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Positive Examples and Lessons Learned from Rural Small Business Adoption of E-Commerce Strategies

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INTRODUCTION

The Internet revolution has transformed the way many companies do business. Many U.S. businesses are finding that they are no longer constrained by geographic location. Through e-commerce, they are afforded access to a full range of market opportunities – from local to international – never before possible. For rural entrepreneurs and small business owners, however, this Internet revolution represents a double-edged sword. While rural businesses can access new markets and serve new customers through the effective use of e-commerce, doing so will thrust them into a whole new marketplace where they will experience increased competition from firms and well-established giants, like Amazon.com, that come from well outside of their normal market reach. In this new competitive e-environment, rural entrepreneurs will need to adopt innovative and informed e-marketing strategies to remain distinct and profitable.

As entrepreneurs consider how to use e-commerce as a business development strategy, an effective learning tool can be the experiences of other business owners. Case studies of entrepreneurs who implemented e-commerce strategies can provide insights into the opportunities, challenges and potential impacts on the business that e-commerce may provide. In addition, since many business owners seek assistance from service providers who offer counseling and classes, these case studies may be used by such intermediaries to help illustrate both the promise and the reality of e-commerce strategies.

The purpose of our project was to provide case studies of rural businesses that have increased sales, profits, and/or employment, as well as those who have expanded markets and customer relationships by using e-commerce. The case studies focus on locally-owned rural businesses as opposed to branch plants or franchises. The selected businesses include rural firms of different sizes and in different stages of business development; bricks-and-mortar stores and virtual businesses; firms focusing e-commerce activity on businesses and those focused on consumers; and firms from different types of rural communities.

Over the past several years the United States Department of Agriculture (USDA) has made a sizeable investment in e-commerce applied research, educational materials, and training opportunities primarily for Extension educators. Most of these products are available online at the National E-Commerce Extension Initiative website hosted by the Southern Rural Development Center.¹ This investment resulted in the availability of a wide range of products, including a set of three publications based on the case study research work of Barkley, Markley, and Lamie. The primary purpose of this publication is to provide an overview of this case study work.

Our case study work was intended to help instructors of formal and informal e-commerce, entrepreneurship, and small business development educational programs by providing them with a broad range of rural small business e-commerce case studies and with

guidance on how to effectively use them to help guide small businesses in the successful adoption and use of e-commerce. The materials produced are also expected to be of direct value to small businesses interested in learning more about how their peers are using e-commerce and the distilled wisdom they have to share based upon their experiences.

These case studies help personalize the learning experience by telling the story behind the business. Small business owners seeking inspiration and confidence to develop or enhance their web presence can learn from the actual website associated with the case examples. In addition, they can relate to the process, including mistakes and possible pitfalls that other small businesses undertook to develop and manage their e-commerce strategies and accompanying websites. The three publications in this series are identified and described as follows.¹

Deborah M. Markley, David L. Barkley and R. David Lamie, *CASE STUDIES OF E-COMMERCE ACTIVITY IN RURAL AND SMALL TOWN BUSINESSES*, October 2007.

This paper presents the 28 case studies developed as part of this project, providing a brief overview of the process and questions used to guide the collection of information for the cases. The case studies include rural and small town businesses in different industries (i.e. manufacturing, trade, and services) and demonstrate the wide variety of e-commerce strategies in use. These case studies come from businesses scattered throughout the United States and represent both business-to-business (B2B) and business-to-consumer (B2C) activities. There are examples of businesses ranging from those that are completely “virtual”, operating completely on the WWW, to traditional bricks-and-mortar businesses that have successfully embraced an e-commerce strategy.

David L. Barkley, R. David Lamie and Deborah M. Markley, *E-COMMERCE AS A BUSINESS STRATEGY: LESSONS LEARNED FROM CASE STUDIES OF RURAL AND SMALL TOWN BUSINESSES*, October 2007.

This paper reviews the potential benefits available to users of e-commerce, and gives examples of realized benefits from the case study firms. Potential benefits of adopting e-commerce strategies include allowing business owners to have more control over the location of their business and their hours of operation. It can allow them to be “lifestyle entrepreneurs.” An effective e-commerce strategy can help firms to be more profitable by lowering costs or increasing sales by facilitating innovation all along the supply chain. Case studies provide specific examples of innovations in product design, supply and inventory management, production, marketing, sales and distribution, and customer service. Finally, lessons learned are distilled from the case study businesses and

¹ These materials were derived from a set of publications the authors developed for the Southern Rural Development Center’s National Rural e-Commerce Extension Initiative. They are based upon work supported by the [Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture](#), under Award No. 2005-45064-03212. Any opinions, findings, conclusions, or recommendations expressed in these publications are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture or the Southern Rural Development Center.

suggestions are made regarding how these lessons may benefit other firms that are considering e-commerce strategies.

R. David Lamie, Deborah M. Markley and David L. Barkley, *E-COMMERCE CASE STUDIES GUIDEBOOK AND PROGRAM DELIVERY MANUAL*, October 2007.

This paper identifies three ways that these case studies can be used to enhance learning about e-commerce strategies and the benefits and challenges of implementing these strategies. Instructors interested in providing e-commerce content will inevitably encounter program delivery opportunities ranging from rather formal, structured programs to very informal, unstructured situations. Different approaches are called for in each situation and the information in the following three sections is a reflection of these differences. The paper provides an overview of well-known formal comprehensive e-commerce training programs and a review of the potential use of our e-commerce case-study publications to augment, update, or supplement these programs. We also suggest how the information may be incorporated into formal comprehensive entrepreneurship training programs, and we provide advice on how to use these materials in more informal, less comprehensive, or less structured learning situations.

The remainder of this paper summarizes the most essential parts of the three-part publication series. We start by reviewing our case study protocol and procedures. We then provide a review of the benefits our case study firms are currently or are expected to receive by implementing an e-commerce strategy. Next, lessons learned from our case study firms' experiences are distilled and discussed. Next, strategies are described for helping Extension educators and others to use our case study materials to teach rural small businesses about effective e-commerce strategies. Finally, the paper is completed with a set of concluding remarks.

OUR CASE STUDY PROTOCOL

To identify potential case study subjects, the research team relied on the collaborative relationships that the RUPRI Center for Rural Entrepreneurship and Clemson University's EDA University Center for Economic Development have developed with organizations that work directly and indirectly in entrepreneurship and small business development. Through these networks, the research team sent out a request for case study candidates that might be classified as:

- traditional, store-front businesses serving local markets that increased their market ranges and sales through e-commerce.
- virtual businesses that conduct all of their marketing and sales through e-commerce.
- rural businesses that adopted e-commerce primarily to reduce marketing inputs and costs.
- rural businesses that use e-commerce primarily for business-to-business (B2B) markets.
- rural businesses that use e-commerce primarily for business-to-consumer (B2C) markets.

From the list of potential case study candidates developed through this process, the research team completed case studies of 25 firms, representing various regions of the country and various industry sectors (e.g., manufacturing, services, and trade). In addition, the team conducted interviews with three service providers who helped some of the case study businesses adopt and use e-commerce. While the case studies represent great diversity and geographic dispersion, they should not be presumed to reflect the typical e-commerce experience of rural entrepreneurs. The lessons learned and the stories they have to tell are meant to be illustrative and informative – to help service providers and entrepreneurs better understand the opportunities and challenges of e-commerce through the real world examples of these business owners.ⁱ Table 1 below identifies the businesses and service providers interviewed and their location, provides a brief description of the business operation, and indicates the type of e-commerce activity they represent – business to business operations (B2B), business to consumer operations (B2C), or some combination of both activities.

Each of the case study interviews was conducted by a member of the research team who visited with the owner or manager at the business location. The case studies were completed between September 2006 and August 2007.ⁱⁱ The interviews focused on the history of the business; history of the firm's e-commerce activity; implications of e-commerce for the firm's sales, costs, and profits; firm's needs or requirements with respect to hardware, software, skilled labor, and supportive institutions and services; and programs/services available locally to facilitate the adoption of e-commerce. Each case study firm was asked to comment on: (1) the problems or costs associated with adopting an e-commerce strategy and (2) anything that they would do differently with respect to e-commerce if they had the opportunity to start the process over. Of special interest were the lessons learned from the positive and negative experiences of the selected rural business.

In addition to research on the selected firms, the interviewers visited with local businesses and institutions in three locations that were identified as supportive of the case study firms' e-commerce activity. Few small, rural businesses have all the expertise and resources necessary to fully implement an e-commerce strategy. Thus, the firm's external environment may be critical to the success of the venture. Interviews with these local support providers presented an alternative perspective and insights into the benefits and shortcomings of e-commerce activity in rural areas.ⁱⁱⁱ The names, locations, and principal products of the 28 case-study businesses and service providers are presented in Table 1, and summary characteristics of the firms (B2B vs. B2C, industry, virtual vs. storefront) are summarized in Table 2.

The reader will note that many of the case study firms are clustered geographically (e.g., four firms in Iowa, four in Minnesota, six in Maine, and three in Kansas). This clustering of case study businesses resulted from the attempt to maximize the number of on-site interviews with a limited travel budget. The firms were chosen because they provided varied examples of e-commerce activities in terms of business type, geographic location, e-commerce application, and success of e-commerce venture.

The case study businesses are primarily manufacturers (nine) and retailers (nine). The manufacturers include home furnishings, pottery, and metal works produced locally by artisans and craftsmen, value added agriculture ranging from llama fibers to salsa to bio-based skin care

products. The retailers are both virtual and storefront and retail markets included art, art supplies, antiques, car top carriers, power tools, and appliances and consumer electronics. Finally, eight of the case studies are classified as merchant wholesalers or service providers. The two wholesalers include one firm that provides equipment for crop input dealers and another that sells supplies for making dolls. The services represented are advertising, real estate sales, outdoor recreation, and tourism promotion. In summary, the case study firms support the perception that e-commerce is a viable strategy for a wide variety of businesses in terms of products, sizes, history, and location.

THE BENEFITS OF E-COMMERCE

Most businesses use e-commerce because it provides the opportunity for increased profits (through higher sales or lower costs) and thus enhanced sustainability of the firm. E-commerce has the potential to significantly improve the efficiency of operations in the six principal phases of the business' supply chain. Specifically, e-commerce may benefit a firm in product and service development, supply and inventory management, manufacturing and assembly, marketing, sales and distribution, and customer service.^{iv} Examples of the application of e-commerce to the various supply chain stages are documented in the case studies and highlighted below.

Product Development

The availability of e-commerce and supportive computer software systems and services enabled Brush Art, Farmchem, Songer Whitewater, and Mid West eServices to investigate new areas of business (products and customers). Brush Art, a Downs, Kansas advertising agency, now offers interactive websites for their clients that are designed so that a dealer for a company (e.g., retailer of lawn tractors) can download company approved marketing information yet customize the materials for the dealer's specific needs (e.g., items on sale and location and date of sale). Thus each dealer can have easy access to professionally designed marketing materials with dealer specific details. Farmchem Corporation of Floyd, Iowa (equipment and service provider for crop input dealers) developed an electronic monitoring system for liquid levels in the bulk tanks of dealers and suppliers. Data on tank levels is transferred to a central server, and an Internet-based data management system provides the data in the desired form to the client.

Mid West eServices (Salina, Kansas) evolved from an eBay seller of salvage and repossessions for banks and insurance companies to a leading Internet real estate marketer. Mid West eService's product niche is the marketing of rural properties using a quality of online information not available elsewhere. Songer Whitewater's (Fayetteville, West Virginia) website allows clients to customize their adventure packages in terms of selecting from a variety of recreational activities and lodging options. Many of the available options are provided through sub-contracts by other area businesses. E-commerce assisted Songer Whitewater in transitioning from a whitewater rafting company to a full service outdoor recreation business.

Supply and Inventory Management

Grown Locally, a northeast Iowa growers' cooperative, uses the Internet to maintain daily contact with members of the cooperative (farmers) to coordinate the farmers' production with the

consumers' demands. Mountain One (Leland, Iowa) is a mail order facility with 7000 items for making and accessorizing dolls and bears. The company uses an integrated software system for mail order businesses that manages the inventory and warehouse (including location of items in the warehouse) based on information from online sales. The software system also determines the preferred distribution system (e.g. postal service, UPS, FedEx) and shipping costs based on the number, size, weight, and destination of the items ordered online. These increases in operational efficiencies reduced the company's employment requirements from 15 to 5 full-time employees.

Reduce Manufacturing or Production Costs

Dessin Fournir of Plainville, Kansas designs and manufactures fine home furnishings. Many of the furniture pieces and fabric patterns are designed in Plainville, but the furniture is manufactured in California and the fabrics are produced in 13 fabric mills in 9 countries. The Internet permits Dessin Fournir to communicate directly with its production facilities thus reducing the need and expense for travel to the manufacturing facilities and for external agents to oversee production in the mills. Production costs also were reduced for the Brush Art advertising agency (Downs, Kansas) after the switch to e-commerce by cutting the average "cycle time" required to bring a marketing project to completion from four months to two weeks.

Expand Marketing Efforts

E-commerce offers cost effective opportunities for expanding and targeting markets, and all of the case study businesses maintain websites designed to promote the companies' products or services. For example, Blue Smoke Salsa (Ansted, West Virginia) has an attractive website for their (and their affiliates) sauces, salsas, and jellies that focus on the small town, homemade origin of its products. The Villages of Van Buren (Keosauqua, Iowa) and Songer Whitewater (Fayetteville, West Virginia) are tourism-related businesses that rely on the Internet to attract visitors to their area and businesses. The Villages was honored with an award at the 2004 Iowa Tourism Conference for the best website for areas with population less than 10,000.

Songer Whitewater moved from 12th largest outfitter in the state to 4th largest, and much of this improvement was attributed to its website and accompanying focus on an e-commerce strategy. Finally, Mainely Metals and Eolian Farms are two Maine companies with historically limited market areas. Mainely Metals produces a snowplow-resistant mailbox for Maine residents and Eolian Farms raises llamas and Shetland sheep and sells the fiber at fairs throughout Maine. The use of websites enables the two companies to expand their markets geographically, and currently online purchases account for at least 40 percent of the companies' sales. In summary, a well-designed website can provide potential customers with an image of a business that exceeds the business' actual physical presence. This advantage is more important for rural businesses than urban companies because consumers may have the perception that the rural business is too small and isolated to provide quality products and good service. A "good" website places the rural firm on a more even footing for competing with urban business.

Increase Sales and Reduce Selling Costs

Business profits can be increased by increasing revenue through stronger sales and/ or by decreasing the costs associated with constant sales. Gail Golden Jewelry of Arroyo Seco, New Mexico attributes about 25% of company sales to online customers, and Vann's of Missoula, Montana (appliances and consumer electronics) reports that approximately 55% of the firm's

sales come from e-commerce. The use of e-commerce also helped to cut selling costs among case study firms by reducing the need for paper catalogs and sales flyers. The home furnishings manufacturer Dessin Fournir (Plainville, Kansas) spends approximately \$250,000 a year on catalogs, thus the conversion to an e-catalog offers the potential for significant savings. Similarly, Mountain One of Leland, Iowa (distributor of supplies for making dolls and stuffed animals) traditionally mailed 15,000 to 20,000 catalogs a year at an annual cost of \$30,000 to \$35,000. Catalog mailings were changed to every other year because of the availability of a website with a shopping cart. Finally, both Lakeland Enterprises (Seneca, South Carolina) and Blue Smoke Salsa (Anstead, West Virginia) noted that profit margins were higher on items sold online than goods sold through merchant wholesalers. E-commerce may permit retail businesses to "cut out the middle man costs."

Improve Customer Service

Customer service can be provided before the sale by making it easy for the shopper to find what they want or after the sale in terms of addressing order returns, repairs, or operational questions. The company website can be helpful in providing both before - and after-sale service. Both Vann's of Missoula, Montana (appliances and consumer electronics) and Louis Williams and Sons of Hendersonville, North Carolina (Makita power tools) are retailers in highly competitive Internet markets in which they hope to distinguish themselves through consumer service. Vann's website provides services to potential customers in the form of extensive information on product features, product details and specifications, reviews by Vann's consumers, comparisons to alternative products available at Vann's, and accessories for the product. Louis William's and Sons niche in the power tool market is service after the sale. The company elected not to compete on the Internet as the low cost provider of Makita tools. Instead, Louis Williams and Sons focuses on carrying the complete inventory of Makita tools (unlike their low cost competitors) along with providing parts and accessories and repair services for Makita tools. The company's website contains thousands of pictures of tools and parts and accessories to assist the customer after the sale.

For many businesses dependent upon the tourism industry, an e-commerce site provides a way to maintain and even strengthen customer relationships. Through targeted marketing push strategies, businesses can reach out to customers even when they are no longer in the area. For example, Silverston Gallery (Grand Marais, Minnesota) e-mails notices to customers who have purchased artwork by particular artists whenever new work is featured in the gallery. Linked with the shopping cart feature of the site, this direct marketing touch allows customers to purchase products beyond the tourist season and outside the region. Businesses can also use the e-commerce features of their sites to emphasize customer service and develop an edge over their competitors. Voyageur Outfitters (Gun Flint Trail, Minnesota) features an online chat and daily blog to keep customers, old and new, up-to-date on conditions in the region. Customers can plan every aspect of their trip online, from routes to menus, and pre- and post-trip e-mails provide customers with information about their trip and the business owners with information about customer needs and experiences.

Support Lifestyle Entrepreneurs

Finally, many businesses adopt an e-commerce business plan because it provides the owner greater flexibility in terms of operating location and hours. That is, e-commerce may

present an individual with the opportunity to be a "lifestyle entrepreneur" and locate the businesses where the entrepreneur wants to live. For some individuals this enhanced flexibility might result in a move, but in many cases e-commerce permits entrepreneurs to remain in place and benefit from proximity to family or other local assets. Our case study businesses include examples of lifestyle entrepreneurs in David Schaefer (Owner/Founder of Lakeland Enterprises), April Adams (Owner and Artist of Columbia Falls Pottery), Bernard Sund (Owner/Founder of Nautical Antiques), and Robin Hildebrand (Owner/Founder of Blue Smoke Salsa). Lakeland Enterprises designs and markets car top carriers and vacation gear. The business has two employees (the owner and his wife) and almost all sales are online. Lakeland Enterprises was moved from California to South Carolina so that the owner and his wife could live closer to family. Similarly, Bernard Sund moved his online antiques business from Massachusetts to rural Maine, a place that had been a vacation destination for his family in the past. Alternatively, April Adams owned and operated a retail pottery store in Columbia Falls, Maine since 1990. Retail sales at Columbia Falls Pottery declined significantly after 9/11, but an increase in e-commerce sales enabled April to remain in Columbia Falls by substituting online sales for storefront sales. The founding proprietor of Blue Smoke Salsa, Robin Hildebrand, developed a thriving business in tiny Ansted, West Virginia from a treasured recipe for salsa. The use of e-commerce permitted Robin to grow her business and remain close to home while she raised her family.

Table 1. E-commerce Case Studies for Rural Areas and Small Towns

Business Name	Location	Product or Service
Black Magic Kennels	Grand Marais, MN	provides sled dog adventure weekends
Blue Smoke Salsa	Ansted, WV	manufactures and markets salsa
Boreal Access	Grand Marais, MN	Internet service provider
Brush Art	Downs, KS	full-service advertising agency
Columbia Falls Pottery	Columbia Falls, ME	manufactures and markets pottery and tiles
Dessin Fournir	Plainville, KS	designs and manufactures home furnishings
Eolian Farms	Newcastle, ME	produces and sells fibers from llamas and Shetland sheep
Farmchem	Floyd, IA	equipment and service provider for crop input dealers
Gail Golden Jewelry	Arroyo Seco, NM	handmade silver, gold, and gem jewelry
Grown Locally	Northeast, IA	markets and distributes locally grown farm products
Lakeland Enterprises	Seneca, SC	designs and markets car top carriers and vacation gear
Louis Williams & Sons	Henderson, NC	multi-purpose home improvement store
Mainely Metals	Gardiner, ME	manufacturers metal mailboxes plus metal fabrication
Mid West eServices	Salina, KS	Internet real estate advertising and sales
Mountain One	Leland, IA	manufactures and distributes supplies for making dolls and bears
Nautical Antiques	Jonesport, ME	retailer of nautical antiques and gifts
Silverston Gallery	Grand Marais, MN	Retailer of regional and Inuit art work
Songer Whitewater	Fayetteville, WV	whitewater rafting and adventure trip outfitter
Stained Glass Express	Waterville, MA	stained glass products, supplies, and repairs
Sterling Biotech	Sterling, CO	manufactures bio-based skin care products
Taos Architectural Copper	Taos, NM	manufactures copper sinks and lighting fixtures
The Missoula Artists' Shop	Missoula, MT	retail gallery for local artists' cooperative
Vann's, Inc.	Missoula, MT	retailer of appliances and home electronics
Villages of Van Buren	Keosauqua, IA	nonprofit regional economic development organization
Voyageur Outfitters	Gun Flint Trail, MN	full-service outfitter for Boundary Waters Canoe Area
WESST Corp	Albuquerque, NM	service provider for start-up and existing businesses
Wintergreen Herbs and Vegetables	Winslow, ME	sells herbs and vegetables, community supported agriculture initiative
Women's Business Center, Coastal Enterprises	Wiscasset, ME	service provider for start-up businesses, targeted at use of Internet

Table 2. Characteristics of Case Study Businesses Focus of Business Activity

Industry	Primarily B2B	Primarily B2C	B2B and B2C
A. <u>Manufacturing</u>	<ul style="list-style-type: none"> • Dessin Fournir • Sterling Biotech 	<ul style="list-style-type: none"> • Columbia Falls Pottery • Eolian Farms • Grown Locally • Wintergreen Herbs and Vegetables 	<ul style="list-style-type: none"> • Blue Smoke Salsa • Mainely Metals • Taos Architectural Copper
B. <u>Merchant Wholesalers</u>	<ul style="list-style-type: none"> • Farmchem 		<ul style="list-style-type: none"> • Mountain One
C. <u>Selective Services</u>	<ul style="list-style-type: none"> • Brush Art • Midwest eServices 	<ul style="list-style-type: none"> • Songer Whitewater • Voyageur Outfitters • Black Magic Kennels 	<ul style="list-style-type: none"> • The Villages of Van Buren
D. <u>Retailers</u>			
1. Virtual		<ul style="list-style-type: none"> • Lakeland Enterprises • Nautical Antiques 	<ul style="list-style-type: none"> • Gail Golden Jewelry
2. Bricks-and-mortar		<ul style="list-style-type: none"> • Columbia Falls Pottery • Missoula Artists' Shop • Stained Glass Express • Vann's Inc. • Silverston Gallery 	<ul style="list-style-type: none"> • Louis Williams & Sons
E. <u>Small Business Service Provider</u>	<ul style="list-style-type: none"> • Boreal Access • Wesst Corp • Women's Business Center at Coastal Enterprises 		

LESSONS LEARNED FROM OUR CASE STUDIES

The cases in this study are a diverse collection of businesses with varied experiences in e-commerce. The case studies do provide, however, interesting insights into the development of e-commerce activities and commonalities with respect to lessons learned from their endeavors. A summary of these lessons follows.

Focus on Niche Markets

The development of a website and marketing and selling products on the Internet places the company in competition with a large number of firms and provides consumers with easy access to comparisons of competitors' products and prices. Head-to-head competition with large Internet stores will occur on standardized, high-volume items such as books, shoes, sporting goods, and consumer electronics. Smaller businesses generally do not have the ability to compete in these e-markets because the firms do not have (1) the volume or scale economies to match the low price, or (2) the marketing budget to get an early listing on web searches. Thus, it is recommended that smaller businesses concentrate on a niche market in order to reduce online competition. Numerous examples of product specialization and market niches are provided in the case studies. Sterling Bio-Technologies (Sterling, Colorado) manufactures bio-based skin care products and focuses on the "natural" product market. Stained Glass Express (Waterville, Maine) targets its e-commerce activity at selling glass and supplies to hobbyists. Mid West eServices (Salina, Kansas) identified an underserved market in helping rural communities find buyers for surplus schools and other public buildings.

A narrow market focus also will enhance a business' visibility on search engine rankings. The more specific the information provided on the firm's website (e.g., nautical antiques vs. antiques) the more likely the website will be found by shoppers conducting highly targeted searches. A focus on a market niche provides the opportunity for placing the firm's website higher on the search list of buyers with well defined purchasing interests. In addition, the firm may be able to obtain a higher listing on Google or pay a lower bid if it is bidding against fewer businesses for more detailed product descriptions.

Effectively Use Service Providers

There are available locally and on the Internet a wide variety of programs and services to assist companies with their e-commerce. Services available include website design and hosting; software systems for integrating e-commerce with accounting, shipping, and inventory management; and business analytics software to provide data and statistical analysis on the company's e-commerce activity. These services can be valuable in identifying a niche market, reaching customers in that market, and developing an efficient production and distribution system for serving customers. Examples of the use of e-commerce support services are provided in the case studies of Vann's, Mountain One, Stained Glass Express, Gail Golden Jewelry, Blue Smoke Salsa, and Songer Whitewater.

Rural businesses, in particular, face challenges in using support services. In many cases, the services offered by private sector firms may be costly and the benefits to the business may not justify the expense. In addition, the market for these services and software is extensive and

rapidly evolving, and a significant time commitment may be required of the rural business owner to keep up-to-date. In many rural areas, there are few alternatives to private sector service providers and even these may be hard to find. The three case studies completed of business service providers (Boreal Access in Gran Marais, Minnesota; WESST Corp in Albuquerque, New Mexico; the Women's Business Center of Coastal Enterprises, Inc. in Wiscasset, Maine) show the role that non-profit organizations may play in providing e-commerce support services to rural businesses at reduced cost. These organizations provide training in the basics of e-commerce, and even offer improved Internet access (Boreal Access) and a collective website (WESST Corp's www.wesstartisans.com). Business owners who were clients of these service providers acknowledged the importance and usefulness of their support. As an alternative, rural businesses might come together to share e-commerce experiences and expertise. The owner of Lakeland Enterprises (Seneca, South Carolina) suggested the need for networks or organizations of area e-commerce businesses to share information. Support may also come from the local Chamber of Commerce or the area community college as was noted in the case studies of Louis Williams & Sons and Farmchem.

Creating a Website is the Beginning, not the End of an E-commerce Strategy

Almost all of the case study businesses struggled with website optimization, i.e., getting the business to appear on the first page of a search engine. Strategies for optimizing a website are different from those needed to create an initial site and make it fully e-commerce capable, e.g., creating a shopping cart to handle online transactions. Many of the case study businesses did not initially plan or budget for the expenses associated with optimization. These costs include purchasing ad words from Google and pay per click ads on search engines and redesigning the website to focus on keywords often used in searches. For example, the original website developed for Columbia Falls Pottery (Columbia Falls, Maine) featured beautiful images and few words. While this balance helped customers better experience the pottery, the site failed to show up on searches because search technology uses words not images. A revamping of the site with attention to text was necessary.

Deciding how much to invest in site optimization is difficult. A key question is whether revenues will increase enough to cover the costs associated with optimization. For example, the business could advertise on Google (and partner sites) through the use of Google "AdWords." Using this approach, the business chooses keywords and creates ads based on those words. When people search on Google using one of the selected keywords, then the business' ad may appear next to the search results. People can click on the ad to acquire more information on the business and products. Taos Architectural Copper (Taos, New Mexico) experimented with the purchase of Google AdWords, sharing the cost of this strategy with the regional service provider, WESST Corp. Sales of copper sinks went from one per month to one per week during this time, and the company appeared on the first search page. However, when faced with bearing the full costs of purchasing AdWords, the business owner decided that the costs exceeded expected revenues and abandoned the strategy. The result was that the business dropped off the first page. The purchase of key words is akin to purchasing television commercials or large Yellow Page ads. Each business owner must determine the relative costs and benefits of site optimization and should make this a consideration when developing an e-commerce strategy.

Integrate E-commerce into Overall Business Operations

E-commerce is broadly defined as "using online resources and tools to do business better — more efficiently and productively."^v As such, e-commerce holds the promise and challenge of affecting every aspect of a business' operation from product design and production to distribution and service delivery. Businesses using or considering e-commerce should investigate the potential roles for e-commerce in all aspects of the businesses' operations. Businesses with e-commerce activities (B2B or B2C) may benefit by using the information provided through e-commerce (e.g. customer characteristics, location, and order size and regularity) to enhance efficiencies in other areas of operation. For example, online sales may create the opportunity for direct delivery to customers and reduce reliance on wholesalers. In addition, Internet marketing may attract customers from parts of the world not previously served by the company. Cultural differences between buyers and sellers might present unforeseen challenges, thus understanding and planning for transacting with foreign customers will enhance the benefits from these opportunities.

Be Prepared for Growth

The initiation of e-commerce may result in a significant increase in sales, and the business must be prepared to meet this demand or the e-commerce "window of opportunity" may be lost. The typical Internet customer expects quick and accurate responses to their online orders. The timely delivery of goods and services consistent with the quality perceptions of customers is critical to cultivating repeat customers, word-of-mouth advertising, and favorable online reviews. The Director of Multi-channel Marketing at Vann's, Inc. recommended that a company needs to plan "a couple of steps ahead" in terms of hiring people, available production capacity, adequate warehouse space, inventory management capabilities, and customer service delivery as it transitions to e-commerce. In addition, the business can somewhat manage the pace of increasing product sales by limiting web-based promotions to targeted geographic areas or specific customer profiles.

E-Commerce is Not for All Businesses

In our opinion, most rural and small town businesses would benefit from having a website. Consumers increasingly rely on the Internet for information, and a website is a relatively inexpensive way to present information on a business' products, hours, location, phone number, and sales. E-commerce is, however, much more than maintaining an informational website, and the e-commerce related components and services (e.g., shopping carts, fraud protection, search engine optimization (SEO), electronic data interchange (EDI), analytics software) can add more to the firm's costs than they contribute to profits. That is, e-commerce will not be a profit maximizing business strategy for a firm if the cost of implementing e-commerce exceeds the increase in net revenues or decrease in operating and marketing costs attributable to e-commerce. There are two general situations where e-commerce provides only limited potential in enhancing sales and net revenues. First, businesses that sell "commodities" such as books, shoes, clothing, consumer electronics, and sporting goods will find the Internet markets extremely crowded. Online competition from big box stores and Internet retailers will be intense, and these larger companies likely have a competitive advantage in terms of volume buying and early listings on search engines. As noted previously, small town businesses are encouraged to find a niche market to minimize competition and increase market share. Second, some products require personal inspection by the customer (e.g., antique furniture) while other

products may not "show" well on a webpage (e.g., fine art). The website may be helpful for getting the potential customer into the store or gallery for further inspection of the product, but an online sale is unlikely to occur. The Missoula Artists' Shop has received only a handful of online orders in the two years that it has maintained a shopping cart. The gallery is considering returning to an "information only" website if online sales do not increase significantly in the near future.

In the final analysis, what is important to the rural small business is that e-commerce produces an acceptable return on investment. It is good business practice to forecast and monitor the resources (time, money, and other) devoted to implementing and conducting e-commerce and the benefits (increased sales and reduced costs) attributed to e-commerce strategies. If a business forecasts insufficient long-term return on investment, broadly defined to include financial and time commitments, then e-commerce as currently used is not a good fit for the company. In this situation, the business may elect to revise the scale and scope of its e-commerce program or it may decide to withdraw from e-commerce altogether.

HELPING TO GET THE POINT ACROSS TO SMALL BUSINESSES

The Curriculum Guide publication in our series pointed out that there are numerous opportunities for instructors (Extension agents and other) to make creative use of our case studies in stand-alone fashion or as value-added elements of other programs. Perhaps the most obvious and direct target for integrating these case study materials is within an existing structured e-commerce program. There are a limited number of formal e-commerce training programs being implemented across the country, most being supported through the Land Grant University system. Among the noteworthy e-commerce training programs are the University of Minnesota's AccessE.info program, the University of Nebraska-Lincoln's eBusiness program, and numerous programs sponsored by the National E-Commerce Extension Initiative.^{vi} Since formal structured e-commerce programs already make direct and extensive use of case studies, our e-commerce case studies can easily be integrated into these programs.

Case studies can also be used in program marketing presentations with business and civic groups, development organizations, youth entrepreneurship groups, or in consultations with individual business owners. Formal entrepreneurship training programs (e.g. FastTrac of the Ewing Marion Kauffman Foundation) also present excellent opportunities to use e-commerce case studies and lessons learned. The primary objective of most entrepreneurship training programs is to help build the capacity of individuals and to provide them with the knowledge, skills, and tools with which to increase their probability of success in the modern, competitive, global economy. These case studies can help build a better understanding of e-commerce as a business development tool.

In addition, creative and determined Extension educators and others interested in motivating businesses to consider the adoption of e-commerce strategies will find (or create) a wide variety of available opportunities to get their points across. These opportunities might include meetings with local business or civic groups, conference presentations, or one-on-one

consultation with small business owners. Our case study materials are well-suited for these occasions and can be integrated in many creative ways. Three general ways they can be used are as follows.

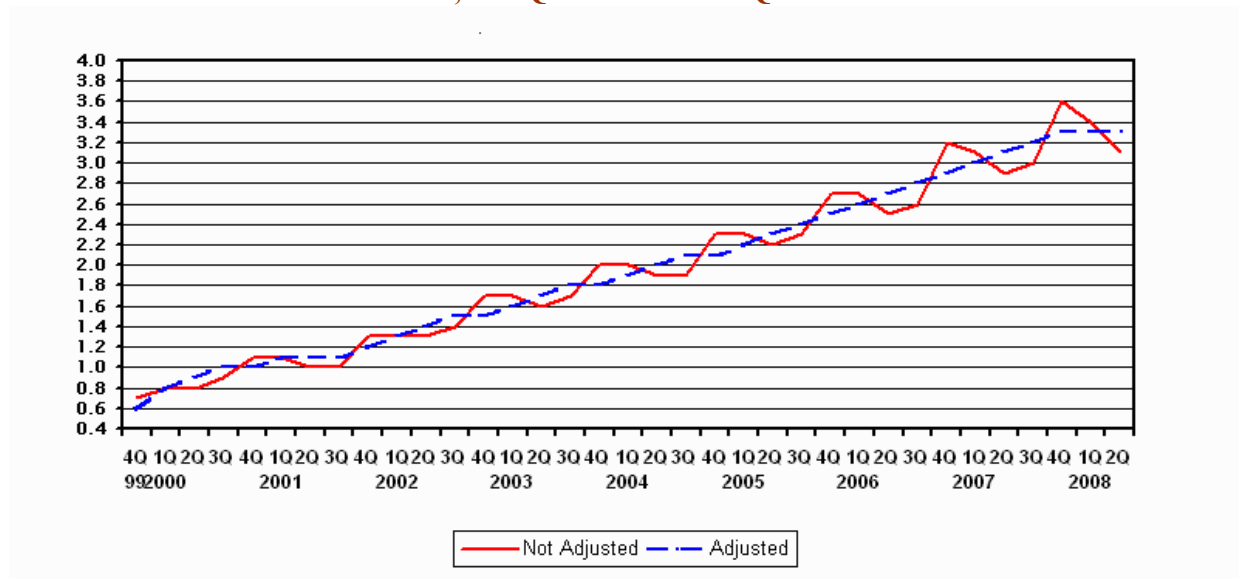
1. **Creating awareness and cultivating interest in a formal e-commerce educational program.** Case studies can be effectively woven into briefings and presentations made to civic and business groups, they can be integrated into press releases about the program, or they can be used as examples in more lengthy educational articles (e.g., Extension newsletters or circulars) to help generate interest in the program. The power of positive examples provided by these case studies can offer the spark of hope necessary to motivate others to follow.
2. **“Breaking in” the learners with a non-threatening assignment.** Case studies can be used early in a day-long or longer program to encourage participants to read, reflect upon, and discuss some real-world examples. Depending on the objectives of the instructor, these case studies could be pre-selected for their broad appeal and their ease of understanding at this early stage in the learning process. Individual reading and reflection followed by small group discussion and then sharing observations with the entire class would be an effective teaching method for larger groups.
3. **Illustrating particular points through example.** As the training progresses toward more specific objectives and lessons, identification of case examples that illustrate the intent of the lessons can serve as a reality check and a break from the merely pedantic. The E-Commerce as a Business Strategy: Lessons Learned from Case Studies of Rural and Small Town Businesses publication is designed to efficiently guide instructors (and learners) to case studies that illustrate particular points. Tables 1 and 2 provide a summary of basic information about the features of each case study and are organized by location, products or services offered, whether they are primarily B2B or B2C, and their sector (i.e., manufacturing, service, wholesale, retail, service, or business support). In addition, there is a section that summarizes the lessons learned and the accumulated wisdom distilled from the entire collection of case studies. Instructors can decide on the particular lesson they hope to instill and focus on the particular case studies that best illustrate these points. Assigning as “homework” a set of case studies that make a specific point and providing a set of reflection questions can be an effective teaching method.

CONCLUDING REMARKS

The growing importance of effectively using the Internet to increase sales and reduce costs through more effective and efficient communication with customers and suppliers (e-commerce) is becoming an increasingly important issue for all businesses. A recent twelve country study by the International Office of the International Council for Small Business concluded that information technology is extremely important in the profitability and growth of small businesses world-wide.^{vii} Further evidence from U.S. Department of Commerce statistics shows that e-commerce has shown strong and steady growth since they began tracking e-commerce sales in 1999 (Figure 1). E-Commerce and the effective use of technology are

important today and likely will be even more important in the future. Therefore, training programs for small businesses and entrepreneurs will stand to benefit from the inclusion of e-commerce case studies and lessons learned.

Figure 1 Quarterly U.S. Retail E-Commerce Sales as Percent of Total Quarterly Retail Sales; 4th Qtr 1999 to 2nd Qtr 2008



Source: U.S. Census Bureau News, U.S. Department of Commerce, Washington, D.C., <http://www.census.gov/mrts/www/ecommerce.html>, accessed 8 September 2008.

Our 28 case studies of e-commerce in rural and small town businesses provide varied experiences in (1) the application of e-commerce to business operations and (2) the benefits of e-commerce to the firms. E-commerce is used by the case study firms for new product development, reducing marketing costs, increasing sales, enhancing efficiencies in inventory management and distribution, and improving service delivery. In most cases, e-commerce is considered beneficial to the firm's profitability and sustainability. In general, the benefits of e-commerce to the business are enhanced if the firm serves a niche market, takes advantage of service providers (public and private) to maintain an efficient and up-to-date e-commerce program, and integrates e-commerce into multiple aspects of the business operation. Most importantly, however, e-commerce must be viewed as an integral part of the firm's business plan. E-commerce is not an "add on" activity like a Christmas advertising campaign. E-commerce has the potential to significantly impact business operations, and the firm should plan ahead regarding resources needed (financing, labor, production capacity, warehouse space) to serve new markets and customers.

Our Curriculum Guide publication identifies three ways that our e-commerce case study materials can be used to enhance learning about e-commerce strategies and the benefits and

challenges of implementing these strategies. It also provides an overview of well-known formal comprehensive e-commerce training programs along with a review of the potential use of our e-commerce case-study publications to augment, update, or supplement these programs. The guide also identifies several formal comprehensive entrepreneurship training programs and suggests how case study information might best be incorporated into these programs. Finally it provides advice on how to use these materials in more informal, less comprehensive, or less structured learning situations.

As consumers and businesses continue to increase the volume of business over the Internet, successful adoption of e-commerce strategies becomes increasingly important for firm success, if not survival. Our materials were designed to provide inspiration to small businesses and entrepreneurs, and those who support them, which will help to increase the number of success stories in the future. These materials are currently available as working papers on the Clemson EDA University Center website (http://www.clemson.edu/uced/working_papers.htm). Final versions will be available on the Southern Rural Development Center's and the RUPRI Center for Rural Entrepreneurship (<http://www.energizingentrepreneurs.org/>) as well as on the Clemson EDA University Center site.

It is important to note that our case studies were conducted in 2006 and 2007 but won't be officially published until late in 2008. Given the dynamic nature of small rural businesses it is likely that some have ceased operations while some have prospered. At the same time, advances in information and communication technologies have likely made some of the previously successful approaches obsolete. Or, perhaps the old approaches are still working but there are better solutions now available. Keeping track of how these businesses adopt new technologies in order to adapt to changing circumstances would add additional depth to the case studies, would help to maintain their accuracy, and could possibly yield additional beneficial insights for the small business community. Given that the businesses portrayed as case studies receive at least some exposure from being included in the research, perhaps they would be motivated to keep their information current, if given the opportunity. Even so, in order to realize the opportunities for enhancing the success of small rural businesses, sufficient resources will likely need to be made available to maintain accurate information on existing case studies and for new case studies to be identified, developed, and put into the hands of those who can help rural small businesses adapt and compete in a world that is increasingly placing value on the ability to effectively and efficiently conduct business over the Internet.

REFERENCES

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- ⁱ Further reading on the appropriateness of this choice of research methods can be found in Barkley, David L. *[The Value of Case Study Research on Rural Entrepreneurship: Useful Method?](#)* Presented at the joint ERS-RUPRI conference, Exploring Rural Entrepreneurship: Imperatives and Opportunities for Research, Washington,DC, October 26-27, 2006.
- ⁱⁱ All businesses were viable at time of interview. However, given the tendency for small rural businesses to lose their viability, there is no guarantee that all firms have survived to this day.
- ⁱⁱⁱ The protocols used to guide the interviews with case study firms is available online as an appendix to the case study collection at www.clemson.edu/uced/working_papers.htm.
- ^{iv} OECD. 2001. "The Internet and Business Performance." OECD Business and Industry Policy Forum Report and Proceedings. <http://www.oecd.org/sti/business-forum>.
- ^v Montgomery, R. 2007. "What is E-commerce." Access e-commerce program website, <http://www.accesse.info>.
- ^{vi} The websites for these three programs are www.accesse.info, <http://etraining.unl.edu>, and <http://srdc.msstate.edu/ecommerce/index.html>, respectively.
- ^{vii} Tarabishy, Ayman El, *The State of Information Technology on Small Businesses World-wide: Listening to Entrepreneurs and Experts*. Full study report, PowerPoint presentation, and discussion board available at <http://www.icsb.org/IT/tabid/168/Default.aspx>.