

Social Change Through Entrepreneurship: Utilizing Portable-Sawmill-Based Small Businesses to Promote Community Development

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Reduced demand for wood and wood products resulting from the economic crisis in the first decade of the 2000s severely impacted the forest industry throughout the world, causing large forest-based organizations to close (CBC News, 2008; Food and Agriculture Organization of the United Nations, 2009; Pepke, 2009). The result was a dramatic increase in unemployment and worker displacement among forest product workers between 2011 and 2013 (Bureau of Labor Statistics, 2014). Forested rural communities often depended on the large-scale forest industry for their livelihood, and as a result, decreased reliance on large-scale industry became increasingly important (Lupo, 2015). This article explores portable-sawmill-based entrepreneurship as an opportunity to promote social change in the local community. Results indicated that portable-sawmill-based small businesses created community development opportunities, which promoted social change in the larger community through farm business expansion, conservation efforts to improve local community development, and niche market creation in the local or larger community.

Keywords: *portable sawmill, forestry, small business, social change, community and economic development*

Introduction

The forest industry performs a vital role in socioeconomic development, particularly in rural forest-dependent communities, where little other opportunities exist. Forest and forest products essentially contribute to some rural communities' economic and social values (Guettabi, 2015; Schmincke, 2008). The forest industry, primarily located in rural communities, was largely impacted by the economic crisis of the first decade of the 2000s. In particular, the reduced demand for wood and wood products that resulted from the economic crisis, which included the housing market collapse, severely impacted the forest industry throughout the world, causing large forest-based organizations to close (CBC News, 2008; Food and Agriculture Organization of the United Nations, 2009; Pepke, 2009). The result was a dramatic increase in unemployment and worker displacement among forest product workers, averaging approximately 74,000 displaced workers between 2011 and 2013 (Bureau of Labor Statistics, 2014).

Given the dependency on large-scale forest industry that existed in many forested rural communities, the diversification of resources and decreased reliance on large-scale industry became increasingly important. Some of this diversification was accomplished through the development of portable-sawmill-based small businesses, which relied on already available resources, such as

timber. An interesting phenomenon also occurred through these small business developments: Community development opportunities were created through these small business activities, which promoted social change in the larger community.

Community Development

Theodori (2005) described community development as a community building and strengthening process. The application of community development programs generally occurred as a self-help initiative to attempt to reestablish *Gemeinschaft*, community-centered social relations, with vertical top-down structured technical assistance observed in contemporary *Gesellschaft*, society-wide social relations (Lupo, 2010; Lyon, 1987; Tonnies, 1887/2011). Another application of community development programs existed as a conflict-based initiative where the agent initiating change seeks to remedy power-based injustices in the current community structure (Lupo 2010; Lyon, 1987; Tonnies, 1887/2011).

Multifaceted opportunities in resource-dependent communities provide steps toward economic sustainability to help shift the power structure back into the hands of rural residents located in resource-dependent regions. Economic sustainability can be increased through entrepreneurial activities within a local community. Community-based strategies can be effective if they are customized, focused on entrepreneur development, and operate as a transformational business (Flora, 2006).

Natural resources provide a stimulus for economic growth, provided that steps to increase the versatility of resource dependent communities allow for multiple uses of both land and materials (Goorha, 2006; Guettabi, 2015; Lupo, 2015). Alternative rural local opportunities outside of mainstream industry provide the opportunity for resident and community to work toward a common goal of maintaining ecological sustainability while enhancing or creating new revenue streams to increase, or at least maintain, their socioeconomic position in the larger market (Lupo, 2015; Sedliačiková, Hajdúchová, Krištofik, Vizslai, & Gaff, 2016).

Portable Sawmill Small Businesses

Portable sawmills are used to process available natural resources, such as fallen trees, both to sell lumber as well as to build finished products using that lumber. Portable sawmills are relatively inexpensive wood processing technologies that can be purchased for use on a small-scale level. Small-scale equipment such as portable sawmills can be more environmentally friendly than large-scale forest equipment and are often the only type of economically feasible operation to harvest small tract sizes due to lower operating costs (Lupo, 2015; Updegraff & Blinn, 2000). Also, small-scale forestry equipment, such as portable sawmills, is advantageous over larger scale machinery on uneven-aged managed forestland, on smaller tracts, and in specialized markets and typically result in lower levels of residual soil damage (Updegraff & Blinn 2000).

Portable sawmill users seem to share a common set of interests and values and interact through online portable sawmilling forums (Lupo, 2010). Utilizing a portable sawmill to develop a small business not only provides individuals with increased income potential, but it also enables an increased sense of pride and self-identity (Lupo, 2015). Portable-sawmill-based small businesses create an opportunity for combining community and economic development, as well as occupational community development on a larger scale.

Methodology

The qualitative multiple case study approach presented in this article was part of a larger project on portable sawmill utilization throughout the United States. Personal interviews were conducted with portable sawmill operators and included an in-depth exploration of the inner workings of portable-sawmill-based small business operations. A total of 30 initial interviews were conducted on the telephone and by email, with follow-up research conducted 6 years later in the form of content analysis and informal interviews to understand the current status of the portable-sawmill-based business in each category. The interview responses were analyzed to understand how small business owners adopted portable sawmills and sought to develop an in-depth understanding of how and why small business operations functioned and what impact they had on social change and community development in their local communities.

Results

One of the most interesting findings of the initial study was the three common themes that emerged from the interview data. These included the use of portable-sawmill-based small businesses to bring about social change through various means; first, as a way to transform a struggling farm business; second, as a conservation effort to improve the local community; and third, to fill a niche market.

Group A: Transforming a Struggling Farm Business

In the initial interviews, some portable sawmill small business owners had farms that were failing or had slowed significantly. Those interviewed participants wanted a way to diversify their farms to generate additional income.

Participant 1A

Participant 1A operated a farm in rural southeastern United States. This participant's small business began with sawing oak and selling primarily air-dried band-sawn oak. After quickly discovering that selling lumber was not particularly profitable, he began to obtain timber headed to local landfills to offset the cost of the wood. The participant recalled his career-changing opportunity:

I have a forester friend who knew a guy with a paulownia plantation with some blow downs that needed to come out, and so I did it then, got to keep the logs. The dried paulownia was so light and eventually I got more and more into it. One big market for paulownia lumber is the surfing industry. I had a customer ask me to make them surfboard blanks out of it because they didn't have the equipment. It all started from there. I think that God had a big hand in that for me because my farm was failing and I needed something and this just fell in my lap. I didn't have a conscious decision along the way to enter this niche it just fell in my lap.

Participant 1A successfully transformed his struggling farm into a small portable sawmill business (employing two full-time employees and one part-time employee), shipping surfboard blanks primarily to residents of two states. His wife is also involved with the business through bookkeeping; although, he admits he does not keep records the way he should.

Shortly after the initial interview, Participant 1A partnered with another surfboard blank entrepreneur and created a new organization providing blanks and kits. Together, they continue to operate a successful small business offering six categories of product. Their operation has expanded

from the initial two-state market to incorporate several states and four countries around the world using a webpage and social media such as Facebook to expand their customer reach.

Participant 2A

In another example, Participant 2A operated as a part-time small business in a rural township of just over 1,000 residents, with controlling interest in a farm a few miles away. Participant 2A noted, “I treat the sawmill as part of my farm operation: sale of standing hay, firewood, rent for storage, timber sales, etc., so it was just added to the mix.”

The particular type of utilization described by Participant 2A used to be called “farming systems,” which created multiple activities within one enterprise to stabilize the overall system. Participant 2A noted,

I had 5 acres or 5000 red pine trees in need of thinning and at 100 per year I could improve my barn/garage, build other outbuildings, I [also] had hardwood which needed harvesting as well, and three others approached me wanting lumber sawn.

Participant 2A’s small business is currently still in operation and remains active on social media and online, offering instructional YouTube videos and other helpful advice on local forums.

Diversification continues to be an important aspect of Participant 2A’s business plan and has certainly had an impact on continued longevity and success.

Participant 3A

A final example of farm transformation came from a 65-year-old veterinarian in rural Louisiana who ran a vet practice by day and operated as a tree farmer by night. This participant purchased his portable sawmill several years ago to expand his farm business by retaining fallen lumber in storm cleanup and bug damage on his farm. Because his small farm was only 127 acres, larger logging companies were not interested in the work, so he needed a tool to use the fallen timber. He recalled, “If insects get into pine I can catch it and help with the financial bottom line of the tree farm that way. Anybody can whack log, but you had better do it the right way, or you’ll end up with problems.” This participant originally began making furniture from the lumber sawn in his portable sawmill but did not find it to be successful, which he largely attributed to economic conditions. Instead, he created a successful niche sawing lumber for framing barns and small houses, something better suited to fit with local economic conditions. Participant 3A was unavailable for additional current contact. An Internet search also did not yield any results for the continued existence of this small businesses operation.

Group B: Conservation Effort in the Local Communities

Some participants created their portable-sawmill-based small business as a conservation effort taking various forms including timber salvage, storm cleanup efforts, and the utilization of otherwise discarded timber from preconstruction sites.

Participant 1B

Participant 1B was a retired engineering tech turned full-time tree farmer who decided to invest his innovative conservation and entrepreneurial spirit into utilizing trees destined for a landfill. His rural Iowa town experienced declining timber based jobs within the Conservation Reserve Program. This participant recalled,

[Conservation Reserve Program] material jobs were slowing down but wanted to be involved in tree industry so then I noticed a lot of tree going to the landfill, and I thought I could do something with that. Tree planting jobs in my area were on the decline, so I was looking for something more to diversify my business but stay in the forest industry.

This participant knew he wanted to stay in the forest industry and used a portable sawmill as a way to diversify his business while helping the environment. He began his small business after purchasing a mill about a decade prior. All sawn logs in his operation came from custom lumber jobs and were later used to make furniture or outbuildings.

Since the initial interview, Participant 1B's operation continues to see success. The company has adapted by utilizing a webpage to reach customers that contains business and pricing information. While conservation might have provided motivation for the company's initial operations, the public image seems to have shifted to more of a general wood milling enterprise.

Participant 2B

Another example involved a participant who had a bachelor degree in logging engineering and career-long experience as an internal consultant for one of the larger industrial mills in the United States. He was forced into early retirement after internal corporate structural changes within the forest products industry. Upon retirement, this participant subsequently relocated to the rural Pacific Northwest, purchased a portable sawmill, and headed for the woods. He started his part-time portable-sawmill-based small business by rehabilitating forestland and utilizing the usable log segments. This participant noted that his part of his business success was based on the rehabilitation of the forestland and increased wildlife habitat, as well as his property value, which helped not only himself but also the contributed to surrounding community development.

Currently, Participant 2B's small business continues to operate. The company has also incorporated additional family members to assist in its operation. They use a website and YouTube page to promote their small business and continue to keep environmental stewardship at the forefront of their operation.

Participant 3B

In another example, a husband and wife began a portable sawmill business as a second income source after noticing an abundance of wasted wood in salvage in their rural midwestern town. These participants decided to open a portable-sawmill-based small business to put that wasted wood to use. The wife recalled how they began: "My husband is a full-time firefighter and went to work as a second job for a tree business. He saw how much wasted wood there is in salvage and so we decided to put it to use."

Participant 3B's entire operation existed on word-of-mouth referral after growing too large with formal advertising. The timber they received came completely from the "waste" from a local tree service that her husband worked at as a second job at the onset of their business development. She noted, "It is great satisfaction to create a product from previously discarded material. We rely 100% on salvage."

Despite initially rejecting the use of online media or other marketing tools to obtain business, today, the company has expanded its operation and incorporated both a website and Facebook page to keep with the changing times. They continue to keep salvage and environmental stewardship at the center of their business philosophy.

Participant 4B

Another husband and wife small business team began after retirement, in a moderately sized southeastern town. At 82 and 78 years old, respectively, these participants jointly ran a successful full-time portable-sawmill-based small business that began as a result of the existing need in the community. In 1989, a major hurricane swept through this small community, leaving an abundance of fallen timber. No one in the local area had any means to use the fallen timber, so this couple was inspired and, shortly after that, purchased a portable sawmill to use otherwise discarded storm trees. The couple primarily sold lumber used in a variety of projects such as barn building, decks, and trailer floors. This small business is no longer in operation.

Participant 5B

Participant 5B, a rural southwest resident, began a portable-sawmill-based small business to process logs from private land during the preconstruction stage, clearings, fuel-reduction treatments, and hazard removals. This participant began his small business after seeing “a bunch of logs around” and no large mill in the area to process them. He noted,

I saw an opportunity with available logs and no timber market. My father is a contractor, but we are not a sawmill family like many people in the area. I just jumped into cutting and the market. Most portable sawmill owners cut hardwood and enter that niche; there are not that many in softwoods like me...there is higher money in hardwoods, but the market is so much smaller.

This participant discussed the importance of entering a niche and the importance of social networks and collaborations in maintaining small business success. Since the initial interview, Participant 5B has continued to operate, incorporating a website into the company to reach a wider range of customers and is still focused on salvage lumber.

Group C: To Fill a Niche Market

A final common theme surrounding portable-sawmill-based small business creation was as a means to fill a niche market. Each of the participants in this category used portable sawmills to create a small business venture that filled some type of gap that existed in the local economy.

Participant 1C

The first example in this group was a portable-sawmill-based small business owner in a rural unincorporated town in the southeastern United States. After retiring as a liquid propulsion engineer, this participant began his full-time small business by making rustic furniture, after noticing a need in the southern Appalachia. He recalled his initial interest in portable sawmills:

My interest first started in wood in 1954 as a tree surgeon, and in 2000 got into furniture. I wanted to create rough sawn dimensional lumber. I originally have leftover lumber from Appalachian Trail maintenance and needed something to do in retirement. Started with small things like wishing wells and that led to rough furniture, which led to more refined high-end furniture.

Initially, Participant 1C bought the rough sawn lumber to make rustic furniture. However, the lumber was often too rough in dimension. Instead, he decided to mill his own timber with a chainsaw-driven portable sawmill. He described his production method as

based on need. I look at retail stores, and wholesale to retail so I follow the trends. For example, a retained bark edge became so popular so now I usually do it. You definitely have to stay up with changing desires.

Today, the small business continues to operate within the initial niche, incorporating a website with pictures to display the furniture and other creations made with lumber sawn in the portable sawmill. As noted in the initial interview, Participant 1C saw the importance of keeping up with changes in the wider market and has done so to a point with the webpage, which has not only lead to continuity with times, but also expanded services to a much larger market.

Participant 2C

Participant 2C, from another small town in the in the southeastern United States, noticed a lack of availability and size specifications of turning blanks, or large pieces of wood that are used in woodworking. This participant and his brother began initially creating and selling the blanks on eBay. However, their business grew exponentially, and using their own portable-sawmill-processed wood allowed them to take their production to a larger scale, eventually shifting from eBay to their own website. An interesting aspect of this example was that there were actually several portable sawmills located in their community, with the participant estimating 20 within a 30-mile radius. Finding a niche market in which to compete was instrumental to their success and continues to be to this day. Today, the small business continues its online operations with not only a webpage, but also a Facebook and Instagram presence.

Participant 3C

The final example, located in a rural Pacific Northwest coastal town, is a part-time portable-sawmill-based small business with both custom sawing and product creation. Participant 3C created niche products such as sideboards for dump trucks, garden boxes, home porches, and other creations needed in the local community. With the income generated, Participant 3C donated bikes for local school fundraisers, operating as an unofficial nonprofit portable-sawmill-based small business.

Participant 3C was a retired commercial fisherman and attributed much of the small business' success to the flexibility of his schedule in retirement coupled with the lack of portable sawmills in the area. He noted,

The market is good here for portable sawmills because the big mills have moved out and it is an isolated area...people usually want a log to be removed now, and I get more business that way because I am retired so I can just go pick up a log on a minute's notice.

This portable-sawmill-based small business operated solely on timber donated by others and operated part of the business using a trade/barter system. Like the other participants that operated in a niche market, this participant also noted the importance of finding and competing in a local niche adding, "You cannot make a living simply selling lumber." Since the time of this initial interview, Participant 3C has passed away.

Discussion

As noted, an interesting find in this study was the three common themes that emerged from the initial interview data. These included the use of portable-sawmill-based small businesses to bring about social change through transformation of a struggling farm business, as a conservation effort, and to fill a niche market in the local community. Follow-up research on each company revealed a small business failure rate seemingly lower than the national averages of small business failure rates after 5 years. Research has demonstrated that small business failure rates before and after the economic crisis were similar, with survival rates improving as a business ages (Small Business Administration, 2016). Factors such as prior business experience and niche market operation may have contributed to a higher success rate, coupled with the adaptability of these participants to changes in local needs.

Overall, participants in Group A, who created portable-sawmill-based small businesses as a means of expanding or transforming an existing farm, were already familiar with running a company. Due to their existing farming backgrounds, most of the participants in this category had measurable success incorporating portable sawmills to expand or transform their farm businesses. Their success incorporated adoption to changing times through the use of social media and other online resources to remain successful and expand their operations.

While many of the participants in Group B operated with varying degrees of environmental conservation, they all began their portable-sawmill-based small businesses in the hopes of reducing discarded or otherwise wasted timber to improve their surrounding community landscape. The environmental and entrepreneurial spirit of this group was felt because, in most cases, these participants were not previously business people. Instead, they were people who wanted to make a difference in their local communities while creating a niche using discarded or otherwise wasted materials. Many of the participants in this group continue to operate under environmental stewardship and conservation philosophy, although some have shifted focus to a general operation, while others have disbanded. In all currently operating companies, participants have shifted focus to incorporate online and other social media into their operations even after initially rejecting such marketing strategies.

The final category of portable-sawmill-based small businesses owners, Group C, truly bridged the gap in a niche of the local or larger community that was not being filled and built small businesses on the premise of filling the void. Those businesses that remained in operation have incorporated new marketing and other online strategies to build and expand their customer base.

Conclusion

Each of the factors outlined in this study—farm business expansion, conservation efforts to improve local community development, and filling a niche market—represented a contribution to local community development in various ways. By opening a portable-sawmill-based small business as a way to expand a struggling or failing farm business, participants contributed to local economic development. Operating a portable-sawmill-based small business as a conservation effort benefited local community development, not only through economic measures but also through improved quality-of-life indicators. Finally, starting a portable-sawmill-based small business to fill an existing niche contributed to local community develop by satisfying a demand within the larger community, as well as enhanced quality of life indicators.

Future research could explore the role other small-scale technologies play, not only in existing forestry-based markets across the United States, but also in other resource-dependent communities, where multifaceted opportunities can provide steps toward economic sustainability. Further research is also needed to analyze the use of social media and other online marketing strategies incorporated within the remaining successful portable sawmill businesses, despite the category they operated within in this study.

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