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This study describes and analyzes the results of a survey and interviews of small business owners and managers in the rural northeast corner of North Carolina. Unique physical, cultural and economic factors shape the climate in which these businesses operate and influence how business owners and managers find information on which to base operational decisions. This exploratory study shows the frequency with which common sources are referenced. This knowledge is useful both to guide business information services marketing efforts to business owners and managers as well as to indicate which information service providers have room for improving their services.

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AN EVALUATION OF THE INFORMATION SEEKING BEHAVIORS OF SMALL  
BUSINESS OWNERS AND MANAGERS IN THE RURAL NORTHEAST OF  
NORTH CAROLINA.

by  
Richena E Curphey

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Approved by

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Rebecca Vargha

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## Introduction

This study was first conceptualized in the winter of 2010 while the author was designing a web based information system for entrepreneurs in the rural northeast North Carolina. The system's purpose was to facilitate access to information for starting or managing a business in the local region. The quality and relevance of the designed tool depended upon the designer's knowledge of the target audience. A small research project aimed at discovering what information sources small business owners in rural communities used and valued was believed to greatly improve the accessibility of relevant information in the design of the final product.

The rural northeast of North Carolina has economic factors unique to its history and setting giving rise to a distinct business information needs. Agriculture continues to be a dominant force. Through engineering of canals and ditches much of the farmland is reclaimed swamp. Timber is another strong local renewable resource. The Albemarle Sound reaches far inland and is fed by a network of rivers. These many waterways serve both as an industrial infrastructure for barges as well as a haven for recreational boating. The area tourism is founded on a variety of selling points including the wildlife parks, hunting and fishing, boating and water recreation, and the area's rich history dating back to the colonial period. A variety of businesses opportunities have sprung from this combination of environmental factors leading to information needs distinctive to the area.

The value of this study extends beyond designing web based information systems.

In a limited capacity the study serves as a scorecard. Low scores because of infrequent use indicate an untapped resource further indicating a need for better marketing or different services. The findings are useful for agencies such as the Small Business and Technology Development Center, the small business centers at the local community college, and the public libraries. All of these agencies and organizations strive to offer relevant information and services to area businesses. These groups and private business consultants can develop and market their services as well as design more relevant educational opportunities in the areas where lagging technology skills might be holding business owners back. Knowledge of frequently used information sources will improve service and indicate areas to focus expansion for consultants, business support agencies and public libraries.

## **Background**

A review of the literature reveals significant variables demonstrated to influence the information seeking behaviors of small business owners and managers.

Information seeking is related to perceived threats and opportunities according to the work of Lang, Calantone, and Gudmondson(1997). The authors examine the relationship between managers, their perceptions of the environment and the resulting information seeking behavior. The article draws attention to the differences between information seeking behaviors that work for large firms as compared to small businesses with fewer resources. They discuss how smaller businesses have fewer internal resources at their disposal and more to loose from poorly made decisions. The influence higher risk factors such as small size and regional economic hardship have on the subjects was

important to keep in mind for this study.

Businesses in the rural northeast of North Carolina face a variety of threats and opportunities, some which are common to many businesses in rural settings and others unique to the area's history and the present economic climate. Drabenstott (2003) points out that the rural sector is not ubiquitously uniform across the US or even within a state. He advocates for a regional approach to its study and policy development. Across the US rural economies have seen a dramatic decrease in the number of people who rely on agriculture for their income, from 25% in 1970 to 10% in 2010 (Ring, Peredo, & Chrisman, 2010). People in rural communities also depend upon manufacturing industries but these jobs have seen decline as lower manufacturing costs and cheaper labor of foreign lands competes (Drabenstott, 2003). For example: the town of Hertford, the once thriving county seat of Perquimans County, had a shopping center and a small embroidery factory just outside of town. The shopping center now lies empty except for an auction house and the factory work relocated leaving an empty building.

Drabenstott(2003) points out that scenic amenities help determine which rural areas grow the fastest. Northeastern North Carolina has many beautiful sights most notably the Outer Banks and the Albemarle Sound. The boating industry, which in the past has thrived in this region, is now struggling. Many people spend less money on recreational pursuits and hobbies. For the same reason those dependent upon tourism to support their business are threatened by economic hardships. Their customers and clients, vacationers and boating enthusiasts are spending less. These environmental factors influence the economy of the region studied and therefore also the information seeking behaviors of business owners surveyed and interviewed in this report.

Many scholars have studied the supply side of information seeking on business development and how businesses seem to naturally or strategically locate around watering holes of information and resources. Rural locations are generally acknowledged to have a meager supply of information yet some businesses still thrive there. Kurtis Fuellhart and Amy Glasmeier(2003) consider the demand side of information seeking as more important than supply to the success of a business. While acknowledging the importance of the supply of information they argue that the demand for information from certain sources and of a certain perceived quality influences information seeking to a greater degree than supply of information or location alone (Fuellhart, & Glasmeier, 2003). The study in this paper considers information seeking from the demand side by measuring how frequently each source is used.

Learning is a source of competitive advantage (Porter, 1990). Businesses who know more about their environment make better decisions when facing perceived threats and opportunities. Dyer and Ross (2008) found that “frequent marketplace advice seeking by businesses that confront complex marketing decisions in a dynamic environment is directly related to their success”(p.146). The term “dynamic” as used by Dyer and Ross refers to rapid changes. While the speed of life in rural communities is typically slower than metropolitan areas with the ever-increasing influence of globalization and rapid advances in technology small rural businesses, which have been slower to adopt technology are feeling pressure to keep up. Technology is rapidly effecting how businesses access use and disseminate information.

The information seeking behaviors of small business has been studied extensively both in reference to internal and external influences. Internal influences include the

characteristics of the managers who gather information to make decisions and the maturity of the business. External influences include availability relevance of information and credibility of sources. This study is designed with the above factors in mind, namely economic environmental factors facing the rural sector all across the US and regionally, demand factors and frequency of information seeking.

## **Purpose**

The purpose of this study is to understand the information seeking behaviors of small businesses in order to create a relevant information tool for businesses in Northeast North Carolina. The results of this study are particularly of interest to those public and private organizations, which exist to serve the small businesses in the immediate geographic area. According to a study by Fuellhart and Glasmeier (2003) consultants, universities and government programs were used the least and received the lowest score of perceived relevance as an information source. Government agencies must adapt themselves to the needs of the customer and work collaboratively with private organizations that offer similar services (Gittel, & Kaufman,1996). With the knowledge of information seeking behaviors of local businesses business support organizations can better design their services and more effectively market to the public their offerings.

Finally, the results of this survey might suggest the need for business information management classes and workshops according to best practices sponsored by local education institutions and public and private business organizations. Technology and tools can be indentified to help businesses find trustworthy and valuable sources of information they might not have considered before.



A review of the literature does not include a study focused on the northeast region of North Carolina. The applied nature of this research limits its generalizability to the immediate surrounding counties of the surveyed county. Drabenstott (2003) discusses how globalization creates an economy of regions which can no longer be economically developed with broad strokes of policy across states or even a single state. This suggests that what is discovered in this research will have decreasing significance the further one gets from the geographical focal point of the study. Therefore the primary purpose of this study is to explore the information seeking behaviors of small businesses operating in the county of the study and the surrounding similar counties in order to better meet their informational needs.

## **Proposed Methodology**

A combination of quantitative and qualitative methodologies was used for this study. A survey was distributed broadly in the research population to capture the diversity of the businesses within a geographic area. An invitation to participate in the qualitative study was extended to those who participated in the survey. The qualitative study involved the researcher visiting the place of work for a brief interview with the business owner or manager. This allowed for more in-depth probing into the “how” and “why” certain information seeking choices were made.

## **The Survey**

The survey gathered information about the business and information about their information seeking behaviors. First, it identified the types of businesses, whether

service, retail, manufacturing and agriculture. Most research conducted on information seeking behaviors focuses on one of these types of business and some studies even focus on a more specific sector. This is done to limit the known independent variables and test isolated relationships. This study was not designed to validate theory yet it was supposed that knowing how the business describes itself might be related to the types of resources used. The survey identifies key internal characteristics demonstrated to influence information seeking behaviors of small businesses including the number of years the business has been in operation (Dyer, & Ross 2008)(Beal 2000).

Secondly, the survey gathered data about the information seeking behaviors by asking subjects to indicate the frequency of use for common listed business sources in the context of a particular branch of management. Then subjects were asked to describe the impact decisions in that area of management had on the business operations as a whole. The formation of these questions was influenced by the work of Fuellhart, and Glasmeier (2003) who had compiled a comprehensive list of resources from which the researcher borrowed. In order to simplify choices a five point Likert scale was used rather than the seven-point scale of Fuellhart, and Glasmeier (2003).

## **Participants**

The subject population includes business owners or managers operating in Perquimans County who make day-to-day business decisions or strategic business decisions based upon what they know or suppose they know. They gather information from a variety of information sources. No particular gender, ethnicity, race or age was targeted but rather a random sample of two hundred small businesses was taken from a

list generated from Reference USA database. The survey was administered only to subjects that fit the definition of “small business”. The number of employees is generally regarded as the characteristic, which separates small businesses from large, and medium sized businesses (Beal, 2000)(Vaughn, 1997). The Reference USA database allows for sorting according to these criteria.

Government offices were excluded from the study because the primary interest was private organizations. Churches were also excluded because of their unique purpose and structure but nonprofit businesses associated with churches were included.

The research study consists of a single phone survey lasting on average between 20 and 25 minutes. Initially, the method for collecting the data was going to be an in-person hand delivered survey but in the interest of time and traveling expenses a phone survey was preferred. It was supposed that distributing the survey via email would have biased the data since so many businesses in this rural county are slow to adopt technology including email. Several of the respondents proudly proclaimed their distrust or lack of need for computers and new technology and their confidence in their ability to run their business as they always had, without new computer technology.

The survey was conducted between the hours of 8am and 5pm except where the owner or manager requests that the researcher call back during other hours. Answers were immediately recorded into a spreadsheet. The survey itself began after a brief introduction of its purpose with an eligibility-screening question. Subjects were asked to indicate whether or not they make business decisions to determine their ability to participate. Subjects were excluded if they did not make business decisions. For example if a husband and wife jointly own a business but only one of the spouses actively

maintains the business then the inactive owner was excluded from the survey. If the person who answered the phone was ineligible they were given a phone number with which they can refer some other representative from the business to participate in the survey.

Eligible and willing participants after being informed of purpose and risks were read a list of sources commonly used by business owners and managers. This list was compiled by looking at other related studies (Fuellhart, & Glasmeier, 2003).

The researcher reviewed the list of sources once before beginning the survey questions. The terms used in the list to describe the resources sometimes required disambiguation and so were defined by the researcher. The term “competition” was defined to include both businesses in direct market competition and those that might also be labeled colleagues though they are in the same business they do not compete for the same customers. The term “state institution” was a shortened name for the sake of brevity. It was explained as a category including those agencies and organizations, which are in some way established by or subsidized by the government in order to support businesses. Examples given included the Small Business Administration, the Small Business and Technology Development Center and the Cooperative Extension Office.

Subjects were asked to indicate how often they use each source according to a five point Likert scale, “never”, “rarely”, “sometimes”, “frequently” or “always”. Each source was ranked six times each time according to the context of a different area of management. The six areas included human resources, marketing, products or services, technology, suppliers, and pricing. Finally the subject was asked to rate how important that area of management was to the over all operation of the business.

The six areas of management were defined to help ensure a consistent understanding of the question across all surveyed subjects. Human resources was described as any question concerning the management of human capital including the hiring and firing of employees, determining compensation or incentive packages for employees, training and professional development, or conducting performance reviews. Marketing included questions of brand development, managing public relations or how and when to advertise. Products and services questions included how much and what sort of product and service they intend to sell/offer/manufacture/produce. Technology denoted questions about the tools used to get the job done whether it was a simple tool such as a hammer or stapler or a question about more complex tool including manufacturing equipment, sales equipment, or management software. Questions about suppliers included which suppliers to use and questions arising when negotiating prices or contracts. Pricing questions included how much to charge per manufactured widget/service/product. Research subjects rarely asked for clarification about these areas of management and if they were not engaged in making decisions in an area it was skipped entirely and not tallied with the rest.

## **Interview**

Before concluding the survey subjects were invited to participate in the qualitative part of the research study. They were asked to indicate if they were willing to sit for a brief interview preferably at their place of work. They were informed that a random sample of no more than 10 would be selected from the list of those who agreed. Seven such interviews were finally arranged at a mutually agreeable time. There was one

respondent that asked to meet at a local restaurant over breakfast. Interviews were expected to last between 20 to 30 minutes although one participant continued to talk for an hour. A digital audio recording of the interview captured the data for later analysis.

Subjects were asked to describe their information seeking processes involving one or more of the six areas listed in the phone interview, namely, human resources, marketing, product inventory or service offering, technology, suppliers, and pricing. They were invited to describe a particular event where they needed to find some information and describe where and when they got the information. The researcher asked questions to disambiguate time sequences and facts. When the interview took place at their workplace they were invited, if they wished, to demonstrate their process too. Each encounter, whether by phone or in person, was ended with the researcher thanking the subjects for their valuable time and information

## **Analysis**

Out of the three hundred twenty three qualifying businesses two hundred were randomly selected for calling. Of these thirty-three had a manager or owner willing and able to complete the survey over the phone. This response rate is significantly lower than anticipated or hoped and as a consequence limits the analysis possible with the data. Furthermore some sections of the survey were not applicable for some businesses and skipped all together. For example with some very small businesses the owner did not have employees because they could complete all aspects of the work themselves. Therefore the ratings assigned to each information source were tallied and compared according to the total respondents for that section and not according to the total number

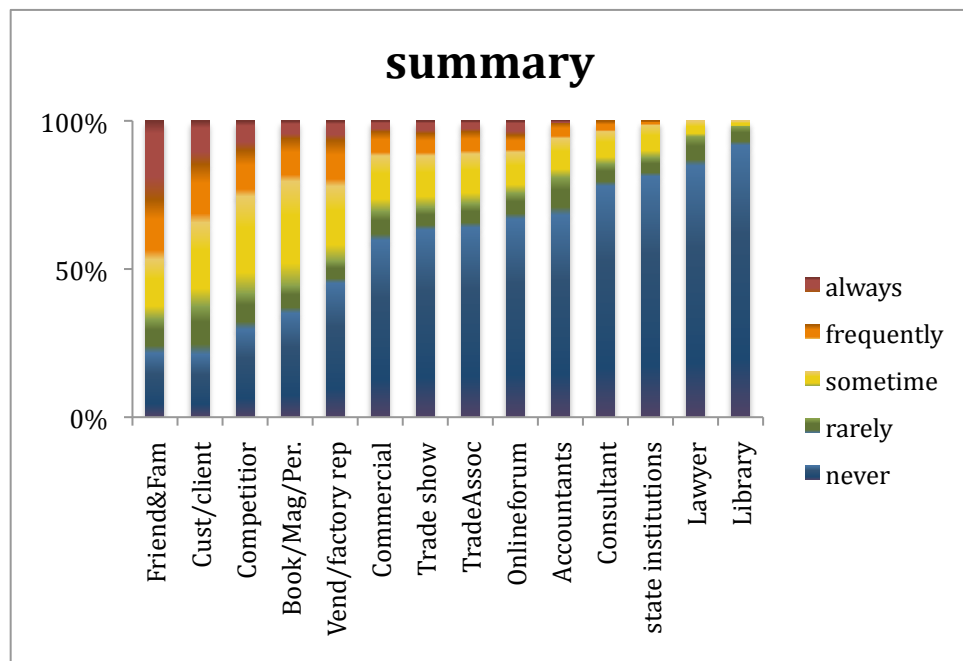
of surveys.

It cannot be concluded that only 70% of businesses have employees or that 30% do not have employees because a few subjects did not respond to this question because although they were a manager who made many operational decisions they did not make decisions about human resources. The assumption that at least 70 percent of businesses have or have had employees.

	#of responses	% of responses	#of non-responses	% of non responses
Human Resources	24	72.73%	9	27.27%
Marketing	31	93.94%	2	6.06%
Product inventory or service	29	87.88%	4	12.12%
Technology	31	93.94%	2	6.06%
Suppliers	28	84.85%	5	15.15%
Pricing	31	93.94%	2	6.06%

In each of the six areas each resource was ranked according to what percentage of the respondents said they used the source and how often. There is no way to accurately quantify a ratio within a Likert scales because how much more often “sometimes” is than “rarely” or “frequently” is than “sometimes” is unknown. Comparing “Always” and “Never” are the closest one can come to a ratio. In an effort to compare these values and rank the sources a heat map was applied to the percentage values of each Likert scale response. “Always” was encoded as red, “frequently” as orange “sometimes” as yellow and “rarely” as a cooler green color. “Never” was encoded as a very cool blue. Graphing each source with this color scheme shows which sources were “hot” and which were not.

Consistently in the top five were Friends and Family, Customer/Client, Competition and books magazines and periodicals. Consistently ranked the lowest was the Library. With the one exception of the area of Human resources the Lawyer and State Institutions were also consistently the lowest.



## Discussion

Frequency of use indicates preference or lack thereof for each source. This data can “what” is happening but not describe “why”. The interviews conducted after the surveys shed more light on why some sources were favored and others were neglected. In the following section the sources are discussed in light of the survey and interview data. Speculation concerning the practical use of this data is also included.

## Friends and Family

The data indicates a strong preference for using friends and family as a source of information in all six areas of management. Survey respondents often would comment that since their business was a family business they naturally always consulted family. Family was a part of the management team. Friends and family seem to be especially significant as a source when managing human resources or making marketing decisions



where “never” was selected only 8.3% or 12.9% of the time respectively. Friends and family are often trusted individuals and an accessible source.

Because of the influence of friends and family in making business decisions it seems that consulting services, and business education centers could welcome and even encourage business owners to invite strategic family members such as a spouse or friend to participate in their counseling services or classes too. With more people learning and reflecting on principles taught in the programs a greater influence can be had on the business.

The influence friends and family have over decisions also highlights the importance of networking and maintaining relationships with business owners as a marketing strategy for consultants and business educators. Consultants and those who market the services of the small business centers may increase their likelihood of being called upon for help by maintaining personable relationships and building trust with business owners. Those who keep lines of communication open are not only more likely to be viewed as friends but also in a better position to anticipate and respond to the needs of the business community as friends do. Networking strategy would be a valuable tool to manage relationships with a large number of clients/potential clients. While friends and family are an often-consulted source, further study would need to be made to determine if they were also valued for the quality of their information or other qualities such as accessibility, or trustworthiness.

### **Customer or Client**

The customer was another highly ranked source. This is consistent with other

studies where the customer was the top ranking source of information (Vaughn, 1997). Like friends and family, measuring the perceived trustworthiness of their contribution would shed more light on the context for the perceived usefulness of this source. The customer was a frequently used source when determining which products and services will be offered and as a marketing tool. Naturally a business wants to sell, manufacture or produce a product or service that is in demand. The ability of customers to create this demand through word of mouth marketing is one explanation of their close correlation in ratings. If a satisfied customer does not create demand through word of mouth they at least do not damage reputation through negative reports which are often more damaging than a good word is helpful.

Knowledge of the frequency customers and clients are consulted for the design of services and choice of products as well as the amount they are sought for help with marketing indicates the importance of relationships to business operation. Tools designed to help businesses connect with customers and clients seem to be in demand. Consultants and business educators can find ways to help businesses connect with their customers in new ways. Online forums and social networks were among the lower ranked sources with “never” being true for frequency of use 67% of the time. This being true there seems to be opportunity for more education about how online forums and social media can be used by businesses to effectively connect with customers.

## Internet

Despite being among the middle to lower ranked sources the Internet seems to have gained importance over the library as a source if frequency of use is an indication of

importance. In a study conducted by Vaughn published in 1997 the Internet was the lowest ranked source ranking lower than statistics and government publications, libraries and trade conventions/business clubs. The results of this study show commercial websites and online forums, which are both aspects of the Internet consistently ranked higher than state institutions and libraries and on par with trade shows and trade associations. This seems to indicate a cultural shift in business seeking behavior over the past thirteen years. Specifically, to say that Internet use has increased does not mean that library use has objectively decreased but rather that it has decreased in relation to Internet use.

The noted increase of the Internet as a source of information and tool in rural business suggests a need for further study of this source. Internet use like other tools in rural economics is multi faceted. Its effective use depends upon the type of business, business model, technology infrastructure and the education of the user. The Internet's effectiveness as a marketing tool for example, is dependent not only on the skill of the Internet marketer but whether or not the target customer can be reached which may depend upon the rate of adoption of internet technologies.

### **Consultants, Accountants, Lawyers**

The sources ranked least frequently used are those that are also considered experts. This list includes accountants, consultants, state institutions, lawyers and least of all, the library. Small businesses owners voiced during the survey and during the interview their preference for make decisions in house instead of going to an accountant consultant or lawyer. The most common reason given for this preference was the expressed need to conserve capital, as the use of consultants, accountants and lawyers is

perceived to carry significant expense.

These expert sources might be infrequently or never used for other reasons. If the business is very small and the business model is simple managing finances is possible without hiring an accountant. Furthermore, out-of-the-box accounting software solutions are increasingly more sophisticated and able to accomplish many accounting tasks of small businesses. Likewise, lawyers were largely associated with extraordinary circumstances like defending against lawsuits. Many respondents expressed relief that need for the lawyer's peculiar knowledge and skill had not arisen.

Accountants lawyers and consultants serving small businesses in rural areas might benefit by taking a different approach to their services. Recognizing the fierce independence and DIY (do it yourself) spirit of the rural sector they can tailor their products and services to the needs and abilities of their rural small business clients. They might work independently or in partnership with out-of-the-box software developers to offer local training and support for businesses. Furthermore, accountants consultants and lawyers might benefit through involvement with the local small business center or by partnering with the local SBTDC to conduct workshops for local businesses. These partnerships and events might not generate significant income directly but could serve to better inform businesses of their value thereby breaking down the expense stigma associated with their services.

## Library

Vaughan (1997) found that “public libraries are more important for small businesses, especially those in their early stages of development, than for medium-sized

businesses”(p.71). But the analysis of the data from this study indicates very infrequent use of the library by even small businesses. Both the state institutions and the library offer free or subsidized services and yet they are still infrequently used. This might suggest a need for these organizations to step up their marketing efforts or improve their services to become more relevant or accessible to businesses.

The quality of their services might be considered low or at least low for the amount of time they require. Businesses owners commented how they would not use the library as a source because it did not have relevant sources for their needs. In an interview one respondent regretted not having more time to enjoy the library for recreational purposes but managing the business was hard work and didn't afford leisure time necessary for a trip to the library. These comments indicate both relevance of information and the investment of time to find relevant information as barriers to using the library. Further study is needed to explore these explanations and determine the exact cause of the infrequent use of libraries by business owners.

The library system might in fact not focus much attention on building its business resources or marketing these to business owners or managers. There is only one library serving each county in the northeast part of North Carolina. Each of these libraries has only one librarian whose time and energy is divided and stretched to managing the mainstream needs of the community. The libraries in the region operate in cooperation with one another, sharing their OPAC(online public access catalog). Perhaps one library by itself could not support the hiring of an additional librarian but as a consortium they might be able to hire a special librarian who can address the needs of the local business community. The library can also work in partnership with other organizations to promote

awareness and use of their resources print and electronic to business owners and entrepreneurs.

### **Books Magazines and Periodicals**

The survey indicates one of the most frequently referenced sources of information after friends/family, customers/clients and the competition is books magazines and periodicals. This source is more frequently accessed when making decisions about products and services, or for marketing, technology or questions about suppliers. The popularity of this source is consistent with Vaughan's (1997) study where newspapers and magazines ranked just below customers/clients and friends/family and just above trade conventions and business clubs. It is a source, which is both accessible and carries some authoritative weight commensurate with the reputation of the publications name.

Speculating about the future of such publications is beyond the scope of this paper but more and more of their content is accessible on the web and this is significant. Presently, for example, a service available through the public library to all North Carolina residents called NC Live offers access to searchable databases including many publications relevant to business owners. By directing attention to marketing this resource libraries can improve their relevance to the small business community who are already using the source in print. Raising awareness of the resource is not enough. Business owners must also be trained in how to use available technology to save time, a most precious commodity, by finding relevant information quickly. Strategies discussed above including hiring a regional liaison business librarian or collaborating with other area business agencies to acquire knowledgeable trainers and venues for this work.

## Limitations of the study

Fuellhart, and Glasmeier (2003) surveyed the perceived credibility, relevance, and availability of the sources in their study. With such data the results sorted and tallied the resources can be ranked according to which are used most frequently for the six areas of management. Special attention could be given to sources which are considered most credible and relevant but least accessible. While this ranking would have been ideal the scope of this study needed to be limited. It was challenging to find businesses willing to spare 20-25 min needed to complete the lengthy phone survey. In the interest of time these other measures were discarded. Future studies would benefit by focusing on a single management area. Data could be collected about perceived credibility and relevance while still allowing for shorter survey time.

The small number of responses limited the amount of statistical analysis that could be preformed. Information about the type of business, whether service, retail, manufacturing or agriculture was gathered so the data could have been subdivided according to it and further analyzed. Within subdivisions other patterns were possible considering the different needs of each business type. Due to the small number of responses a further division of the data would be statistically insignificant. Other research had suggested that the age of the business impacts how a business conducts information seeking (Beal, 2000)(Dyer, & Ross, 2008)and if such a pattern exists also in the rural sector it would be relevant to the analysis of the data collected for this study.

Many causes contributed to the lower than expected response rate. During the initial design of the study the method for collecting the data was an in-person hand delivered survey. The response rate might have been higher if this data collection method

had been used. Participants in this study are from a tight knit rural community where personal connections are important. Those called often had many questions about who the researcher was and whether or not the researcher was a local person who had a personal interest in the area and not just some faceless person from Raleigh. Personal contact with research subjects might have restored a sense of community good to the survey process that gets lost over a less personal medium such as the phone. Meeting the researcher and looking them in the eye might reassure those who were skeptical about the value of their contribution and restored a sense of control that is lost in dialog over the phone. A good number of agricultural businesses such as feed stores were unable to participate because the survey was administered in the fall during harvest season when they are at their busiest. Additional research done on rural populations in the agriculture business should be administered at less peak seasons of the year.

## **Conclusion**

In conclusion, there is room for further study of the information seeking behaviors of small business owners in rural communities. This study conducted in northeast North Carolina shows infrequent use of small business support agencies such as libraries, state funded agencies, consultants and other experts. Infrequent use either suggests the need for more effective marketing or the need to reevaluate the accessibility and relevance of the services offered. The frequency of the use of friends and family as a trusted source of information suggest personal networking would be an effective way of marketing. Significant potential exists for better marketing and training in the use of the library resources as well as for collaborative work between agencies with similar goals.

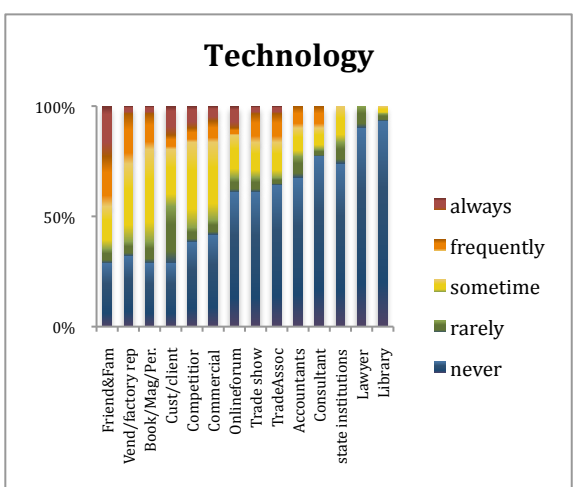
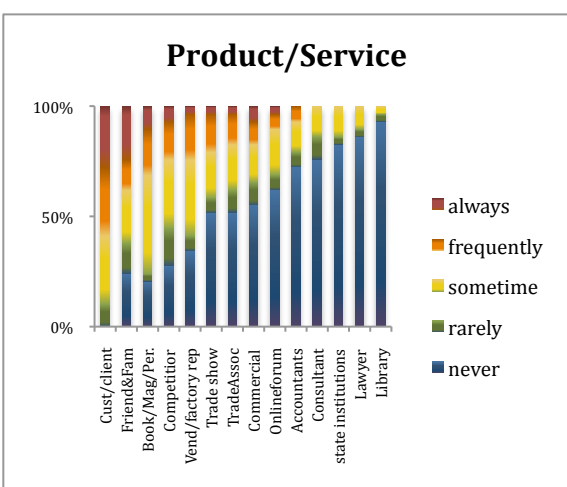
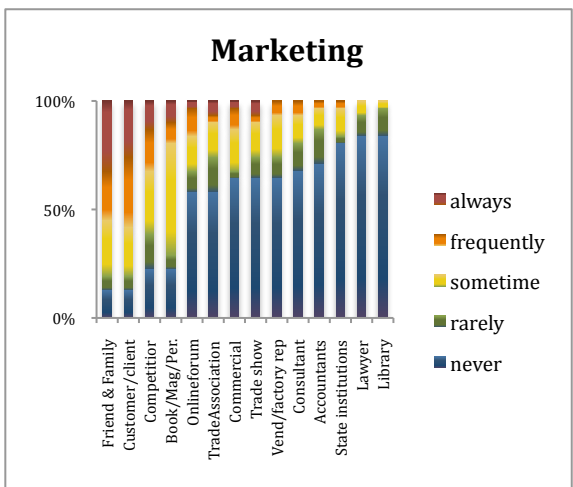
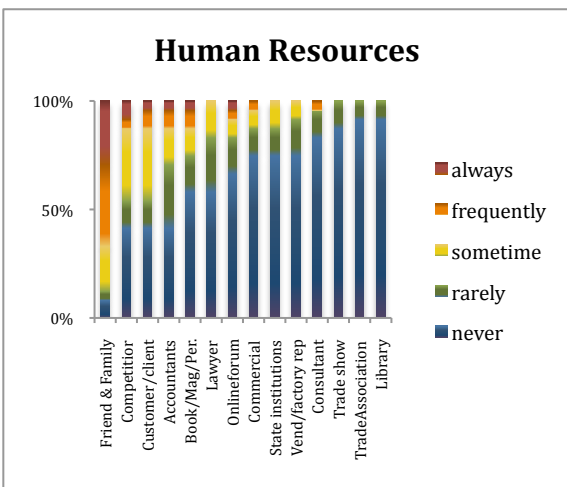


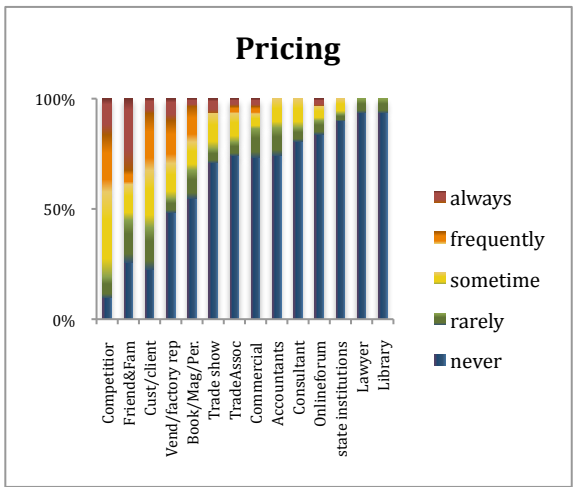
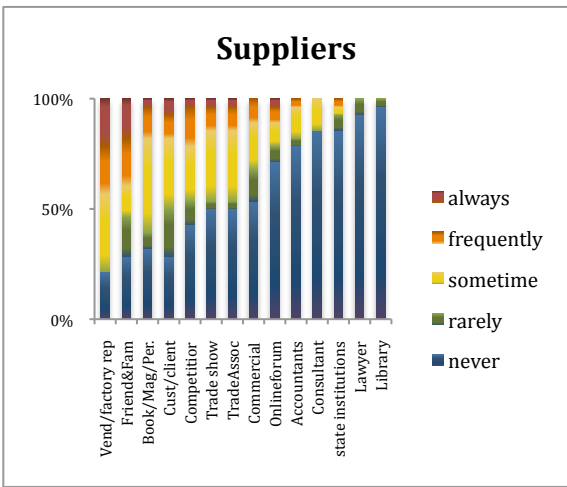
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# Appendix

## Graphs of Business Decision Areas with Sources Ranked According to Frequency of Use





## Graphs of Sources Showing Frequency of Use Within Business Decision Areas

