SMALL BUSINESS E-COMMERCE ADOPTION
THROUGH A QUALITATIVE LENS:
THEORY AND OBSERVATIONS

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ABSTRACT
Using approaches consistent with the qualitative research tradition, the authors attempt to understand the motivation behind small business adoption and exploitation of e-commerce. A theoretically grounded model of e-commerce deployment by small businesses owners is presented, which can best be explained by two theoretical lines: an economic evolutionary perspective and a sociological institutional perspective. Further, our findings suggest a tie between owner characteristics, dispositions, traits, and the level of e-commerce integration achieved. We contend that understanding the drivers of e-commerce adoption, policy makers and other help agencies can tailor programs to assist firms with integrating and exploiting e-commerce in a cost effective manner.

INTRODUCTION
The United States has a vested interest in small business. According to the Small Business Administration (2006), small businesses constitute 99.7 percent of all employer firms and employ roughly half of all non-farm private sector jobs. The report findings also indicate that small businesses generate more than 50 percent of the U.S. non-farm gross domestic product. In 2003, only employers of 500 or fewer employees experienced a positive net change in employment, creating close to 2 million new net jobs while, at the same time, firms with over 500 employees lost close to one million employees (Small Business Administration, 2006). These findings suggest that the success and continued contributions of our nation’s small businesses are critical to the long-term viability of the U.S. economy. However, the context in which many small businesses form and grow is remarkably different than a mere decade ago. Foremost among the challenges and opportunities facing small businesses owners is the rise and use of technology, and in particular, e-commerce.

For various reasons, practitioner-oriented journals and outlets advocate the use of e-commerce for small businesses (Lohr, 2006; NFIB, 2005a; Ossinger, 2006). The primary thrust behind many of these pro-e-commerce arguments is the notion that small businesses are resource constrained and that e-commerce is a rather inexpensive mechanism in which to improve operations and provide customer service. By using such mechanisms as on-line advertising, e-mail marketing campaigns, and back-office support programs, small businesses can vie for business and consumers previously available only to large corporations. Further, a growing body of research indicates a shift in consumer behavior and business strategy where, through the use of e-commerce, “consumers locate, evaluate, and purchase a
far wider variety of products than they can via traditional brick-and-mortar channels” (Brynjolfsson, Hu, and Smith, 2006). This “long tail” phenomena, as first identified by Anderson (2004), may allow small business owners to create virtual shelf spaces where they can offer more variety, choice, and value for customers world-wide (Brynjolfsson et al., 2006). Said differently, e-commerce may allow small businesses to go from “niches to riches” (Brynjolfsson et al., 2006) by reaching larger markets while minimizing their cost structure. In turn, these improvements may lead to higher growth and wealth creation (Lohr, 2006).

Many small business owners are taking advantage of e-commerce resources. According to one SBA report, 57 percent of small businesses used e-commerce in 2002 (Pratt, 2002). Other estimates indicate that 82 percent of small businesses will be online by 2011 (Gandhi, 2006). However, being “online” does not necessarily mean that the small business owner is taking full advantage of the possible benefits of e-commerce. Further, existing survey data suggests considerable variance regarding small business owner’s acceptance of technology and innovation. A 2005 poll conducted by the National Federation of Independent Businesses found that 16 percent of those small business owners surveyed indicated that they try to avoid technology (NFIB, 2005b). These survey findings suggest that researchers and policy makers must better understand the motivations and uses of e-commerce tools by our nation’s small business owners in order to successfully integrate e-commerce prescriptions.

Given the perceived importance of small business e-commerce use by owners, mixed survey data regarding its use, and a notorious lack of theory in small business research (Zahra and Dess, 2001), the purpose of this study is to begin building theory aimed at better understanding the phenomenon of small business e-commerce adoption and usage through the lens of the small business owner. Indeed, the primary role of theory and theory building exercises is to help scholars and practitioners understand, explain, and predict a given phenomenon (Pedhazur and Schmelkin, 1991). In particular, the research questions investigated in this study are: (1) why do small business owners adopt an e-commerce strategy? (2) what explains why some small businesses are more expansive and comprehensive in e-commerce adoption and exploitation, and (3) in what ways does small business use e-commerce differ, and what factors explain these differences?

Since there is little empirical and theoretical work regarding the factors or variables that influence small businesses to pursue e-commerce strategies, the authors turned to the qualitative research tradition to provide a rich, contextual, and thick understanding of this phenomenon (Eisenhardt, 1989). Specifically, we analyze several sources of data via a constant comparative method to develop an initial grounded theoretical model describing and explaining why some small business owners actively cultivate e-commerce opportunities while other business owners resist. The findings of this research can be a starting point for researchers wishing to bring theory into entrepreneurship e-commerce literature (Gephart, 2004; Weick, 1995). Also, since the success of small businesses is tied tightly with our pro-growth and innovation-oriented economy, insight into this phenomenon should resonate with both basic and applied audiences. Finally, the findings of our research could inform policymakers who aim to advance the success rate of small business ventures.

**METHODS**

Individuals attach meaning to their experiences which can be thought of as threads or textures of a blended fabric made up of the experiences of many (Creswell, 1998). To get a feel for this “fabric,” the authors employed the qualitative research tradition, which many now understand as “making a substantial contribution to management theory and our field’s empirical knowledge” (Lee, 2001, p. 215).

The rationale for employing a qualitative research design is straightforward. First, qualitative research is appropriate when scholars wish to build theory, not test theory via hypotheses testing (Creswell, 1998; Seidman, 1998). Given the scant theory
development regarding small business e-commerce strategy, theory building as opposed to theory testing is in order.

Second, qualitative research is often preferred when the given phenomenon is rich, complex, and embedded amongst other social phenomena (Strauss and Corbin, 1990). The operations, functioning, and long-term strategy of small businesses seem to speak to these types of phenomena. In particular, a host of multi-disciplinary and anthropological forces, including affective, cognitive, social, and political forces (Chell, Haworth, and Brearley, 1991; Kalleberg and Leicht, 1991; Mitchell, Busenitz, Bird, et al., 2007; Wiklund, Davidsson, and Delmar, 2006), affect small businesses. Moreover, the issue of units of analysis in small business strategy presents a problem for traditional quantitative research since many phenomena appear to span individual, team, group, and organizational levels. Some of the most esteemed social scientists recognize that these issues cause problems for quantitative research designs. For instance, Cronbach (1975) noted that statistical research possesses severe limitations in its effort to take into account interaction effects and situations with multiple and higher order of abstract variables. Cronbach (1975, p. 124) further stated that “the time has come to exorcise the null hypothesis” because it ignores effects that may be important but are not statistically significant.” In general, qualitative inquiry is more suited to handle and accept the complex, rich, and dynamic quality of the social world (Cronbach, 1975). This sentiment also corresponds with other scholars who suggest that as advanced as quantitative research has become, there are still some social and organizational phenomena that quantitative measures cannot adequately describe or capture.

Third, qualitative research is the preferred mode of inquiry when the research objective is exploratory or where rich detail into a given phenomenon is sought (Creswell, 1998; Strauss and Corbin, 1990). Since both theoretical and empirical progress has been slow regarding the topic of small business e-commerce, employing a qualitative methodology was both necessary and commonsensical. Indeed, leading quantitative and qualitative researchers agree that qualitative research is particularly valuable early on in the development or maturation of a research stream where variables are first identified and later tested via a quantitative approach (Creswell, 1998; Merriam, 1998; Strauss and Corbin, 1990). Consequently, the authors feel that there is a complimentary relationship between these two approaches and that employing them both simultaneously via a mixed methods design or in a sequential fashion may enhance the ultimate research objective of advancing knowledge and understanding of a given phenomenon (Pedhazur and Schmelkin, 1991).

Finally, a practical rationale supports the use of a qualitative methodology. For small business research, it is difficult to overstate the potential contribution of qualitative research since small business owners generally resist releasing operational and financial information (Brockhaus, 1994). While this study is one of a handful of qualitative research efforts aimed at small businesses, there is ample precedent to utilize qualitative research techniques to understand the small business population. For instance, Chowdhury and Lang (1996) used qualitative research to understand why and how small businesses decline. Churchill and Lewis comment that qualitative research is particularly appropriate for small business research where “the underlying concepts have not been adequately defined” (1986, p. 335).

It is beyond the scope of this study to exhaustively detail the differences between quantitative and qualitative research methodologies. However, some topical discussion is necessary in order for researchers to interpret and evaluate the research and findings contained in this manuscript. The distinctions are neither comprehensive nor exhaustive, but serve to highlight the critical differences between these two approaches. At the most global of levels, quantitative and qualitative research differ according to the underlying research objective. Qualitative research aims to gain a rich, deep, and detailed understanding of a given phenomena (Creswell, 1998). The goal
is to generate ideas and theory for future evaluation. Conversely, quantitative research aims to quantify data and generalize from a sample to a greater population (Pedhazur and Schmelkin, 1991). As such, the goal is theory testing through hypothesis testing – not theory development. Assumed in the research objective are also some assumptions regarding how researchers arrive at knowledge. Qualitative research is inductive, which extrapolates from observation to theory (Creswell, 1998; Strauss and Corbin, 1990). In contrast, quantitative research is deductive, with theory arriving first and falsification attempts coming soon after (Popper, 1959). In addition, each research tradition approaches the notion of “sample” differently. In qualitative research, small samples are accepted and encouraged under the assumption that a rich and deep understanding of the sample will ensue. Exactly the opposite is true with quantitative research, where large samples that most resemble the population of interest are preferred. This is unlike qualitative researchers, who may purposely seek out samples that are un-representative through a technique termed “maximum variation sampling” (Seidman, 1998). In regard to variables, qualitative research is recognized for investigating small samples with many variables. Quantitative research prefers large samples that often have fewer variables recognized as independent, dependent, and control variables. Moreover, the preferred research design to enhance inferences of internal validity and causation of quantitative research is the true experiment where subjects are assigned randomly and an independent variable is manipulated (Pedhazur and Schmelkin, 1991). It is also common for quantitative research to follow an established structure based on the scientific method. Qualitative research abides by no such structure where no manipulation of independent variables occurs and is more emergent and interpretive than quantitative research. As it relates to data collection and data analysis, qualitative research is marked by unstructured or semi-structured techniques, such as in-depth interviews (Seidman, 1998). Emphasis is placed on capturing the “whole” experience or phenomenon so as to try to recreate the context. It follows, then, that data analysis is non-statistical and interpretive. In contrast, quantitative researchers employ high structured techniques such as survey instruments, and little variance exists in the research design, as most quantitative research follows the scientific method. Of course, data analysis is often statistical in nature with findings usually presented in the form of a correlation or regression coefficient. The two research traditions also differ markedly in how each approaches the role of the researcher. In qualitative research, the researcher is involved and actually becomes an instrument and/or participant in the research (Lincoln and Guba, 1985; Seidman, 1998; Strauss and Corbin, 1990). That is why the presentation of qualitative research often involves both first and third person perspectives (Creswell, 1998; Merriam, 1998; Seidman, 1998). Quantitative research expects that the researcher remain detached, and the goal is to remain as objective as possible (Pedhazur and Schmelkin, 1991). For all of these reasons, the outcomes associated with each type of research tradition tend to be unique. Notably, qualitative research is more exploratory and investigative in nature. Many argue that a meaningful outcome of qualitative research is to present a given phenomenon in such detail and richness that would be almost unattainable by a correlation coefficient (Creswell, 1998; Eisenhardt, 1989; Lincoln and Guba, 1985). Quantitative research is more conclusive in its thrust. To better depict these key differences between these two major research traditions, a table is offered below that summarizes the above discussion and captures the sentiment of leading qualitative scholars (Creswell, 1998; Lincoln and Guba, 1985; Kennedy, 1979; Merriam, 1998, Mahoney, 1991; Seidman, 1998, Strauss and Corbin, 1990).

Not all qualitative research is created equal, however, and the authors took careful precautions to maintain high levels of rigor in the design and execution of this study. To enhance the trustworthiness of our findings, we conducted in-depth interviews and examined physical artifacts, including existing websites (Douglas, 1985; Kvale, 1996; Spradley, 1979). This data was then
Table 1. Tabular Comparison of Qualitative and Quantitative Research Traditions*

<table>
<thead>
<tr>
<th>Qualitative Research Tradition</th>
<th>Quantitative Research Tradition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td></td>
</tr>
<tr>
<td>• Gain an understanding of underlying reasons and motivations.</td>
<td>• Quantify data and generalize results from a sample to the population of interest</td>
</tr>
<tr>
<td>• Insights into the context and setting of a problem</td>
<td>• Generalization as opposed to detail</td>
</tr>
<tr>
<td>• Generating ideas and hypotheses for future quantitative research</td>
<td>• Excels at summarizing large amounts of data and reaching generalizations based on statistical projections</td>
</tr>
<tr>
<td>• To more deeply and richly uncover prevalent trends in thought and opinion</td>
<td>• Explore more narrowly; answering narrow research questions</td>
</tr>
<tr>
<td>• Detail as opposed to generalization</td>
<td>• Causal determination, prediction, and generalization</td>
</tr>
<tr>
<td>• Excels at telling a story</td>
<td>• Theory testing via hypotheses testing</td>
</tr>
<tr>
<td>• Explore a topic broadly</td>
<td></td>
</tr>
<tr>
<td>• Illumination, understanding</td>
<td></td>
</tr>
<tr>
<td>• Generation of theory</td>
<td></td>
</tr>
<tr>
<td><strong>Approach towards knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>• Inductive-Building theory from observation</td>
<td>• Deductive and falsification-- From theory looking for disconfirming observations.</td>
</tr>
<tr>
<td><strong>Sample &amp; Setting</strong></td>
<td></td>
</tr>
<tr>
<td>• Usually a small number of non-representative cases purposely selected</td>
<td>• Large number of cases representing the population of interest</td>
</tr>
<tr>
<td>• Almost always natural setting (Patton, 1990)</td>
<td>• Randomly selected; could use a mix of settings to include natural and experimental settings</td>
</tr>
<tr>
<td><strong>Variables</strong></td>
<td></td>
</tr>
<tr>
<td>• Many; no manipulation; variance encouraged</td>
<td>• Few in the form of IVs, DVs, and CVs; manipulation of IV favored</td>
</tr>
<tr>
<td>• Standardization of variables preferred (Lincoln &amp; Guba, 1985)</td>
<td></td>
</tr>
<tr>
<td><strong>Data Collection</strong></td>
<td></td>
</tr>
<tr>
<td>• Unstructured or semi-structured techniques such as in-depth interviews and observation</td>
<td>• Highly structured techniques like survey instruments</td>
</tr>
<tr>
<td>• More freedom to pursue and explore emerging themes</td>
<td>• Little variance in the scientific method and falsification approach</td>
</tr>
<tr>
<td>• Emphasis on capturing context</td>
<td>• Collect same variable and measures from the sample</td>
</tr>
<tr>
<td>• Collect different variables from the respondents.</td>
<td></td>
</tr>
</tbody>
</table>

* Content of table was constructed by appealing to seminal works by several scholars to include Creswell (1998), Merriam (1998), Seidman (1998), Lincoln and Guba (1995), and Strauss and Corbin (1990). For the more received logical positivist and quantitative approach we consulted Pedhazur and Schmelkin (1991). We invite our readers to consult any and all of these works for a more nuanced understanding of these research methodologies.
analyzed according to the constant comparative method, which is widely regarded as the most commonly used approach to organizing themes and concepts (Creswell, 1998; Holt and Turner, 1970).

Not all qualitative research is created equal, however, and the authors took careful precautions to maintain high levels of rigor in the design and execution of this study. To enhance the trustworthiness of our findings, we conducted in-depth interviews and examined physical artifacts, including existing websites (Douglas, 1985; Kvale, 1996; Spradley, 1979). This data was then analyzed according to the constant comparative method, which is widely regarded as the most commonly used approach to organizing themes and concepts (Creswell, 1998; Holt and Turner, 1970).

<table>
<thead>
<tr>
<th>Qualitative Research Tradition</th>
<th>Quantitative Research Tradition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Analysis</strong></td>
<td>* Non-statistical &amp; interpretive</td>
</tr>
<tr>
<td><strong>Data Presentation</strong></td>
<td>* Original language of the research participants</td>
</tr>
<tr>
<td></td>
<td>* Expressive description and language</td>
</tr>
<tr>
<td><strong>Role of the Researcher</strong></td>
<td>* Involved; becomes instrument and/or participant of the research</td>
</tr>
<tr>
<td><strong>Research Flow</strong></td>
<td>* Fluid, iterative, and interpretive</td>
</tr>
<tr>
<td><strong>Research judged or evaluated on</strong></td>
<td>* Credibility, trustworthiness, dependability</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>* Exploratory and/or investigative</td>
</tr>
<tr>
<td></td>
<td>* Findings are not conclusive and cannot be used to make generalizations about the population of interest</td>
</tr>
<tr>
<td></td>
<td>* Helps develop an initial understanding and sound base for further decision making</td>
</tr>
<tr>
<td></td>
<td>* Very deep understanding of phenomenon that would be difficult to obtain from a correlation coefficient</td>
</tr>
<tr>
<td></td>
<td>* Particularly valuable when the problem is multi-disciplinary and anthropological in nature containing affective, cognitive, social, political forces</td>
</tr>
<tr>
<td></td>
<td>* Good for complex and sensitive issues</td>
</tr>
<tr>
<td></td>
<td>* Generates rich descriptions of the phenomena</td>
</tr>
</tbody>
</table>

Participants

We used in-depth interviews of six small business owners located in a semi-rural area of a large Mid-Atlantic state. All businesses were retail oriented. Four of the small businesses could be described as offering tangible goods while two could be identified as retail service providers. Of the six respondents, five were male, and one was female. All but one were the owners/principals and original founders of the small business. In the lone exception, we interviewed the manager of the business, who was intimately involved in the strategic direction and day-to-day operations of the firm. All business models appeared to follow what could be best described as a focus differentiation strategy (Porter, 1980).

Procedures

Research participants were recruited by a non-probabilistic sampling technique (Merriam, 1998). While our sample was obtained largely through geographical convenience, some purposeful sampling (Patton, 1990) was used to ensure a diversity of small business models and genders among small business owners. Hence, a convenience/maximum variation criterion was used for final selection of participants. The maximum variation technique is particularly important when the purpose of the study is to build grounded theory (Glaser and Strauss, 1967). Perhaps even more important, utilizing multiple participants tends to enhance the construct validity of the data obtained in qualitative research (Beverland, 2001; Merriam, 1995).

Small business owners tend to be reserved and reluctant when discussing operational, financial, or strategic aspects of their business. For these reasons, special care was taken to maintain appropriate levels of anonymity and confidentiality. Pseudonyms were used and the authors carefully limited any information that could be used to identify the participants. Protocols and procedures were reviewed and approved by an Internal Review Board. To begin each interview session, the participant was given a verbal overview of the purpose of the study. The participant was then provided, allowed to read, and completed an informed consent form. The use of an informed consent form provides the participant a presentation of their rights during the interview process. The informed consent form can therefore be viewed as a step to insure the ethical treatment of the participant (Seidman, 1998).

Data Sources and Collection

Each of the six small business contacts participated in a 30-90 minute semi-structured interview. A copy of the interview protocol can be found in Table 2. The protocol was reviewed and evaluated by colleagues and by an expert qualitative scholar who had logged more than 3,000 hours in the field. To help with verification of core themes, member checks were used throughout the process. All interviews were tape recorded and transcribed by the second author to ensure accurate interpretation of events. In addition, a memo log kept to maximize reflexivity was updated within 30 minutes of the interview with thoughts and inferences of that specific interview. This occurred before the formal transcription process was conducted. In total, six transcripts totaling about 100 pages resulted from these in-depth interviews. To increase the rigor of our methodology, we used full, as opposed to log, transcription.

Data Analysis

The authors’ objective with this research project is not to test theory, but to build theory. To achieve that goal, grounded theory techniques and methods, initially developed by Glaser and Strauss (1967), were utilized. In this method, data is acquired and coded as part of the analysis process (Strauss and Corbin, 1990). A constant comparative method was used as the dominant analytic approach during coding, as the authors constantly checked and referenced against existing literature (Glaser and Strauss, 1967). This method leads to improved internal validity (Eisenhardt, 1989). The data analysis phase of building grounded theory starts with open coding. During this process, codes were extracted from the participants’ own language and were defined and refined across all transcribed interviews. In essence,
this step is used to identify, name, and file events, feelings, and descriptors provided by the participants. After identifying and defining such codes, they were methodically compared and contrasted, resulting in a listing of categories. The researchers then used axial coding, which involved building links between categories and their subcategories with the goal of identifying causal relationships. Finally, through what is termed “selective coding,” a story emerges and a theoretical framework is constructed from the data. In this process, the authors identified “core” categories from which other categories and sub-themes seemed to relate (Creswell, 1998). Model saturation was reached when no new codes or categories could be identified from the data. Creswell (1998) and Mahoney (1991) encourage qualitative researchers to actively anticipate and respond to human cognitive bias—particularly that of the researcher who acts as the instrument of the study. In this regard, the first author was not involved in the direct interview process with the participants. Instead, the first author was brought on to code the interview data in a more objective and analytical manner. Discussions regarding bias were often intense and rich. Interestingly, this author is also a small business owner and is only six

Table 2. Interview Protocol

Interview # (OWNER NAME)- BUSINESS NAME
Date
Strategy Type: PORTER GENERIC
Dominant Product Type:
Market:

1. Describe your business to me. (includes how long have you been in business; number of employees; any other descriptions you might add)
2. How would you describe your average customer for each of the various product lines you sell? (demographics)
3. Would you describe your customers as frequent or sporadic purchasers of your products?
4. What “value” do you attempt to provide for your customers? (e.g. quality, assortment; convenience; reputation)
5. When I use the term e-commerce, what does that mean to you?
6. How, if at all, has e-commerce changed your industry? Why or why not? Will it eventually change your industry?
7. How has the Internet specifically changed your business in terms of sales; customer types; customer wants or demands; supplier relations (relations or number used); product attributes (price, quality, scope).
8. In what ways, if any, do you use the Internet for your business?
9. If you do currently use the Internet, describe to me any ways you have of determining whether your use is effective (accomplishing the goals that you set forth for the project).
10. How, if any, have you attempted to use the Internet in any way that you feel was a failure?…a success?
11. Please describe to me any future plans you have to use the Internet as a business tool and why?
12. Overall, do you think the Internet will be a good thing or bad thing for your business? Your industry?
13. Is there anything you would like to tell me that I have not asked you?
months into the launch of a retail business in a different Mid-Atlantic state with a similar rural area. We feel this unique perspective helped to interpret the rich meanings behind many of the small business owners’ words.

It is important to note that the results of this analysis are bound to the particular investigators, participants, and context of this study. As is common in qualitative studies, the particular nature of the data tends to affect the external validity of the findings. Accordingly, one should apply caution before applying these findings to small business owners in other settings. It is our intention to provide the reader with a rich description of the data in order for readers to make their own generalizations (Kennedy, 1979).

The participants in this study included Joan, the owner of a small mid-to-upscale women’s clothier which has been in business for almost 30 years; Bob, an owner and Vice President of a retail travel agency that had been in business for over 25 years; Matt, the owner of a custom framing shop that also offers Civil War antique-type sales; Ridge, the owner of an outdoor equipment dealership focusing on sales, parts, and service that had been open for five years; Brandon, a manager of a specialty music and video store that had been in business for fifteen years in another town before opening up an additional location where the interview was conducted (this newer store had been in operation for five years); and Pop, an owner of a small scale retail hardware firm that had been in operation for 20 years. Participant demographics and other attributes are presented in Table 3.

**INTERPRETATION OF FINDINGS**

The categories identified in open coding were processed through axial coding and revealed a central phenomenon behind the relationship behind small business and e-commerce technology. The theoretical model is depicted in Figure 1.

Notice the two-step model. In our analysis, all small businesses embraced the use of e-commerce technology. However, as the model depicts, the level of this relationship differs. Specifically, we found that two of our participants were on the low end of the scale, meaning that they chose only to adopt

![Figure 1. Investment and Commitment to E-Commerce Strategies](image-url)
Table 3. Participant Overview

<table>
<thead>
<tr>
<th>Retail Sector</th>
<th>“Joan”</th>
<th>“Bob”</th>
<th>“Matt”</th>
<th>“Ridge”</th>
<th>“Brandon”</th>
<th>“Pop”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Clothing</td>
<td>Travel Agency</td>
<td>Custom Framing/ Art Outdoor Equipment</td>
<td>Music and Video</td>
<td>Hardware Sales and Equipment Rental</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product/Service Uniqueness</strong></td>
<td>Heterogeneous</td>
<td>Homogeneous</td>
<td>Homogenous &amp; Heterogeneous</td>
<td>Homogenous &amp; Heterogeneous</td>
<td>Homogenous</td>
<td>Homogenous</td>
</tr>
<tr>
<td>Customer Usage</td>
<td>Specialty</td>
<td>Shopping</td>
<td>Specialty/</td>
<td>Shopping</td>
<td>Impulse/ Shopping</td>
<td>Convenience/ Shopping</td>
</tr>
<tr>
<td></td>
<td>- Upper income women</td>
<td>- Professionals</td>
<td>- Upper income women</td>
<td>- Upper income homeowners</td>
<td>- Adults under 40</td>
<td>- Contractors - Homeowners - Renters</td>
</tr>
<tr>
<td><strong>Clientele</strong></td>
<td>- Professionals</td>
<td>- Upper income women</td>
<td>- Men - Well Educated</td>
<td>- Upper income homeowners - Commercial</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Self-Reported Value Proposition</strong></td>
<td>“Good selection, good quality, good value”</td>
<td>Flexible in meeting customer needs; Security</td>
<td>“Feel good about money spent”</td>
<td>Support, service, and high quality product</td>
<td>Employee knowledge, selection</td>
<td>Quality, assortment, convenience, and knowledgeable staff</td>
</tr>
<tr>
<td>Internet Usage</td>
<td>Minimum: Information on supplier boards</td>
<td>Extensive: Research and bookings</td>
<td>Low: EBay sales of specialty products</td>
<td>Extensive: Sales, research, ordering</td>
<td>Extensive: Research, ordering, customer communication</td>
<td>Low: Some sales and Information from suppliers</td>
</tr>
<tr>
<td><strong>Disposition to Internet</strong></td>
<td>“Does not effect my business”</td>
<td>“Tough competitor… probably a good thing”</td>
<td>“It’s changing our industry… changing everything”</td>
<td>“A double-edged sword”</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business Age</strong></td>
<td>30 Years</td>
<td>25 Years</td>
<td>15 Years</td>
<td>5 Years</td>
<td>15 Years</td>
<td>20 Years</td>
</tr>
<tr>
<td><strong>Respondent Age</strong></td>
<td>Mid 50s</td>
<td>Early 50s</td>
<td>Mid 50s</td>
<td>Early 30s</td>
<td>Late 20s</td>
<td>Early 50s</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>Female</td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
</tr>
</tbody>
</table>
e-commerce. Adoption is the first step of the model and is where all participants begin. For instance, Joan’s adoption of e-commerce was extremely limited and barely able to meet the Adoption parameters in our model. Joan remarked:

I don’t like it and I tried it before and I didn’t like it then and I don’t like it now. I suppose some of our customers do go to the Internet to find out about a business, or find out where it is. Some of the cosmetics we sell, people will go to the Internet to find out where they can buy certain things. And then they call us because we sell it.

Viewing a business on the low end of Adoption, we observe several characteristics associated with e-commerce use. Specifically, the Internet is used here only to relay information. In Joan’s case, she did not have her own website, but had her contact information on some of her suppliers’ and vendors’ website. Interestingly, information dissemination in a one-way manner seems to be the dominant theme at this stage.

It is important to note, however, that all six small business owners began at this stage. The intriguing element of this phenomenon, instead, is why some remain at this low Adoption stage, while others advance to a high level of e-commerce use, which we term the Exploitation stage. However, before we can examine the phenomenon of advancement to the high stage, it is necessary to better appreciate why these six small businesses chose to adopt, while many small businesses still opt not to engage in e-commerce at all. This was one of our core findings as we found that in each case, Adoption was predicated on institutional pressure. Brandon reflects this institutional pressure along with his music and video store’s slow and almost forced entry into e-commerce:

I think that record stores are possibly the one thing that the Internet can kill. I don’t mean that in a morbid type way…that I’m going to lose my job because of the Internet. I just think that it’s a different way that record stores are going to have to adapt into a different means of doing things. But there is also Napster burning huge, huge…I wouldn’t say taking food from my mouth or anything, but would say that it does change the way things operate. It is essentially like when people started taping songs off the radio, only it is in a much bigger way.

Brandon’s statement reflects one of our core findings prevalent in each and every case. Namely, institutional theory is the dominant logic in understanding why the small businesses that we sampled chose to adopt e-commerce. For these reasons, it is necessary to revisit the core premise of institutional theory along with several core assumptions that accompany this theoretical perspective.

Institutional theory predicts that firms engage in actions, build structures, and engage in processes similar to another firm’s in an effort to achieve legitimacy (Meyer and Rowan, 1977). Without this legitimacy, it is difficult for firms to survive, let alone pursue strategies for competitive advantage (Dacin, 1997). For these reasons, institutional theory predicts mimicry type behaviors that result in structure and process similarity, isomorphism, between firms (Meyer and Rowan, 1977). Matt’s explanation to adopt some limited e-commerce strategies in support of his Civil War collectible business seem predicated on this institutional rationale:

But as far as Civil War, Ebay has single handedly changed the entire scope of Civil War collecting, buying, selling and shows. I bet you 25 percent of the dealers that used to go to shows no longer go to shows. They say they can make more money and spend less time putting things on Ebay. Why incur the work and expense of going to a show when they can sit at home and sell just as much?

We see here that Matt’s decision to adopt is not so much premeditated as it is following, mimicking, or copying the E-bay business model. For him, survival was a critical
component of his decision to Adopt, since “everyone else seemed to be doing it.”

Another hallmark of institutional theory is what DiMaggio and Powell (1983) refer to as coercive isomorphism. Coercive isomorphism suggests that firms do not copy or mimic voluntarily, but are forced into adopting a structure or process by a stronger force such as government or a legal entity. Interestingly, we found evidence of this coercive isomorphism in several instances. Brandon was the first to suggest that his suppliers strong-armed him into adopting e-commerce technology:

They like that [when I use the Internet]. I think we get some sort of [price] break when we do it that way. I think they [his suppliers] are trying to open that up because I think it is just easier for them. I think we used to FAX our order in.

Central to institutional theory is an assumption that a firm compares itself against other firms to assess its own legitimacy. We witnessed some of these comparative processes. Pop, the hardware store owner, remarked candidly:

Well everybody got a web page. I’ve looked at some; I just wanted to see how mine compares to theirs. It’s no different to me than signage on the street, you know, as to who looks good, who’s getting the message across, that type of thing.

Thus, institutional pressures of conformity, which sometimes seemed coerced or forced, explained why all small businesses interviewed in this research project chose to adopt e-commerce. However, institutional pressures could not explain why half of our small business participants moved beyond the Adoption stage to what we term Exploitation.

Exploitation of e-commerce advanced beyond just informational flow between business and consumer. In the cases of high exploitation, we saw a full-fledged e-commerce strategy that deeply integrated e-commerce into basic and fundamental operations: both upstream and downstream processes with consumer and vendor. Of the six small business participants, Ridge appeared to meaningfully advance beyond the Adoption stage and served as an example of what the Exploitation stage may look like:

We use the Internet to do business with the majority of our large suppliers and we actually make decisions regarding whom to buy from based on access to electronic data interchange. I can get online and I need to be able to check stock level...That’s our other competitive advantage because we are selling the same Briggs & Stratton engine that you can buy at 25,000 other locations. The only reason that you are buying it from me is going to be price, some other value level of service, or guaranteed information such as that engine is in [the warehouse] right now and I can ship it to you and it will be there in 3 days and here’s the tracking number and here is this, this, and this. That’s where the technology comes into play. If we are buying from a vendor whom I can’t confirm stock levels without making a phone call and talking to two people who actually have to go in a warehouse and look, that slows us down to the point that it’s not efficient. That engine, we take the order whether it comes local or from Japan. While I had the customer online or on the phone--But back to this, when I was on the phone with this guy in Japan, we were talking about the engine, he wanted to know when he could get it and I was simultaneously online checking stock levels in [the warehouse] and then we just could either drop ship it from [the warehouse] or have it come here.

Unlike institutional theory, which emphasized the core theme of survival, during the axial coding process we detected another theoretical perspective at work that appeared more robust in explaining why some small businesses, like Ridge, made the transition to Exploitation while others remained in the survival or Adoption stage. Captured in this more competitive vantage of e-commerce use was the notion of evolutionary economics.
Evolutionary economics is rooted in natural science studies, in general, and biological competition, in particular (Nelson and Winter, 1982). The essence of evolutionary economics is that firms become more competitive by evolving through a series of incremental innovations. Built upon prior knowledge and capability foundations, firm evolution is thought to consist of the altering of an organizational process or routine in response to some external or environmental challenge (Nelson and Winter, 1982). Sometimes perceived as a threat, this environmental stimulus sparks the firm to respond in a manner that makes it more competitively viable. The factors that allow some firms to evolve into the Exploitation stage highlighted in this study appear to be some of the same factors that allow larger firms to evolve and compete in other settings. For instance, scholars contend that firms that utilize component technologies (Amit and Schoemaker, 1993) create dynamic capabilities ( Teece, Pisano, and Shuen, 1997), leverage combinative capabilities (Kogut and Zander, 1992), or fine tune internal managerial systems (Leonard-Barton, 1992) can evolve and compete better than those firms lack these skills or abilities. We found compelling evidence during our constant comparative method and axial coding process that these forces are at work in the small retail businesses that moved beyond the Adoption stage to Exploitation. The best example of this was Bob, who experienced the environmental threat of direct-to-consumer Internet use within the travel industry. A retail travel services provider, Bob faced threats from his competition from such websites as Expedia.com and Travelocity.com. Bob further faced disintermediation threats from airline websites such as Southwest.com or USAirways.com. Ironically, Bob incrementally, but substantially, enhanced his use of the Internet to combat the very threat of the Internet.

With the Internet, I don’t think that you can stand still. I think you have to move ahead. I’m not always a great visionary when it comes to these things so I don’t necessarily see what the next step is but usually somewhere along the line you get jolted into the next step whether you want to or not so I would say the answer to that is Yes. I’m just not sure what it’s going to be [long pause]. E-commerce is a very tough competitor, you know. If you had somebody who is willing to sit down and quarrel with material for hours to find something particularly the pleasure traveler as opposed to the business traveler. I wouldn’t be surprised that many times they are going to find rates as low if not lower than what we are reflecting here. But it takes a fairly sophisticated user of the Internet, I think, to pull this information out. To that end, I think they [Bob’s on-line competitors] have probably had some success with people who are able to just pick up and go that quickly. But the majority of people aren’t able to do that. There is, Yes, there is much more information available to us[with emphasis]. And I should say immediately available to us. We’ll get a call and they’ll say what are the latest government directives on travel to here to Lebanon or to the Philippines or what have you and we can immediately go in [pause]; the government has a website, and all that information is right there and you can pull it up immediately and you can print it out send it along with the ticket. Constant updates on visas, passports. We’re able to pull up rail schedules all around the world that used to not be readily available. So yes there is a ton of information. But you can actually garner a great deal of information about restaurants and hotels in many places. Yes, there is a lot of information that we can provide that was not readily available before [and we know where to look].

Ridge’s comment about the Internet and his power tool business speak to the continual, but incremental, themes found in evolutionary economics. Notice the reference to “Big Box” competitors:

If you don’t embrace that [the Internet], you kind of get pushed aside because the customers are going
to constantly go to somebody they think is bigger or more knowledgeable because this big box mentality…

Our core findings indicate that small businesses follow a two stage model regarding e-commerce Adoption and then Exploitation. Initially, mimicry and external pressures drove all of our participants to the Adoption stage, and thus institutional theory is well equipped to explain and predict behavior. Some owners remained stagnant and content in the Adoption stage. Across all of our participants, we found language that reinforced this notion of survival. However, those small business participants who exploited e-commerce seemed more interested in beating their competition and earning a competitive advantage than just survival. Here, we found evolutionary theory could be used as a better tool to help explain the behavior of these small business owners, as they appear to be guided by economic pressures, as opposed to institutional pressures.

CONCLUSIONS

Qualitative research, unlike quantitative research, tends to involve a few cases with many variables as opposed to large sample sizes with a limited number of variables. The benefit from this qualitative approach and accounting of multiple variables is a deep, contextual, and rich understanding of the phenomenon (Cresswell, 1998). As we examined the transcribed data in our axial coding process, we noted some causal conditions that helped explain the presence of Institutional versus Evolutionary Economic forces. Mainly, we found that the characteristics, dispositions, and traits of the business owner seem to predict whether the small business stopped at Adoption (institutional pressures only) or advanced to Exploitation (evolutionary economic pressures).

To begin with, we found that the business owner’s goals influenced Adoption or Exploitation. Joan remarked that her use of the Internet did not “make much difference” because she is in business because “it’s fun; it’s really good.” Joan’s perspective of small business ownership and operation, like others in the low investment and commitment stage, or Adoption stage, is that of having fun and/or pursuing the business predominantly as a hobby. In contrast to Joan is Bob, who sees e-commerce as a way to shave costs and to increase efficiency by “saving time.”

Similarly, we found indicators that the participants who adopted a pro-growth mentality tended to embrace Exploitation more so than those in the Adoption e-commerce stage. Joan remarked that there was no need to fully exploit the Internet because, “when I go or die, I’m not going to retire, but you know when somebody takes it over, if, when I’m gone, it might change completely.” When compared against Ridge’s statement, we see a pro-growth orientation that lends itself to the Exploitation e-commerce stance. Ridge says:

Yes, right now, this year, our sales mix is about [long pause] out of a million in annual sales we have about 150K originated through the Internet. About 15 percent. And that number went from 0 in 1997 to quickly went to 5, 10, then 15 percent and we have been holding steady at 15 percent.

These two comments reflect differing dispositions towards growth. Clearly, Joan is content with a status-quo orientation towards her business. Conversely, Ridge leans toward a more aggressive and growth orientation for his firm, a position that could aid him in “long tail” markets. This, in part, appears to explain Joan’s position towards e-commerce as Adoption only, while Ridge has launched an Exploitation e-commerce strategy.

Another notable difference between small business participants that appeared to explain the variance in e-commerce strategy was the participant’s risk orientation. Those with risk-aversion seem content with an Adoption only strategy. Those with a risk-seeking disposition tend to embrace an Exploitation strategy and seek out ways to deploy e-commerce more fully. Interestingly, this finding appears to lend credence to Shane and Venkataraman’s (2000) entrepreneurial characteristic framework, which asserts that
more entrepreneurially minded individuals are capable of seeing how tools can be used for an end goal, in this case the use of e-commerce to achieve business objectives. When asked about taking the risk and moving towards e-commerce, Matt indicated that he did not like technology and taking that type of risk is “just not us.” Matt’s framing and Civil War business had only advanced marginally past the Adoption stage by conducting a low volume of E-bay auctions. Bob’s sentiment, however, is markedly different. When this topic arises, he argues passionately:

I think overall it’s a positive…can be used as a positive force. I think that that really depends on the attitude of the merchant. You can sit there and cry about the Internet supposedly stealing all your business but there are ways for you to participate and if you are willing to participate it can be a very positive thing. If all you are going to do is whine about it, then yes the Internet is going to do you in.

Hence, from our limited sample we found a correlation between attitudes towards risk and whether the small business stopped with institutional pressures (Adoption) or felt the urge to respond to evolutionary economic forces (Exploitation).

Not surprisingly, we found a link between self-efficacy and our sample’s receptivity towards employing e-commerce (Bandura, 1997). Those with high self-efficacy, which is analogous to self-confidence in a person’s ability and skill-set to perform a task, were much more likely to pursue an Exploitation strategy. In contrast, those with low self-efficacy towards technology, in general, and e-commerce, in particular, were more likely to stop with an Adoption strategy. Interestingly, those with lower self-efficacy towards e-commerce appeared equally reluctant to hire or out-source e-commerce operations/strategy to a third party. Matt aligns himself in the Adoption only camp when he indicates:

Number one, I’m 55 and I’m not going to change. The younger kids have a lot of computerization in their shops. Computerized point of sale… More and more suppliers have websites. Many of them allow you to order online. I do not do it. I call on the phone or my wife calls on the phone because we like that immediate feedback. I like to talk to somebody. I like to have somebody say, “Sorry that’s out of stock” and then we have to make an intelligent choice. Things that I don’t put on the net because I don’t have the capability or don’t have the knowledge to put images on the net. I don’t really want to do that. I don’t want to sit down and work at the computer.

Consistent with institutional prescriptions, we saw that many of our small business participants who chose and then remained with an Adoption-only strategy displayed a follower or second mover mentality towards e-commerce. In contrast, those small business participants who we rated as high on the Exploitation strategy demonstrated both a pioneering and market leader orientation. Ridge illustrates this leader mentality and his rationale for moving towards a complete integration of e-commerce or Exploitation strategy when he notes that he tries to give “the small company feel” while also providing the “appearance of being larger than we really are just for people to feel comfortable” because “people just like to do business with branded companies.” Pop appeared to understand that while many large hardware and home improvement firms were using e-commerce, “we don’t put enough emphasis on it to carry it further.” He says before he decides to invest more in e-commerce usage, “someone would have to give me figures of what competitors are doing and how successful they are.”

Finally, we found Exploiters adopted a fairly rational, detached, almost scientific approach towards improving their e-commerce strategy, falling in line with evolutionary economic theory. This trial and error viewpoint is best illustrated through a dialogue with Bob who moved away from Internet coupons:
At one time we were offering coupons: for instance with the student body, particularly in April and May, we start getting requests for Euro-rail passes. They are going to go over to Europe and travel around for a couple of months and then decide they want to use the Euro-rail pass and we used to put coupons on the Internet that they could run off for $10 savings on a Euro-rail pass. It didn’t stimulate any business. I think in the 2 years that we did it I took in two coupons. We still sold a lot of Euro-rail passes. It was not very effective. And it may have been our fault in that we didn’t market it as well over the Internet as we probably could have.

Matt is considerably less reflective when we asked him about data supporting or discounting framing services on the Internet. In a response bordering on dismissive, he said, “people just don’t do that on the net.” His sociological, as opposed to more rational or researched view, is more indicative of institutional rather than evolutionary economic prescriptions.

In conclusion, our core findings indicate that institutional pressures encouraged all of our participants to, at the very least, adopt e-commerce. However, those that moved beyond Adoption to Exploitation identified and responded to evolutionary economic pressures. The characteristics of these small business participants were remarkably distinctive when compared to those who remained in the Adoption-only stage. In general, those that moved to a more integrated and comprehensive strategy demonstrated characteristics and dispositions best described as leaders that were rational but risk-seeking, growth oriented with rather high self-efficacy towards e-commerce. Conversely, those that remained in the Adoption-only stage appeared to be more sociological as opposed to rational, more risk averse, more hobby oriented than growth oriented, and indicated lower self-efficacy towards e-commerce tasks and strategy implementation.

DISCUSSION AND IMPLICATIONS

Shane and Venkataraman (2000) call for entrepreneurial studies that identify the “sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the sets of individuals who discover, evaluate, and exploit them” (218). Following this directive, the findings from this study indicate that not all small businesses approach e-commerce with like goals or motives. Behind these choices are institutional and evolutionary economic pressures. We found that the theoretical perspective best suited to explaining owner actions was largely predicated on the business participant’s characteristics, traits, and dispositions.

Possibly the best illustration of the importance and magnitude of this topic can be gleaned by studying the current agenda and expenditures of the Small Business Administration towards technology and small businesses. Given the small sample size and already noted issues pertaining to generalizability and external validity, the authors believe some policy dialogue is timely and necessary. We provide evidence that while many small businesses, even in rural areas, may wish to embrace e-commerce, policy expectations and expenditures should account for differing levels of technology adoption and use. While many small businesses may be content with only informational advantages associated with e-commerce, others may wish for a fuller integration of e-commerce technology within their business model. This distinction is important since finite resources from governmental and support agencies such as the SBA can be spent in a more responsible manner if these agencies know what position the small businesses gravitated toward. For instance, it would be wasteful and inefficient to spend full integration dollars towards a small business that only wishes to pursue Adopt-only. However, providing Adopt-only assistance to small businesses that wish to gain Exploitative capability and compete in long tailed markets may actually retard the growth of this small business.

A more nuanced implication is the role that education and training can play in shaping a
business owner’s decision to adopt or exploit. If self-efficacy and self-confidence are important contributing variables toward Exploitation as this study suggests, then government and support agencies may wish to devote some resources towards education and training, which can improve a person’s self-efficacy (Bandura, 1977). This notion is particularly important since the assumption behind much of the current policy discourse is that infrastructure and high-speed access are the critical variables that explain why small, rural businesses do not engage in e-commerce (Johnson, 2001; Kroepsch, 2008; Pociask, 2005). While this assumption cannot be dismissed, our study suggests that just providing the infrastructure alone is not enough to drive small business owners towards e-commerce. Other factors such as leader versus follower mentality, orientation towards risk and growth, and personal self-efficacy all impact a small business’s chances of adopting and exploiting e-commerce. In conclusion, policy design and discourse should move beyond just the presence or lack thereof of technology infrastructure to include other variables as well.

Future research may wish to build on this study by continuing with the qualitative research tradition but investigate other types of businesses such as industrial services and sales. Also, researchers may wish to examine the influence of type of product and/or service and the ease in which it lends itself to e-commerce. It is important to note that with our six participants, our discussions did not gravitate towards that direction. However, Matt did tangentially talk about how framing was not susceptible to e-commerce. While a six-second quote is not enough to justify findings or provide strong evidence, it is reasonable to suggest that product attributes, particularly the high level of customization required of some goods (such as frames), may work against—not toward—an e-commerce strategy. Despite the research limitations surrounding external validity and the fact that the research was conducted in a single geographic location in a mid-Atlantic state, the authors hope that their research helps address both the lack of theory and the lack of understanding regarding technology usage by small businesses.

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