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Understanding the Process Small Businesses Use to Capture, Convert, and Integrate Survival Knowledge

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Understanding the Process Small Businesses Use to Capture, Convert, and Integrate

Survival Knowledge

by

Frank Marshall

A Dissertation Presented in Partial Fulfillment of the Requirements

for the Degree

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Survival Knowledge

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Frank Marshall

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Abstract

Many researchers have investigated the value of small businesses and have identified generic attributes of survival. One noted aspect of survivability is the ability to learn. Knowledge has long been recognized as a crucial competitive tool for organizational survival and competition. Further, business leaders must implement learning into the business for it to grow and survive. Capturing, converting, and integrating knowledge into the business is a requisite for business survival and represents an important line of inquiry. Since 2002, small businesses have accounted for more than 99% of all businesses and for 63% of net new jobs between 1993 and 2011. Since 2007, failure rates of small businesses have increased 40%. In California alone, more than 3 million small businesses exist, contributing 37% to the California GDP. The current research was used to add to the body of knowledge on learning and survivability using a multisite case study involving specifically small businesses within San Diego County, California, and answered the research question about how small businesses leaders implement a process to capture, convert, and integrate knowledge for the business to survive. The

research was delimited to San Diego County, California, and a multipoint sampling strategy was used to obtain subject matter expertise.

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Definitions of Terms

Business Owner

A business owner is an individual or entity that owns a business entity with the goal to profit from the successful operations of the company. Generally, the business owner has decision-making abilities and the first right to profits (Business dictionary.com, n.d.).

Case Study

A case study is a “systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest” (Bromley, 1990, p. 302).

Cash Flow

Cash flow is used to assess the quality of company income. Cash flow refers to when a business needs money. Although essentially the result of a firm's net income (with depreciation added back), cash flow is affected by balance sheet changes, not necessarily routed through the statement of profit and loss (Anand, 2013).

Collective Case Study

The study of a number of cases to inquire into a particular phenomenon (Stake, 1995).

Corporate Life Cycle

Corporate life cycle is a progression of business development from birth to death. As organizations grow and age, they progress through predictable lifecycle stages. Each stage brings increased organizational complexity, and new and unique challenges. Strategy, structure, levels of delegation, goals, rewards systems, and methods of operating usually differ markedly in each stage of the organization lifecycle (Adizes, 1979).

Customer Focus

An organizational orientation toward satisfying the needs of potential and actual customers. Members of the entire organization are involved to ensure customer satisfaction (Bloomsbury Business Library, Business & Management Dictionary, 2007). A customer focus strategy can be a competitive advantage for a small business if the small business leaders can differentiate their products or services from their competitors (Deshpande, Farley, & Webster, 1993).

Differentiate

Leaders of a small business who can differentiate their business from their competitors by uniquely positioning the business to meet the needs of the customers can charge a premium price over their competitors (Porter, 1985).

Employee

A person in the service of another under any contract of hire, expressed or implied, oral or written, where the employer has the power and/or right to control and

direct the employee in the material details of how the work is to be performed (Black's Law Dictionary, 1991, p. 363; Muhl, 2002).

Entrepreneur

A person who organizes and manages any enterprise, especially a business, usually with considerable initiative and risk (Dictionary.com, n.d.). In the current study, entrepreneurs or founders of businesses were sought who were still working at least one day a week in the business. Entrepreneurs of a firm are unique, and are willing to engage in speculative activity (Penrose, 1959).

Financial Prudence

The acceptance of a degree of caution in exercising judgment needed when making required estimates under conditions of uncertainty (Pillai, Carlo, & D'Souza, 2012).

Integration

A process of disseminating knowledge from the founder/entrepreneur to the employees in the organization (Breslin & Jones, 2012).

Learning

The set of routines and processes by which firm leaders acquire, assimilate, transform, and exploit knowledge to produce a dynamic organizational capability (Zahra & George, 2002).

Learning Process

In the current study, a learning process was a mechanism used to capture, convert, and integrate ideas and knowledge (Zahra, 2015).

Mentorship

A mentor is an individual with expertise who can help develop the career of a mentee. A mentor has two primary functions. The career related function establishes the mentor as a coach who provides advice to enhance the mentee's professional performance and development. The psychosocial function establishes the mentor as a role model and support system for the mentee (APA.org, 2006). The main outcome of mentorship is what the mentee learns as a result of that relationship (Barrett, 2006; Cull, 2006).

Nonservice Industry Business

Any company selling a nonservice product, such as a cell phone, a weight scale, or a computer.

Profitable Business

A profitable business yields profit or financial gain (Oxford Dictionary, n.d.). In the current case study, a profitable business is defined as one that has accumulated profits over the past three years, thus creating a financial gain.

Service Sector

Service sector is referred to by economists as the tertiary sector of industry. No goods are produced, just services. For example, accounting is provided to businesses and consumers. Federal, state, and local governments and colleges, universities, high schools, middle schools, and grammar schools were excluded from the current study. All business leaders should be interested in capturing knowledge, but especially within the service industry, which has grown during the Information Age. Service companies account for more than 50% of the businesses on the Standard & Poor's 500 index, and for 70% of added value in the advanced industrial economies (Newman, 2010).

Small Business

Officials at the Small Business Administration defined a small business as a business that employs fewer than 500 employees (SBA Office of Advocacy, 2012). For the current, study the definition of a small business is an entity that employs fewer than 100 employees.

Survivable Small Business

Four factors are used to define a survivable small business. First, the business has been in existence for at least 7 years. Businesses existing after the sixth year and employing fewer than 500 employees represent only 39.8% of businesses (Phillips & Kirchoff, 1989). Across all sectors, 44% of the cohort survived through the fourth year (the end of the previous study) and 31% to the seventh year (Knaup & Piazza, 2007). Second, the business has a 5% revenue growth rate over a 3-year period. Birch (1979) defined high growth enterprises as growing 20% per year over a 4-year period, thereby

doubling in size every 4 years. Only 4% of all businesses qualify as high growth. Industry overall grows about the same rate as the economy, which is 2%-3% in a good year. Outstanding growth is considered with 20%+, and 7% to 8% growth per year is higher than average (Berry, 2007). Third, the survivable small business has multiple years of profitability over a 3-year period. Fourth, the leaders foresee no change in the business so as to be survivable for an additional 5 years. The additional 5 years in business added credibility to the study by the participating companies remaining in business past the year of the interviews.

Trial and Error

Trial and error is a process, whereby focus is on experimentation and on solving a particular challenge, which requires the establishment of practices and procedures (Rui, Cuervo-Cazurra, & Annique, 2016).

Delimitations

Delimitations state the boundaries of the study (Roberts, 2010). The boundaries set for the current study were:

- Service sector small businesses in San Diego County, California.
- Additionally, the service sector businesses must have increased revenue by 5% over a 3-year period and must have profitability in 2 of the past 3 years.
- Several criteria for the businesses needed to be included in the current study, including: (a) the business had been in existence for at least seven years; (b) the business had between 10 and 99 employees; (c) the business had established a process to capture, convert, and integrate knowledge into the business; (d) the

business was located in San Diego County, CA; (e) the business was not a government agency, hospital, school, college, or university whether for-profit or not-for-profit; (f) the business was in the service sector; (g) the business had profitability in 2 of the past 3 years; (h) the entrepreneur must have been an active member of the business; (i) the business experienced a 5% growth in revenue in the past 3 years; and (j) no foreseeable changes were indicated that would prevent the business from surviving an additional 5 years.

Chapter 1: Introduction

Knowledge has long been recognized as a crucial competitive tool for organizational survival and competition (Chan & Chee-Kwong, 2008). Therefore, all business leaders, especially leaders of small businesses, are interested in increasing efficiency, productivity, competitiveness, and survivability, which are a function of knowledge generation and information processing (Castells, 2001). Organization leaders who are adept in leveraging and capitalizing their knowledge resources experience business success and performance improvement (Chan & Chee-Kwong, 2008). Converting and integrating knowledge is essential for learning and can lead to the discovery and creation of opportunities (Zahra, 2008, 2015).

A common expectation is for business leaders to invest in fixed assets to make production more efficient, but they also need to invest in the creation of knowledge that will sustain their business (Leadbeater, 2000). “Research and practice need to go beyond knowledge access and absorption in analyzing corporate entrepreneurship and also examine and study knowledge conversion and integration” (Zahra, 2015, p. 733). In a constantly changing business environment, leaders of small businesses have to continually create knowledge and implement the knowledge through the business’ learning process to differentiate itself from its competitors (Eisenhardt & Martin 2000; Teece, Pisano, & Shuen 1997; Tolstoy, 2009). As such, it is important to understand how small business leaders implement a process to capture, convert, and integrate knowledge to survive.

Economically, small businesses are important at the national, state, and local levels because small businesses contribute at least half the gross domestic product (GDP), the monetary value of all the finished goods and services produced within a country's borders in a specific time period and employ at least half of all private sector employees (Valadez, 2012). The creation of 63% of net new jobs between 1993 and 2011 has been in small businesses (U.S. Small Business Administration, 2012); therefore, the survivability of small businesses has a direct effect on the labor force at the national, state, and local levels. Many researchers have identified generic attributes of survival (Brickau, Chasters, & Mangles, 1994; Coopers & Lybrand 1994; New Zealand Trade Development Board, 1990), yet small businesses continue to fail (Headd & Kirchhoff, 2009). Accordingly, the identification of more specific characteristics or processes in successful small businesses possesses both theoretical and practical benefits.

Small businesses continue to fail despite the abundance of literature on small business survival (Headd & Kirchhoff, 2009). Leaders in some businesses achieve significant growth, while 50% of businesses do not survive their first 5 years (Clayton, Sadeghi, Talan, & Spietzer, 2013; U.S. Department of Labor, U.S. Bureau of Labor Statistics, 2010) and small businesses existing after the sixth year represent only 39.8% of businesses (Phillips & Kirchhoff, 1989). Since 2007, failure rates of small businesses have increased 40%, with California having the largest failure rate of 69% (Dun & Bradstreet, 2011). As businesses fail, more than 21 million people in the United States become unemployed or underemployed, (Goldstein, 2013), adding to the economic woes at the national, state, and local levels. Knowledge conversion and integration are fast becoming essential processes in transforming knowledge into business, mapping strategic moves, and creating new market spaces (Zahra, 2015). To increase the likelihood of

survival, leaders of a small businesses must acquire and judiciously deploy limited resources, such as financial, personnel, technology, or processes to implement a learning process and ultimately, to survive (Rubalcaba, Gallego, & Hertog, 2010). Clearly, it is important to understand businesses that survive to at least year 7, because their leaders, unlike most leaders, have determined how to create a business that survives. The current research will be used to add to the body of literature regarding business survivability by documenting how a surviving small business implements a process to capture, convert, and integrate knowledge to survive. Understanding the process might result in transferrable principles and actions that could lower the mortality rate of small business.

Literature Review

Knowledge management is a “process that helps organizational leaders find, select, organize, disseminate and transfer the important information and expertise necessary for activities, such as problem solving, dynamic learning, strategic planning, and decision making” (Gupta, Iyer, & Aronson, 2000, p. 17). Bollinger and Smith (2001) and Meso and Smith (2000) described knowledge as a strategic asset, which is valuable, rare, nonsubstitutable, and inimitable by competitors. Small business leaders leverage the diverse expertise of their employees to create a value and a competitive advantage using knowledge sharing (Grant, 1996).

Researchers, such as Zahra (2015), Agüero and Sánchez, (2010), and Senge (1990) agreed that knowledge management is more than storage and manipulation of information; it is a process that requires the commitment to create and disseminate knowledge through the organization (Marshall, Prusak, & Shpilberg, 1996; Parikh, 2001).

Committing to creating a formalized process to capture knowledge is difficult for a small business with limited resources and understanding (DeSouza, 2003). However, leaders of small businesses must find a way to capture, convert, and integrate knowledge to survive (Wong & Aspinwall, 2004). Knowledge, if properly captured, converted, and integrated, is used to enable small business leaders to outperform their rivals, creating a competitive edge.

Methodology

In the current research study, a qualitative method with a multisite case study design was used to focus on how small businesses in San Diego County, California implement a process to capture, convert, and integrate knowledge to survive within the service industry. A collective case study was used to allow a researcher to draw comparisons and explore differences (Yin, 2003) in determining how small business leaders capture, convert, and integrate direct observations, participant observation, and physical artifacts (Yin, 1994). In the current study, a collective or multisite case study of 15 small businesses bound by a set of criteria was used.

Inside Prospects, an aggregator of business data in San Diego, CA since 1977 was used because they are conveniently located in San Diego, and they collect all business data in San Diego County. The criteria for the businesses in the study were as follows: (a) in business for at least 7 years; (b) employed between 10 and 99 employees; (c) established a process to capture, convert, and integrate knowledge into the business; (d) were located in San Diego County, CA; (e) were not a government agency, hospital, school, college, or university, whether for-profit or not-for-profit; (f) were in the service sector; (g) had profitability in 2 of the past 3 years; (h) the entrepreneur was an active

member of the business; (i) had experienced a 5% growth in revenue in the past 3 years; and (j) there were no foreseeable changes that would prevent the business from surviving an additional 5 years.

When the criteria set were filtered, a list of 14,140 small businesses was created. The data set were too broad; therefore, more filters were applied to exclude franchises, divisions, and branches, which filtered to only include small businesses with single locations and headquarters in San Diego. The reason for excluding franchises, divisions, and branches was that the founder/entrepreneur must be involved in the business. After all filters were applied, 3,038 small businesses remained listed. From the list, the oldest 1,000 businesses were provided, sorted by date of incorporation.

Additional screening of the participants, using web searches, phone calls, and e-mails was required to confirm that the potential participants met the criteria before interviews could be scheduled. After the Microsoft[™] Excel[®] spreadsheet was received, Stat-trek[®] was used to generate a random number listing of the data provided by Inside Prospects. The researcher did not know how many companies would be known by the subject-matter experts (SMEs), so the random number listing would augment any known companies and keep the research process moving forward.

Each participant received 22 qualitative questions prior to the interview date. The researcher read the questions to the participants at each interview and recorded their answers on field notes. Of the 22 qualitative questions, 2 questions became the most important: (a) How does your organization learn? and (b) How do you transfer knowledge to others in the business? The answers to these two questions are reported in the findings and answer the research question: How do small businesses create a process

to capture, convert, and integrate knowledge for survival. The researcher primarily used member checking as a means to validate the answers from the participants, in addition to continually reading the interview notes.

In a qualitative study, the researcher is constantly asking if he or she is getting the story right (Creswell, 2007). One of the ways the researcher mitigated risk included restating participant answers and asking for confirmation that words were captured correctly. Additionally, the researcher asked the participants to repeat key phrases during the interviews. Restating the participants' words and having the participants repeat key phrases provided a means to check the accuracy of the interview notes prior to leaving the interview.

Sampling

Convenience sampling was used by sharing the Inside Prospects' list with the SMEs. Convenience sampling was used by the researcher to establish a list of small businesses that the researcher or the researcher's SMEs had an established relationship. Additionally, criterion and snowball sampling was used to establish participants in the study. The SMEs were from four different service fields: legal, academia, insurance, and business consulting. Each of the SMEs had at least 10 years of experience in their respective field and were respected and connected in their respective service industries, which helped identify potential participants. Additionally, each of the SMEs had worked, or was working, in a small business and understood the struggles of a small business to survive. Each SME understood potential participant bias because of their relationships with the potential participants. Therefore, the subject-matter experts contacted the participants, but did not answer any questions about the research. The initial contact with

the potential participants was made by the researcher or the researcher's SMEs, providing a warm introduction. A warm introduction has a perceived higher degree of the researcher speaking with a potential participant because of the established relationship (Barrie, 2011). Strauss and Corbin (1998) concluded saturation should be more concerned with reaching a point where new discoveries do not add anything to the overall story. Saturation was achieved within 15 interviews. Warm introductions aided the researcher with 10 out of 15 interviews. The remaining participants were contacted using random cold calls.

Some of the potential participants on the Insider Prospects list were eliminated from consideration for several reasons, which included the following: (a) the company was recently acquired, or (b) the founder was no longer a part of the company. These companies were highlighted in red on the Excel[®] spreadsheet and the leaders were not interviewed. Regardless of whether the potential participant was known by the researcher or if the potential participant was a random call, the researcher called and left voice mail messages two times and sent an e-mail, if the e-mail address was known. If no call backs or no e-mails were returned, the researcher called more names from the list using the random number listing.

Coding

The researcher relied on Strauss and Corbin's (1998) coding methods after data were collected and transcribed. Coding is the process of selecting, focusing, simplifying, abstracting, and transforming the raw data written in field notes (Huberman & Miles, 1994) and in examining the data collected to search for emerging themes from the data (Strauss & Corbin, 1998).

Three steps are involved in the coding process: open, axial, and selective. At each stage of the coding process, the data are scrutinized for consistent themes. During the coding stage, the researcher may uncover a theme that needs further examination requiring more in-depth interviews. Interviews continue until no new themes exist. Strauss and Corbin (1998) considered it the saturation point. An outcome of coding is that the researcher is continually refining interview questions to uncover more themes until a theory is developed.

A theory or theories emerged from the data at each stage of coding. The researcher clarified any data that appeared to be conflicting or needed further clarification with each participant. Emerging themes from the data were tested for their reliability and their validity. At each stage of the coding process, member checking was used to validate the results. Otherwise, the researcher would be left with interesting stories of unknown truth and utility (Huberman & Miles, 1994). Once the data were fully coded, a theory was generated to answer the research question: How do small businesses create a process to capture, convert, and integrate knowledge for survival?

Findings

The researcher uncovered three main themes. Mentors were used by the founders of the companies researched. In fact, not only did the founders use mentors, they needed to find mentors at each stage of the business development, which was important, because only 8% of small business owners use mentors (Palmieri, 2016). The next theme to emerge was that the participants used a trial-and-error process with a feedback loop to learn. Trial and error is not new, but using trial and error was used to aid the participants to learn faster than their competitors. The last theme was that integration of knowledge

into the business was led by the founders. The founders transferred knowledge to others in the business by one-on-one meetings, team meetings, lunch-and-learn meetings, and lessons learned. Combining trial and error with utilizing mentors at each stage of business development, along with integrating knowledge to others in the business, allowed the small businesses to survive.

Mentors

Each of the founders in the study intentionally established mentors for their business. Each participant of this study was classified in the researcher's codebook as PA with a corresponding number from 1 through 15. One being the first participant and 15 being the 15th participant. Throughout the document, quotes from participants were used to tell their story as Strauss and Corbin (1998) suggested. Some of their comments included:

“We learn through one-on-one mentoring” (PA 6).

“Mentorship from top down fosters learning” (PA 4).

“My brother is in the same business that we are in, but in Northern California. We bounce ideas and issues off of each other. We have learned from each other” (PA 15).

Different stages of business development exist (Adizes, 1979) and different stages of mentorship exist. In the beginning stages of the business, the founders used family members and friends who could help the founders with ideas on computer systems, banking relationships, finances, and customers.

PA11 stated:

My uncle was my mentor. He owns a business selling wood for homes in San Diego. He told me early on business was a game much like gambling. I approach the day with the idea that after 31 years, this is still a game. I need to take risks to stay on top of my game.

PA 8 asserted, “My mentor early on told me to spend nickels like manhole covers.”

As the businesses grew and became more complex, the founders intentionally sought additional mentors who could help them with their stage of development.

PA 3 commented, “Mentors are the number one way I learn. Yes, I leaped frog my mentor.”

PA 11 said, “I learn from other people’s businesses. I figure out what other successful people are doing and copy them. I bring their ideas into my business.”

The mentors are a network of knowledge experts. Literature on mentoring indicates that the main outcome of a mentoring relationship is what the mentee learns as a result of that relationship (Barrett, 2006; Cull, 2006).

Learning from the mentors is essential to business survival. Ozgen and Baron (2007) found mentors could help novice entrepreneurs. A mentor is an essential asset to a growing company (Cull, 2006). Mentors can warn of problems, help craft solutions to problems and opportunities, and be a sounding board for the entrepreneur. A mentor’s many years of experience can save a business from major errors and costly mistakes with just a few words (Cull, 2006). Meeting with their mentors monthly allowed the founders to share ideas such as new business opportunities and to receive feedback from the

mentors on the ideas. Founders can try an idea, capture learnings from the idea, and then talk over the results with their mentors. It is important to continually find mentors to fit the stage of development of the business and who fits with the founder.

Learning Through Trial and Error

The founders learned using a trial-and-error process. In a trial-and-error process, the focus is on experimentation and on solving a particular challenge that requires the establishment of practices and procedures (Rui et al., 2016). Trial and error was the process used by the businesses, aiding the founders to learn faster than their competitors and leading to new sales opportunities. Several participants commented.

PA 3 noted:

We learned to use trial and error by using a marketing and advertising campaign built for one client's vertical market then duplicating the marketing and advertising campaign in another vertical market for a different client and the sales flood gates have opened up. We have increased the organization's sales by adopting a marketing and advertising campaign and using it in several vertical markets.

PA 6 said, "We learned faster to run the business side of our practice than our competitor."

PA 4 asserted, "Business opportunities....exploit before your competitor: winning projects with budget driven pricing. Continuing to be open to different kinds of projects, keeps us on our corporate toes, and the swiftness that projects move through the office."

PA 15 stated:

I watched our competitors fail. During the 2000 and 2008 recessions, because we are financially frugal, we were able to make it through the recessions when the competitors did not. We persevered while the competitors dried up. I saw them drop by the wayside. The competitors also did not give great customer service.

PA 7 said, “We control the entire process which gives us a competitive advantage. Doing everything is our biggest asset.

PA 11 commented:

The Discovery Conference Centre. I was able to exploit this before my competition. This has helped me with survival. I provide a place where attorneys can hold depositions or have meetings in private. I provide a physical space with Internet, video conferencing, a receptionist and refreshments.

Learning is Accomplished Through Multimodal Learning:

PA 9 commented:

We learn from doing and observing. It is through our experience that we learn. When we make mistakes we make adjustments. We read literature from people in our industry. We look online for cleaning tips. We learn from outbidding our competitors.

PA 13 stated:

We learn by example and through experience studying, and teaching. Interacting with clients. I contact clients and talk to them. We talk through issues. We may

talk about an important piece of case law. We learn through the client experience and interaction. Teaching others. You have to take time away from the business to learn.

The participants failed at times through their trial-and-error process, learning from their failures, capturing their learnings and integrating the knowledge, but kept moving forward:

PA 11 pointed out, “Failure = success = business. Must fail at times but keep moving forward and make decisions.”

PA 10 said, “If you are not failing, then you are not differentiating yourself and are probably in the wrong area of business.”

Failing to maintain the business was not an option for any of the participants in the study. PA 12 said, “From day 1, failure was not an option. You don’t go into a business with the idea it will fail.”

PA 14 claimed, “I learn from experience and I learn from my and others’ mistakes.”

The feedback loop regarding failure involved capturing what was learned by the failure, reflect, perform an after-action review, and then speak with mentors. The process of trying and failing was used to provide learning to create a new idea, to create a new process, or to implement the idea in a different manner. The feedback process worked only if the mentor had more experience than the founder, which was why founders needed to add mentors to match their stage of business development. Most importantly, the mentors helped the founders understand the learning from the success or failure. The failed solutions are useful sources of knowledge and learning (Rui et al., 2016). To do

what such trial runs are supposed to do—teach the firm whether a new product, process, or market works—they should not be designed to fail, but should at least be designed to discover everything that could go wrong, along with what might go right (Krohe, 2011).

Entrepreneurs Lead Integration of Knowledge

Leaders of organization learning must create a process not only to influence learning but also to maintain and monitor processes to accelerate learning (Graham & Nafukho, 2008). Integrating the knowledge into the business is the founder's role. Knowledge must move from the mind of the founder to others in the organization in order for the business to survive (Breslin & Jones, 2012):

PA 12 asserted, "I lead the company. You must first do, in order to lead the company."

PA 2 pointed out, "Knowledge is captured through doing and transferred by me to the employees in formal one-on-one meetings."

PA 11 said, "I capture the data, which could be either verbal or through readings, and then I use my experience to teach others how to do what I just learned."

PA 15 asserted:

Information is gathered from suppliers of the equipment along with customer and competitor information and is discussed at the owner meetings. The owners meet regularly over lunch to discuss the business and the customers. Obviously, if a customer has an issue it is immediately discussed. The information is then transmitted to the remaining employees by me through formal meetings.

In addition to the founders integrating the knowledge to others in the organization directly, the founders used vendors, industry organizations, other employees, and

consultants by hosting lunch-and-learn meetings, lessons learned, attending conferences, webinars, and after-action reviews.

PA 4 noted:

Senior staff working closely with more junior staff, architect researching architectural codes through Internet forums and subsequent updates, going through a QA process for review of work product and having the staff member who did not address a design issue 100% or accurately, learn by correcting his or her own work. Mistakes or oversights are pointed out and expectation is companywide learning from those types of experiences.

PA 7 pointed out they are “constantly looking at magazines, media, vendor catalogues. The upstairs in our office is open so the designers are constantly talking to each other, showing each other what they have learned. Very informal and they constantly talk.”

PA 10 said, “We do lunch-and-learns with our vendors.”

PA 4 explained:

The company learns from lessons learned. The lessons learned are things that happened that should not have [happened], and cost the company money. Things that happened and had potential negative outcomes that did not cost the company money, but could have and things that happened that generated positive outcomes from lessons learned.

Entrepreneurs retain essential knowledge components in their minds, developing simple rules of thumb to deal with issues, such as starting the business (Shane & Venkataraman, 2000), learning from trial and error, mistakes, and interpreting

information from the small businesses' external environments (Breslin & Jones, 2012). Lotti (2007) found the "existence of a learning mechanism, which takes place once firms are active: The more they are in the market, the more they learn about how staying in business and how to increase their efficiency level" (p. 368). The competitiveness and survivability of an organization relies on the successful creation and transfer of knowledge (Syed-Ikhsan & Rowland, 2004).

Conclusion

The goal of the current study was to find how leaders of small businesses create a process to capture, convert, and integrate knowledge for survival. In the current study, 15 small businesses from 12 different service businesses participated. Data saturation was reached within 15 interviews. The small businesses' years of operation ranged from 7 years to 40 years and the range of personnel was from 10 to 77 employees. The founders established mentors early in their businesses. The founders were intentional in choosing their mentors. Early on, the mentors were family and friends who operated businesses and could provide advice on starting the business. As the businesses grew, the founders intentionally sought mentors who could help them in the next phases of the business.

Based on the current research, learning is important and occurred through a trial and error process. Founders thought of and vetted new ideas with their mentor(s). Then, the founders implemented the ideas. Some ideas failed. The founders captured in writing the knowledge of what they had learned from their failure. After reflection, creation of an after-action review, and conferring with their mentors, changes were made to the idea or the implementation tactic. Then, the new idea or new implementation tactic was launched. The process occurred until the founders had success or decided to pursue a

different idea. The iterative process allowed the founders to learn faster than their competitors. By learning faster, the founders were aided in finding new business opportunities.

The founders were the genesis of integrating the knowledge in the business. They shared their knowledge directly with their employees using after-action reviews and formal meetings. Knowledge was also integrated using vendors, industry organizations, and consultants by hosting lunch-and-learns, lessons learned, after-action reviews, attending conferences, and webinars.

All the businesses survived because the founders were intentional in establishing mentors, using trial and error methods to learn faster than their competitors, and successfully integrating knowledge into the business through meetings, after-action reviews, lessons learned, conferences, webinars, and lunch-and-learns. Establishing and adding mentors as the businesses changed was an essential component to the survival of the businesses in the current study. Founders of businesses with less than seven years of operation could intentionally seek mentors, use trial and error processes, and lead the integration of knowledge to increase the likelihood of survival.

Recommendations for Further Research

The process by which mentoring enables a mentee to identify new opportunities is not well understood (Cull, 2006). Therefore, future researchers should study how mentorship identifies new business opportunities. Future researchers should study service sector businesses with 100 to 500 employees to determine if leaders of larger companies had established mentor relationships with a trial and error process with feedback loops. Also, a study of the manufacturing sector of companies with 10 to 99

employees, and that have been in operation at least seven years would be interesting. It may reveal if the leaders of the manufacturing sector of business utilize a process similar to that of the leaders of the service sector to capture, convert, and integrate knowledge for survival. Is mentorship a requirement for small business survivability in other sectors or geographic areas? Of the 15 participants in the current study, 14 participants reported they learned faster than the competition. Future research could be used to study how participants learn faster than their competitors. Is it the makeup of the entrepreneur, the trial and error process, or do other characteristics exist that lead entrepreneurs to learn faster than their competitors?

Chapter 2:Literature Review

Business survival is important to all stakeholders (Valadez, 2012). The importance to stakeholders can suggest that researchers who discover how businesses survive are crucial. In the literature used to analyze firm survival (Box, 2008; Carr et al., 2010; Coeurderoy, Cowling, Licht, & Murray, 2012; Colombelli, Krafft, & Quatraro, 2013; Holmes, Hunt, & Stone, 2010), the importance of the following conditions were highlighted: (a) businesses' ability to create a learning process, (b) entrepreneurs, (c) age of business, and (d) innovation. Implementing a process to capture, convert, and integrate knowledge is necessary for business survival (Zahra, 2015). Knowledge has long been recognized as a crucial competitive tool for organizational survival and competition (Chan & Chee-Kwong, 2008). In practice, many organizational leaders are adept in leveraging and capitalizing their knowledge resources, experience business success and performance improvement (Chan & Chee-Kwong, 2008). Unfortunately, more than 50% of small businesses do not survive beyond the first five years of operations (Clayton et al., 2013; U.S. Department of Labor, U.S. Bureau of Labor Statistics, 2010). The purpose of the current study was to build upon prior small business research and to answer the following question: How do small businesses implement a process to capture, convert, and integrate knowledge in order to survive, and what role might the process have played in small business survival? The information in the current study can be used to provide small-business entrepreneurs with ideas on how to implement a process to capture and integrate internal and external environmental

information and possibly lead to lower business mortality rates. The purpose in the literature review was to detail the significance of a process as it related to small business survival.

Early Stages of Learning

Learning has been a concern dating back to Frederick Winslow Taylor (1911) and scientific management (Taylor, 1911) Taylor believed each element of a man's work must be thoroughly examined and tested to find the one best method and to replace the old rule-of-thumb method (Blake & Moseley, 2010). Taylor proposed that employers spend time and money selecting and training each employee, rather than letting each employee figure out the job for himself or herself, which would potentially lead to inefficient choices (Blake & Moseley, 2010). In his next principle, Taylor called for the worker's scientific education and development (Blake & Moseley, 2010). Company leaders should ensure employees continue to perform their jobs in accordance with the scientific principles established for the particular employee (Blake & Moseley, 2010). Using scientific management principles, business leaders were learning to capture knowledge in a rudimentary learning process leading to increased efficiencies, productivity, and profits, while the employees earned higher wages.

In time, information became an ever-increasing ingredient in the ability of business leaders to create businesses that compete and survive (Newman, 2010). Business leaders are interested in increasing efficiencies, thereby increasing productivity and profitability (Chan & Chee-Kwong, 2008). The need for more information has led to the Information Age, an age that is characterized neither by manufacturing, nor by technology that replaces physical human labor (Chisholm, 2011). Rather, with the birth

of computers, software programs, and Cloud technologies, it is characterized by the significant role innovation has played (Chisholm, 2011). Information increasingly affects the ability of companies to compete, innovate, and make profits (Newman, 2010). How the information is captured and retained in the business is essential business survival (Zahra, 2015).

All business leaders should be interested in capturing knowledge, but in particular, the service industry has grown during the Information Age. Service companies account for more than 50% of the businesses on the Standard & Poor's 500 and 70% of added value in the advanced industrial economies (Newman, 2010). For many of the leaders of the firms, information, transmission, segmentation, or access has a critical role in their business models (Newman, 2010). The next sections will be used to address the importance of knowledge management, learning process, feedback loop, and organizational learning to business survival.

Knowledge Management

Researchers have now agreed that knowledge management is more than mere storage and manipulation of information, but is a process that requires the commitment to create and disseminate knowledge through the organization (Chidambaranathan & Swarooprani, 2015; Marshall et al., 1996; Parikh, 2001).

According to Gupta, Iyer, and Aronson (2000), "Knowledge management is a process that helps organizations find, select, organize, disseminate and transfer important information and expertise necessary for activities such as problem solving, dynamic learning, strategic planning and decision making" (p. 17). Bollinger and Smith (2001) and Meso and Smith (2000) described knowledge as a strategic asset that is valuable,

rare, nonsubstitutable, and inimitable by competitors. Small business leaders leverage the diverse expertise of their employees to create a value and a competitive advantage through knowledge sharing (Grant, 1996).

Zahra (2015), Agüero and Sánchez (2010), and Senge (1990) agreed that knowledge management is more than storage and manipulation of information, but is a process that requires the commitment to create and disseminate knowledge through the organization (Marshall et al., 1996; Parikh, 2001). Committing to creating a formalized process to capture knowledge is difficult for a small business leader with limited resources and understanding (DeSouza, 2003). However, small business leaders must find a way to capture, convert, and integrate knowledge to survive (Wong & Aspinwall, 2004). Knowledge, if properly captured, converted, and integrated, will enable small business leaders to outperform their rivals, creating a competitive edge.

The Learning Process

The important elements in the learning process are exposure to opportunities and access to resources, such as local contact networks, business friends and suppliers, the personal constructs of owners/managers, and their translation into management action and organizational learning (Anderson & Skinner, 1999). Small business leaders are interested in implementing learning processes because of their proven effect on productivity and profits (Chan & Chee-Kwong, 2008). Knowledge, together with capital and labor, are becoming the key elements of developed economies (Egbu, 2004). Implementing a learning process allows a small business leader to capture the required knowledge to be competitive in the market and quite possibly create a competitive advantage (Chan & Chee-Kwong, 2008). The challenge for a small business leader is

that employees and owners are so busy performing daily tactical activities that they never document their knowledge (Rubalcaba et al., 2010). Many leaders of small firms do not have the infrastructure, sophistication, or formal commitment to maintaining learning processes (Rubalcaba et al., 2010). Hence, technology is generally not used in the learning process to capture knowledge (Purcarea, Benavides Espinosa, & Apetrei, 2013). To increase the likelihood of survival, leaders of small businesses must acquire and judiciously deploy limited resources, such as financial, personnel, technology, or processes, to implement a learning process and ultimately to survive (Rubalcaba et al., 2010).

The method in which a small business leader deploys limited resources depends on the individual business entrepreneur. Some entrepreneurs may, after every meeting, journal the strengths and weaknesses of the meeting and then make the necessary changes to limit the weaknesses before the next meeting. For leaders in other businesses, it may be necessary to purchase data from a marketing or research firm on customer preferences and then analyze the data for confirmation either that the business is meeting customer expectations or that the business needs to make changes to remain competitive. The next sections will be used to address the impact of learning and survivability on small businesses.

Feedback Loop

The feedback loop is an error-and-correction process in group levels; broken into single-loop and double-loop (Argryis & Schon, 1978). Once information is captured, it needs to be evaluated for relevance, as does the information that already exists in the business and, if there is no information in the business, the newer information needs to be

integrated into the business using a learning process. Capturing, converting, and implementing information is critical to business survival, but a feedback loop must also be present. The ability to “simultaneously run and reinvent” (Reeves, Levin, & Ueda, 2016, para. 32) a small business requires effective feedback loops that are “critical to robustness in changing environments” (Reeves, Levin, & Ueda, 2016, para. 32). Two types of feedback loops exist: single and double. Single-loop learning is any activity in which learning is present, but does not result in a change in the business core values or beliefs. Business leaders employing single-loop learning, as proposed by Argyris and Schon, (1974), respond to changes in their internal and/or external environments by detecting and correcting information (Barlow & Jashapara, 1998). In comparison, double-loop learning occurs when leaders question business norms and assumptions to establish a new set of norms (Barlow & Jashapara, 1998). In double-loop learning symptoms are used as indicators of problems and focuses on addressing root causes (Argyris, 1992). The result of double-loop learning should be increased effectiveness in decision-making and better acceptance of failures and mistakes (Barlow & Jashapara, 1998). Without a feedback loop, a learning process would not be complete (Argyris & Schon, 1978).

Organizational Learning

Organizational learning is defined as the process of achieving organizational change and strategic renewal using a cyclical pattern of reaching out to explore new ideas while, at the same time, implementing more familiar ideas that have become accepted by individuals and groups within the organization (Crossan & Berdrow, 2003).

Adler and Cole (1993) stated, “A consensus is emerging that the hallmark of tomorrow’s most effective organizations will be their capacity to learn” (p. 85). Learning is a never-ending process, which is used to contribute significantly to organizational growth, performance, and survival (March, 1996). Based on the benefits, significant attention has been devoted to understanding how learning occurs (Argote, McEvily, & Reagans, 2003). Organizational learning is the development of knowledge having the potential to influence behavior (Mena & Chaboski, 2015) using a learning process. Capturing, converting, and integrating data in an organization can increase the learning potential of the organization (Fiol & Lyles, 1985; Mena & Chaboski, 2015).

Organizational learning occurs at three levels (a) individual, (b) group, and (c) organization (Cangelosi & Dill 1965; Crossan & Berdrow 2003; Mena & Chaboski, 2015). As information is obtained, converted, and integrated, it can be stored for future use by the organizational leaders. However, business leaders commonly lose information when employees leave the business (Mena & Chaboski, 2015). Studies on medium and large businesses have been used to reinforce the relationship of organizational learning to innovation, competitive advantage, and financial performance (Ellinger, Ellinger, Yang, & Howton, 2002; Graham & Nafukho, 2008; Khandekar & Sharma, 2005; Pérez López, Manuel Montes Peón, & José Vázquez Ordás, 2004). The relationship with organizational learning is one reason that entrepreneurs employ a learn-in-order-to-grow philosophy to maintain a competitive advantage (Graham & Nafukho, 2008). Organizational learning is important and is the reason a small business leader must learn to capture, convert, and integrate knowledge into the business for survival.

Small Business Characteristics

“The entrepreneur’s or business owner-manager’s traits, motivation, and capacity— along with other personality variables—are considered to explain a great part of why some firms fail while others survive and, perhaps, grow” (Box, 2008, p. 379). The behavior of the organization is dominated by the entrepreneur when studying small businesses. Therefore, the study of the learning of the organization becomes inseparable from the study of the learning at the level of the entrepreneur (Deakins & Freel, 1998; Kim, 1993). An entrepreneur retains essential knowledge components in his or her mind developing simple rules of thumb to deal with issues, such as starting the business (Shane & Venkataraman, 2000), learning from trial and error, mistakes, and interpreting information from the small business’s external environment (Breslin & Jones, 2012). It is important to capture the information flow because the interactions of learning have an impact on stakeholders of the small business, thereby affecting the finances of the small business (Edvinsson, 1997). However, increased complexities of learning caused by cross-functional integration, along with an increase in global competition and change, may result in firms struggling to acquire, comprehend, and implement knowledge associated with newly acquired competencies (Breslin & Jones, 2012; McKelvey, 1982).

The intensity of knowledge creation can be gradual, as in changing processes within the business (Nelson & Winter, 1982; Tolstoy, 2009), or radical, as in creation of new products or services (Cohen & Levinthal, 1990; Tolstoy, 2009). Striking a balance between gradual and radical knowledge creation allows small business leaders to create short-term profits while taking a long view by creating a competitive advantage (Tolstoy, 2009). In a constantly changing business environment, a small business leaders have to

create knowledge continually and implement the knowledge through the learning process to differentiate the business from competitors (Eisenhardt & Martin 2000; Teece et al., 1997; Tolstoy, 2009). As such, a learning process requires an infrastructure capable of supporting identification, acquisition, application, sharing, development, creation, preservation, and measurement (Yip, Hong, & Din, 2012). In addition to learning the skills needed to exploit opportunities, entrepreneurs may develop unique ways of viewing the world and, in so doing, spot underexploited opportunities (Breslin & Jones, 2012). Gartner (1989) noted that successful entrepreneurs develop the skill of learning to learn, with the successful entrepreneur becoming a faster learner than other business leaders.

An essential element in the development and survival of small businesses relates not just to the entrepreneur, but to learning within the team of individuals who are working in the small business. Learning organizations are “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together” (Senge, 1990, p. 3). Survival skills developed by the entrepreneur need to be transferred to others within the company (Breslin & Jones, 2012). The entrepreneur is viewed as learning by doing, and the transfer of knowledge is shown typically to involve a process of action learning. Thus, individuals work together closely, sharing and interpreting collective experiences, develop a distinct group identity through participation and socialization (Jones & Macpherson, 2006). Leaders of small businesses that have a learning process that uses working through teams have better results operationally, financially, and innovatively (Tari & Garcia-Fernandez, 2012). As an entrepreneur learns new ideas to aid in business

survival, he or she must create a process of storing, retaining, and replicating the new learning. If a small business leader does not have a process to capture, convert, and integrate knowledge, that knowledge will be lost based on the forgetfulness of people (Agüero & Sánchez, 2010).

The entrepreneur's aim is to improve the accuracy of his or her understanding of the industry and the interpretation of feedback from the industry. Researchers need to go beyond capturing knowledge and study converting and integrating knowledge as a learning process (Zahra, 2015). Knowledge conversion and integration are fast becoming essential processes to transforming knowledge into business, mapping strategic moves, and creating new market spaces (Zahra, 2015). Conversion and integration are essential for learning and therefore can lead to the discovery and creation of opportunities (Zahra 2008). Integration gives the entrepreneur the opportunity to exploit knowledge, pursue radically novel opportunities, and to understand how small businesses move from knowledge destruction to knowledge construction (Zahra & Yavuz, 2008).

Without a process, it would be nearly impossible to convert and integrate knowledge and ideas into the business. When a process exists, knowledge, generally, will be retained within the small business, possibly increasing the value of the business within its industry sector (Agüero & Sánchez, 2010). Arguably, not all knowledge will be retained (Agüero & Sánchez, 2010). A breakdown of the process is possible with information being lost, possibly forever (Agüero & Sánchez, 2010). As examples, the breakdowns can occur because employees are not asked the right questions, or employees refuse to provide information, or the information was captured, but not entered into the learning process (Agüero & Sánchez, 2010). Researchers must delve deeper into the

small business, and identify and study the development of knowledge “vis-à-vis skills, heuristics and frameworks” that are themselves modified and inherited over time (Breslin & Jones, 2012, para. 12).

Age of Business

“The liabilities of newness perspective suggests that young businesses are at a disadvantage and, therefore, are likely to face higher mortality rates than more well-established firms (Carr et al., 2010, p. 186). How does the age of a business affect small business survival and the learning process? As businesses age and move through the corporate life cycle, the leaders will have encountered issues that either previously did not exist or, at least were not relevant at inception of the business, such as creating a global strategy, adapting products and services to customer needs as technology changes, or creating a learning process for employees. While not an exhaustive list, small business leader may encounter the issues as the business ages.

Knowing the issues and deciding how to act on the issues are very different concepts and abilities. Entrepreneurs operate their businesses by learning over time how to handle internal and external challenges. Lotti (2007) studied the Italian service sector compared to the Italian manufacturing sector searching for the impact, if any, that the age of a business has on its growth and survival. Lotti (2007) indicated the age of a firm does have an impact on growth and survival, emphasizing the “existence of a learning mechanism which takes place once firms are active: the more they are in the market, the more they learn about how [to stay] in business and how to increase their efficiency level” (Lotti, 2007, p. 368). Creating a learning process in a small business is important (Lotti, 2007; Senge, 1990) to survivability. The question is how does a small business

leader implement a process to capture, convert, and integrate knowledge to survive. The next section will be used to examine innovation as a means to small business survival.

Innovation

“Innovation enhances the survival likelihood of firms”(Colombelli, Krafft, & Quatraro, 2013, p. 1). The ability of the leader of any firm to produce successful innovations lies in the leader’s capability to make new combinations of knowledge and expertise and to have a process in place to capture the knowledge (Abereijo, Adegbite, Ilori, Adeniyi, & Aderemi, 2009). Within an innovative and entrepreneurial culture, the leader has the vision to focus on the learning process and the value of knowledge, and also generates confidence and communication and tolerates questioning and errors (Purcarea et al., 2013). To remain competitive and to create long-term survival, small businesses leaders must innovate (Petkovska, 2015).

Innovation is the introduction of new goods, new methods of production, the opening of new markets, the conquest of new sources of supply, and the implementation of a new organization in any industry (Schumpeter, 1934). Entrepreneurs use innovation to help them exploit opportunities to deliver new products or services, changes in processes, or starting new operations (Drucker, 1985). Knowledge-based innovation is used in an attempt to create a competitive advantage by perceiving or discovering new and better ways of competing in an industry, and bringing them to the market (Porter, 1990). One outcome of innovation is that small business entrepreneurs can create a business model providing a “temporary monopoly” (Petkovska, 2015, p. 64), allowing a company to generate additional profits (Petkovska, 2015). Innovation can be either a slow incremental process or a faster radical process. Regardless of the innovation, a small

business entrepreneur can experiment with a process or idea in an attempt to exploit an opportunity. By experimenting with innovation, entrepreneurs increase small business innovation rates per employee greater than rates of larger firms (Hof, Burrows, Hamm, Brady, & Rowley, 2004). Learning must be implemented for the innovation to be successful (Senge, 1990). If a small business entrepreneur can implement a process to capture ideas on innovation, the small business has a better chance to grow and survive (Petkovska, 2015).

Summary

Small businesses are complex entities in which entrepreneurs must continually learn and capture knowledge from employees and the environment to remain competitive, increase the valuation of the business (Rubalcaba et al., 2010) and ultimately survive. Knowledge conversion and integration are fast becoming essential processes to transforming knowledge into business, mapping strategic moves and creating new market spaces (Zahra, 2015). Implementing a learning process is essential to business survival (Lotti, 2007; Senge 1990). The current research will be used to add to the body of literature on business survivability by documenting how a small business entrepreneurs implement a process to capture, convert, and integrate knowledge to survive. Understanding the process might result in transferable principles and actions that could lower the mortality rate of small businesses.

Purpose of the Research Study

The purpose of the current research was to understand how small business leaders have implemented a process to capture, convert, and integrate knowledge to survive.

When an entrepreneur has a business idea, he or she does some research to understand the market, the competition, and potential customers. Based on the entrepreneur's research he or she gain knowledge, but something must be done with the knowledge. Knowledge must be captured, converted, and integrated into the business for survival (Zahra, 2015). A learning process can be used to capture knowledge, allowing small business leaders and employees to continually find knowledge, capture it, and implement the knowledge into the business (Lotti, 2007; Senge 1990).

Small businesses continue to fail more than 50% of the time the business has been in operation 7 years (Phillips & Kirchoff, 1989). The small business sector is especially critical, because the bulk of small business entries and exits in the American and global economy occur within these economies (Headd, 2010), and energizing the small business sector has emerged as an essential policy challenge in the aftermath of the economic downturn during the early part of the 2000s (Fadahunsi, 2012). The argument might be presented that most firms are, by definition, small; therefore, they start small, have a slim-to-fair chance of survival, and if they do survive, they invariably remain small. Small business success and survivability will be critically dependent upon the entrepreneur developing new resources, continually evolving the organization, and creating new organizational forms (Sarason, Dean, & Dillard, 2006). Surviving small business leaders must follow their fundamentals, yet continually change (Collins & Porras, 1994). Business survivability is challenging. The statistics are predominantly in favor of business failure (Phillips & Kirchoff, 1989). Understanding how to implement a process to capture, convert, and integrate knowledge to survive might result in

transferrable principles and actions that could lower the mortality rate of small businesses.

Chapter 3:Methodology

Small businesses in San Diego County were important to research because of the quantity of small businesses, their size, and most importantly their number of survival years. The following paragraphs will outline the research methodology and sampling methods used for the study, a listing of semi-structured research questions, and citations from existing literature for each research question. The Inside Prospects data is displayed in tabular form to show the how the researcher pared the data from the original list to the ultimate sample of small businesses. The last section of the methodology is the coding process and validation of results.

Research Design and Rationale

Small business leaders must continually learn from the business environment to remain competitive (Collins & Porras, 1994). Ways to capture and implement knowledge is critical to small business survival (Zahra, 2008). A learning process is necessary to capture the knowledge of the employees as well as the external environment (Senge, 1990). The question the current research was developed to answer was how a small business entrepreneurs implement a process to capture, convert, and integrate knowledge to survive. The factors of the research question were unknown; therefore, a qualitative method was used. Creswell (2003) noted that qualitative research is a humanistic approach to research, whereby the researcher becomes very familiar with the participants(s). Following the humanistic paradigm, the researcher sought to understand

the world or lived experience of the participants better and develop clear outcomes from that enhanced understanding that might lead to action and change.

With the method known, the design to be used was determined. The design choices for consideration included phenomenology, ethnography, grounded theory, case study, and narrative. Each of the designs is inductive and exploratory. Based on the principles posited by Yin (1994) and Stake (1995), case study design was used for the current research study. Yin (1984) defined the case study research method as an empirical inquiry that is used to investigate a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and when multiple sources of evidence are used (p. 23). In the current multiple-site case study, the attempt was made to determine the process to capture, convert, and integrate data for survival by interviewing and observing founders of small businesses.

Small business entrepreneurs interviewed were individuals whose businesses met the following criteria: (a) in existence for at least 7 years; (b) employed between 10 and 99 employees; (c) the entrepreneur had established a process to capture, convert, and integrate knowledge into the business; (d) located in San Diego County, CA; (e) the business was not a government agency, hospital, school, college, or university, whether for-profit or not-for-profit; (f) in the service sector; (g) had profitability in 2 of the past 3 years (h) the entrepreneur was an active member of the business; (i) the business had experienced a 5% growth in revenue in the past 3 years; and (j) the entrepreneur saw no foreseeable changes that would prevent the business from surviving an additional 5 years and believed the business was survivable.

The entrepreneurs were interviewed using a semistructured interview technique. The interviews occurred at a setting convenient for the participants. Of the 15 interviews, 14 interviews were conducted at the participants' businesses, and 1 interview was conducted at a convenient location for the participant. The study was important because since 2007, failure rates of small businesses have increased 40%, with California having the largest business failure rate of 69% (Dun & Bradstreet, 2011). Understanding how small business entrepreneurs implement a process to capture, convert, and integrate knowledge to survive resulted in transferrable principles and actions that could be used to lower the mortality rate of small businesses adding to the body of literature on business survivability.

Case Study

In the current research study, a qualitative method with a case study design, was used to focus on how a small business entrepreneur implements a process to capture, convert, and integrate knowledge to survive in the service industry in San Diego County, CA was used. According to Bromley (1990), a case study is a "systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest" (p. 302). The unit of analysis can vary from an individual to a corporation (Bromley, 1990).

According to Yin (1994), the case study design must have five components, including: (a) the research question(s), (b) its propositions, (c) its unit(s) of analysis, (d) a determination of how the data are linked to the propositions, and (e) criteria to interpret the findings. Yin (1994) concluded that operationally defining the unit of analysis is used to assist with replication and efforts at case comparison. Stake (1995) emphasized that

the number and type of case studies depends on the purpose of the inquiry: an instrumental case study is used to provide insight into an issue; an intrinsic case study is undertaken to gain a deeper understanding of the case; and a collective case study is the study of a number of cases in order to inquire into a particular phenomenon. Yin (1994) stated that case studies are the preferred strategy when “how” and “why” questions are posed. Yin (2008) stated:

The case study method allows investigators to retain the holistic and meaningful characteristics of real-life events—such as individual life cycles, small group behavior, organizational and managerial processes, neighborhood change, school performance, international relations, and the maturation of industries. (p. 4)

A collective case study is used to allow comparisons and differences to be explored (Yin, 2003) in determining how small businesses capture, convert, and integrate knowledge to survive. Data was largely from documentation, archival records, interviews, direct observations, participant observation, and physical artifacts (Yin, 1994). The researcher used a collective or multisite case study of 15 small businesses bound by a defined set of criteria. A multisite case study can be time-consuming and costly (Baxter & Jack, 2008) to acquire, transcribe, code, analyze, and validate the data. Strauss and Corbin (1998) concluded saturation should be more concerned with reaching a point where new discoveries do not add anything to the overall story. In the current study, 15 interviews were conducted to reach saturation. In addition to being able to compare and predict small business survivability in San Diego, CA, data from the small businesses provided robust and reliable evidence to understand how small business

entrepreneurs create a learning process to capture, convert, and integrate knowledge (Baxter & Jack, 2008).

Procedure and Sampling

In the current study, criterion, convenience, snowball sampling techniques, and delimited data were used from a U. S. perspective, to a state level based on the state of California, and finally to the local level involving San Diego County.

United States. A small business is defined by officials at the Small Business Administration (SBA) as an entity employing less than 500 employees (U.S. Small Business Administration, 2011). In the United States, more than 28 million small businesses exist, employing more than 55 million people out of 113 million people employed in nonfarm labor (U.S. Census Bureau, 2011), accounting for 55% of all jobs, and 66% of all net new jobs since 1970, while accounting for 54% of all U.S. sales (U.S. Small Business Administration, 2011). Small businesses that employ between 10 and 99 employees account for more than half of the total small business employment, with 28 million people being employed (U.S. Small Business Administration, 2011). Small businesses are important to the U.S. economy based on the number of people economically supported, including stakeholders, such as vendors and community economies. Thus, understanding how small business entrepreneurs implement a process to capture, convert, and integrate knowledge to survive is critically important to the U.S. economy.

California. By varying degrees, states within the United States influence the U.S. economy, number of businesses, and stakeholder wealth. For example, California business owners contribute nearly \$2 trillion out of \$13.8 trillion of the U.S. GDP

(Bureau of Economic Analysis, 2012). Historically, the California economy has ranked between the eighth and ninth largest economy in the world, thus making California businesses important to both the U.S. economy and the global economy.

The state of California has 58 counties. Each county contributes to the state's economy in varying degrees. More than 711,000 small businesses exist in California (U.S. Small Business Administration 2011) from a total number of 849,316 nonfarm businesses (U.S. Census Bureau, 2011). Small businesses comprise 83.5% of all businesses in the state of California. More than 7 million people are employed by California small businesses (U.S. Small Business Administration, 2011) out of a total nonfarm labor force of 12.8 million people, approximately 54% of the nonfarm labor force (U.S. Census Bureau, 2011). A total of 38 million people are living in California (U.S. Census Bureau, 2013), with small business entrepreneurs employing more than 18% of all Californians. The statistics indicated that small businesses are important to California's economy for the creation of jobs and wealth for more than 18% of the people of California.

San Diego County, California. San Diego County is the southernmost county within California, with Mexico on the border. Few large companies are headquartered in San Diego County. The most notable among them include Qualcomm and WD-40, both with a global operations, strategy, and research. San Diego County has a large concentration of federal government employees, including the United States Navy and the United States Marine Corps. Additionally, private-sector small businesses are plentiful in San Diego County, while a lack of large private-sector businesses exists. In the current study, all government agencies, hospitals, schools, colleges or universities,

whether for-profit or not-for-profit and large businesses were excluded. One major reason that San Diego County was chosen for the current study was because of the large concentration of small businesses. Convenience was another reason that the current study was focused in San Diego County, because the researcher lives in San Diego County, CA.

More than 77,326 nonfarm businesses exist in San Diego County, California, of a total of 291,124 businesses in San Diego County (U.S. Census Bureau, 2012). Of the 77,326 nonfarm businesses in San Diego County, 75,648 businesses have fewer than 100 employees, 57,461 of those businesses have fewer than 10 employees, and 18,187 have between 10 and 99 employees. In 2011, San Diego County businesses accounted for \$172 billion in GDP, compared to the State of California, which accounted for \$2 trillion in GDP, while the U. S. GDP accounted for \$13.8 trillion (Bureau of Economic Analysis, 2012). Small businesses are important to San Diego County, comprising more than 26 % of all business in the county and 97% of San Diego County small businesses have fewer than 100 employees (U.S. Census Bureau, 2012). Based on the statistics, small businesses are important to the economy of San Diego County. California is an important economy in the United States based on the percentage of GDP contributed. The current study was delimited to service sector organizations because the service sector is an important segment of the San Diego County economy, representing 89% of all jobs in the county (Bureau of Labor Statistics, 2015). San Diego County, California businesses are comprised primarily of small businesses, thus San Diego County was a suitable location to study small business survivability, particularly because small businesses are critical to the local, state, and national economies.

Sampling Techniques

Criterion, convenience, and snowball sampling techniques were used to find and qualify participants for inclusion in the current study. Each of the sampling techniques was selected to acquire rich data from experts in the field. A list of 1,000 potential participants was generated by the firm, Inside Prospects, an aggregator of business data in San Diego, CA since 1977. Inside Prospects was used because of its convenient location in San Diego and it is the source of the collection of all business data in San Diego County, California. Employees at Inside Prospects created a list of potential participants, using Microsoft Excel[®], by filtering the data by date of incorporation, number of employees, location, and type of business, excluding government agencies, schools, and hospitals.

The filters did not include all criteria for the current study. Therefore, further qualification of the potential participants' list was required through phone calls and web searches. The criteria for inclusion in the current study were as follows: (a) in existence at least 7 years; (b) employed between 10 and 99 employees; (c) established a process to capture, convert, and integrate knowledge into the business; (d) located in San Diego County, CA; (e) not a government agency, hospital, school, college, or university, whether for-profit or not-for-profit; (f) in the service sector; (g) had profitability in 2 of the past 3 years (h) the entrepreneur was an active member of the business; (i) experienced a 5% growth in revenue in the past 3 years; and (j) no foreseeable changes that would prevent the business from surviving an additional 5 years. Further qualification of the potential participants list using phone calls and web searches was conducted.

After the filters were applied, the Inside Prospects list showed business names, addresses, phone numbers, names of key personnel, number of employees, date of incorporation, and e-mail addresses of key personnel for the business. The list was sorted as needed.

Convenience sampling was used by sharing the Inside Prospect list with four subject-matter experts (SMEs), known to the researcher, to establish a list of small businesses with which the researcher or the researcher's subject-matter experts have an established relationship. The subject-matter experts were from four different service fields as follows: legal, academia, insurance, and business consulting. Each of the subject-matter experts who helped identify potential participants had at least 10 years of experience in their respective fields, were respected professionals, and connected in their respective service industries. Additionally, each of the subject-matter experts had worked with or were working in a small business entity and understood the struggles of a small business to survive. Each subject-matter expert understood potential participant bias based on their relationships with the potential participants. Therefore, the subject-matter experts contacted the participants, but did not answer any participant questions regarding the research.

Each subject-matter expert looked at the list to determine what potential participants that he or she might know to provide warm introductions to the researcher. The initial contact with the potential participant was made by the researcher or the researcher's subject-matter experts, providing a warm introduction. A warm introduction has a perceived higher-degree chance of the researcher speaking with a potential participant because of the established relationship (Barrie, 2011).

Prior to first contact with any potential participant, the researcher looked at the website of the identified small business to confirm it was a service business. If a website did not exist, the potential participant was qualified during the initial contact by phone. During the call, the researcher provided the potential participant with the purpose of the current study (Appendix A). The purpose was stated as to understand how the small business entrepreneur had created a process to capture, convert, and integrate knowledge to survive. The Inside Prospects list contained some of the criteria, but the data could also be collected with self-reporting by the participant. Based on the situation that circumstances of the potential participant might change, all potential participants were asked a list of criterion questions to validate inclusion in the current study. Additionally, the questions were sent via email to the participant (see Appendix B). Criterion questions to the entrepreneurs were:

- How long have you been in business?
- Where are you located?
- Are you a government agency, hospital, school, college, or university, whether for-profit or not-for-profit?
- As the entrepreneur, are you still active in the business?
- How many employees do you have?
- Would you categorize your business as selling a service?
- Have you established a process to capture, convert, and integrate knowledge?
- In the past three years, has the business experienced multiple years of profitability?
- In the past three years, has the business grown by at least 5%?

- Do you foresee any change that would prevent the business from surviving an additional five years?

A date was scheduled to conduct face-to-face semi-structured interviews with all participants who met the criteria and who agreed to be included in the current study. All participants declined to be recorded, so interview notes were taken by the researcher. The researcher informed the participants that the George Fox University human research subject agreement (see Appendix C) was required to be signed. As a follow-up, an e-mail was sent to each participant indicating the date, time, and location of the scheduled interview, and the qualitative questions and the George Fox University human research form. The researcher collected the signed George Fox University human research form on the date of the interview or accepted a signed copy by e-mail.

Semistructured Interviews

Strauss and Corbin (2008) posited, “Perhaps the most data dense interviews are those that are unstructured; that is, they are not dictated by any predetermined set of questions” (p. 27). However, semistructured interviews are used to shape the direction of the data-gathering process while allowing flexibility for new concepts, ideas, and themes to emerge (Charmaz, 2014). During the design review defense, the researcher conducted a pilot program with two or three participants to be sure the qualitative questions would garner responses and viability. After the first two interviews, it was determined the questions were on point and the research could continue.

Semistructured intensive interviewing (Charmaz, 2014) was used for each of the participants. The use of semistructured intensive interviewing allowed the interviewer to do the following:

- Ask for an in-depth description of the phenomenon
- Stop to explore a statement or topic
- Request more detail or explanation
- Ask about the participant's thoughts, feelings, and actions
- Keep the participant on subject
- Review an earlier point
- Restate the participant's point as an accuracy check
- Slow or quicken the pace
- Shift the topic
- Use observational skills to further the discussion
- Thank the participant for their time. (Charmaz, 2014)

Some of the participant answers to the questions involved experiences over seven years or more, and the individual participants may have needed to refresh their memories prior to the interview. Thus, it was necessary to send the interview questions in advance. Although, a risk existed that the information might be fuzzy to the participants, small business culture incorporates unique stories, language, and customs. The stories, language, and customs could help fill in the gaps and refresh the participant memories. In all cases, regardless of the age of the business, the founders were able to answer the semistructured questions without hesitation or confusion.

The researcher attempted to schedule two interviews per week with participant companies' founders until all participants had been interviewed. Interviews were conducted with entrepreneurs who had implemented a process to capture, convert, and integrate data to survive. In three cases, additional owners and partners were in the interview process, adding details to the answers. In one case, the entrepreneur had the current president in the interview, adding details to the research questions. The researcher met each of the participants at a convenient place for the participant for efficiency regarding the participant's time. The researcher took handwritten notes. Each participant provided thick data during the interview, and the researcher was attentive and captured the data in his notes. The handwritten notes were kept in a composition journal, using predetermined categories for the participating companies and individuals.

To safeguard handwritten notes, including participant interviews, a locked filing cabinet in the garage of the researcher was used to store data. The filing cabinet was located behind dead-bolted locked doors. The researcher and his wife were the only people who knew location of the key used to open the filing cabinet. The key to the filing cabinet was kept in a separate locked location in the researcher's home.

Using semistructured interviews allowed the researcher to be efficient with both his time and the participants' time. The interviews were initiated by building rapport with the participants using casual chatter and finding commonality. The researcher thanked the participants for their time and asked the participants to explain their roles in their businesses and how long they had lived in San Diego County, CA. If a participant was not from San Diego County, the researcher asked why he or she decided to locate in San Diego County. The questions were used to help build a rapport between the

participant and researcher. To start the interview, the researcher read the predetermined list of questions sent to the participants in advance of the interviews.

The predetermined research questions were open-ended initially at a macrolevel, but moved to a microlevel based on the researcher's perspective. The process was used to provide rich insight into how the entrepreneur's process was implemented to capture, convert, and integrate knowledge to survive. Individual participants were observed and their reactions to questions were written in the field notes. The facial expressions, body movements, tone of voice, a description of the physical layout of the office, and the collaboration between the employees, if in sight of the researcher, were documented in the field notes and transcribed at a later time within 24 hours of the interview.

Although the predetermined questions were used, the researcher asked probative questions based on the facial expressions, body movements, and tone of voice of the participant. For example, "What caused you to exhibit the reaction when you were just talking?" Allowing the participant to become comfortable with the researcher prior to answering questions and being attentive to body movements, including facial expressions that the participant is unaware that he or she is communicating, can have an impact on the richness of the experience being told by the participant. The story being told must be authentic and the participant's actions can add to the authenticity of the story.

Three of the participating company entrepreneurs provided newsletters and a list of core values, and two of the participants showed the researcher the awards they had received. Before the interview was concluded, the researcher asked each participant if follow-up interview(s) could be conducted, as needed (Moustakas, 1994; Reismann,

1993). All of the participants agreed to e-mail as a follow-up method for any additional questions.

When coding of data began, additional probative questions were created that aided in filling in the categories developed, in addition to uncovering new and emerging themes. During the interviews, two questions began to emerge that were not part of the original predetermined questions set. The questions involved: (a) commoditization in the industry and (b) high retention of employees and customers. The answers to the additional questions were important for business survival for two reasons, including: (a) if commoditization in the industry occurred, opportunities to learn how to differentiate one's business from competitors, such as using a blue ocean strategy existed; and (b) learning how to retain employees and customers allows the founder to focus on new opportunities for the business, in addition to providing continuity from the employees to the customers.

After the fourth interview, a question on commoditization was added to the list of questions, and after the interview, six questions about high retention of employees were added to the list of questions. Prior interviews included answers to the additional questions; therefore, no follow-up with prior participants was required. Additionally, the participants were asked if they wanted to add any comments regarding information that had not been asked. The researcher informed the participants that the interview notes would be e-mailed to them within 48 hours after the interview for their review, and if they wanted to add or make corrections to the interview notes to do so via e-mail to the researcher within one week. The researcher thanked the participants for their time and exited the location.

None of the entrepreneurs wanted to be audio or video recorded; therefore, interview notes were used to record the interviews. Additionally, none of the entrepreneurs cared to nor wanted to sign a nondisclosure agreement (NDA), because they were divulging neither specific financial data nor competitive data. Thus, the NDA was eliminated. The only document signed by the participants was the human consent form.

Research Questions

Leaders of a small businesses implementing a process to capture, convert, and integrate knowledge will encounter challenges, both positive and negative. The predetermined research questions initially were designed to be open-ended at a macrolevel, but were moved to a microlevel based on the researcher's perspective, which provided rich insight by allowing the participants to express their insights regarding topics important to small business survival.

The qualitative questions were conceived to be open-ended, allowing the participants to elaborate and clarify, while providing rich descriptions to tell the story of the business and to document the phenomenon accurately to draw conclusions and create theories (Charmaz, 2006).

The qualitative questions were as follows:

- When did leadership know the business would survive?

Unfortunately, more than 50 % of small businesses do not survive beyond the first five years of operation (Clayton, et al., 2013; U.S. Department of Labor, U.S. Bureau of Labor Statistics, 2010).

Tell me more about...

Give me an example of...

What do you mean by...?

- In your experience, what is important for small business survival?

Literature analyzing firm survival (Box, 2008; Carr et al., 2010; Coeurderoy et al., 2012; Colombelli et al., 2013; Holmes et al., 2010) indicated the importance of the following conditions: businesses ability to create a learning process, entrepreneurs, age of business, and innovation.

- Are there certain factors that seem most important?

Literature analyzing firm survival (Box, 2008; Carr, Haggard, Hmieleski, & Zahra, 2010; Coeurderoy, et al., 2012; Colombelli, et al., 2013; Holmes, et al., 2010) indicated the importance of the following conditions: businesses ability to create a learning process, entrepreneurs, age of business, and innovation.

How important is learning for business survival? (The question was only asked if the participant did not state that learning was important for survival in prior questions).

In time, information became an ever-increasing ingredient in ability of businesses to compete and survive (Newman, 2010).

Tell me more about...

Give me an example of...

What do you mean by...?

- How do you, the entrepreneur, learn?

Therefore, the study of learning of the organization becomes inseparable from the study of the learning at the level of the entrepreneur (Deakins & Freel, 1998; Kim, 1993).

- How does your personal learning approach affect organizational learning?

The study of learning of the organization becomes inseparable from the study of the learning at the level of the entrepreneur (Deakins & Freel, 1998; Kim, 1993).

Tell me more about...

Give me an example of...

What do you mean by...?

- How does your organization learn?

Organizational learning occurs within:

organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together. (Senge 1990, p. 3).

Formal?

Informal?

Tell me more about...

Give me an example of...

What do you mean by...?

- How do you capture and integrate knowledge into the business?

Capturing, converting, and integrating knowledge into the business is a requisite for business survival (Zahra, 2015). “Research and practice need to go beyond knowledge access and absorption in analyzing corporate entrepreneurship and also examine and study knowledge conversion and integration” (Zahra, 2015, p. 733).

- How do you transfer knowledge to others in the business?

Survival skills developed by the entrepreneur need to be transferred to others within the company (Breslin & Jones, 2012).

Systemized/formal?

Informal?

Tell me more about...

Give me an example of...

What do you mean by...?

- What do you do to allow employees to share and capture their experiences?

Leaders of learning organizations work on the assumption that learning is valuable, continuous, and most effective when shared and that every experience is an opportunity to learn (Kerka 1995).

Tell me more about...

Give me an example of...

What do you mean by...?

- How do you decide the number of people and the amount of money or resources to allocate toward capturing and integrating knowledge?

To increase the likelihood of survival, a small business must acquire and judiciously deploy limited resources such as financial, personnel, technology, or processes to implement a learning process and ultimately to survive (Rubalcaba, et al., 2010).

Tell me more about...

Give me an example of...

What do you mean by...?

- Would you say you learn faster than your competitor(s)? How?

Gartner (1989) argued that successful entrepreneurs develop the skill of learning to learn, allowing the successful entrepreneur to become a powerful and faster learner than competitors.

Tell me more about...

Give me an example of...

What do you mean by...?

- What business opportunities have you been able to exploit before your competitor?

In a constantly changing business environment, small businesses have to continually create knowledge and implement the knowledge through its learning process to differentiate itself from its competitors (Eisenhardt & Martin, 2000; Teece et al., 1997; Tolstoy, 2009).

- How have those business opportunities impacted survivability?
Studies on medium and large businesses reinforce the relationship of

organizational learning to innovation, competitive advantage, and financial performance (Graham & Nafukho, 2008).

- What role did learning play in those opportunities?

The relationships to organizational learning is a reason entrepreneurs employ a learn-in-order-to-grow philosophy to maintain a competitive advantage (Graham & Nafukho, 2008).

Tell me more about...

Give me an example of...

What do you mean by...?

- How do you interpret feedback and knowledge from the external environment into the business?

Learning from trial and error, mistakes, and interpreting information from the small businesses external environment (Breslin & Jones, 2012).

Tell me more about...

Give me an example of...

What do you mean by...?

- How do you decide what information is important (Chan & Chee-Kwong, 2008)?

Knowledge has long been recognized as a crucial competitive tool for organizational survival and competition (Chan & Chee-Kwong, 2008).

Tell me more about...

Give me an example of...

What do you mean by...?

- How do you assess the impact or the effectiveness of your learning process?

Businesses are interested in increasing efficiencies thereby increasing productivity and profitability (Chan & Chee-Kwong, 2008).

Tell me more about...

Give me an example of...

What do you mean by...?

- Is there a commoditization in the industry? (Question emerged from interviews and became a question after Interview 4).

Provide an example

- Do you have a high retention rate of employees and customers? (Question emerged from interviews and became a question after Interview 6).
- How has your retention rate of employees and customers affected the survivability of the firm?

Provide an example

- Is there anything else you would like to add?

At the end of each interview, the researcher thanked the participants for their time and reminded each participant that as coding begins there may be new questions that need answering, requiring additional time from the participants.

Research Timeline

The research for the current study was conducted over 6 months. A timeline was created to show what work was being accomplished during the 6 months. Initially, the researcher worked with Inside Prospects to create criteria resulting in a list of qualifying small businesses in San Diego County, CA. Additional criteria used to qualify small businesses was obtained through phone calls and emails with each of the potential participants. Tables and figures were used to highlight the starting point of the research and the list of the final participants.

Month 1, Weeks 1 and 2

Acquiring usable data was an important first step. Having data that met the criteria saved the researcher time and effort in qualifying potential participants who may or may not have met the criteria. Inside Prospects, an aggregator of business data in San

Diego, CA since 1977 was used to provide data for the research. A list of 1,000 names was purchased for \$350. The main criteria given to Inside Prospects were businesses in San Diego County with an employee count ranging between 10 and 99, and an organization that was older than 7 years. Additionally, a filter was used to exclude from the data all small businesses that were government agencies, hospitals, schools, colleges, or universities, whether for-profit or not-for-profit. More small businesses were in the first data set than were anticipated. When the criteria set were filtered, a list of 14,140 small businesses was created (see Table 1).

Table 1.

Inside Prospects Summary Page of Businesses in San Diego County, CA.

Analysis of Sizes and Site Types					
Employees/Firm	Firms		Employment		Key Persons
M. 1-4	0	0.0%	0	0.0%	0
N. 5-9	0	0.0%	0	0.0%	0
O. 10-19	7,248	51.2%	93,311	26.7%	11,238
P. 20-49	5,269	37.2%	148,439	42.6%	8,690
Q. 50-99	1,623	11.4%	106,610	30.6%	3,385
R. 100-249	0	0.0%	0	0.0%	0
S. 250-499	0	0.0%	0	0.0%	0
T. 500+	0	0.0%	0	0.0%	0
	14,140	100.0%	348,360	100.0%	23,313
Site Type	Firms		Employment		Key Persons
Single locations	6,856	48.4%	147,990	42.4%	12,249
Headquarters	996	7.0%	30,843	8.8%	3,339
Franchises	1,265	8.9%	34,407	9.8%	1,420
Divisions	203	1.4%	6,780	1.9%	531
Branches	4,820	34.0%	128,340	36.8%	5,774
	14,140	100.0%	348,360	100.0%	23,313

The researcher only paid for 1,000 names, and the data set was too broad; therefore, more filters were applied to exclude franchises, divisions, and branches. Franchises, divisions, and branches were excluded because one of the criteria was that the

founder/entrepreneur was still involved in the business. Franchises, divisions, and branches may not have a founder present in their San Diego location. Table 2 shows a list of categories including nonservice businesses. The list was reviewed to exclude certain categories to narrow the list of potential participants since only 1,000 businesses would be sent to the researcher.

Table 2.

List of Small Businesses by SIC Code and Number of Employees

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE CODES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
Transport, Telecom	Utilities								
411	Local & suburban transportation		0	0	17	17	9	0	0
412	Taxicabs	10	0	0	6	3	1	0	0
413	Intercity & rural bus transportation	2	0	0	2	0	0	0	0
414	Bus charter services	5	0	0	5	04	5	0	0
415	School buses	6	0	0	1	3	2	0	0
41 Totals	TRANSIT, TAXIS, & BUSES	66	0	0	28	24	14	0	0
421	Trucking & courier services	112	0	0	45	48	19	0	0
422	Public warehousing & storage	19	0	0	9	8	2	0	0
42 Totals	MOTOR FREIGHT & WAREHOUSING	131	0	0	54	56	21	0	0
431	U.S. Postal Service	44	0	0	1	17	26	0	0
43 Totals	U.S. POSTAL SERVICE	44	0	0	1	17	26	0	0
441	Deep sea foreign transportation	1	0	0	0	1	0	0	0
444	Water transportation of freight	1	0	0	1	0	0	0	0
448	Water transportation of passengers	2	0	0	2	0	0	0	0
449	Water transportation services	17	0	0	8	7	2	0	0
44 Totals	WATER TRANSPORTATION	21	0	0	11	8	2	0	0
451	Air transportation scheduled	18	0	0	2	16	0	0	0
452	Air transportation, nonscheduled	6	0	0	2	4	0	0	0

458	Airports, & flying fields, services	18	0	0	8	6	4	0	0
45	AIR TRANSPORTATION	42	0	0	12	26	4	0	0
461	Pipelines; except natural gas	3	0	0	2	1	0	0	0
46 Totals	PIPELINES, EXCEPT NATURAL GAS	3	0	0	2	1	0	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE CODES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
472	Travel agents	39	0	0	18	18	3	0	0
473	Freight transportation arrangement	42	0	0	27	10	5	0	0
478	Misc. transportation services	19	0	0	8	5	6	0	0
47 Totals	TRANSPORTATION SERVICES	100	0	0	53	33	14	0	0
481	Telephone communications	72	0	0	43	23	6	0	0
483	Radio & television broadcasting	24	0	0	3	13	8	0	0
484	Cable & other pay TV services	7	0	0	3	1	3	0	0
489	Communication services; nec	23	0	0	7	8	8	0	0
48 Totals	COMMUNICATIONS-TELEPHONE, RADIO, TV, ETC.	126	0	0	56	45	25	0	0
491	Electrical services	7	0	0	5	4	4	0	0
492	Gas production & distribution	3	0	0	2	1	0	0	0
493	Combination utility services	15	0	0	7	7	1	0	0
494	Water supply	23	0	0	8	9	6	0	0
495	Sanitary services	32	0	0	11	17	4	0	0
497	Irrigation system	1	0	0	1	0	0	0	0
49 Totals	ELECTRIC, GAS, & SANITARY	81	0	0	34	35	12	0	0
Wholesale Trade									
501	Motor vehicles & equipment	70	0	0	44	21	5	0	0

502	Furniture & home furnishings	47	0	0	23	19	5	0	0
503	Lumber; construction materials	92	0	0	50	34	8	0	0
504	Professional/commercial	133	0	0	69	45	19	0	0
505	Metals; minerals; except petro	15	0	0	9	6	0	0	0
506	Electrical goods	133	0	0	79	41	13	0	0
507	Hardware; plumbing & heating	70	0	0	35	31	4	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE CODES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
508	Machinery; equipment & supply	117	0	0	70	37	10	0	0
509	Misc. durable goods	110	0	0	63	38	9	0	0
50 Totals	WHOLESALE TRADE-DURABLE	787	0	0	442	272	73	0	0
511	Paper & paper products	55	0	0	16	37	2	0	0
512	Drugs; proprietaries & sundry	27	0	0	14	11	2	0	0
513	Apparel; piece goods & notions	34	0	0	18	13	3	0	0
514	Groceries & related products	113	0	0	48	46	19	0	0
515	Farm product raw materials	3	0	0	1	2	0	0	0
516	Chemical & allied products	24	0	0	16	6	2	0	0
517	Petroleum & allied products	16	0	0	10	5	1	0	0
518	Beer, wine, & distilled	10	0	0	5	4	1	0	0
519	Misc. nondurable goods	78	0	0	43	29	6	0	0
51 Totals	WHOLESALE TRADE	360	0	0	171	153	36	0	0
Retail									
Trade									
521	Lumber, other building materials	23	0	0	13	6	4	0	0
523	Paint, glass, wallpaper stores	8	0	0	6	2	0	0	0
525	Hardware stores	21	0	0	14	7	0	0	0
526	Nurseries & garden stores	31	0	0	20	7	4	0	0
527	Mobile home dealers	4	0	0	3	1	0	0	0
52 Totals	BLDG & GARDEN SUPPLY, & MOBILE HOME DEALERS	87	0	0	56	23	8	0	0
531	Department stores	74	0	0	2	37	35	0	0

533	Variety stores	73	0	0	35	36	2	0	0
539	Misc. general merchandise stores	10	0	0	9	0	1	0	0
53 Totals	GENERAL MERCHANDISE STORES	157	0	0	46	73	38	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE CODES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
541	Grocery stores	358	0	0	125	77	156	0	0
542	Meat markets & freezer provisions	10	0	0	7	1	2	0	0
543	Fruit and vegetable markets	7	0	0	6	1	0	0	0
544	Candy, nut, & confections	3	0	0	2	1	0	0	0
545	Dairy product stores	10	0	0	9	1	0	0	0
546	Retail bakeries	56	0	0	40	16	0	0	0
549	Misc. food stores	14	0	0	9	3	2	0	0
54 Totals	FOOD STORES	458	0	0	198	100	160	0	0
551	New & used car dealers	67	0	0	3	29	35	0	0
552	Used car dealers	23	0	0	9	12	2	0	0
553	Auto & home supply stores	156	0	0	126	30	0	0	0
554	Gasoline service stations	40	0	0	36	5	0	0	0
555	Boat dealers	11	0	0	7	4	0	0	0
556	Recreation & utility trailer dealers	4	0	0	2	2	0	0	0
557	Motorcycle dealers	18	0	0	5	10	3	0	0
559	Automotive dealers; nec	5	0	0	1	3	1	0	0
55 Totals	AUTOMOTIVE DEALERS & GAS	325	0	0	189	95	41	0	0
561	Men's & boy's clothing & furnishings	34	0	0	24	9	1	0	0
562	Women's clothing	89	0	0	60	25	4	0	0
563	Women's accessory & specialty	27	0	0	12	11	4	0	0
564	Children's & infant's wear	34	0	0	24	8	2	0	0
565	Family clothing stores	151	0	0	70	66	15	0	0
566	Shoe stores	62	0	0	47	14	1	0	0
569	Misc. apparel & accessories	28	0	0	20	8	0	0	0

56 Totals	APPARELS & ACCESSORY STORES	425	0	0	257	141	27	0	0
571	Furniture & home	122	0	0	66	46	10	0	0
572	Household appliance	19	0	0	014	4	1	0	0
573	Radio television/computer stores	33	0	0	21	5	7	0	0
57 Totals	FURNITURE AND TV - STEREO STORES	174	0	0	101	55	18	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE CODES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
581	Restaurants & bars	2606	0	0	1117	1209	280	0	0
58 Totals	EATING AND DRINKING PLACES	2606	0	0	1117	1209	280	0	0
591	Drug stores & proprietary stores	154	0	0	68	85	1	0	0
592	Liquor stores	21	0	0	17	4	0	0	0
593	Used merchandise stores	42	0	0	20	12	10	0	0
594	Misc. shopping goods	245	0	0	133	97	15	0	0
596	Nonstore retailers	7	0	0	5	1	1	0	0
598	Fuel & ice dealers	1	0	0	1	0	0	0	0
599	Stores; nec	127	0	0	83	37	7	0	0
59 Totals	MISCELLANEOUS	597	0	0	327	236	34	0	0
Finance, Insurance, Real Estate									
602	Commerical banks	331	0	0	248	75	8	0	0
603	Savings institutions	2	0	0	1	1	0	0	0
606	Credit unions	32	0	0	22	8	2	0	0
609	Functions related to banking	21	0	0	16	1	4	0	0
60 Totals	BANKING	386	0	0	287	85	14	0	0
611	Federal & fed-sponsored credit	2	0	0	0	2	0	0	0
614	Personal credit institutions	11	0	0	5	3	3	0	0
615	Business credit institutions	9	0	0	5	3	1	0	0
616	Mortgage bankers & brokers	103	0	0	56	37	10	0	0
61 Totals	CREDIT AGENCIES OTHER	125	0	0	66	45	14	0	0
621	Security brokers & dealers	54	0	0	21	26	7	0	0
622	Commodity contracts	2	0	0	1	1	0	0	0

628	Security & commodity services	91	0	0	58	26	7	0	0
62 Totals	SECURITY & COMMODITY	147	0	0	80	53	14	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE CODES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
631	Life insurance	3	0	0	3	0	0	0	0
632	Medical & health insurance	16	0	0	6	7	3	0	0
633	Fire, marine, & casualty insurance	3	0	0	1	2	0	0	0
635	Surety insurance	9	0	0	8	1	0	0	0
636	Title insurance	9	0	0	3	5	1	0	0
637	Pension, health & welfare funds	8	0	0	2	5	1	0	0
639	Insurance carriers; nec	4	0	0	1	2	1	0	0
63 Totals	INSURANCE CARRIERS	52	0	0	24	22	6	0	0
641	Insurance agents; brokers & service	173	0	0	89	66	18	0	0
64 Totals	INSURANCE AGENTS, BROKERS & SERVICE	173	0	0	89	66	18	0	0
651	Real estate operators & lessors	154	0	0	92	51	11	0	0
653	Real estate agents & managers	363	0	0	179	141	43	0	0
654	Title abstract offices	5	0	0	4	1	0	0	0
655	Subdividers & developers	43	0	0	17	18	8	0	0
65 Totals	REAL ESTATE	565	0	0	292	211	62	0	0
671	Holding offices	4	0	0	2	2	0	0	0
672	Investment offices	6	0	0	2	4	0	0	0
673	Investment trusts	3	0	0	3	0	0	0	0
679	Investment- misc. investing	21	0	0	11	6	4	0	0
67 Totals	HOLDING & OTHER	34	0	0	18	12	4	0	0

701	Lodging-hotels & motels	286	0	0	102	131	53	0	0
702	Lodging-rooming & boarding houses	2	0	0	2	0	0	0	0
703	Lodging-camps & trailer parks	29	0	0	14	13	2	0	0
704	Lodging-membership basis hotels	2	0	0	1	1	0	0	0
70 Totals	LODGING PLACES	319	0	0	119	145	55	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZE						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
721	Laundry cleaning & garment services	47	0	0	25	17	5	0	0
722	Photographic studios; portrait	8	0	0	7	1	0	0	0
723	Beauty shops	287	0	0	222	61	4	0	0
724	Barber shops	13	0	0	12	1	0	0	0
725	Shoe repair & shoeshine parlors	1	0	0	0	0	1	0	0
726	Funeral servie & crematories	12	0	0	5	3	4	0	0
729	Misc. personal services	104	0	0	56	43	5	0	0
72 Totals	PERSONAL SERVICES	472	0	0	327	126	19	0	0
731	Advertising	96	0	0	55	30	11	0	0
732	Credit reporting & collection	21	0	0	7	11	3	0	0
733	Mailing, reproduction & secretarial	68	0	0	37	27	4	0	0
734	Services to buildings	120	0	0	50	57	13	0	0
735	Misc equipment rental & leasing	56	0	0	25	30	1	0	0
736	Personnel supply services	94	0	0	48	29	17	0	0
737	Computer & data processing	420	0	0	191	165	64	0	0
738	Miscellaneous business services	218	0	0	115	84	19	0	0
73 Totals	BUSINESS SERVICES	1093	0	0	528	433	132	0	0
751	Rentals; without drivers	34	0	0	14	16	4	0	0
752	Parking	17	0	0	7	7	3	0	0
753	Auto repair shops	178	0	0	118	56	4	0	0

754	Auto services; except repair	103	0	0	59	40	4	0	0
75 Totals	AUTO REPAIR, SERVICES, AND GARAGES	332	0	0	198	119	15	0	0
762	Repairs-electrical shops	14	0	0	8	4	2	0	0
764	Repairs-reupholstery & furniture	2	0	0	2	0	0	0	0
769	Repairs-miscellaneous repair shops	29	0	0	19	9	1	0	0
76 Totals	MISCELLANEOUS REPAIR	45	0	0	29	13	3	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZES						
			1-4	5-9	10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T
781	Motion pictures-production & services	15	0	0	8	6	1	0	0
783	Motion pictures-theaters	18	0	0	1	11	6	0	0
784	Motion pictures-video tape rental	3	0	0	2	1	0	0	0
78 Totals	MOTION PICTURES	36	0	0	11	18	7	0	0
791	Recreation-dance halls; studios & school	13	0	0	11	2	0	0	0
792	Recreation-producers, orchestra; entrtnrs	36	0	0	17	15	4	0	0
793	Recreation-bowling & billiard establishments	8	0	0	1	4	3	0	0
794	Recreation-commercial sports	16	0	0	9	5	2	0	0
799	Recreation-misc. amusement; rec services	366	0	0	165	154	47	0	0
79 Totals	RECREATION	439	0	0	203	180	56	0	0
Medical Other Health									
801	Physicians	461	0	0	274	153	34	0	0
802	Dentists	187	0	0	162	23	2	0	0
804	Other health practitioners	151	0	0	99	42	10	0	0
805	Nursing & personal care facilities	93	0	0	15	34	44	0	0
Education, Social Services									
806	Hospitals	7	0	0	3	4	0	0	0
807	Medical & Dental Laboratories	46	0	0	23	19	4	0	0
808	Home Health Care Facilities	75	0	0	25	31	19	0	0
809	Health allied services	209	0	0	690	401	138	0	0
Legal, Law Offices									

811	Legal (Attorneys, etc.)	302	0	0	178	95	29	0	0
81 Totals	LEGAL SERVICES	302	0	0	178	95	29	0	0
832	Social services- individual & family	220	0	0	95	91	34	0	0
833	Social services-job training & related	39	0	0	10	20	9	0	0
835	Social services-child care	236	0	0	148	84	4	0	0
836	Social services- residential care	62	0	0	22	30	10	0	0
839	Social services-social service; nec	88	0	0	46	34	8	0	0
83 Totals	SOCIAL SERVICES	645	0	0	321	259	65	0	0

Continued

Table 2.

List of Small Businesses by SIC Code and Number of Employees (continued)

SIC	DESCRIPTION	TOTAL	EMPLOYEES & SIZES								
			1-4		5-9		10-19	20-49	50-99	100-249	250+
			O	N	O	P	Q	R	S-T		
841	Museums & art galleries	28	0	0	10	12	6	0	0		
842	Botanical & zoological gardens	4	0	0	1	3	0	0	0		
84 Totals	MUSEUMS, GALLERIES, & ZOOLOGICAL GARDENS	32	0	0	11	15	6	0	0		
861	Membership organizations-business	27	0	0	15	8	4	0	0		
862	Membership organizations- professional	13	0	0	6	7	0	0	0		
863	Membership organizations-labor	17	0	0	11	6	0	0	0		
864	Membership organizations-civic & social	42	0	0	24	16	2	0	0		
865	Membership organizations-political	1	0	0	1	0	0	0	0		
866	Membership organizations-religious	190	0	0	119	58	13	0	0		
869	Membership organizations- nec	18	0	0	7	8	3	0	0		
86 Totals	MEMBERSHIP ORGANIZATIONS	308	0	0	183	103	22	0	0		
Engineers, Accounting, R&D											
871	Engineering & architectural offices	343	0	0	186	110	47	0	0		
872	Accounting & bookkeeping	96	0	0	54	30	12	0	0		

873	Research & testing	223	0	0	99	81	43	0	0
874	Management & public relations	154	0	0	100	45	9	0	0
87 Totals	ENGINEERING, ACCOUNTING & RESEARCH	816	0	0	439	266	111	0	0
GRAND TOTALS OF ALL		14140	0	0	7248	5269	1623	0	0

To reduce the size of the list to service businesses only, the following categories were excluded:

- Transit, taxis, and buses
- U.S. Postal Service
- Wholesale trade—durable goods
- Wholesale trade—nondurable goods
- Building and garden supply and mobile home dealers
- General merchandise stores
- Food stores
- Automotive dealers and gas stations
- Apparel and accessory stores
- Furniture and television stores
- Restaurants and bars
- Miscellaneous retail
- Auto repair, services, and garages
- Miscellaneous repair services
- Social services
- Membership organizations

Once the criteria were excluded, 4,048 small businesses were listed. The list was reviewed again to determine if any more exclusions for nonservice businesses that did not meet the criteria, especially the founder of the business still working in the business were possible. The following elements were in the final filter to obtain the best list possible for the current research study:

- Communication services including telephone, radio, and television.
- Banks
- Credit agencies other than banks
- Real estate
- Holding and other investment offices
- Lodging places (hotels, motels, trailer parks, and room and boarding houses)
- Amusement and recreations services

After the filter was applied, 3,038 small businesses were listed. The researcher reviewed the categories one more time and decided the list contained possible participants within the service sector, that were at least 7 years old, employed between 10 and 99 employees that were within San Diego County, and still had the entrepreneur active in the business. Inside Prospects then provided a Microsoft Excel® list of the oldest 1,000 small businesses from the list of 3,038 small businesses. The list included the name and address of the business, phone numbers for the business, names of key personnel, e-mail addresses of key personnel if available, number of employees, and date the business began operations. The file was downloaded to the researcher's computer and saved to Cloud storage, a flash drive, and an external hard drive.

Before interviews could be set up, additional screening of the participants, using web searches, phone calls, and emails were required to confirm the potential participants met the criteria. After the Microsoft Excel[®] spreadsheet was received, the researcher used Stat-trek[®] to generate a random number listing of the data provided by Inside Prospects (see Table 1). The researcher did not know how many companies would be known by the subject-matter experts and the researcher, so the random number listing augmented any known companies and kept the research process moving forward.

Table 3

Random Number Generator using Stat-trek.com[®]

0472 0568 0280 0411 0549 0867 0383 0368 0678 0483 0536 0376 0857 0415 0006 0966 0618 0397 0793
0607 0429 0696 0895 0564 0558 0312 0314 0838 0002 0244 0784 0162 0763 0226 0571 0803 0575 0525
0408 0760 0703 0141 0827 0034 0148 0073 0297 0624 0643 0056 0084 0265 0720 0355 0921 0222 0849
0970 0340 0496 0293 0902 0810 0821 0788 0885 0596 0461 0600 0184 0699 0419 0728 0799 0853 0692
0173 0731 0323 0017 0934 0714 0109 0923 0746 0013 0212 0881 0874 0628 0365 0889 0318 0560 0835
0479 0814 0543 0622 0120 0891 0842 0724 0077 0019 0457 0878 0351 0464 0389 0614 0675 0959 0372
0400 0581 0771 0671 0237 0539 0899 0286 0656 0547 0344 0953 0126 0137 0105 0201 0913 0778 0917
0500 0750 0735 0045 0116 0169 0009 0489 0782 0639 0333 0985 0030 0425 0974 0062 0329 0528 0931
0190 0945 0682 0205 0635 0611 0152 0795 0130 0859 0938 0436 0942 0158 0041 0393 0336 0774 0194
0667 0515 0440 0664 0991 0276 0688 0451 0632 0088 0987 0553 0590 0216 0603 0707 0863 0660 0269
0443 0453 0421 0517 0963 0094 0233 0816 0066 0051 0361 0432 0485 0325 0806 0098 0955 0650 0301
0346 0742 0290 0379 0646 0579 0248 0507 0995 0998 0521 0686 0927 0468 0846 0447 0910 0254 0752
0258 0475 0357 0710 0387 0825 0511 0718 0831 0756 0981 0308 0592 0739 0767 0949 0404 0304 0870
0906 0532 0654 0023 0180 0977 0586 0493 0504 0118 0146 0327 0783 0417 0983 0285 0911 0032 0402
0964 0872 0883 0851 0947 0659 0524 0663 0246 0761 0481 0791 0861 0915 0755 0235 0385 0079 0996
0776 0171 0986 0808 0075 0274 0943 0936 0691 0428 0951 0381 0898 0541 0876 0605 0684 0182 0954

0904 0787 0139 0082 0520 0940 0413 0526 0452 0676 0737 0022 0434 0462 0644 0833 0733 0299 0601
 0962 0349 0719 0609 0406 0015 0189 0199 0167 0263 0975 0840 0979 0562 0812 0797 0107 0178 0231
 0071 0552 0844 0701 0396 0047 0092 0488 0036 0124 0391 0994 0253 0007 0744 0267 0697 0673 0214
 0193 0922 1000 0498 0004 0221 0103 0456 0398 0836 0257 0729 0577 0502 0727 0054 0338 0751 0513
 0695 0150 0050 0616 0652 0278 0665 0769 0926 0723 0331 0505 0516 0484 0580 0026 0157 0295 0879

Continued

Table 3.

Random Number Generator using Stat-trek.com[®] (continued)

0129 0114 0424 0494 0548 0868 0161 0018 0712 0363 0409 0804 0353 0441 0708 0641 0310 0569 0058
 0060 0584 0748 0990 0530 0908 0509 0972 0317 0815 0321 0537 0772 0449 0887 0573 0780 0894 0819
 0043 0370 0801 0829 0011 0466 0366 0932 0968 0594 0716 0086 0242 0039 0648 0556 0566 0534 0631
 0342 0473 0612 0930 0445 0430 0740 0545 0598 0438 0919 0477 0068 0028 0680 0460 0855 0669 0492

0759 0958 0626 0620 0374 0377 0900 0064 0306 0847 0225 0289 0633 0866 0637 0588 0470 0823 0765
 0203 0096 0210 0135 0359 0687 0705 0482 0305 0572 0433 0187 0713 0877 0119 0038 0638 0102 0446
 0679 0450 0401 0283 0636 0578 0016 0948 0172 0518 0140 0230 0796 0845 0215 0371 0168 0777 0685
 0337 0476 0059 0574 0294 0604 0048 0606 0198 0892 0809 0589 0984 0621 0888 0087 0749 0241 0764
 0435 0711 0354 0689 0418 0497 0717 0952 0753 0339 0550 0247 0275 0647 0546 0112 0414 0775 0422
 0219 0828 0012 0980 0076 0653 0792 0375 0625 0610 0920 0044 0884 0657 0514 0209 0860 0905 0403
 0807 0820 0557 0080 0510 0486 1002 0670 0813 0311 0817 0916 0211 0649 0070 0542 0390 0315 0540
 0151 0326 0508 0465 0091 0478 0582 0144 0839 0108 0307 0200 0681 0177 0617 0166 0454 0123 0382
 0871 0873 0561 0343 0721 0322 0785 0134 0350 0585 0262 0700 0386 0593 0856 0183 0642 0824 0279
 0179 0745 0781 0407 0529 0055 0852 0369 0347 0444 0155 0743 0243 0358 0412 0251 0732 0882 0841
 0273 0668 0053 0946 0427 0271 0912 0869 0128 0619 0143 0089 0880 0978 0132 0378 0602 0929 0213
 0388 0570 0025 0925 0491 0527 0153 0645 0207 0380 0455 0901 0754 0989 0423 0893 0587 0239 0284
 0228 0316 0583 0185 0933 0459 0623 0865 0384 0848 0192 0690 0196 0324 0762 0448 0655 0694 0918
 0245 0677 0886 0591 0961 0117 0914 0523 0431 0442 0410 0506 0217 0348 0487 0805 0320 0615 0420
 0474 0794 0352 0944 0555 0335 0730 0367 0634 0495 0250 0252 0181 0722 0100 0164 0741 0463 0698
 0085 0993 0021 0658 0292 0858 0160 0786 0758 0726 0822 0399 0538 0121 0356 0666 0790 0630 0111

0260 0651 0683 0950 0149 0818 0303 0826 0256 0773 0416 0480 0559 0057 0662 0957 0395 0288 0551
 0613 0897 0519 0709 0175 0837 0224 0282 0890 0850 0715 0854 0236 0706 0052 0097 0330 0272 0597
 0197 0661 0005 0503 0261 0490 0255 0223 0319 0031 0300 0133 0287 0127 0165 0757 0063 0065 0535
 0554 0159 0394 0834 0471 0973 0599 0924 0768 0674 0069 0229 0565 0770 0208 0629 0101 0364 0426
0332 0522 0988 0037 0298 0095 0501 0240 0533 0736 0176 0725 0941 0956 0362 0693 0909 0266 0191

Continued

Table 3.

Random Number Generator using Stat-trek.com[®] (Continued)

0439 0738 0458 0020 0204 0268 0567 0802 0170 0531 0405 0345 0467 0093 0296 0779 0125 0576 0640
 0110 0437 0078 0734 0035 0309 0106 0997 0512 0232 0544 0136 0830 0747 0702 0373 0627 0704 0832
 0270 0277 0202 0099 0469 0360 0766 0939 0014 0313 0563 0982 0302 0595 0798 0843 0238 0875 0142
 0341 0003 0965 0608 0672 0249 0971 0206 0328 0264 0800 0029 0234 0907 0046 0174 0138 0104 0392
 0061 0811 0334 0499 0281 0067 0218 0122 0186 0083 0090 0115 0154 0992 0259 0227 0188 0024 0291
 0131 0195 0156 0163 0976 0147 0862 0960 0903 0928 0999 0220 0935 0049 0864 0789 0967 0896 0033
0937 0072 0008 0001 0969 0040 0081 0074 0010 0145 0042 0113

Note: This table of 1,000 random numbers was produced according to the following specifications: (a) numbers were randomly selected from within the range of 1 to 1000; (b) duplicate numbers were not allowed. This table was generated on 4/1/2016 by the researcher.

Week 3

The list of 1,000 small businesses was sent to 4 subject-matter experts in the following fields: legal, academia, insurance, and business consulting. Each of the subject-matter experts (SMEs) had at least 10 years of experience in their respective field and were respected and connected in their respective service industries. Using the SMEs helped identify potential participants. Additionally, each of the SMEs had worked with or was working in a small business and understood the struggles for survival of a small

business. Each SME understood potential participant bias because of their relationships with the potential participants. Therefore, the SMEs contacted the participants, but did not answer any questions regarding the research. The SMEs looked at the list to determine who they might know to provide warm introductions for the researcher. Additionally, the researcher looked at the list to determine how many companies were known by the researcher. The researcher knew three companies and called the company leaders to determine if they would be interested in participating in the research study.

Week 4

While waiting for the subject-matter experts to determine companies knew, the researcher made a minimum of eight calls per week to companies using the random number generated list. To keep track of the random numbers used from Stat-trek[®], the random number, once used, was highlighted in green. Additionally, the researcher made a notation in Column C of the Microsoft Excel[®] spreadsheet regarding the random number the company represented and how many voice mails or emails were left for the potential participant.

Some of the potential participants on the Insider Prospect list were eliminated from consideration. Reasons for exclusion included: (a) the company was recently acquired, or (b) the founder was no longer a part of the company. The companies were highlighted in red on the Excel[®] spreadsheet and the leaders were not interviewed. As company leaders elected not to participate and informed the researcher, the companies were also highlighted in red.

Regardless if the potential participant was known by the researcher or if the call to the potential participant was a random call, the researcher called and left voice mail two

times and sent an e-mail, if the e-mail address was known. If no call backs or e-mails were returned, the researcher moved on to call more names from the list using the random number listing.

The researcher looked up each potential company participant on the Internet to assure the potential participant was qualified as being in the service industry and learn anything about the company using the “About Us” section of company websites. The researcher called potential participants, talking to the businesses’ receptionists, indicating to the individual that researcher was a doctoral candidate and was researching small businesses in San Diego. Of responses, 93 declined to participate, or the receptionists would send the call to voice mail and no one ever returned the call. Once a participant agreed to participate, the researcher asked the potential participant the predetermined criterion questions and, if the potential participant met the criteria, an e-mail was sent to the participant containing the qualitative questions for him/her to prepare for the interview. Table 4 shows the answers to the criteria questions.

Table 4.

Answers to Criteria Questions

Responses to Criteria Questions					
Criteria	SMB 1	SMB 2	SMB 3	SMB 4	SMB 5
Years in business	17	40	7	18	9
Location	San Diego	Pt. Loma	Little Italy	San Diego	Kearny Mesa
Govt, Hospital, School	No	No	No	No	No
Active in Business	Yes	Yes	Yes	Yes	Yes
# of employees	42	10	18	20	32
Selling a service	Yes	Yes	Yes	Yes	Yes
Established learning process	Yes	Yes	Yes	Yes	Yes
Profitability in past 3 years	Yes	Yes	Yes	Yes	Yes
5% business growth in past 3 years	Yes	Yes	Yes	Yes	Yes
Forsee changes in next 5 years	None at all	No	No	No	No
Criteria	SMB 6	SMB 7	SMB 8	SMB 9	SMB 10
Years in business	10	18	18	31	25
Location	San Diego	Vista	San Diego	FallBrook	San Diego
Govt, Hospital, School	No	No	No	No	No
Active in Business	Yes	Yes	Yes	Yes	Yes
# of employees	78	10	10	15	25
Selling a service	Yes	Yes	Yes	Yes	Yes
Established learning process	Yes	Yes	Yes	Yes	Yes
Profitability in past 3 years	Yes	Yes	Yes	Yes	Yes
5% business growth in past 3 years	Yes	Yes	Yes	Yes	Yes
Forsee changes in next 5 years	None	No	No	None	No

Continued

Table 4.

Answers to Criteria Questions (continued)

Criteria	Responses to Criteria Questions				
	SMB 11	SMB 12	SMB 13	SMB 14	SMB 15
Years in business	31	18	26	13	17
Location	San Diego	Santee	Mission Valley	El Cajon	San Diego
Govt, Hospital, School	No	No	No	No	No
Active in business	Yes	Yes	Yes	Yes	Yes
# of employees	40	25	13	10	10
Selling a service	Yes	Yes	Yes	Yes	Yes
Established learning process	Yes	Yes	Yes	Yes	Yes
Profitability in past 3 years	Yes	Yes	Yes	Yes	Yes
5% business growth in past 3 years	Yes	Yes	Yes	Yes	Yes
Forsee changes in next 5 years	No	No	No	No	No

All participants wanted to review the questions before an interview date and time was determined. Within a day of emailing the questions, a date and time were sent to the researcher to meet the participant. The companies were highlighted in green on the Excel[®] spreadsheet. Additionally, a worksheet was created entitled Codebook, that referenced the following: (a) the small to medium business number (SMB #X); (b) company name; (c) if the participant was off the list or a snowball sample; (d) research month; (e) known by researcher; (f) expert; (g) random participant off the list or snowball; (h) interview date; (i) age of business; (j) number of employees; (k) type of business; (l) zip code; (m) participant number (PA #X); and (n) the name of the interviewee(s). In four cases, more than one person was present during the interview, for example, the founder and the president, or if there was more than one founding partner,

the partners would be interviewed. Interview notes were read and re-read before coding occurred. Each participant's interview notes were coded by the researcher.

Month 2

The list of 1,000 small businesses was sent to 4 subject-matter experts in the following fields: legal, academia, insurance, and business consulting. While waiting for the subject-matter experts to determine companies they knew, the researcher continued calling at least eight random companies per week using the Stat-trek[®] report, beginning with the first random number that was not highlighted in green. The subject-matter experts contacted names on the list they knew via phone calls and with a follow-up e-mail. During Month 2, the subject-matter experts' contacts began to contact the participants by e-mail, indicating a desire to be interviewed. Once the potential participant agreed to talk to the researcher, the researcher called the potential participant and then e-mailed the participant. Additionally, some participants and the subject-matter experts provided names of additional potential participants and sent the criterion questions to the potential participants. If a potential participant met the criteria, the participant was sent an e-mail with the qualitative questions to use to prepare for the interview. All participants wanted to review the questions before an interview date and time were set. Within a day of e-mailing the questions, a date and time were sent to the researcher when he would meet the participant. A total of eight interviews were conducted in Month 2 as follows: Week 1: no interviews; Week 2: two interviews; Week 3: one interview; Week 4: two interviews; and Week 5: three interviews.

Once at the interview, the researcher used the printed copy of the questions to read them to participants. Once the interview was completed, the researcher transcribed

his field notes within 24 hours of the interview and then sent them to the participants to validate. Three participants made editorial changes to the interview notes and e-mailed them, including the changes, to the researcher. These three participants made no substantive changes nor was anything new added to the notes. The interview notes with changes were downloaded and saved to the researcher's computer using a different file name to distinguish between the original notes and the edited notes. Five other participants agreed the notes were fine by sending an e-mail to the researcher, noting such comments as "looks good", "yes", or "fine". The original interview notes, with the changes to the interview notes, and participant's e-mails were saved to the researcher's computer and then saved to a Cloud storage, a flash drive, and an external hard drive. During the interviews, the researcher noted two emerging questions: commoditization and high retention of employees and customers. The answers to the questions were important because (a) if there is commoditization in the industry, opportunities may exist to learn how to differentiate one's business from competitors, such as using a blue ocean strategy, and (b) learning how to retain employees and customers allows the founder to focus on new opportunities for the business, in addition to providing continuity from the employees to the customers.

Ultimately, a business leader must learn how to make the business survive or it will die. Learning to create a differentiation strategy and learning how to retain employees and customers aids business survivability. All of the participants experienced a commoditization in their industry. No question existed on the question list regarding commoditization; therefore, after Interview 4, a question on the commoditization of the industry was added to the list of qualitative questions. Additionally, all participants

experienced high retention of employees and customers. No qualitative question regarding on high retention of employees and customers was asked; therefore, after Interview 6, a question on high retention of employees was added to the list of qualitative questions. No follow-up was required on these questions with prior participants, because each participant had indicated there was commoditization and high retention of employees and customers.

Interview notes were read and reread before coding occurred. Each participant's interview notes were coded by the researcher. Themes began to emerge from the coding and the rereading of the interview notes. Although answers were similar, saturation was not yet achieved and interviews continued. The researcher began to write Chapter 4 of the dissertation by noting the changes made from the initial design and then documenting the process.

Month 3

The researcher continued to call a minimum of eight companies per week from the list provided by Inside Prospects using the random number generator starting at the last number not highlighted in green.

The subject-matter experts were e-mailed to follow up on any more potential participant contacts. When a potential participant met the criteria, an e-mail was sent to them with the qualitative questions so they could prepare for the interviews. All participants wanted to review the questions before an interview date and time were set. Within a day of e-mailing the questions, dates and times were sent to the researcher for meetings with the participants. An additional seven interviews were conducted in Month 3. Week 1: two interviews were conducted; Week 2: two interviews were conducted;

Week 3: no interviews; and Week 4: 3 interviews were conducted. Once at the interview, the researcher read the questions as written from his printed copy of the questions.

Once the interview was completed, the researcher transcribed his field notes within 24 hours of the interview and then sent them to the participants to verify. Two participants made editorial changes to the interview notes and e-mailed the interview notes including the changes to the researcher. The two participants did not make any substantive changes nor was anything new added to the notes. The interview notes with changes were downloaded and saved to the researcher's computer using a different file name to distinguish the original notes from the edited notes. Two other participants agreed the notes were fine by sending an e-mail to the researcher noting that the notes looked good. Three participants did not respond to the accuracy of the notes. Not having a participant verify his or her words created the risk that the researcher may have interpreted the participant's words incorrectly or had written something incorrectly.

One of the ways the researcher mitigated the risk included restating participant answers and asking for confirmation that words were captured correctly. Additionally, the researcher asked the participant to repeat key phrases during the interview. Restating the participants' words and having the participants repeat key phrases were ways to check the accuracy of the interview notes prior to leaving the interview. The original interview notes, along with the changes to the interview notes, and participant's e-mails were saved to the researcher's computer and then saved to a cloud storage, a flash drive, and an external hard drive. Saturation was achieved when the researcher knew the answers to the qualitative questions prior to interviewing the participants. In this study, saturation

was achieved within 15 interviews. The themes were sent to all the participants. A total of four participants agreed the themes were on point.

Month 4

The dissertation was reviewed, edited, and sent for review and comment. A list of final themes and a draft report was sent to the participants.

Month 5

The first draft of chapters 4 and 5 of the dissertation were completed. Corrections were made as necessary, and the draft report was sent to the researcher's committee.

Month 6

The committee sent comments for researcher to address. Revisions were made and sent for review. It required time and effort to contact, schedule, and meet leaders from 15 participating companies, transcribe the interviews, read, and recheck the data before sending the transcribed data to the participants for verification of the accuracy of the data collected while working a full-time job. The researcher was flexible and allowed for more or less time, depending on the demands of the participants. A budget of \$500 was established for the current study to acquire the dataset from Inside Prospects and purchase a new external hard drive. The researcher used his own computer, but added an external hard drive to transcribe the data and prepare the final report. Other resources required were two white boards that were loaned to the researcher from one of the subject-matter experts and the researcher's time to collect, transcribe, code, validate, and report the data.

Validation

All results must be validated. The researcher primarily used member checking as a means to validate the answers from the participants in addition to continually reading the interview notes. Additionally, one of the ways the researcher mitigated risk included restating participant answers and asking for confirmation that words were captured correctly. The researcher asked the participant to repeat key phrases during the interview. Restating the participant's words and having the participant repeat key phrases were ways to check the accuracy of the interview notes prior to leaving the interview (Charmaz, 2006). In a qualitative study, the researcher is constantly asking if he or she is getting the story right (Creswell, 2007). Qualitative research collection is very detailed and time consuming. Several methods are used to validate the data being collected. Thick description and member checking were used in the current study.

Thick Description

Researchers commonly use thick description because the writer describes the participants and the settings in detail, capturing their stories. Thick description "presents detail, context, emotion, and the webs of social relationships" (Denzin, 1989, p. 83). The "voices, feelings, actions, and meanings of interacting individuals are heard" (Denzin, 1989, p. 83). However, because the descriptions are so detailed, the reader perhaps can feel the experience or the described events of the participants (Creswell, 2007). The researcher continually read the interview notes while looking at the two white boards to determine if anything had been missed. Additionally, the researcher's continuous review of the interview notes helped provide an understanding of the big picture through the words of the participants. The researcher asked himself "how" and "why" questions

when transcribing and coding the data to be sure there was enough detail(s) to create a story of how 15 small businesses created a process to capture, convert, and integrate data for survival.

Member Checking

Lincoln and Guba (1985) regarded member checking as “the most critical technique for establishing credibility” (p. 314). There were four intervals of member checking during the current study.

Interval 1. To validate data, the researcher read his notes several times, reviewing the data collected. The data could be misinterpreted if a researcher cannot read his or her notes or wrote the wrong answer by the participant. The researcher clarified any data that appeared to be conflicting or needed further clarification by contacting the participants by e-mail or by phone, and asked the participant(s) exactly what he or she meant for any data that was conflicting (Creswell, 2007). Once each interview was concluded, following each individual interview but not later than 24 hours after the interview, the interviews were reviewed and transcribed by the researcher using a Word® document program on a computer immediately. The files were stored on the researcher’s computer, a removable hard drive, a thumb drive, and a Cloud service.

A review consisted of reading the field notes several times. The notes must be accurate and use the words of the participants without commentary or opinions from the researcher. Once the interview notes were completed, a copy was sent electronically to each participant to verify the accuracy of the interview notes. Modifications by the participants added to the credibility of the interview. The participants who modified the transcripts used track changes in Microsoft Word® to modify the interview notes. The

modified transcript was saved in the SMB (xx) file on the researcher's computer and saved to a Cloud, an external hard drive, and a thumb drive. Interview notes were read in their entirety several times before coding began, as suggested by Agar (1980). Reading the interview notes several times allowed the researcher to be immersed in the details of the interview and to get a sense of the interview before beginning the coding process (Agar, 1980, Creswell, 2007).

Interval 2. Coding of the data occurred while other participant interviews were documented. There are different coding processes that can be used such as Huberman and Miles (1994) five-step process to Strauss and Corbin's (1998) three-step process. Coding is the process of examining the data collected and searching for emerging themes from the data (Strauss & Corbin, 1998). Codes for the small business (SMB1) and individual participants (IP1) were used. A codebook detailing the actual businesses and individual participant's names along with their codes was maintained on the researcher's laptop and stored on an external hard drive, a Cloud, and a thumb drive. Each theme or pattern was written on an index card. The index cards were then attached to a white board. After several days, the index cards fell off the white board. The themes were then written on the white board and also in a Microsoft Word® document. Additionally, abbreviated answers to the research questions were also entered on a white board. The detailed answers were captured in the interview notes, handwritten and typed into a Microsoft Word® document creating a visual document, which provided the data display as posited by Huberman and Miles (1994). The display was helpful to organize and assemble information to depict how the themes may relate to each other, allowing conclusion drawing and action taking (Huberman & Miles, 1994). By grouping themes

or patterns together during the coding stage, the researcher was able to see commonality from the participant data as well as any outlier theme or pattern. No outlier themes or patterns existed. An outcome of coding was the researcher continually refined interview questions to uncover more themes or patterns until a theory was developed.

Only two additional research questions were added that emerged from data collection, and all participants were asked the two additional questions. A list of themes or patterns was sent to the participants for their feedback. In total, 10 participants responded to the list of themes that the themes were on track or the participant did not see anything wrong with the themes. The remaining five participants were followed up with e-mails and phone calls. Four participants were reached by phone and agreed the themes were fine.

During the interval, one participant questioned a theme presented by the researcher, which required additional conversation with the participant. The researcher questioned the individual participant first to be sure there was no misunderstanding of terminology or definitions. The participant was satisfied with the answer from the researcher by acknowledging his satisfaction via e-mail. As new themes were created, the new list of themes was sent to the participants for their feedback. When there were no new themes created and there were no additional questions from the participants, the researcher began the process of assembling the final report. The process is shown in Figure 1.



Figure 1. Theme process as the researcher coded, themes began to emerge. These themes were then sent to the participants for validation. This process occurred until no new themes emerged.

Interval 3. Once all interviews were coded, a final list of themes was sent to the participants for their feedback. Twelve participants agreed the themes were accurate. Three participants were followed up with e-mails and phone calls. The three participants left voice mails with the researcher, saying there were no concerns with the themes. There were no additional questions from the participants and, therefore, no additional interviews were conducted.

Interval 4. Once the researcher had a final list of themes, he continued to analyze the themes, comparing and narrowing the number of themes to create a final theory. The researcher was attempting to answer the research question: understanding the process small businesses use to capture, convert, and integrate survival knowledge.

A draft final report was sent to each participant with the theory that was created from all the interviews and themes. The final theory presented to the participants indicated a process was necessary to capture, convert, and integrate knowledge for survival. Specifically, the participants established mentors for each stage of business development, learned to use a trial-and-error process with a feedback loop back to the mentors, and then the participants led the integration of knowledge to others in the business.

The three themes answered the research question. The researcher contacted the participants to discuss the final findings to be sure there were no final questions by the participants, and the results were appropriate from the themes previously generated. All the participants were e-mailed and the researcher left voice mails for the participants. Eleven of the participants responded that they agreed with the business survivability model and the process used to retain customers, as well as the process to enter new markets by being financially prudent. Two of the participants sent minor grammatical changes to the researcher, but did not change or have any issues with the report content. They said they would not have survived as long as they had without a learning process. The remaining four participants agreed with the draft report and its outcomes. Two of the participants stated they learned something new from several of the participants' quotes and would look to implement this in their business. The participants did not have any additional questions. A final report was to be sent to each participant. The positive aspects of member checking were:

- Provided an opportunity to understand and assess what the participant intended to do through his or her actions

- Gave participants the opportunity to correct errors and challenge what were perceived as wrong interpretations
- Provided the opportunity to volunteer additional information, which may be stimulated by the playing back process
- Provided an opportunity to get the respondent on the record with his or her reports
- Provided an opportunity to summarize preliminary findings
- Provided respondents the opportunity to assess adequacy of data and preliminary results as well as to confirm particular aspects of the data by reviewing a copy of the transcript in any manner the participant wanted to receive it as well as to confirm emerging themes (Creswell, 2007).

Risks

Participants experienced minimal risk because the researcher conducted face-to-face interviews with them, simply reading questions and recording their answers. None of the participants had trouble remembering how he or she started the business or any details of the questions asked by the researcher. The researcher works and has worked primarily in small businesses, specifically in the service sector; therefore, the researcher's judgment could have been clouded when asking questions and drawing conclusions for the participant being interviewed. One risk was that the initial qualifying data were wrong or answers to questions from initial phone call were written down incorrectly.

Using participants from the researcher and the researcher's subject-matter expert's relationships could have biased the participant's answers. Based on a prior relationship with either the interviewer or one of the subject-matter experts, a participant may not have wanted to disclose all relevant information or could have tailored the

responses in a positive direction toward the research. The researcher drew out conclusions from the participant without adding his own words or conclusions because of the relationship.

Data Analysis

Several different data analysis methods were possible, as proposed by Madison (2005), Huberman and Miles (1994), Wolcott (1994), and Strauss and Corbin (1998). A representation of a typical data collection analysis building process is shown in Figure 2. In the process, data are collected, coded, and displayed, and conclusions and theories are developed. The researcher used two white boards to visually display abbreviated participant answers to the research questions and emerging themes. Additionally, the themes were categorized in a table format using Microsoft Word®.

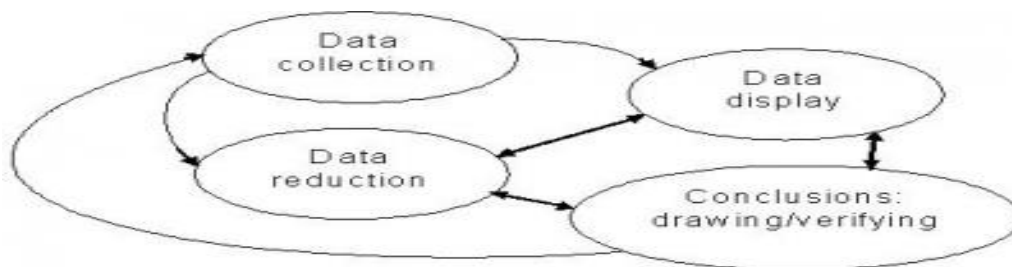


Figure 2. Interactive model analysis (Huberman & Miles, 1994). Data is collected, themes emerge, are visually displayed, then reduced, and redisplayed until a final conclusion or the answer to the research question is achieved. Adapted from *Handbook of qualitative research*, Sage Publishing.

Research Errors

Research error has an additional risk that must be addressed. Three types of research errors exist in qualitative studies. “Believing a principle to be true when it is

not...is called 'type one error.' 'Type two error' is rejecting a principle when in fact it is true. 'Type three error' is asking the wrong question" (Kirk & Miller, 1986, p. 30). The errors may threaten the study validity, and such risk is best mitigated using multiple data gathering iterations, which guides the researcher to the core theory via disparate steps and processes (Kirk & Miller, 1986).

Ethics and Confidentiality

Ethics has an important part in a research study. Regardless of whether there are humans or animals involved in the study, care must be given to treat the participants with respect. In the case of human participants, researchers must keep each participant's answers confidential so that the answers cannot be traced back to the participant, which is especially important in qualitative studies. Of the interviews, 17 were held on the premises of an organization in the study, and 1 interview was held at a convenient place for the participant.

The researcher shielded the results from the employees during the interview, allowing for free flow of communication. The results of the study are dependent on accurate data. In addition to participant identity, the data must be kept safe and secure. Cloud technology was used by the researcher to store the data. There are questions regarding the safety of the method to store data since the data storage device could be hacked. To have multiple saved versions that could be retrieved the researcher used an external hard drive and a thumb drive to store participant data. As required by George Fox University officials' research policy, all participants signed and dated a release form signaling their willingness to participate in this study.

The notion of confidentiality is founded on the principle of respect for autonomy (Creswell, 2007). Identifiable information about individuals collected during the process of research will not be disclosed without permission. Confidentiality also means not disclosing any information gained from an interviewee, deliberately or accidentally, in ways that might identify an individual (Creswell, 2007). There are risks of disclosing confidential information by accident when describing participants in a research study by using thick rich description, which is referred to as a deductive breach of confidentiality (Creswell, 2007). Qualitative researchers must describe in enough detail the participant's thoughts, actions, ideas, and questions but also maintain confidentiality of the participants (Creswell, 2007). A fine line exists between describing a person's story in enough detail to tell their story accurately but yet not providing so much detail that someone could guess the identity of the participant (Creswell, 2007).

Risks and Researcher Bias

Minimal risk was present for each participant, because the researcher conducted face-to-face interviews with the participants, simply reading questions and manually recording their answers on paper. None of the participants had difficulty remembering how they started the business or any details of the questions asked by the researcher. Since the researcher works and has worked primarily in small businesses, specifically in the service sector, the researcher's judgment could have been clouded when asking questions and drawing conclusions for the participant being interviewed. A risk is that the initial qualifying data were wrong or answers to questions from initial phone calls were written down incorrectly. Using participants from the researcher and the researcher's subject-matter experts' relationships could have biased the participants'

answers. Based on a prior relationship with either the interviewer or one of his subject-matter experts, a participant may not want to disclose all relevant information or could tailor the responses in a positive direction toward the research. The researcher must draw out any conclusions from the participant without adding his own words or conclusions because of the relationship.

Delimitations

Delimitations state the boundaries of the study (Roberts, 2010). The boundaries set for the current study were as follows:

- Service Sector small businesses in San Diego County, California.
- The service sector organization must have increased revenue by 5% over a 3-year period as well as having profitability in 2 of the past 3 years in the past 3 years.
- Additionally, the organization: (a) had been in existence for at least 7 years; (b) employed between 10 and 99 employees; (c) had established a process to capture, convert, and integrate knowledge into the business; (d) was not a government agency, hospital, school, college, or university whether for profit or not for profit; (e) the entrepreneur was an active member of the business; and (f) there were no foreseeable changes that would prevent the business from surviving an additional five years.
- All businesses should be interested in capturing knowledge, but in particular, the service industry has grown during the Information Age. Service companies account for more than 50% of the businesses on the Standard and Poor's 500

Index and 70% of added value in the advanced industrial economies (Newman, 2010).

Assumptions and Limitations

Limitations are not controllable by the researcher and may affect the study in an important way (Roberts, 2010). An assumption is something plausible and accepted as true. For the current research, for a business to be part of the study, the following assumptions were made: (a) there were at least 15 small businesses in the service sector that were not government agencies, hospitals, schools, colleges, or universities whether for profit or not for profit; (b) that the entrepreneur was still an active member of the business; (c) that the business had between 10 and 99 employees; (d) that the business had been in existence for at least 7 years, (e) that the business had multiple years of profitability in the past 3 years; (f) that the business had experienced a 5% growth in revenue in the past 3 years; (g) that the business had implemented a process to capture, convert, and integrate knowledge; and (h) there were no foreseeable changes that would prevent the business from surviving an additional 5 years, within San Diego County, California.

Another assumption was that selected small business entrepreneurs would be willing to share their ideas and strategies on how their process to capture, convert, and integrate data was implemented. A limitation was that the study was centered in San Diego County, California and, because of the specific geography; the findings may not be generalizable with a limited number of participants. The current study was the researcher's first research project, making the researcher's lack of experience, including interviewing, transcribing, and coding, along with his limited relationships with small

business entrepreneurs, a research limitation. As with doing anything for the first time, the time frames to conduct interviews, transcription, and coding were underestimated.

Time and Budget

The length of time from data collection to final theory development was six months. The budget was \$500 for the purchase of the Inside Prospects list and an external hard drive for the researcher's computer.

Researcher's Perspective

Generally, small business leaders have limited resources, such as personnel, finances, and technology, but need to allocate some resources toward implementation of a learning process (Leadbeater, 2000). Small business leaders learn from their employees, their competitors, their vendors, their customers, their advisors, and industry organizations. Small business founders learn from mentors, customers, employees, and their experience. Entrepreneurs capture knowledge from their customers through feedback on pricing and service. Entrepreneurs learn and integrate new technology on their own through trial and error as well as through vendors. Entrepreneurs capture knowledge about their competitors from vendors, industry organizations, and customers and integrate the knowledge to others in the business.

Senge (1990) and Lotti (2007) underscored the importance of implementing a learning process for small business survivability. A learning process would enable the small business's leaders to create a competitive advantage. Knowledge may be lost if the entrepreneur does not allocate resources to capture, convert, and integrate knowledge.

Understanding how small businesses entrepreneurs implement a process to capture,

convert, and integrate knowledge to survive will not only add to the existing body of literature on small business survival, but also might result in transferrable principles and actions that could lower the mortality rate of small businesses.

Conclusion

Qualitative researchers want to understand the motives, reasons, and goals that make people do what they do (Creswell, 2007). In organizational studies, describing the data may be more valuable than statistics (Creswell, 2007). Using thick rich description would provide details of the organization through use of descriptive words better than a statistical analysis would provide. A qualitative study used a multisite case study design to identify how small businesses implement a learning process to move from a business idea to business survivability in San Diego County, California. The participants were identified using several sampling techniques including criterion, convenience, and snowballing. Data collection was gathered using semistructured interviews. Interview notes and coding were completed by the researcher.

Small business success and survivability will be critically dependent upon the entrepreneur developing new resources, continually evolving the organization, including implementing a learning process, and creating new organizational forms (Sarason, Dean, & Dillard, 2006). Understanding how small business entrepreneurs implemented a process to capture, convert, and integrate knowledge to survive resulted in transferrable principles and actions that could lower the mortality rate of small businesses, specifically small businesses six years old or younger.

Chapter 4: Results

Nothing happens unless first a dream (Carl Sandburg).

Entrepreneurs start with a dream. Some make the dream a reality by pursuing their dream and creating a business. Small businesses account for more than 99% of all businesses and created 63% of net new jobs (U.S. Small Business Administration, 2011). Unfortunately, 50% of small businesses do not make it to year five, and only 31% make it to year seven (Knaup & Piazza, 2007). Understanding how small businesses survive is important because of their high mortality rate. Zahra (2015) posited a process to capture, convert, and integrate knowledge as an essential component to small business survivability. As such, the researcher was seeking answers to how small businesses implement a process to capture, convert, and integrate knowledge to survive. The following information is used to outline the changes from the original design, the results, and the conclusion.

Research Participants

The research was aimed at discovering how small businesses create a process to capture, convert, and integrate knowledge to survive. The researcher purchased a list of 1,000 small business names and utilized 4 subject-matter experts from legal, academic, insurance, and business consulting. Additionally, snowball sampling was used to qualify 6 more participants for a total population of 1,006. From the list, using random numbers, the subject-matter experts, and the snowballing, a review of 138 potential participants

was completed to arrive at 15 small businesses participants meeting the criteria and agreeing to be interviewed. The researcher used the first 102 random numbers as indicated in Figure 3.

0472 0568 0280 0411 0549 0867 0383 0368 0678 0483 0536 0376 0857 0415 0006 0966
 0618 0397 0793 0607 0429 0696 0895 0564 0558 0312 0314 0838 0002 0244 0784 0162
 0763 0226 0571 0803 0575 0525 0408 0760 0703 0141 0827 0034 0148 0073 0297 0624
 0643 0056 0084 0265 0720 0355 0921 0222 0849 0970 0340 0496 0293 0902 0810 0821
 0788 0885 0596 0461 0600 0184 0699 0419 0728 0799 0853 0692 0173 0731 0323 0017
 0934 0714 0109 0923 0746 0013 0212 0881 0874 0628 0365 0889 0318 0560 0835 0479
 0814 0543 0622 0120 0891 0842 0724 0077 0019 0457 0878

Figure 3. Random number generator using Stat-trek.com

Added to the list the researcher and the subject-matter experts identified 30 small businesses on the list that did not meet at least one of the criteria, such as founder not present or too many employees

Potential participants not meeting at least one part of the criteria were denoted in red and the entrepreneur of any small business in red was not interviewed. Additionally, there were 6 snowball participants, bringing the total potential participants to 138. Data saturation was reached within 15 interviews. Of the 15 small businesses, 12 were from different segments of the service industry, as shown in Table 5.

Table 5

Service Industry Segments of Participants.

Participant	Type of Business
SMB 1	Benefits
SMB 2	Data Aggregator
SMB 3	Marketing Strategy
SMB 4	Commercial Interior Designers
SMB 5	Human Capital Management
SMB 6	Full serve Law firm
SMB 7	Residential Interior Design
SMB 8	Trial attorneys
SMB 9	House keeping
SMB 10	Architects
SMB 11	Court Reporting
SMB 12	Commercial Insurance
SMB 13	Title Insurance Law firm
SMB 14	Hybrid Dental Orthodontic
SMB 15	Legal Copy Service

Additionally, the participating companies had been in existing ranging from 7 years to 40 years and employed between 10 and 77 employees (see Figure 4). Figure 5 shows the method used to find the participants included in the study. Figure 4 shows each small and medium sized business participant in the study, categorized by the age of the business and the number of employees.



Figure 4. Participants, age of business, and number of employees

Figure 5 shows the methods used to identify participants for the current study.

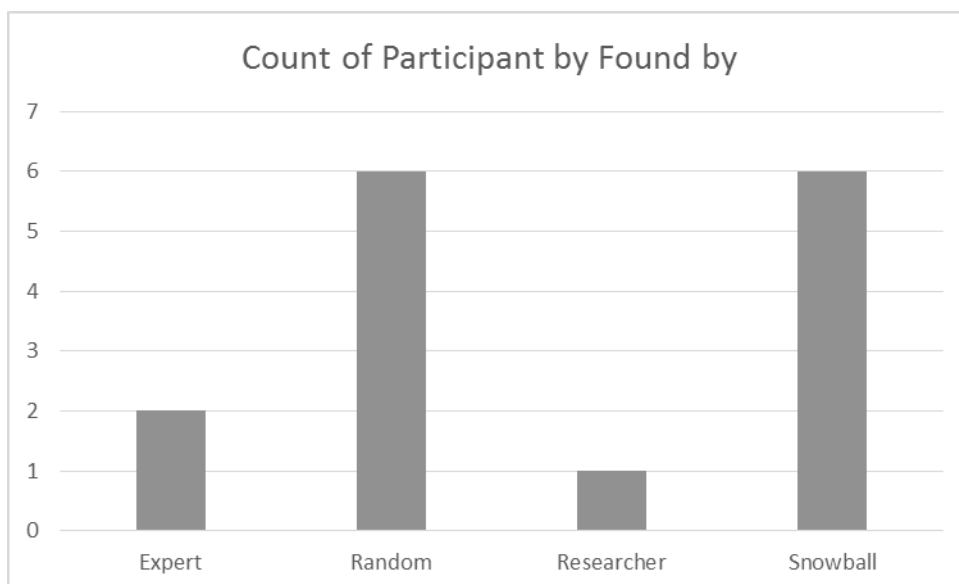


Figure 5. Methods used to find participants. Participants were found because one of the SMEs knew the participant, by random phone calls from the researcher, participant known by the researcher, and through snowballing.

The researcher used subject-matter experts to aid in warm introductions. Warm introductions aided the researcher with 10 out of 15 interviews. The warm introductions

occurred through e-mails, but when the researcher called, the participant was more than willing to participate in the study. The remainder of the participants occurred through random cold calls. The random cold call participants were curious about the research, had an opening in their busy schedules, and treated the researcher as they would want to be treated.

A breakdown of participants by zip code is provided in Table 6. Although half the participants are in one San Diego, CA zip code area, representing downtown San Diego, the other half covered a wide area within San Diego County.

Table 6

Breakdown of Participants by Zip Code

Row Labels	Count of Participant
92020	2
92025	1
92028	1
92101	7
92106	1
92111	1
92123	1
92130	1
Grand Total	15

The zip codes were entered into Bing[®] Maps by Microsoft to provide a visual representation where in San Diego County the participants' small businesses were located, as can be seen in Figure 6. Each letter represents a zip code, although more than one participant existed in several zip codes, as indicated in Table 6. Figure 6 shows the distribution of participants.

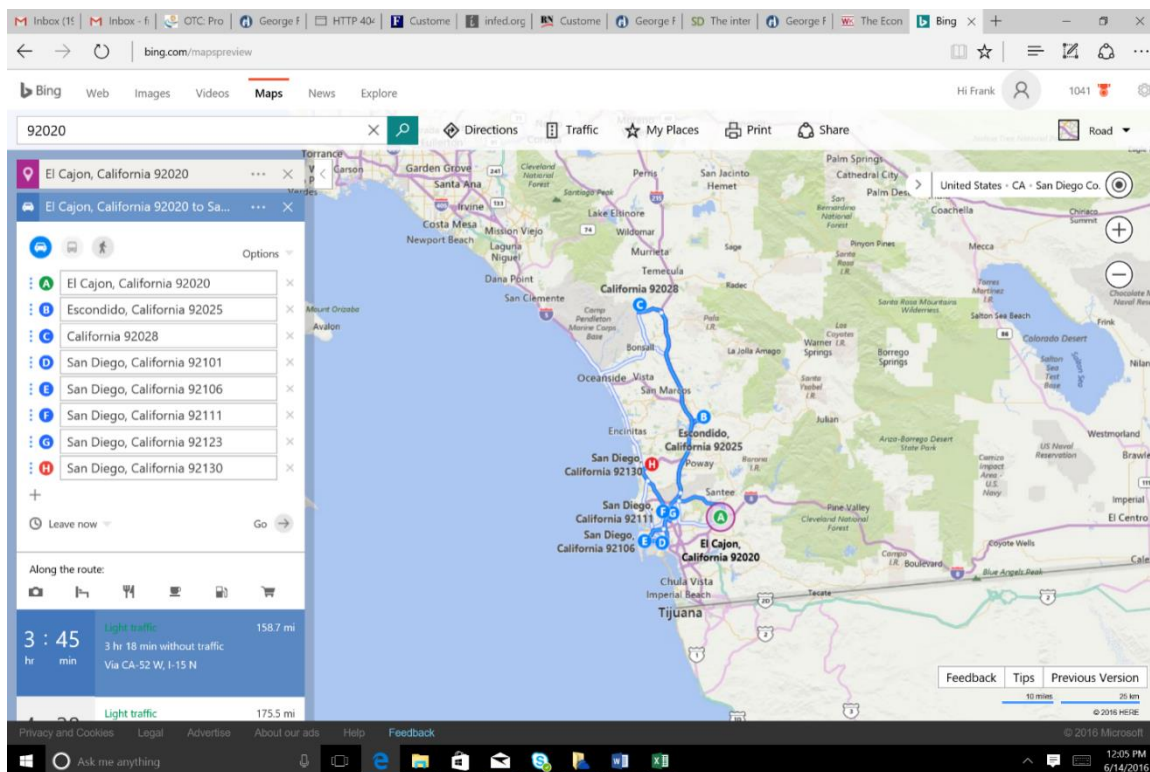


Figure 6. Map with letters representing location of participants. This is a visual representation of where the small and medium sized businesses were located within San Diego County, CA.

Coding

The researcher relied on Strauss and Corbin (1998) coding methods after data were collected and transcribed. Coding is the process of selecting, focusing, simplifying, abstracting, and transforming the raw data written in field notes (Huberman & Miles, 1994) and examining the data collected, searching for emerging themes from the data (Strauss & Corbin, 1998).

Three steps exist in the coding process: open, axial, and selective. At each stage of the coding process, the data is scrutinized for consistent themes. During the coding stage, a researcher may uncover a theme needing further examination and requiring more

in-depth interviews. Interviews continue until no new themes are indicated. Strauss and Corbin (1998) referred to this as the saturation point. An outcome of coding is that the researcher continually refines interview questions to uncover more themes until a theory is developed. A theory, or theories, begin to emerge from the data at each stage of coding.

For the current study, the researcher clarified any data that appeared to be conflicting or needed further clarification from each participant. Emerging themes from the data were tested for their reliability and validity. At each stage of the coding process, member checking was used to validate the results. Otherwise, only interesting stories of unknown truth and utility would exist (Huberman & Miles, 1994). Once the data were fully coded, a theory was generated to answer the research question: How do small businesses create a process to capture, convert, and integrate knowledge for survival?

Open Coding

Open coding is the “part of the analysis that pertains specifically to the naming and categorizing of phenomena through close examination of data” (Strauss & Corbin, 1990, p. 62). This is the initial stage of coding, breaking large data sets and interview results into major categories or themes. For the current study, the interview notes were read and reread before coding began. Coding of the data began with counting words from the interview notes. The researcher circled repeating words and wrote the words on a white board along with the word count. Table 7 shows themes uncovered during coding along with how many times the word was used by the participants in their answers to the questions. Additionally, the researcher documented when saturation occurred by noting in which interview the researcher knew the answers before asking the participant

the qualitative questions as reflected in Table 7. Themes were derived from interview notes with high word counts. The researcher added two interview questions based on emerging themes.

Table 7.

Theme Display with Word Counts and When Saturation was Achieved.

Themes	Word Count	Saturation Interviews
Relationships	42	10
Values	20	10
High retention	20	9
Commoditization	20	9
Communication	53	10
Learning by doing	61	8
Learning online	25	11
Learning from Vendors	31	11
Asking questions	22	9
Listen to employees	19	11
Experiential learning	49	10
Learn through Trial and Error Process	30	10
Founders	22	11
Integration	35	11
Flexible and nimble	21	10
Mentorship	40	9
Customer focused	51	9
Listen to customers	28	9
Learning faster than competitors	14	11
Financial prudence	31	10
Creating additional business opportunities	22	9
Feedback	20	9
Informal communication	15	10
Formal communication	22	10
Lunch and Learns	12	11
Failing	32	10

The researcher sent the participants the initial list of themes electronically to be sure the themes were representative of the participants' answers. Ten participants responded electronically that the themes reflected their words during the interview and were on track. The remaining five participants were contacted by telephone and also agreed the themes reflected their words during the interview and were accurate.

Axial Coding

According to Strauss and Corbin (1998), the purpose of axial coding is to “begin the process of reassembling data that were fractured during open coding [and to] form more precise and complete explanations about phenomena” (p. 124). Procedurally, axial coding involves:

Identifying the variety of conditions, actions/interactions, and consequences associated with a phenomenon; relating a category to its subcategories through statements denoting how they are related to each other; and looking for cues in the data that denote how major categories might relate to each other. (Strauss & Corbin, 1998, p. 126)

During this stage of coding, the researcher began to look for cues in the data and how major themes could be established. Beginning with the emerging themes from the open coding stage, the researcher asked whether these themes answered the grand research question. It was important to look at the themes developed in open coding and begin to reassemble them into major categories. The themes were examined for characteristics that appeared similar to begin grouping them into different categories: (a) some themes implied relationships, (b) some themes others were different ways to learn, (c) some themes implied competing, and (d) some themes were different ways to

communicate. Themes such as listening to customers and customer focus are important to business survival but could be consolidated within relationship. The researcher then began to look for connections between words and terms such as relationships, mentors, learning, learning-by-doing, experiential learning, learning online, integration, and founders as examples. Eventually, the researcher used word connections and class inclusions along with a review of the interview notes for a sense of the participant statements to create a shorter list of emerging themes. By grouping themes or patterns together during axial coding, the researcher was able to see commonality from the participant data as well as any outlier theme or pattern. A visual display is helpful in organizing and assembling information to depict how the themes may relate to each other, allowing conclusion drawing and action taking (Huberman & Miles, 1994). Table 8 shows the four categories, creates relationships, different ways to learn, competitive advantage, and communication paths, along with the themes that held similar characteristics.

Table 8.

Themes Reassembled by Major Category and Similar Characteristics

<u>Creates Relationships</u>	<u>Different ways to learn</u>
Values	Learning by doing
High retention	Learning online
Customer focus	Learning from vendors
Listening to employees	Asking questions
Mentorship	Learn through trial-and-error process
Listen to customers	Experiential learning
Communication	Lunch and Learns
	Relationships
	Failing
Flexible and nimble	Informal
Commoditization	Formal
Learn through trial-and-error process	Feedback
Learning faster than competitors	Lunch and Learns
Creating additional business opportunities	Relationships
Relationships	Listen to customers
Competitive advantage	Communication paths
Mentorship	Listen to employees
Listening to customers	Mentorships
Customer focus	Learning from vendors
Financial prudence	Lunch and Learns
Integration	Founders
Failing	Integration
	Learn by trial and error process

The researcher continued to review the categories while asking himself, how do the themes relate to the grand research question, and how do small businesses create a process to capture, convert, and integrate knowledge for survival? Several themes began to emerge during axial coding: (a) mentorship, (b) learning through the trial-and-error process, (c) learning by doing, (d) lunch-and-learns, (e) experiential learning, (f) founders, (g) learning faster than the competition, (h) failing, and (i) integration. The researcher electronically sent the participants the emerging themes from this stage of

coding to validate the themes. Participants responded by e-mail and telephone that the themes were on track.

Selective Coding

During the last stage of coding, according to Creswell, Hanson, Plano, and Morales (2007), the researcher reviews the model developed during axial coding and develops statements or propositions that interrelate the categories or that assemble a story that describes the interrelationship of the themes in the model. From the beginning of data collection, the qualitative researcher decides what things mean, notes regularities, patterns, explanations, possible configurations, causal flows, and propositions (Huberman & Miles, 1994). The researcher continued to ask the question about whether the themes answered the grand research question. Additionally, the researcher questioned if the themes told the stories of the participants. The researcher continued to use word connections and class inclusions along with a review of the interview notes to create a story to answer the grand research question.

In the current study, to establish the final or selective themes, the researcher created several questions relating to the grand research question. The researcher attempted to answer the following questions: How do relationships affect the process to capture, convert, and integrate knowledge along with what relationships aid in converting knowledge? What type(s) of learning, aids in capturing knowledge? How did integration of knowledge occur? Rereading the interview notes, the following elements it became clear to the researcher: (a) the participants used their relationships with their mentors to affirm the knowledge learned; (b) participants learned through trial-and-error processes; (c) participants learned by failing at times during a trial-and-error process; (d) in the trial-

and-error plus failing process, continuing to move forward was how the participants were able to learn faster than their competitors; (e) the participants used multimodal learning, and (f) the founders directly led the process to integrate knowledge into the businesses.

Again, relating these six themes to the grand research question led the researcher to three themes that best answered the grand question. The final themes were representative of the story learned from the participants. The final themes were: (a) mentors, (b) learning through trial and error, and (c) founders lead integration of knowledge and were sent electronically to the participants to validate the results. In addition to the three major themes, there were three subthemes: (a) multimodal learning, (b) learning faster than competitors, and (c) failing but moving forward through trial-and-error processes. Participants responded electronically and by telephone that the final themes were representative of the answers provided by the participants. The key focus of the selective coding process was, through analysis, to extend the theory beyond description “to explain why, when, where, what, events or happenings occur” (Strauss & Corbin, 1998, p. 19). The final themes answered the grand question, how do small businesses create a process to capture, convert, and integrate knowledge for survival.

Findings

The researcher uncovered three main themes. Mentors were used by the founders of the companies researched. In fact, not only did the founders use mentors, they needed to find mentors at each stage of their business’s development, which was important because only 8% of small business owners use mentors (Palmieri, 2016). The next theme to emerge was that the participants used a trial-and-error process with a feedback loop to learn. Trial-and-error is not new, but using trial and error aided the participants in

learning faster than their competitors. The last theme was that integration of knowledge into the business was led by the founders. The founders transferred their own knowledge to others in the business by one-on-one meetings, team meetings, lunch-and-learn meetings, and lessons learned. Combining trial and error with utilizing mentors at each stage of business development, along with integrating knowledge to others in the business, allowed the small businesses to survive.

Mentors

Each of the founders in the study intentionally established mentors for their business. Each participant of this study was classified in the researcher's codebook as PA with a corresponding number from 1 through 15. One being the first participant and 15 being the 15th participant. Throughout the document, quotes from participants were used to tell their story as Strauss and Corbin (1998) suggest. Some of their comments included:

PA 6: "We learn through one-on-one mentoring."

PA 4: "Mentorship from top down fosters learning."

PA 15: "My brother is in the same business that we are in but in Northern California. We bounce ideas and issues off of each other. We have learned from each other."

Just as there are different stages of business development (Adizes, 1979), there are different stages of mentorship. In the beginning stages of the business, the founders used family members and friends who could help the founders with ideas on computer systems, banking relationships, finances, and customers:

PA 11 said:

My uncle was my mentor. He owns a business selling wood for homes in San Diego. He told me early on business was a game much like gambling. I approach the day with the idea that after 31 years this is still a game. I need to take risks to stay on top of my game.

PA 8 said, “My mentor early on told me to spend nickels like manhole covers”

As the businesses grew and became more complex, the founders intentionally sought additional mentors who could help them with their stage of development:

PA 3 pointed out, “Mentors are the number one way I learn. Yes, I leaped frog my mentor.”

PA 11 said: “I learn from other people businesses. I figure out what other successful people are doing and copy them. I bring their ideas into my business.”

The mentors are a network of knowledge experts. The founders knew, once they started their business, they had to sell.

According to PA 15, “Our focus in the first few years was to provide a great product at the lowest price without compromising on customer service.”

PA 5 simply said, “Never stop selling.”

Then, the founders knew they would need to develop customers.

As PA 10 pointed out, “You have to meet a person, develop a relationship, then trust builds, and eventually an opportunity arrives to ask the person for work. You must listen, seek advice, and have mentors.”

Once the founder developed the customer, he or she knew the customer would provide feedback, good and bad. The mentors' advice to the founders was to listen to the customers. Some of the participants' comments included:

PA 2: "We listen to our customers when making changes to our software."

PA 9: "We listen to our customer's feedback which we receive from talking to our customers as well as from our customer evaluations."

PA 5: "When our clients asked for more functionality, we heard them and created more functionality in our system."

PA 9: "Customer relationships cannot exist without delivering what you promised to deliver, even if you lose a little money."

Although, the mentors' advice on finances was to be prudent, the founders knew if they did not take care of the customers, including losing money on a deal, long-term relationships might be in jeopardy.

As PA 11 pointed out, decisions were made based on "what is best for the customer." PA 1 agreed and said, "Keeping the best interests of the client over time translates to well-rounded relationships." Learning from the mentors is a key to survival.

PA 2 asserted, "We learn by doing."

Meeting with their mentors monthly allowed the founders to share ideas such as new business opportunities and to receive feedback from the mentors on the ideas. The founders can try an idea, capture the learnings from the idea, and then talk over the results with the mentors. It is important to continually find mentors to fit the stage of development for the business and mentors who fit with the founder.

Learning through Trial and Error

The founders learned through a trial-and-error process with a feedback loop back to the mentors. The trial-and-error process with feedback loop was used by the businesses, helping the founders to learn faster than their competitors, leading to new sales opportunities. The idea of learning faster than their competitors was a subtheme that emerged during the axial coding process. Stata (1989) pointed out that “The rate at which individuals and organizations learn may become the only sustainable competitive advantage, especially in knowledge-intensive industries” (p. 64).

PA 3 explained:

We learned to use trial and error by using a marketing and advertising campaign built for one client’s vertical market then duplicating the marketing and advertising campaign in another vertical market for a different client, and the sales flood gates have opened up. We have increased the organization’s sales by adopting a marketing and advertising campaign and using it in several vertical markets.

PA 6 said, “We learned faster to run the business side of our practice than our competitor.”

PA 4 added, “Business opportunities... exploit before your competitor: winning projects with budget driven pricing. Continuing to be open to different kinds of projects keeps us on our corporate toes, and the swiftness that projects move through the office.”

According to PA 15:

I watched our competitors fail. During the 2000 and 2008 recessions because we are financially frugal we were able to make it through the recessions when the competitors did not. We persevered while the competitors dried up. I saw them drop by the wayside. The competitors also did not give great customer service.

PA 11 discussed the value of his company's Discovery Conference Centre, stating:

I was able to exploit this before my competition. This has helped me with survival. I provide a place where attorneys can hold depositions or have meetings in private. I provide a physical space with Internet, video conferencing, a receptionist, and refreshments.

PA 7 said, "We control the entire process, which gives us a competitive advantage. Doing everything is our biggest asset."

Trial and error certainly aided the founders to learn faster than their competitors. There were subthemes that emerged during coding that are worth noting, including multimodal and failing. Another subtheme was learning, which was accomplished through multimodal learning.

PA 9 pointed out:

We learn from doing and observing. It is through our experience that we learn. When we make mistakes, we make adjustments. We read literature from people in our industry. We look online for cleaning tips. We learn from outbidding our competitors.

PA 13 explained:

We learn by example and through experience, studying, and teaching. Interacting with clients. I contact clients and talk to them. We talk through issues. We may talk about an important piece of case law. We learn through the client experience and interaction. Teaching others. You have to take time away from the business to learn.

Using multimodal learning provided the founders with relevant knowledge from their industry groups, literature in their respective fields, and hands-on experience with customers, employees, mentors, and vendors.

The last subtheme was that the participants failed at times through their trial-and-error process. They learned from their failures, captured their learnings, integrated the knowledge, and kept moving forward:

PA 11 explained, “Failure = success = business. Must fail at times but keep moving forward and make decisions”.

PA 10 pointed out, “If you are not failing then you are not differentiating yourself and are probably in the wrong area of business.”

Failing to maintain the business was not an option for any of the participants in the study.

PA 12 asserted, “From Day 1, failure was not an option. You don’t go into a business with the idea it will fail.”

PA 14 stated, “I learn from experience and I learn from my and others’ mistakes.”

PA 11 said, “We take what we learn, create a plan, create a strategy, then execute and go get the deal” (PA 11).

The feedback loop upon failure is to capture what was learned by the failure, reflect, perform an after-action review, and then speak with mentors. The process of trying and failing provides learning to create a new idea or to create a new process or to implement the idea in a different manner. The feedback process works only if the mentor has more experience than the founder, which is why founders need to add mentors to match their stage of business development.

Founders Lead Integration of Knowledge

Knowledge must move from the founder to others in the organization in order for the business to survive (Breslin & Jones, 2012). Integrating the knowledge into the business is the founder's role:

PA 12 said, "I lead the company. You must first do, in order to lead the company."

PA 2 stated, "Knowledge is captured through doing and transferred by me to the employees in formal one-on-one meetings."

PA 11 agreed and said, "I capture the data, which could be verbal, or through readings, and then I use my experience to teach others how to do what I just learned."

According to PA 15:

Information is gathered from suppliers of the equipment along with customer and competitor information and is discussed at the owner meetings. The owners meet regularly over lunch to discuss the business and the customers. Obviously, if a customer has an issue it is immediately discussed. The information is then transmitted to the remaining employees by me through formal meetings.

How the founders chose to integrate the knowledge gained through vendors, industry organizations, other employees, and consultants is by hosting lunch-and-learn meetings, lessons learned, attending conferences, webinars, and after-action reviews:

PA 4 pointed out:

Senior staff working closely with more junior staff, architects researching architectural codes through Internet forums and subsequent updates, going through a Q&A process for review of work product, and having the staff member who did not address a design issue 100% or accurately learn by correcting his or her own work. Mistakes or oversights are pointed out and expectation is companywide learning from those types of experiences.

PA 7 said, “Constantly looking at magazines, media, vendor catalogues. The upstairs in our office is open so the designers are constantly talking to each other. Showing each other what they have learned. Very informal and they constantly talk.”

PA 10 said, “We do lunch-and-learns with our vendors.”

PA 4 stated:

The company learns from lessons learned. The lessons learned are things that happened that should not have and cost the company money. Things that happened and had potential negative outcomes that did not cost the company money but could have, and things that happened that generated positive outcomes from lessons learned.

Senge (1990) stated organizational learning occurs within:

organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured,

where collective aspiration is set free, and where people are continually learning to see the whole together. (p. 3)

Learning organizations work on the assumption that learning is valuable, continuous, and most effective when shared and that every experience is an opportunity to learn (Kerka 1995). Senge (1990) posited that learning, if not implemented, could lead to business failure. If a business does not learn and implement learning into the business (Senge, 1990), the age of the firm may not matter to the growth and survival of the business.

Conclusion

The aim of the current study was to find how small businesses create a process to capture, convert, and integrate knowledge for survival. The current study involved 15 participating small businesses from 12 different service businesses. Data saturation was reached within 15 interviews. The small businesses ranged in age from 7 years to 40 years and in number of employees from 10 to 77 employees. The businesses' founders established mentors early in their businesses. They were intentional in choosing their mentors. Early on, the mentors were family and friends who ran businesses and could provide advice on starting the businesses. As the businesses grew, the founders intentionally sought mentors who could help them in the next phase of their businesses.

Learning is important and occurred through a trial-and-error process with a feedback loop to the mentors. The founders thought of and vetted new ideas with their mentors. Then, they implemented the idea. Some ideas failed. The founders captured the knowledge in writing of what they had learned from their failures. After reflection and conferring with their mentors, changes were made to the idea or the implementation

tactic. Then, the new idea was launched. The process occurred until the founders either had success or decided to pursue a different idea. Using trial and error with a feedback loop is one way the founders learned faster than their competitors. Learning faster aided the founders in finding new business opportunities.

The founders were the genesis of integrating the knowledge into the business. They shared their knowledge directly with their employees through after-action after reviews, lessons learned, and formal meetings. Knowledge was also integrated through vendors, industry organizations, and consultants by hosting lunch-and-learns, attending conferences, and webinars.

All the businesses survived because the founders were intentional in establishing mentors, using trial-and-error methods to learn faster than their competitors, and successfully integrating knowledge into the business through meetings, after-action reviews, conferences, webinars, and lunch-and-learns. Establishing mentors was a key component to the survival of the businesses studied. Founders of businesses that were less than seven years old could intentionally seek mentors, use trial-and-error processes, and lead the integration of knowledge to increase the likelihood of survival.

Chapter 5: Discussion

The process to capture, convert, and integrate knowledge resulted from each of the founders working with mentors throughout their corporate cycle along with using a trial and error process with a loopback to the mentors, and the founders key role was to integrate survival knowledge. Additional literature of these findings and future areas of research conclude the study.

Summary of the Study

The aim in this study was to find how small businesses create a process to capture, convert, and integrate knowledge for survival. The criteria for the business to be involved in the current study were: (a) in existence for at least seven years; (b) employ between 10 and 99 employees; (c) established a process to capture, convert, and integrate knowledge into the business; (d) located in San Diego County, CA; (e) not a government agency, hospital, school, college, or university whether for profit or not for profit; (f) in the service sector; (g) had profitability in 2 of the past 3 years; (h) the entrepreneur was an active member of the business; (i) experienced a 5% growth in revenue in the past three years; and (j) no foreseeable changes that would prevent the business from surviving an additional 5 years. There were 15 participating small businesses from 12 different service businesses. Strauss and Corbin (1998) concluded saturation should be more concerned with reaching a point where new discoveries do not add anything to the overall story. Data saturation was reached within 15 interviews. The small businesses ranged in age from 7 years to 40 years and had from 10 to 77 employees.

Three themes emerged from the data. First, and essential, was the founders intentionally created a network of mentors (Cull, 2006). At each stage of business, the founders needed mentors who could assist and advise them on how to grow their businesses, examine new business opportunities, implement new software, be financially prudent, and brainstorm implementation of new ideas and business opportunities. The founders outstripped their mentors' capabilities, requiring new expertise as the businesses grew and became more complex. All of the founders were intentional about who to use as mentors. The mentors had to have experienced similar issues to what the founders were experiencing and had to be a personality fit. The founder had to trust the mentor as well as get along with the mentor since they met frequently.

The second theme was the founders used a trial-and-error process to learn. There is nothing new about the trial-and-error process. In this study, 14 of 15 founders stated they learned faster than their competitors. "The rate at which individuals and organizations learn may become the only sustainable competitive advantage, especially in knowledge-intensive industries" (Stata, 1989, p. 64). How the founders accomplished this was through the trial-and-error process with a feedback loop. Trial and error is an iterative process allowing the founder to learn from each "trial," reflect on what was learned, have an after-action review with the mentor, and then launch a new trial. The feedback loop from the trial, to failure or success, capturing what was learned, and back to the mentor is an important learning. This was not to say a trial-and-error process by itself will not produce the results desired, but for this study, the feedback loop was key to learning faster than the competitors. Learning faster created a competitive advantage for the founders.

The final theme was that the founders were the genesis of integrating knowledge into the businesses. It is important for the founders to transfer knowledge to others in their organization. The founders would transfer knowledge themselves initially. Eventually, as the businesses grew in revenue and headcount, the founders used vendors, consultants, other employees, and industry experts to transfer knowledge to others in the business, which was accomplished through lunch-and-learns, lessons learned, webinars, conferences, and after-action reviews.

All of the businesses have survived. All of the businesses' founders used mentors, a trial-and-error process with a feedback loop, and led the transfer of knowledge to others in the business. An important lesson for young businesses is to intentionally seek mentors at each stage of the business process, use a trial-and-error process with a feedback loop, and to lead the transfer of knowledge to others in the business. Using the process can lead to a likelihood of small business survivability, lowering the overall mortality rates of small business.

Findings Related to the Literature

As noted previously, the process to capture, convert, and integrate survival knowledge was the participants used mentors throughout the life cycle. As the business grew and new challenges were presented to the founders, new mentors were added by the founders to aid in business survival. Secondly, the founders used a trial and error process utilizing their mentors to discuss the outcomes and make appropriate changes to the process before another attempt. Lastly, the founders integrated survival knowledge themselves into the business. The findings are then substantiated through existing literature.

Mentors

Each of the founders established mentors in the early years of the business and added mentors as the business grew and entered new stages of development. The literature on mentoring indicated that the main outcome of a mentoring relationship was what the mentee learned as a result of that relationship (Barrett, 2006; Cull, 2006). When a small business begins operations, during infancy the culture typically mirrors the characteristics of the founder. In the beginnings of the business, there is hope, optimism, and high energy. There is flexibility, but there may not be processes and controls in the beginning of a business. The culture of a small business changes when the number of employees reaches 20 and remains until the small business reaches 99 employees (Kirchhoff, 1994). Between 20 and 99 employees, business founders begin to add processes and control and may lose some flexibility. It is critical at this junction to attempt to balance both flexibility and control (Adizes, 1979).

The initial mentors were family members or friends who also operated businesses, providing advice on computer systems, finances, and customers, which was consistent with the literature. Ozgen and Baron (2007) found mentors could help novice entrepreneurs. A mentor is an essential asset to a growing company (Cull, 2006). Mentors can warn of problems, help craft solutions to problems and opportunities, in addition to being a sounding board for the entrepreneur (Cull, 2006). A mentor's many years of experience can save a business from major errors and costly mistakes with just a few words (Cull, 2006).

Businesses have a typical life cycle pattern from the birth of an idea through death. The age of a business does not dictate the progression of the business through the

lifecycle. Life cycle stages vary per model depending on how the researcher defines an actual stage (Hanks, 1990). Adizes's (1979) corporate life cycle is a 10-stage cycle that not only shows the life cycles of an organization, but also shows why failure may occur during the growth stages. Adizes's (1979) 10-step model (see Figure 7) is to show small business growth and survivability.

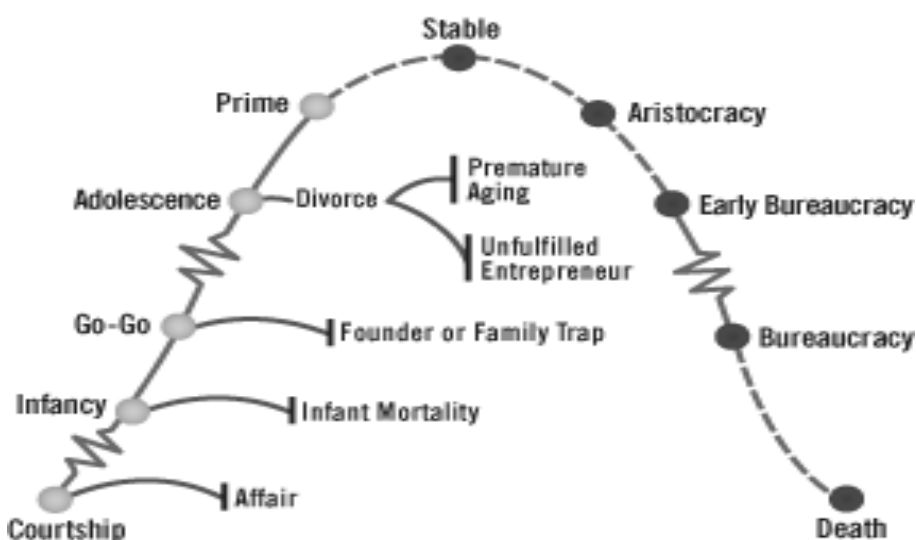


Figure 7. Corporate life cycle stages beginning at Courtship—an idea of a business through the growth stages ending at Prime, and then proceeding to death unless changes occur resulting in a prior life cycle stage. Adapted from “Organizational Passages: Diagnosing And Treating Life-Cycle Problems In Organizations,” by I. Adizes, 1979, *Organizational Dynamics*, 8(1), p.8. Copyright 1979 by I. Adizes.

The beginning stage of the corporate life cycle, courtship, is when an entrepreneur has visions and dreams of his or her own business (Adizes, 1979). A dream can be fleeting without action. If an entrepreneur does not act on his or her dream, then the dream will die, and this stage is referred to as affair. The second stage of the corporate life cycle is infancy (Adizes, 1979). During the infancy stage, the entrepreneur acts on his or her dream. A business is formed and funded at the infancy stage. Infant mortality

occurs when there is a lack of funding and customers. The business cannot sustain itself through this part of the cycle (Adizes, 1979). The go-go stage is when a business has new products or services, customers, and cash flow (Adizes, 1979). The business is not only sustaining itself, but is thriving. A go-go business struggles and fails if it cannot break free from the founder of the company, which is the founder's trap (Adizes, 1979). A founder can stranglehold the business by making all decisions, ultimately holding back future growth. When a business reaches adolescence, the main issue is finding its vision apart from the founder's original vision. An emotional struggle could occur, resulting in compromise or the founder is displaced with a professional management team, resulting in the unfulfilled entrepreneur stage, or the professional management team is displaced by the founder resulting in a premature aging stage. The prime stage is where survivability occurs (Adizes, 1979). A business that reaches prime has found a way to balance flexibility and control. After prime, the remaining stages lead to the death of the business. The remaining corporate life cycle stages are stable, aristocracy, early bureaucracy, bureaucracy, and death (Adizes, 1979).

During each stage of development, founders need to add a mentor who has experience in the stage of development. Based on the Adizes (1979) model, each stage has its own set of issues and concerns. Process wise, the mentor's cognitive framework, which is more complex than that of the novice entrepreneur (Ozgen & Baron, 2007), is shared with the latter using discussions, which may provide the opportunity for the novice to sharpen his or her own cognitive framework, leading to better opportunity recognition (Cull, 2006). An experienced mentor can advise a founder how to avoid the traps at each stage of development.

Founders of a firm are unique and, by Penrose's (1959) definition, willing to engage in speculative activity. The willingness to speculate, thereby committing resources, will drive the founders to seek knowledge with regard to how to deploy unused resources (Connell, 2009). Planning and adapting to the different business environments will take different organizational capabilities from the founders. Although founder characteristics are to seek knowledge to plan and adapt, not all founders seek mentors. What is interesting is only 8% of small business owners stated they have a mentor (Palmieri, 2016). Several reasons exist why founders do not think they need a mentor, including: founders are independent and do not believe they need a mentor, and they are too busy working in the business (Palmieri, 2016). Hall (2003) argued that successful mentoring requires the following key features: screening of prospective mentors, matching of mentors on relevant criteria such as stage of business development, prematch and ongoing training, and frequency of contact. McVey (1997) studied the impact of role models within mentoring relationships and suggested that the presence of an entrepreneurial role model can positively affect the level of entrepreneurial success. Fortunately, each of the founders who participated in this study had a mentor and ultimately survived.

Learning Through Trial and Error

The founders learned to use a trial-and-error process in which the focus is on experimentation and on solving a particular challenge, and which requires the establishment of practices and procedures (Rui, Cuervo-Cazurra, & Anrique, 2016). In the current study, part of the procedure was a feedback loop to the mentors to discuss new ideas, new opportunities, failures, and successes. Failure is inevitable. Any

company founder can implement a trial-and-error process. Business founders employing single loop learning, as proposed by Argyris and Schon, (1974), respond to changes in their internal and/or external environments by detecting and correcting information (Barlow & Jashapara, 1998).

What was different about these participating founders is they used their mentors as sounding boards to advise them on next steps or things not to do. In comparison, double-loop learning occurs when business norms and assumptions are questioned to establish a new set of norms (Barlow & Jashapara, 1998). Double-loop learning uses symptoms as indicators of problems and focuses on addressing root causes (Argyris, 1992). The end result of double loop learning should be increased effectiveness in decision-making and better acceptance of failures and mistakes (Barlow & Jashapara, 1998). Without a feedback loop, a learning process would not be complete. Using a feedback loop, the mentors helped the founders understand the learning from the success or failure. The failed solutions are a useful source of knowledge and learning (Rui, Cuervo-Cazurra, & Annique, 2016). Trial runs are intended to teach the firm leaders whether a new product, process, or market works and should not be designed to fail, but they should at least be designed to discover everything that could go wrong along with what might go right (Krohe, 2011).

Small businesses are generally seen as flexible and fast adaptors to changes supporting their survival (Salavou & Lioukas. 2003). The trial-and-error process with a feedback loop, allowed the founders to learn faster than their competitors. Small businesses whose founders can differentiate the business from their competitors by uniquely positioning themselves to meet the needs of the customers can charge a

premium price over their competitors (Porter, 1985). All of the participants determined a way to move away from their competitors. PA 10 stated, “If you are not failing then you are not differentiating yourself and are probably in the wrong area of business.” The idea of doing something different and being nimble enough to shift is a trait all participants achieved. The participants were able either to shift when their larger competitors were not able to do so or the participants outsmarted their competitors. Founders who have used trial and error and failed know what went wrong because they captured and integrated their learnings. Decision-making is improved by doing and learning, because the founders established one more step in the process, this has afforded them the opportunity to survive. Learning faster than their competitors provided the small businesses the ability to survive by creating a competitive advantage and, in the end, being able to command higher margins. PA 10 stated, “We have significantly higher margins than our competitors. Our local competitors would not share with us but, on a national average, we are more than 2 times higher than our competitors.” The survival rates of businesses that operate to 15 years is 26% (Knaup & Piazza, 2007). On average, these small businesses have survived 20 years. The participants are living business survivability daily and have distinguished themselves from nonsurvivors.

Founders Lead Integration of Knowledge

Leadership is a top-down process, whereby the leader has the ability to influence all the employees of the organization. Learning organization leaders must create a process not only to influence learning but also to maintain and monitor processes to accelerate learning (Graham & Nafukho, 2008). The founders of each company initiated

integrating knowledge into the business. As the leaders of their companies, it was important to move knowledge from the founder to the employees of the business. Knowledge must move from the founder to others in the organization in order for the business to survive (Breslin & Jones, 2012). It was important for the founders to model learning and teaching to the employees to influence the employees to become teachers as well as learners (Graham & Nafukho, 2008). Each of the founders initially learned new technology, new processes, and new ideas. Transferring knowledge from the founder to the employees in the organization requires a willingness of the founder to transmit knowledge as well as a willingness of the employees to absorb the knowledge (Davenport & Prusak, 1998). Once the founders learned a new technology, new process, or new idea, they disseminated the information to the employees in meetings both one-on-one and in group meetings.

An organization's competitiveness and survivability rely on the successful creation and transfer of knowledge (Syed-Ikhsan & Rowland, 2004). Additionally, transfer of knowledge by itself presents no value unless there is a change in behavior (Davenport & Prusak, 1998). The founders' and employees' changes in behavior helped to create higher margins than competitors in addition to learning from mistakes through lessons learned. The founders created a learning environment allowing the employees to learn, share, and collaborate with other employees as well as the founder. PA 7 stated, "The upstairs in our office is open so the designers are constantly talking to each other. Showing each other what they have learned." Ultimately, the founders were successful in transferring knowledge to the employees. The result was that the small businesses were able to sustain their competitiveness and ultimately survive.

Surprises

The researcher was surprised by how many potential participants would not call, after voice mails with return phone numbers were left, or e-mail the researcher of their intent to not participate after an e-mail was sent after the phone call. Additionally, some participants did not review the questions in advance, even though the questions were e-mailed in advance of the interview, which did not impact the interview, but it took those participants who did not read the qualitative questions in advance more time to think of a response. On a positive note, the researcher was surprised by how many companies had a high retention of employees and customers. This was not a consideration going into the research. Another surprise was all the participants used mentors to share ideas and receive feedback. A stereotypical entrepreneur does not want to admit he or she needs help with his or her business. The business is their idea, their creation. No one knows the business better than the founding entrepreneur. So, it was surprising that the participants met monthly with their mentors. The last surprise was how many participants came from random cold-calling. At the beginning of the research process, the researcher believed the entire participant sampling would come from businesses known by the researcher and the researcher's subject-matter experts. Cold-calling, while not hard, is an arduous process, talking to receptionists to convince their bosses to take a call from a stranger doing research on small businesses. In the end, the participants who took the call from the researcher were curious and had time to fit the researcher into their busy schedules.

Conclusion

The current study was established to find how small business founders create a process to capture, convert, and integrate knowledge for survival. The current study comprised 15 participating small businesses from 12 different service businesses. The small businesses ranged in age from 7 years to 40 years with 10 to 77 employees. Learning occurred through trial and error, experience of being in business, learning from successes and failures, and from mentors and advisors. Survival occurred because each participant continuously learned and intentionally created a process to capture, convert, and integrate knowledge.

The primary purpose of small businesses is to survive (Storey, 2000). Survival skills developed by the entrepreneur need to be transferred to others within the company (Breslin & Jones, 2012), which was exactly what the participants did. Participants learned to survive by creating a process to capture, convert, and integrate knowledge. The small business sector is especially critical because the bulk of small business entries and exits in the American (and, indeed, global) economy occur within it (Headd, 2010), and energizing this sector has emerged as an essential policy challenge in the aftermath of the economic downturn of the early 2000s (Fadahunsi, 2012). Energizing the small businesses is the role of the founder. PA 5 stated, “A founder is just a salesperson. You must be selling all the time.” The current study was important because it was used to highlight the importance of mentorship, trial and error, and integration of knowledge for survival. The small business segment is an important part of the global economy.

Implications for Action

One implication is to take the business survivability model from the current study and apply it to small businesses less than seven years of age. Entrepreneurs of small businesses should be especially interested in how to create and maintain a survivable business. Entrepreneurs should know how to create a process to capture, convert, and integrate knowledge to survive. A learning process is essential in each step of the business survivability model. The current study showed that entrepreneurs who implemented the business survivability model survived beyond 7 years and, on average, 20 years. As noted, the survival rate of small businesses at age six is only 39.8% (Phillips & Kirchhoff, 1989), and by year seven, the number is 31% (Knaup & Piazza, 2007). The numbers are not encouraging, yet applying the business survivability model in a business is a good start to creating a survivable company and lowering the small business mortality rate.

Recommendations for Further Research

The process by which mentoring enables a mentee in identifying new opportunities is not well understood (Cull, 2006). Therefore, future researchers should study how mentorship identifies new business opportunities. Future researchers should study service sector businesses with 100 to 500 employees to determine if a larger company had established a mentor relationship with a trial-and-error process with feedback loop. Also, a study in the manufacturing sector of businesses with between 10 and 99 employees, with the age of the company at least seven years, would be interesting to determine if the sector leaders utilize a process to capture, convert, and integrate knowledge for survival similar to that used in the service sector. Is mentorship a

requirement for small business survivability in other sectors or geographic areas? In the current study, 14 of 15 participants learned faster than the competition. Future researchers could study how participants learn faster than their competitors. Is it the makeup of the entrepreneur, the trial-and-error process, or are there other characteristics leading entrepreneurs to learn faster than their competitors.

Limitations

Limitations are not controllable by the researcher and may affect the study in an important way (Roberts, 2010). An assumption is something plausible and accepted as true. For the current research, an assumption was made that at least 15 small businesses in the service sector that were not government agencies, hospitals, schools, colleges, or universities whether for profit or not for profit, in which the entrepreneurs were still active members of the business, employing between 10 and 99 employees and the business had been in existence at least seven years, with profitability in 2 of the past 3 years, and a 5% growth in revenue in the past three years, and that the company's entrepreneur had implemented a process to capture, convert, and integrate knowledge and did not foresee any changes that would prevent the business from surviving an additional five years. To be a part of the current study, the company must have been located within San Diego County, California. Another assumption was that selected small businesses would be willing to share their ideas and strategies on how their process to capture, convert, and integrate data was implemented.

A limitation was that the study was centered in San Diego County, California. Based on the specific geography, the findings might not be generalizable with a limited number of participants. As the researcher's first research project, his lack of experience,

including interviewing, transcribing, and coding, along with his limited relationships with small business entrepreneurs was a research limitation. As with doing anything for the first time, the time frames to conduct interviews, transcription, and coding were underestimated.

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Appendix A

Call Script

The businesses entrepreneur(s) were called to ask if they would like to participate in this research study. During the call the researcher explained the purpose of the study is to understand how small businesses create a process to capture, convert, and integrate knowledge for survival. The researcher asked the participant the criterion questions to validate the business qualifies for inclusion into the study:

- How long have you been in business?
- Where are you located?
- Are you a government agency, hospital, school, college, or university whether for profit or not for profit?
- As the entrepreneur are you still active in the business?
- How many employees do you have?
- Would you categorize your business as selling a service?
- Have you established a process to capture, convert, and integrate knowledge?
- In the past 3 years, has the business experienced multiple years of profitability
- In the past 3 years, has the business grown by at least 5%?
- Do you foresee any change that would prevent the business from surviving an additional 5 years?

A date and time was agreed upon to interview the participant after he or she decided to be included in the study. The participant was asked if he or she would allow video and audio recording of the interview or just audio recording or no recording. No recording was allowed by the participants. Participants did not want to share any computer files or written data, so the researcher relied on the control and probative questions to gather the data. The researcher informed the participants that a George Fox University human research subject form was e-mailed to them for their review and signature. Once contacted, snowball sampling was used, regardless if the company wanted to participate or not, by asking the participant if he or she knew any company that would fit the criteria for the researcher to contact.

Appendix B

E-mail Sample

E-mail sample to be used for research study

Frank Marshall<fmarshall10@georgefox.edu>

to me

Thank you for agreeing to be a participant in my research study on small sustainable businesses in San Diego. The purpose of the study is to understand how small businesses implement a process to capture, convert, and integrate knowledge to survive

As we spoke on the phone, I am interested in interviewing you, the entrepreneur, to understand how you capture, convert, and integrate knowledge.

I will meet you at your facility or a place that is convenient for you on the agreed upon day and time. I have attached the non-disclosure agreement and the George Fox University human research subject agreement. Please sign each agreement. I will pick-up on the day of the interview.

These are the questions I will be asking you during our interview:

- What is important for small business survival?
- Is learning important for business survival? (*Only asked if not part of the first answer*).
- How do you, the entrepreneur, learn?
- Would you say you learn faster than your competitor? How?
- How do you transfer knowledge to others in the business?
- How do you capture and integrate knowledge into the business?
- How do you decide the number of people and the amount of money to allocate toward capturing and integrating knowledge?
- What business opportunities have you been able to exploit before your competitor?
- How do you interpret feedback and knowledge from the external environment into the business?
- What do you do to allow employees to share and capture their experiences?
- How do you decide what information is important?
- When did leadership know the business would survive?
- Is there anything else you would like to add?

We agreed that there would be audio taping of the interview. I will use my computer to record the interview.

I would like to see any documentation you may have on your process to capture, convert, and integrate knowledge as well as any financial data. I would simply view the documents before or after the interview.

Thank you for participating in the study. Your time is valuable and I will be as efficient as possible. I look forward to learning about your business.

1 Attachment

Preview attachment HSRC form rev C.rtf



Appendix C

GFU Human Subject Consent Form

HUMAN SUBJECTS REVIEW COMMITTEE PROTECTION OF HUMAN SUBJECTS INITIAL REVIEW QUESTIONNAIRE

[Note: Dissertation, or other formal research proposal, need not be submitted with this form. However, relevant section(s) may need to be attached in some cases, in addition to filling out this form completely, but only when it is not possible to answer these questions adequately in this format. Do not submit a proposal in lieu of filling out this form. In addition, review carefully the full text of the Human Subjects Research Committee Policies and Procedures on page 4 of the Research Manual.]

Date submitted: Date received:

Title of Proposed Research:

Principal Researcher(s):

Degree Program _____

Rank/Academic Standing _____

Other Responsible Parties (if a student, include faculty sponsor; list other involved parties and their role)

(Please include identifying information on page 6 also.)**

(1) Characteristics of Subjects (including age range, status, how obtained, etc):

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(2) Describe any risks to the subjects (physical, psychological, social, economic, or discomfort/ inconvenience):

(3) Are the risks to subjects minimized (a) by using procedures which are consistent with sound research design and which do not unnecessarily expose subjects to risk, and (b) whenever appropriate, by using procedures already being performed on the subjects for diagnostic or treatment purposes?

Degree of risk: low 1 2 3 4 5 6 7 high

(4) Briefly
procedures

describe the objectives, methods and
used:

(5) Briefly describe any instruments used in the study (**attach a copy of each**).

(6) How does the research plan make adequate provision for monitoring the data collected so as to insure the safety, privacy and confidentiality of subjects?

(7) Briefly describe the benefits that may be reasonably expected from the proposed study, both to the subject and to the advancement of scientific knowledge – are the risks to subjects reasonable in relation to anticipated benefits?

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(8) Where some or all of the subjects are likely to be vulnerable to coercion or undue influence (such as children, persons with acute or severe physical or mental illness, or persons who are economically or educationally disadvantaged), what appropriate additional safeguards are included in the study to protect the rights and welfare of these individuals?

(9) Does the research place participants "at risk"? _____ If so, describe the procedures employed for obtaining **informed consent** (*in every case, attach copy of informed consent form; if none, explain*).

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COMMITTEE REVIEW Committee Use ONLY

Recommend Recommend Not
Signature Approval Conditional Recommended
Approval

Chair _____

Member _____

Member _____

Member _____

Member _____

Member _____

Member _____

Comments (continue on back if necessary, use asterisk to identify):

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Title:

Principal

Researcher(s): _____

Date application completed:

COMMITTEE FINDING:

1) The proposed research makes adequate provision for safeguarding the health and dignity of the subjects and is therefore approved.

2) Due to the assessment of risk being questionable or being subject to change, the research must be periodically reviewed by the HRSC on a

_____ basis throughout the course of the research or until otherwise notified. This requires resubmission of this form, with updated information, for each periodic review.

3) The proposed research evidences some unnecessary risk to participants and therefore must be revised to remedy the following specific area(s) of non-compliance:

____ 4) The proposed research contains serious and potentially damaging risks to subjects and is therefore not approved.

Chair or designated member _____

Date _____