reported below.

*Region*

The Significant Wald statistic and odds ratio of 110.426 and Exp (B), or Odds Ratio of 4.605 can be interpreted to mean the odds of rural business owners and/or decision makers participating are 4.6 times higher than their urban counterparts.

#### *Education Level*

The Wald's statistic of 5.507 and the Exp (B), or Odds Ratio of .705, coupled with the negative correlation, can be interpreted to mean the odds of business owners and/or decision makers which have higher than a high school degree participating are .705 times less than those with a high school degree or less.

#### *Customer Performance*

The Wald's statistic of 7.453 and the Exp (B), or Odds Ratio of 1.318 can be interpreted to mean the odds of participating for business owners and/or decision makers that are motivated for participation by factors associated with customer performance are 1.3 times higher than those who are not.

#### *Construction NAICS*

The Wald's statistic of 10.520 and the Exp (B), or Odds Ratio of .389, coupled with the negative correlation, can be interpreted to mean the odds of construction business owners and/or decision makers participating in continuing business education are .389 times less than businesses with NAICS codes other than construction.

#### *Retail NAICS*

The Wald's statistic of 16.989 and the Exp (B), or Odds Ratio of .348, coupled with the negative correlation, can be interpreted to mean the odds of retail business owners and/or decision makers participating are .348 times lower than businesses with NAICS codes other than retail.

Table 4.8

Wald Statistics and Odds Ratio for Participation in any  
Business Continuing Education Programs

	B	S.E.	Wald	Sig.	Exp(B)
Region	1.527	.145	110.426	.000	4.605
Age	-.052	.148	.122	.727	.950
Gender	.173	.142	1.484	.223	1.189
Jobs	.190	.149	1.620	.203	1.209
Race	-.243	.308	.626	.429	.784
Education Level	-.350	.149	5.507	.019	.705
Quality Improvement	.686	.407	2.838	.092	1.986
Customer Performance	.276	.101	7.453	.006	1.318
Strategy	.082	.065	1.614	.204	1.086
Networking	-.095	.084	1.282	.258	.909
Mid Sales	-.307	.164	3.522	.061	.735
High Sales	-.271	.215	1.586	.208	.763
NAICS Construction	-.944	.291	10.520	.001	.389
NAICS Retail	-1.057	.256	16.989	.000	.348
Constant	-5.518	2.086	6.996	.008	.004

This regression model was able to predict high growth business owners and/or decision makers' participation in continuing business education programs with an accuracy rate of 72.6%. This is a positive finding as the regression shows strong ability to predict participation accurately. Table 4.9 demonstrates these results.



Table 4.9

The Observed and the Predicted Frequencies for Participation in any Business Continuing Education Programs by Logistic Regression

Observed	Predicted		% Correct
	No	Yes	
No	591	143	80.5
Yes	170	238	58.3
Overall % Correct			72.6

#### Participation in Continuing Business Education offered by UMEBDP

Participants responded to survey question number one by answering if they had participated in formal continuing business education in the last year. They were then asked if they had participated in a formal continuing business education offered by the UMEBDP in the last year. The above results demonstrated the correlation analysis and logistic regression results for those owners of and/or decision-makers in businesses who responded that they had participated in a formal continuing business education program in the last year (not specific to programs offered by the UMEBDP), while the findings below show results that are specific to UMEBDP participants.

#### *Correlation Analysis*

Correlation analysis and logistic regression were used to determine the strength of association between demographic and respondents' participation in continuing business education programs offered by the UMEBDP. The correlations among all variables are displayed in Table 4.10 and 4.11. The independent variables were the demographic

variables of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level. The four factors that emerged from the PRS were also included in this analysis and those factors included quality improvement, customer performance, strategy, and networking and profitability

#### *PRS Factors*

When the factors derived from the PRS were analyzed in relation to participation in UMEBDP, all factors had a positive correlation, except for the factor of networking. Table 4.9 details the findings, which does demonstrate a statistical significance between participation and the factor of customer performance ( $r = .114$ ;  $p = .001$ ). Other variables did not meet the significance level of .05 or less, therefore were not deemed statistically significant. Strategy demonstrated an  $r = .025$ ;  $p = .390$ , networking showed results of  $r = -.013$ ;  $p = .659$ , while quality improvement had a correlation of  $.051$ ;  $p = .086$ .

Table 4.10

## Correlations of Factors for Participation in UMEBDP

		Participation	Quality Improvement	Customer Performance	Strategy	Networking
Participation	r	1				
	p					
Quality Improvement	r	.051	1			
	p	.086				
Customer Performance	r	.114	.131	1		
	p	.000	.000			
Strategy	r	.025	.076	.029	1	
	p	.390	.010	.326		
Networking	r	-.013	.046	.046	-.039	1
	p	.659	.121	.121	.191	

Note. r= Pearson Correlation; p=Significance Level (2-tailed)

### *Demographic Variables*

The demographic variables of industry type, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level were also used in a correlation analysis to determine if any of the demographic variables were associated significantly with participation of Missouri high-growth business owners and/or decision makers in UMEBDP programs. Table 4.11 demonstrates the results of the correlation analysis. The factors of gender, current employees, race, education level, retail NAICS and sales lacked

significant correlations with participation. Variables that demonstrated significant correlations are discussed in the following paragraphs.

#### *Age*

Age demonstrated a negative correlation with participation ( $r = -.074$ ;  $p = .012$ ). This result demonstrates that survey respondents who were 45 or older were less likely to participate in continuing business education programs offered by the UMEBDP.

#### *NAICS Construction*

Respondents who owned or were decision-makers in construction companies based on their two digit NAICS code showed a negative correlation with participation. Respondents associated with Construction businesses were less likely to participate in UMEBDP offerings ( $r = -.072$ ;  $p = .016$ ).

#### *Region*

Respondents who were rural business owner and/or decision makers showed a positive correlation with participation ( $r = .085$ ;  $p = .004$ ).

Table 4.11

Correlations of Demographic Variables for Participation in UMEBDP

		Participation	Age	Gender	Current Employees	Race	Education Level
Participation	r	1					
	p						
Age	r	-.074	1				
	p	.012					
Gender	r	.036	-.028	1			
	p	.224	.339				
Current Employees	r	.014	.017	.025	1		
	p	.635	.575	.406			
Race	r	-.052	.084	-.001	-.041	1	
	p	.078	.005	.967	.163		
Education Level	r	-.022	-.011	-.073	-.061	.030	1
	p	.460	.701	.013	.039	.308	

Note. r= Pearson Correlation; p=Significance Level (2-tailed)

Table 4.11 (continued)

## Correlations of Demographic Variables for Participation in UMEBDP

		Participation	Mid Sales	High Sales	NAICS Construction	NAICS Retail	Region
Participation	r	1					
	p						
Mid Sales	r	.027	1				
	p	.367					
High Sales	r	-.002	-.458	1			
	p	.942	.000				
NAICS Construction	r	-.072	.109	-.025	1		
	p	.016	.000	.393			
NAICS Retail	r	.033	-.286	-.097	-.121	1	
	p	.272	.000	.001	.000		
Region	r	.085	.052	.036	-.223	.031	1
	p	.004	.078	.223	.000	.299	

Note. r= Pearson Correlation; p=Significance Level (2-tailed)

### Logistic Regression

Logistic regression (Tabachnick & Fidell, 1996) was used to explore the relationship between the variables of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level, quality improvement, customer performance, strategy, and networking to determine the predictor variables and odds ratios in relationship to participation in UMEBDP programs. A direct or enter method of logistic regression was used, and Table 4.12 details the overall evaluation of the logistic

regression model generated and the goodness of fit for the model. The chi square overall model evaluation test demonstrated that the model was significant. In addition, the Hosmer and Lemeshow test demonstrated the model fit the observed data (Field, 2006).

Table 4.12

Logistic Regression Analysis for Participation in UMEBDP

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Model	X <sup>2</sup>	Df	P
Overall Model Evaluation			
Omnibus Test	45.460	14	.000
Goodness-of-fit test			
Hosmer and Lemeshow	11.026	8	.200

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Predictor Variables Wald Statistics and Odds Ratios for Participation in UMEBDP

The demographic and participation factors were also analyzed by computing the Wald Statistic and Odds Ratio for each variable. Table 4.13 illustrates the results for this analysis. Those variables that met the level of significance were: region and customer performance. A description of results for these variables is addressed below.

*Region*

The Wald's statistic of 4.017 and the Exp (B), or Odds Ratio of 1.449 can be interpreted to mean the odds of rural business owners and/or decision makers participating in UMEBDP continuing education are 1.4 times less than their urban counterparts.

*Customer Performance*

The Wald's statistic of 14.146 and the Exp (B), or Odds Ratio of 1.730 can be interpreted to mean the odds of business owners and/or decision makers participating in continuing business education offered by UMEBDP by factors associated with customer performance are 1.7 times higher than those who are not.

Table 4.13

Wald Statistics and Odds Ratio for Participation in UMEBDP

	B	S.E.	Wald	Sig.	Exp(B)
Region	.371	.185	4.017	.045	1.449
Age	-.328	.185	3.137	.077	.720
Gender	.227	.182	1.551	.213	1.255
Jobs	.123	.191	.418	.518	1.131
Race	-.941	.531	3.139	.076	.390
Education Level	-.156	.193	.657	.417	.855
Quality Improvement	.749	.490	2.342	.126	2.116
Customer Performance	.548	.146	14.146	.000	1.730
Strategy	.051	.084	.365	.546	1.052
Networking	-.083	.110	.566	.452	.921
Mid Sales	.289	.219	1.741	.187	1.335
High Sales	-.135	.281	.229	.632	.874
NAICS Construction	-.721	.394	3.340	.068	.486
NAICS Retail	.341	.290	1.375	.241	1.406
Constant	-7.966	2.506	10.106	.001	.000



This regression model was able to predict high growth business owners and/or decision-makers' participation in UMEBDP programs with an accuracy rate of 85.9%.

Table 4.14 demonstrates these results.

Table 4.14

The Observed and the Predicted Frequencies for Participation in UMEBDP by Logistic Regression

Observed	Predicted		% Correct
	No	Yes	
No	981	1	99.9
Yes	160	0	0
Overall % Correct			85.9

#### Summary

One thousand one hundred forty two Missouri high-growth business owners and/or decision makers completed the survey based on the PRS. A factor analysis of the PRS was used to answer the first research question about motivation factors for participation. The results of the study indicate that Missouri high-growth business owners and/or decision-makers' motivation for participation is affected by factors associated with quality improvement, customer performance, strategy, and networking and profitability.

Table 4.15 illustrates the final results

Table 4.15

Correlation and Odds Ratio Results for Participation in Any Continuing Business

Education and UMEBDP

Variable	Correlation		Odds Ratio	
	Participation	Participation UMEBDP	Participation	Participation UMEBDP
Region	.344	.085	4.605	1.449
Age		-0.074	-	-
Gender	-	-	-	-
Jobs	-	-	-	-
Race	-	-	-	-
Education Level	-	-	.705	-
Quality Improvement	.068	-	-	-
Customer Performance	.096	.114	1.318	1.730
Strategy	-	-	-	-
Networking	-	-	-	-
Mid Sales	-	-	-	-
High Sales	-	-	-	-
NAICS Construction	-0.153	-0.072	-	-
NAICS Retail	-0.103	-	-	-

Note. - denotes variable did not meet level of significance

To answer the research question about how well demographic variables and motivation for participation could explain variance in participation, both in continuing education programs and those specific to the UMEBDP, a logistic regression analysis

was conducted. Demographic variables found to be significantly related to the variance in participation of any business continuing education programs were education level, NAICS code of construction and retail, and region, while the variables found to be significantly related to the variance in participation in UMEBDP were age, NAICS code of construction, and region. Additionally the factor of customer performance showed a statistically significant positive correlation with both participation in continuing business education programs and the programs offered by the UMEBDP. Quality improvement showed a statistically significant positive correlation with participation in any business continuing education programs.

In conclusion, the four motivational factors reported by respondents for their participation in continuing business education programs were quality improvement, customer performance, strategy, and networking and profitability. Variables that were related at statistically significant levels with participation in any continuing business education programs as well as in UMEBDP programs were region in which respondents worked and the customer performance motivational reason.

## **CHAPTER FIVE**

### **Summary, Conclusions, and Recommendations**

The purpose of this chapter is to present a summary of the research, as well as a discussion of findings. A number of studies have been conducted on adult participation in continuing education. The findings of this study will be addressed in relation to the previous studies on adult participation and continuing business education. Additionally, limitations will be discussed, as well as conclusions gleaned from the research. Finally, implications for practice in the area of participation in continuing business education offerings will be discussed.

### **Summary of Research**

The primary purpose of this study was to identify motivational reasons related to participation of Missouri high-growth business owners and/or decision makers in continuing business education programs as measured by the Participation Reasons Scale (PRS) (Grotelueschen, 1985). The secondary purpose was to determine how the factors of industry type, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, owner and/or decision maker education level, and motivation reasons explain variances in participation in continuing business education programs and programs offered by the UMEBDP.

In 2008, 6,500 Missouri businesses were identified by MERIC as high-growth businesses based on the criteria discussed in Chapter 2. Of these high-growth businesses, a total of 5,400 businesses had valid email addresses for use in an online survey. A total of 1,142 subjects responded to a survey from June to September of 2009 and these

responses were used to identify motivations for participation, based on the Participation Reason Scale (Grotelueschen, 1985). Frequencies, descriptive statistics, standard deviations and means were calculated to describe the demographic characteristics of the participants.

A factor analysis was conducted to extract the factors associated with motivations for participation. Correlation analysis and logistic regression was used to further study the data and identify variables that were significantly related to participation in continuing business education programs.

The results of the study indicate that Missouri high-growth business owners and/or decision makers are motivated to participate in continuing business education programs based on factors associated with quality improvement, customer performance, strategy, and networking and profitability.

A logistical regression analysis was conducted to evaluate how well demographic variables and motivation reasons could predict motivation for participation in continuing business education programs. The independent variables thought to be related to participation were: industry type, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, owner and/or decision maker education level, and motivation reasons

The findings for this study can assist organizations that offer continuing business education in their design and marketing of such education in efforts to increase participation from high-growth business owners and/or decision makers.

## Findings from the Research

### *Research Question 1*

This study was designed to answer two research questions. The first research question was, what are the motivational reasons related to participation of high-growth businesses in programs offered by the University of Missouri Extension Business Development Program or any other adult education programs? To answer this question, data were collected using the PRS developed by Grotelueschen (1985). The survey tool used in this study was based on the PRS with questions specific to continuing business education. The survey was designed for electronic distribution and was self-administered. A 7-point Likert type scale was used to assess the relative importance of different reasons for participation as viewed by the high-growth business owners and/or decision makers in Missouri. The survey was designed to encourage response using Dillman's Total Design Method (2007) using business terms and was designed for participants to complete the survey within 15 minutes. One thousand one hundred forty two high-growth business owners and/or decision makers completed the survey in its entirety and the data from the survey were then compiled and analyzed in SPSS. Descriptive statistics were calculated to insure the reliability of the data. In efforts to find the leading factors associated with participation in adult business continuing education, a principal component factor analysis with promax rotation with Kaiser Normalization was performed on the PRS 30 items. This analysis resulted in the identification of four factors which met the statistical criterion or eigenvalue greater than 1.0 (Gorsuch, 1983). Four factors were retained for rotation. Those four factors are described as follows:

*Factor 1: Quality Improvement*

Five participation reasons loaded on this factor. The major theme of the items loading on this factor was associated with quality and improvement. The questions grouped for this factor included keeping abreast of new development, sharpening industry perspectives, assessing the business direction, increasing individual service to business and community and reflection on the value of the business.

*Factor 2: Customer Performance*

Seven participation reasons loaded on this factor. The major theme of the items loading on this factor was associated with customer performance. The questions grouped in this factor included better meeting customer expectations, maintaining current skills and abilities, increasing proficiency with customers, increasing likelihood that customers are served better, to be challenged in thinking, enhancing image of business and developing proficiencies to maintain quality performance.

*Factor 3: Strategy*

Two items loaded on this factor, and they were associated with strategy. They dealt with consideration of changing the emphasis of current business and increasing the likelihood of business advancement.

*Factor 4: Networking and Profitability*

Two items loaded on this factor, which dealt with business networking and profitability. The themes were centered on increasing the likelihood of business profitability and learning from interaction with others.

### *Motivational Reasons Related to Participation*

In answering Research Question 1, each of the PRS factors were analyzed through correlation and regression analysis to identify the relationship of the factors to both continuing business education and programs offered by UMEBDP.

### *Customer Performance*

The highest correlation of PRS factors was associated with customer performance for participation in continuing business education as well as participation in UMEBDP. This PRS factor showed the strongest correlation with participation in both continuing business education as well as UMEBDP programs.

### *Quality Improvement*

Additionally, the PRS factor of quality improvement demonstrated a significant positive correlation for continuing business education. This factor did not meet the significance levels needed for further statistical significance.

### *Research Question 2*

The second question the research study was designed to answer was, how does linear combination of the factors of industry, number of employees, business size, geographic location, owner and/or decision maker gender, owner and/or decision maker race, and owner and/or decision maker education level explain variances in participation in any continuing business education program and the programs offered by the University of Missouri Extension Business Development Program?

To answer this question, the data were analyzed in SPSS to create descriptive statistics to insure data reliability and credibility. Respondents' demographic data were analyzed and descriptive statistics of the participants offered insight into the various



variables associated with the respondents. Respondents were evenly distributed between rural and urban areas. A key question of the survey asked participants if they had participated in any formal continuing business education in the previous year. They were also asked if they had participated in an offering brought to them by the UMEBDP. Overall, the subjects responded that 408 or 35.7% had participated in continuing business education within the last year, while 160 or 14% indicated they had attended an educational event sponsored by the UMEBDP.

Correlation analysis and logistic regression were then used to determine how strongly demographic variables and motivations for participation were related to participation in any continuing business education programs and in UMEBDP programs.

#### Findings for Participation in Any Continuing Business Education Programs

The variables of age, gender, current employees, race, and sales were not significantly correlated with participation. Variables that demonstrated significance in the correlation and logistic regression analyses were education level, NAICS construction, NAICS retail, and region

#### Findings for Participation in UMEBDP

The factors of gender, current employees, race, education level, retail NAICS and sales lacked significant correlations with participation. Variables that demonstrated significant correlations and odds ratios were age and region.

#### Limitations of Research

A general limitation of this study was that the population and sample only included those business owners and/or decision makers who were identified as high-growth by MERIC and the Bureau of Labor Statistics (Romitti & Bruton, 2007).

MERIC's definition of high-growth businesses is based on the doubling of employment and no other factors. As research indicates (Birch, 1998), identifying high-growth businesses based solely on one attribute of business success may not allow full identification of all businesses in Missouri that are high-growth. Basing high-growth only on employment limits the number of businesses that are considered high-growth, and businesses which may be considered high-growth that aren't included in this research may have other responses that could change the outcome of the survey results.

A second type of limitation, related to the first is associated with generalizability of the findings. The data were gathered from participants who were identified as Missouri high-growth business owners and/or decision-makers, and therefore the research cannot be generalized to other high-growth business owners and/or decision-makers throughout the nation, or other business owners and decision/makers who are not classified as high-growth. Another limitation of the study was the use of the electronic survey and email database. Only those high-growth business owners and/or decision makers with access to the internet and a valid email could participate in this study. The data did demonstrate that over 80% of all the high-growth business owners and/or decision makers identified by MERIC did have an active email, so this did not offer a sizeable limitation to the study, but should be noted. The findings of this study did offer comparable demographic data to the MERIC study completed by Romitti and Bruton (2007).

Additionally, this study focused on continuing business education only, as defined in the definitions and on the PRS, and will be generalized only to other programs offering formal continuing business education offerings. As continuing business education

evolves and is offered in a variety of new venues, this study will not be as applicable in assisting in understanding the reasons for participation.

Also, for this study, urban businesses were comprised of businesses from St. Louis and Kansas City only. Springfield, although not the size of Kansas City or St. Louis, is sometimes viewed as an urban city, but in this study, and the MERIC study (Romitti and Bruton, 2007), Springfield is represented in the rural category.

Furthermore, since I am a past employee of the UMEBDP, my own experiences and assumptions offer a small degree of research bias. Separation of my views as a past employee assisted in controlling this bias. Additionally, as I have been separated from my employment from UMEBDP for nearly two years, I have gained a stronger understanding of the program and a greater perspective as I am no longer an employee of the program. This can be viewed as a limitation but also as a benefit as it allows me a full understanding of the continuing business education offered by UMEBDP and the many variables that affect participation in continuing business education programs.

#### Discussion of Research Results

This discussion of the findings of the study will focus on the participation reasons factors and the demographic variables. In addition, consistencies and inconsistencies of the findings with previous literature will be discussed.

#### *Participation Reasons Scale*

Participation Reasons Scale studies have helped to identify various emerging factors of why adults participate in continuing education. The PRS is used in various professions, and although the order of the factors for participation vary in various professions, the motivators are fairly static (Grotelueschen, 1985). Past PRS studies have

demonstrated that the following reasons are the underlying reasons for participation in continuing education: (a) competence, (b) collegial learning, (c) professional service, (d) professional commitment and (e) personal benefit and job security (Groteulueschen, 1985).

Four factors for participation emerged from this study, and they are, in rank order, networking and profitability, quality improvement, customer performance, and strategy. This study found, like other studies (Cervero, 1988; Catlin, 1981, & Groteulueschen et al, 1979), that the factors that emerged were comparable to the results of other studies. Additional details on the likeness of the results to other studies are detailed in the following discussion.

This study, like past PRS studies (Cervero, 1988), found the adjusted mean scores for the factors that emerged were not equal. The adjusted mean scores for the reason factors were (a) quality improvement with an adjusted mean of 5.00, (b) customer performance with an adjusted mean of 4.46, (c) strategy with an adjusted mean of 3.909 and, (d) networking and profitability with an adjusted mean score of 5.67.

In past studies, an average of five factors has emerged from the data for reasons for participation (Groteulueschen 1985). This study saw four factors emerge and they are discussed below in relation to the five most common factors of the PRS.

#### *Competency/Quality Improvement*

The factor associated with competency and quality improvement primarily reflects on the professional's concern with improving and maintaining knowledge or skill which are required in the specific profession. This factor was ranked first in Groteulueschen's (1979) study of business professionals. This study was very consistent with Groteulueschen's past studies in that a number of factors loaded on this related to

maintaining and improving professional skills. The results of this study found this factor, the factor of Quality Improvement, was ranked second overall in the four factors.

Previous studies in which this factor was rated first include Harnisch (1980), Grotelueschen (1981), Tait (1990), Desilets (1990), Childers (1993) and Grzyb (1997). These studies were conducted with professionals such as veterinarians, physicians, nurses, business professionals, army professionals and judges and suggested that across various professions this factor holds strong significance. Quality Improvement in this study did not show a positive or negative correlation of statistical significance to participation.

#### *Personal Benefit and Job Security/ Strategy*

The factor that relates to personal benefit and job security reveals the participants need to increase the likelihood of personal financial gain and benefits for job security and advancement. This factor was ranked second in Groteulueschen's (1979) study of business professionals. In contrast, Grotelueschen (1985) offered that across other professions the importance of this factor is reduced, often being the least important of the five factors.

In this study, two questions loaded on this factor and they were associated with strategic intentions of the business owner and/or decision maker and the likelihood of advancement. Thus, this factor dealt less with personal benefit than with benefit to the business of the respondents. In line with Grotelueschen's (1985) assertion that this factor often ranks last, the adjusted mean of this factor for this study was ranked last. Strategy in this study did not show a positive or negative correlation of statistical significance to participation.

### *Professional Service/ Customer Performance*

The factor that relates to professional service and customer performance reflects the professional's concern to increase the likelihood of better serving their customers and clients by keeping abreast with new technology and developments in their professional field. Grotelueschen (1979) offers insight into this factor by noting that it can be ranked differently based on the profession's customer service orientation or setting of practice.

Past research illustrates how this factor is related to the client service orientation of the professional. This study found a number of questions loading on this factor and this factor was ranked third of the four factors. Important to note, this factor had the strongest positive correlation with participation in continuing business education and education offered by the UMEBDP. Past research (Romitti & Bruton, 2007) illustrates the importance high-growth business owners and/or decision makers put on customer satisfaction. The positive correlation of this factor with participation clearly defines the importance of customer service and performance to Missouri high-growth business owners.

### *Collegial Learning/ Networking and Profitability*

The factor of collegial learning and networking and profitability has emerged from previous PRS studies as it relates to the professionals' desire to be more competent in his/her field and interact with others in their profession. This factor consistently ranks in the lower part of factors of studies using the PRS (Catlin, 1981; Harnisch, 1980 and

Tait (1990). Unique to this study, this factor emerged as Networking and Profitability and yielded the highest mean score of 5.67.

High-growth businesses have been the focus of various studies that illustrate the quest of business owners and/or decision makers to maximize profits and to network with their fellow high-growth business owners and/or decision makers in finding ways to further the success of their business endeavors (Romitti & Bruton, 2007; Wiklund, 1998). This passion for success could be a factor in the importance this motivational factor demonstrated in this study. Networking and Profitability in this study did not show a positive or negative correlation of statistical significance to participation.

#### *Demographic Variables*

For this study, the variables of gender, race, number of current employees, and sales lacked significant correlations with participation in both continuing business education and participation in UMEBDP programs. The factors of region and NAICS construction showed statistical significance in participation in both continuing business education as well as participation in UMEBDP. The variables of NAICS retail showed significance at the overall participation rate, while the variable of age was statistically significant when studying participation in the UMEBDP programs when considering results of the logistic regression.

#### *Gender and Race*

Findings show that employment-related issues usually encourage adults to engage in educational offerings, and a vast percentage of adult learners are “white, middle-class, employed, younger, and better educated” (Merriam et al., 2006, p. 71). Using data from the Adult Education and Lifelong Learning Survey of the 2001 National Household

Education Survey Programs, Kim, Hagedorn and Williamson (2004) reported the adult learner is more likely to be a woman than man and represents all races and ethnicities.

The non-significant findings related to gender and race offer opportunities for further research in better understanding how these variables are correlated to participation in continuing adult education. However for research in this area to be valid, researchers will have to obtain a larger number of nonwhite business owners and/or decision-makers than I was able to obtain for the present study.

#### *Number of Current Employees and Annual Amount of Sales*

This study found no statistical significance related to participation in studying the factors of current employees and sales. As research specific to continuing business education is in its infancy, variables strictly associated with businesses, such as employees and sales, have not been extensively studied in relationship to participation. Future studies may offer more data on any relationships between these variables and participation in continuing business education.

#### *Region*

This study found a strong positive statistical significance between both participation in continuing business education and participation in continuing business education offered by the UMEBDP and region. The correlation analysis and regression analysis demonstrated a positive correlation between business owners and/or decision makers in a rural setting and their participation rates.

Historic data demonstrate an increased rate of participation in continuing adult business education in urban areas (Kim, et al., 2004), and UMEBDP participation rates also show stronger participation from businesses in urban areas. It is to be noted that



these historical data are not specific to high-growth business owners and/or decision makers, but businesses in general

Unique to other business segments, high-growth businesses often state the main reason they choose their location was because it was close to home/where they grew up (Romitti & Bruton, 2007). The majority of businesses throughout the nation select their location based on other factors, such as market availability, traffic patterns, and cost of labor (Birch, 1987). Past studies involving high-growth businesses illuminate the business owner and/or decision makers' passion to help the community they grew up in or live in. Their focus is not only on creating and growing a strong business, but assisting the communities around them.

Traditional business markets in Missouri are often located in urban areas, while this study found that nearly half of the Missouri high-growth business owners and/or decision makers are not in urban areas. Rural high-growth business owners and/or decision makers may be more likely to participate in continuing business education programs because they are looking for ways to network and learn from other high-growth businesses. Urban businesses can do this through a variety of other venues, while rural business owners are limited in the opportunities to learn and exchange ideas with experts in their field.

#### *NAICS Construction and NAICS Retail Businesses*

Various studies using the PRS discuss the increased importance of continuing business education in various industries and professions. Owners and/or decision-makers in construction and retail businesses were found to have a significant negative correlation with participation. Past research (Romitti & Burton, 2007) did find that high-growth

business owners and/or decision makers within the field of construction were less likely to view continuing business education as important, while their research did not find any specific data related to retail business owners and/or decision makers.

### *Education Level*

As stated above, findings show that employment-related issues usually encourage adults to engage in educational offerings, and a vast percentage of adult learners are “white, middle-class, employed, younger, and better educated” (Merriam et al., 2006, p. 71). The findings of non-significance for educational level in the participation in UMEBDP programs is noted, while unique to this study, a statistical significance was found when studying the relationship of education level with participation in the logistic regression analysis.

Cross (1981) studied the previous level of education in relation to the educational participation and found them to be highly related. Using data from the Adult Education and Lifelong Learning Survey of the 2001 National Household Education Survey Programs, Kim, et al. (2004) reported the adult learner is more likely to have a college degree than a high school diploma or less.

This finding, as discussed above, is contrary to past studies and the basic principles of participation research that are based on the premise that education begets more education and participation. Further research must be done to begin to fully understand this phenomenon. Based on past research of high-growth business owners and /or decision makers, a common theme revolves around their action and experimental orientation as opposed to a theoretical orientation (Baum & Bird, 2010). High-growth business owners and/or decision makers may not have found value earlier in their

educational endeavors in pursuing higher degrees of education, but now, due to the demands of business regulations and laws, feel the need to continue their education in the business setting. Additionally, a majority of the Missouri high-growth business owners and/or decision makers are in professions which don't require higher educational degrees or licensures which require higher education.

### *Age*

This study found statistical significance in participation of programs offered by UMEBDP based on age, while there was no significance when studying participation in continuing business education programs in general. Past studies (Armstrong, 1983; Childers, 1993; Grotelueschen, 1981; Groteulueschen, et al., 1981; Harnisch 1980; Rizzuto, 1983; Waldon, 1985) found that participation reasons varied by the characteristic of age. Specifically age has been shown to be negatively correlated to participation (Cervero, 1985). Anderson and Darkenwald (1979) also found age and participation to have a high correlation, with higher age associated with lower likelihood of engaging in formal learning. The present study also determined that age was negatively correlated to participation in continuing business education programs offered by the UMEBDP programs: participants age 45 and older were less likely to participate in continuing business education.

In contrast to past research studies though, age showed no statistical significance when studied as a predictor for Missouri high-growth business owners and/or decision makers' participation in continuing business education programs in general.

## Conclusions from Research

In conclusion, the four motivational factors reported by respondents for their participation in continuing business education programs were (a) quality improvement, (b) customer performance, (c) strategy, and (d) networking and profitability. A number of variables offered little to no significant statistical association with participation in continuing business education, while the primary findings of this study were associated with the demographic variable of region and the PRS factor of customer performance. These two independent variables showed strong association with participation and both associations were positive in nature. A number of themes arose as conclusions from this research

### *Different Factors Associate with Different Providers in Association with Participation*

It can be concluded that the factors of the PRS and demographics of Missouri high-growth business owners and/or decision makers are not inclusive across various types of continuing business education, but indeed vary based on the entity offering the program. The findings for participation in continuing business education in general in comparison with the findings based on continuing business education offered by the UMEBDP showed different statistical significance between the variables of NAICS code construction, NAICS code region, business owner and/or decision maker educational level, and age.

### *Rural Missouri High-Growth Business Owners and/or Decision Makers Significance*

It can be concluded that rural Missouri high-growth business owners and/or decision makers show a stronger likelihood to participate in continuing education programs. The demographic variable of region showed strong positive statistical

significance with both continuing business education programs in general and those offered by the UMEBDP. Business owners and/or decision makers in rural areas illustrated a stronger likelihood of participation than their urban counterparts, with odds ratios of 1.449 to 4.605 in UMEBDP programs and other continuing business education programs.

Rural business owners and/or decision makers are often overlooked when studying entrepreneurship, economic development and continuing education participation. This is a very important finding in that it illuminates the importance of the Missouri high-growth business owners and/or decision makers that are located in rural areas and the opportunities associated with offering continuing business education programs to them.

Currently the UMEBDP does not differentiate between rural and urban business owners and/or decision makers. Additionally, staffing throughout the state leads to more programs and assistance offered in the urban areas. This study should assist the UMEBDP in understanding the importance of rural business owners and/or decision makers and offer more programs in the rural areas. Rural business owners and/or decision makers are participating more, but I feel the UMEBDP could gain even more attendance if they offer more programs that are easily accessed by the rural businesses.

#### *Customer Performance Significance*

Finally, it can be concluded that Missouri high-growth business owners and/or decision makers exhibit a positive statistical significance of participation in relation to the PRS factor of customer performance. Past studies have noted the high importance Missouri high-growth business owners and/or decision makers put on customer service

and offering quality products to satisfy their customers while increasing the businesses' economic success (Romitti & Bruton, 2007). This study showed a positive correlation between participation and the factor of customer performance. This is a promising finding, as continuing business education programs can design and implement programs to fit the needs of Missouri high-growth business owners and /or decision makers in the areas of customer service and performance, and this study demonstrates that there is a positive correlation between this factor and participation.

#### Recommendations for Future Research

Further research is recommended regarding the reasons Missouri high-growth business owners and/or decision makers participate in continuing business education. Additionally, research studying why other business segments are motivated to participate in continuing business education would be beneficial to the UMEBDP. Comparing reasons for participation between high-growth business owners and/or decisions makers and those owners and/or decision makers of non high-growth businesses in Missouri would assist in better understanding the differences between these two segments and how to best meet the needs of these markets.

A replication of this study with other target markets, including those of foundation and lifestyle businesses, would offer further knowledge on the similarities and differences between the various markets which the UMEBDP target. A longitudinal study that tracks economic factors that affect these business segments would also be beneficial in gaining knowledge about the relationship between economic challenges and opportunities associated with participation.

Longitudinal studies of this data set would be very beneficial. A follow-up study with this population, in light of the changes in the economy, would determine how many businesses are still classified as high-growth, and would determine any changing reasons for participation in relation to the changing economy and business needs of the owner and/or decision makers.

Determining what additional variables may significantly impact the reasons for participation would be beneficial in future studies. This study was created with a specific set of variables, while future studies may explore other variables to develop further understanding about what motivates high-growth business owners and/or decision-makers to participate in continuing business education.

Finally, qualitative studies would be beneficial in learning more about the motivations of Missouri high-growth business owners and/or decision makers. This study was limited to quantitative analysis, while qualitative data would assist in further understanding the relationship between motivational factors for participation and demographic variables that may predict participation. A mixed study using both qualitative and quantitative measures would be beneficial in further understanding the motivations of participation in continuing business education programs.

#### Implications for Practice

The primary purpose of this study was to identify Missouri high-growth business owners and/or decision makers' motivations for participating in continuing business education programs as well as programs offered by the UMEBDP. The secondary purpose was to determine what demographic variables could assist in predicting Missouri high growth business owners and/or decision makers' participation in continuing business

education or those programs offered by the UMEBDP. It is important for the success of the UMEBDP to understand the motivational factors that Missouri high-growth businesses and/or decision makers have for participating in continuing business education.

Although it would be premature to base all future marketing and practice processes of the UMEBDP and other continuing business education programs on the findings of this study, it is advisable to learn from the gained knowledge of the variables associated with the participation of Missouri high-growth business owners and/or decision makers in continuing business education.

*Increase Marketing to Rural High-Growth Business Owners and/or Decision Makers*

The findings related to region and the positive correlation between rural business owners and/or decision makers and participation in continuing business education is enlightening and warrants attention when considering marketing efforts of the UMEBDP and other continuing business education programs. While a number of factors could influence this finding, and it behooves the UMEBDP and other entities which offer continuing business education programs to further research these factors, this study should serve to inform program planners and administrators in the importance of marketing to rural businesses. A concentrated marketing campaign focused on this distinct market could assist the UMEBDP in increasing participation levels in continuing business education programs offered to Missouri high-growth business owners and/or decision makers.



### *Focus on Customer Performance Topics*

Findings related to the PRS factor of customer performance can offer insight into the motivations of participation, and can be linked both to the marketing of offerings to this business segment, as well as the design and implementation of such programs. Results of this study show the high significance Missouri high-growth business owners and/or decision maker equate with factors of customer performance and their decision to participate in continuing business education programs. This finding supports the premise of various past research studies (Romitti & Bruton, 2007; Wiklund, 2000) that demonstrate the high level of importance high-growth business owners and/or decision makers put on satisfying their customers.

This study, coupled with additional research, offers program planners and developers knowledge that may increase the effectiveness of their programs in motivating Missouri high-growth business owners and/or decision market to participate in continuing business education.

### Conclusion

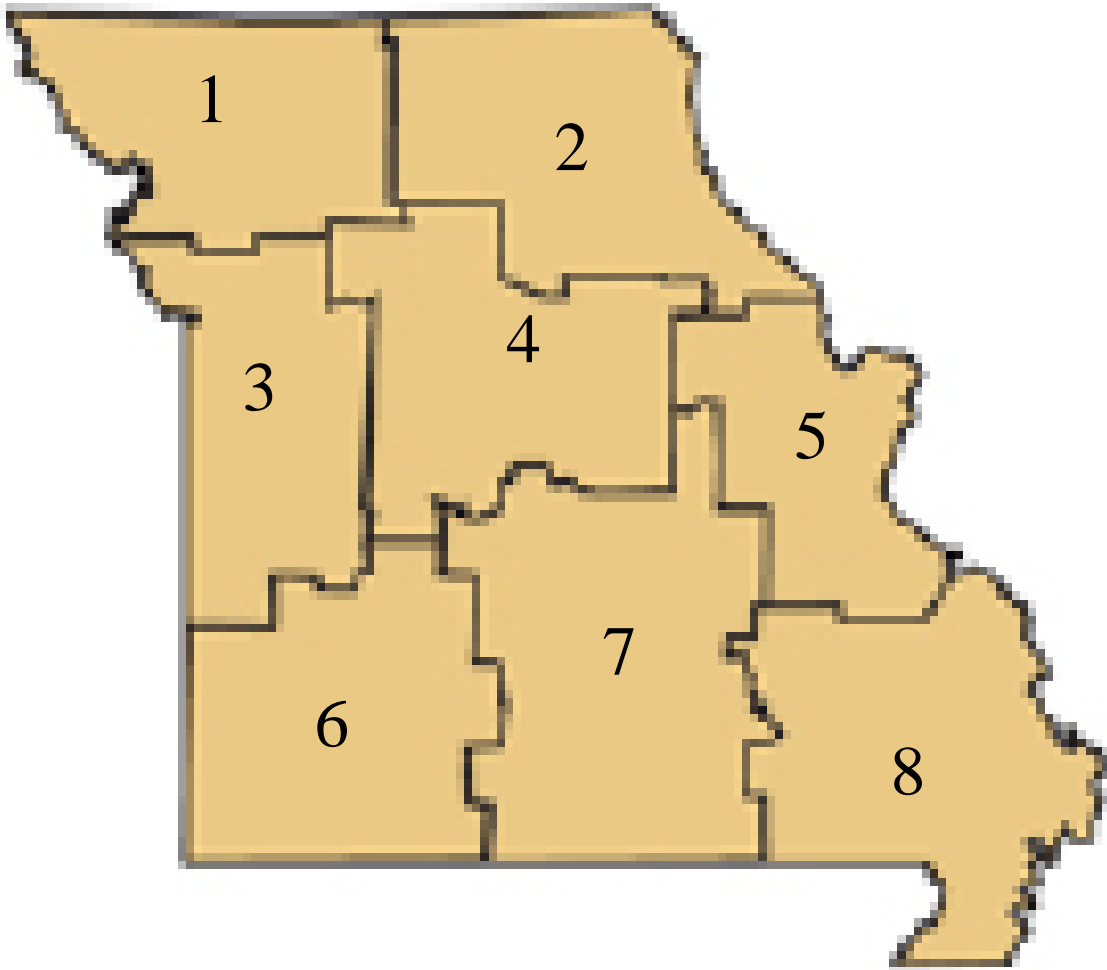
In conclusion, Missouri high-growth business owners and/or decision makers are motivated to participate in continuing business education by a variety of reasons. Understanding the motivations for participation of Missouri high growth business owners and/or decision makers can greatly assist the UMEBDP in their efforts to market to high-growth business owner and/or decisions makers, as well as assist in their development and growth of their high-growth business. The results of the study indicate that Missouri high-growth business owners and/or decision makers are motivated to participate in

continuing business education programs based on factors associated with quality improvement, customer performance, strategy, and networking and profitability.

Additionally, demographic variables found to be significantly related to the variance in participation of continuing education programs were education level, NAICS code of construction and retail, and region, while the variables found to be significantly related to the variance in participation in UMEBDP were age, NAICS code of construction, and region. Additionally the factor of customer performance showed a statistically significant positive correlation with both participation in continuing business education programs and the programs offered by the UMEBDP. Quality improvement showed a statistically significant positive correlation with participation in continuing business education programs. Variables that demonstrated significant associations with participation for both continuing business education programs as well as UMEBDP programs were those related to region and customer performance.

The UMEBDP and other organizations offering continuing business education can learn from this study ways to better engage high-growth business owners and/or decision makers in their programs. Program marketing and offerings can be guided by the factors that affect participation as well as the variables that are statistically significant in determining participation of Missouri high growth business owners and/or decision makers in continuing business education.

APPENDIX A  
UMEBDP REGIONS



## APPENDIX B

### Electronic Survey

#### ***PARTICIPATION IN ADULT CONTINUING BUSINESS EDUCATION SURVEY***

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Thank you for taking the time to participate in this study. You have been identified as the owner and/or decision maker of your business. This survey will take about 10 minutes to complete. Please read each question carefully and answer by making an x or a check mark in the circle next to the answer which most appropriately reflects your experience, or by rating and writing comments in the space provided. Your responses will be completely confidential. We appreciate your assistance and your willingness to share information. If you have any questions, feel free to contact Wendy Harrington at 573-882-8855 or [harringtonw@missouri.edu](mailto:harringtonw@missouri.edu). The University of Missouri Institutional Review Board may also be contacted for questions about your rights as a participant in this research project, 573-882-9585 or [umresearchcitr@missouri.edu](mailto:umresearchcitr@missouri.edu).

1. Have you participated in a formal continuing business education offering in the last year: Oyes Ono
2. Have you participated in a business education offering by the University of Missouri Extension Business Development Program/SBTDC (Small Business Development Centers) in the last year: Oyes Ono
3. Please select your age:  
 18-24     25-34     35-44     45-54     55-64     64 and older
4. Please select your gender:  
 male         female
5. Please select your gender:  
 male         female
6. How many employees do you currently have?  
 0-4         5-25         26-74         75-100         101 – 499         over 500
7. What best describes the industry you work in (listed by two digit NAICS code):  

<input type="radio"/> 11 - Agriculture	<input type="radio"/> 21 - Mining
<input type="radio"/> 22 - Utilities	<input type="radio"/> 23 - Construction
<input type="radio"/> 31-33 Manufacturing	<input type="radio"/> 42 - Wholesale trade
<input type="radio"/> 44-45 - Retail trade	<input type="radio"/> 48-49 - Transportation and warehousing
<input type="radio"/> 51 - Information	<input type="radio"/> 52 - Finance and insurance
<input type="radio"/> 53 - Real estate and rental and leasing	<input type="radio"/> 54 - Professional, scientific and technical services
<input type="radio"/> 55 - Management of companies and enterprises	
<input type="radio"/> 56 - Administrative and support and waste management and remediation services	
<input type="radio"/> 61 - Educational services	<input type="radio"/> 62 - Health care and social assistance
<input type="radio"/> 71 - Arts, entertainment, and recreation	<input type="radio"/> 72 - Accommodation and food services
<input type="radio"/> 92 - Public Administration	
<input type="radio"/> 81 - Other services (except public administration) _____	
8. Please select your ethnicity:  
 White         Black/African American     Asian         Pacific Islander     Native American
9. Please select your current education level:  
 less than high school     high school/GED     associates/trade degree  
 bachelor's degree: list degree     graduate degree : list degree

### REASONS FOR PARTICIPATION:

Directions: There are many reasons for participation in continuing education. The following items are designed so that you can indicate the relative importance of the general reasons you might have for participating in training or continuing professional education activities. For each time, circle the number which best represents the degree of importance you attach to each reason for your participating in training in the past year.

	Lowest	Highest
1. To further match my knowledge or skill with the demands of my business.	01	02 03 04 05 06 07
2. To mutually exchange thoughts with other business owners and/or decision makers.	01	02 03 04 05 06 07
3. To help me be more productive in my business.	01	02 03 04 05 06 07
4. To enable me to better meet customer expectations.	01	02 03 04 05 06 07
5. To maintain my current skills and abilities.	01	02 03 04 05 06 07
6. To increase the likelihood of benefits for family and friends.	01	02 03 04 05 06 07
7. To relate my ideas to those of my professional peers.	01	02 03 04 05 06 07
8. To maintain my identity with my industry.	01	02 03 04 05 06 07
9. To accommodate more affectively to the needs of my customers.	01	02 03 04 05 06 07
10. To review my commitment to my business.	01	02 03 04 05 06 07
11. To increase the likelihood of business profitability.	01	02 03 04 05 06 07
12. To learn from the interaction with other business owners and/or decision makers.	01	02 03 04 05 06 07
13. To help me develop leadership capabilities for my business.	01	02 03 04 05 06 07
14. To increase my proficiency with customers.	01	02 03 04 05 06 07
15. To consider changing the emphasis of my current business.	01	02 03 04 05 06 07
16. To develop new business skills.	01	02 03 04 05 06 07
17. To sharpen my perspective of my industry.	01	02 03 04 05 06 07
18. To help me keep abreast of new development in my industry.	01	02 03 04 05 06 07
19. To help me increase the likelihood that customers are better served.	01	02 03 04 05 06 07
20. To assess the direction in which my business is going.	01	02 03 04 05 06 07
21. To help me be more competent in business.	01	02 03 04 05 06 07
22. To increase the likelihood of business advancement.	01	02 03 04 05 06 07
23. To be challenged by the thinking of other business owners and/or decision makers.	01	02 03 04 05 06 07

- |   |                      |
|---|----------------------|
| 24. To enhance the image of my business.  | 01 02 03 04 05 06 07 |
| 25. To improve my individual service to the public as a business owner and/or decision maker. | 01 02 03 04 05 06 07 |
| 26. To consider the limitations of my role as a business owner and/or decision maker.         | 01 02 03 04 05 06 07 |
| 27. To develop proficiencies necessary to maintain quality performance.                       | 01 02 03 04 05 06 07 |
| 28. To enhance my individual security in my current business.                                 | 01 02 03 04 05 06 07 |
| 29. To maintain the quality of my business.   | 01 02 03 04 05 06 07 |
| 30. To reflect on the value of my business.   | 01 02 03 04 05 06 07 |

## APPENDIX C

### EMAIL TO PARTICIPANTS

Dear Participant,

We would like to make a special request that you spare approximately 10 minutes of your time to complete an online survey regarding your views on adult continuing business education. This survey is being sent to all Missouri High Growth Businesses, of which you and your business have qualified, based on the doubling of your employment from 2002-2007. You have been identified as either the business owner or the business decision maker. The objective of this survey is to better understand your views on participating in adult continuing business education offerings.

Please follow the link below to participate in this very important survey. The survey will be kept open until August 1, 2009, but please try to complete it as soon as possible. Your survey response will be aggregated with all business owners and decision makers. Responses are confidential. Your participation in the survey is voluntary.

Thank you in advance! Your assistance is greatly appreciated.

Wendy Harrington: University of Missouri Extension Business Development Program

[Please click here to take the survey](http://www.missouribusiness.net/surveys/SessionBRIDGE.aspx?id=7156062)  
(<http://www.missouribusiness.net/surveys/SessionBRIDGE.aspx?id=7156062>)

Further information:

If you experience any technical issues with the survey, please contact Wendy Harrington at [harringtonwd@gmail.com](mailto:harringtonwd@gmail.com).

For general questions regarding the survey, feel free to contact Wendy Harrington at 660-651-0594 or by email at [harringtonwd@gmail.com](mailto:harringtonwd@gmail.com). The University of Missouri Institutional Review Board may also be contacted for questions about your rights as a participant in this research project, 573-882-9585 or [umcresearchcirb@missouri.edu](mailto:umcresearchcirb@missouri.edu).

## APPENDIX D

### IRB APPROVAL

Dear Investigator:

Your human subject research project entitled Missouri High Growth Businesses Participation in Adult Continuing Business Education Programs meets the criteria for EXEMPT APPROVAL and will expire on June 08, 2011. Your approval will be contingent upon your agreement to annually submit the "Annual Exempt Research Certification" form to maintain current IRB approval.

You must submit the Annual Exempt Research Certification form 30 days prior to the expiration date. Failure to timely submit the certification form by the deadline will result in automatic expiration of IRB approval.

**Study Changes:** If you wish to revise your exempt project, you must complete the Exempt Amendment Form for review.

Please be aware that all human subject research activities must receive prior approval by the IRB prior to initiation, regardless of the review level status. If you have any questions regarding the IRB process, do not hesitate to contact the Campus IRB office at (573) 882-9585.

Campus Institutional Review Board



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## VITA

Wendy (Cullifer) Harrington is a native of Northeast Missouri and is originally from Emden, Missouri. She completed her Bachelor of Science degrees in Marketing and Equestrian Science in 1995 from William Woods University and her Master of Business Administration from the University of Missouri in 1999. In 2011 she earned her Doctorate of Education from the University of Missouri

Harrington began her professional career in December of 1995 as the Director of Marketing for Chariton Vet Supply of Moberly, a national supplier of equine pharmaceuticals and supplies. After earning her Masters of Business Administration, Harrington became a Business Development Specialist for the University of Missouri Business Development Program. Harrington worked in this role until accepting a position as the Director of BRIDG (Business Research and Information Development Group) in Columbia for the University of Missouri.

In 2009 Harrington accepted the position of President and CEO of the Hannibal Regional Hospital Foundation where she currently leads all development activities for the Hannibal Regional Healthcare System. Wendy and her husband Pete reside near Shelbyville, Missouri with their two children Taylor and Jared.