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New England Journal of Entrepreneurship

Spring 2009

Volume 12

Number 1

From the Editors

Herbert Sherman, Joshua Shuart, Laurence Weinstein

General Empirical and Conceptual Articles

Strategic Flexibility and SMEs: The Role of Information Technology for Managing Internal and External Relations

By Stephen K. Callaway, University of Toledo; Kevin Celuch, University of Southern Indiana; and Gregory B. Murphy, Idaho State University

Entrepreneurial Expansion Plans: An Empirical Investigation of Infrastructure Predictors

By Jianwen Liao, Illinois Institute of Technology; Harold P. Welsch, DePaul University; and David Pistrui, Illinois Institute of Technology

The Entrepreneurial Motivations of Nonemployer Entrepreneurs

By Robert Barbato and Richard DeMartino, Rochester Institute of Technology; and Paul H. Jacques, Western Carolina University

Minority and Women Entrepreneurs, Associate Editor, Miles K. Davis

The Aging Population and Mature Entrepreneurs: Market Trends and Implications for Entrepreneurship

By Robert P. Singh, Morgan State University

Entrepreneurship Education, Associate Editor, Sean M. Hackett

Revisiting Doing Business in the Middle East (Case Study)

By David E. Desplaces, College of Charleston; Nancy K. McIntyre, West Virginia University

Book Reviews, Associate Editor Michele Masterfano

Entrepreneurship, Competitiveness and Local Development

By James W. Bronson, University of Wisconsin-Whitewater

Designing Clothes: Culture and Organization in the Fashion Industry

By Lisa Hayes, Drexel University



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New England Journal of Entrepreneurship

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New England Journal of Entrepreneurship (NEJE), published twice a year by Sacred Heart University's John F. Welch College of Business, is an invaluable forum for exchange of scholarly ideas, practices, pedagogy, and policies in the field of entrepreneurship and small business management.

The *Journal* is currently seeking original contributions that have not been published or are under consideration elsewhere. The scope of the articles published in *NEJE* range from theoretical/conceptual to empirical research, with maximum relevance to practicing entrepreneurs.

The *Journal* will consider practitioner interviews, book reviews, experiential exercises, cases, and articles dealing with entrepreneurial education. The *Journal* appeals to a broad audience, so articles submitted should be written in such a manner that those outside of the academic community would be able to comprehend and appreciate the content of the material.

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Authors' names should not appear anywhere in the manuscript including Word document properties.

Papers are to be double-spaced with one-inch margins. References should be included on separate pages at the end of the paper. Manuscripts should be no longer than 20 pages of text and 25 pages total, including abstract, text, tables or illustrations, notes, and works cited. Please consult APA style guidelines for all formatting details.

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New England Journal of Entrepreneurship

From the Editors:

Change is the natural order of open systems and is therefore inevitable both in macro-environments and within organizations (Scott 1981). Change is fundamental to entrepreneurial endeavors, as noted by Joseph Schumpeter's (1975) notion of creative destruction and perhaps most exemplified by Bob Dylan's lyrics "these times they are a changin'." The Chinese have captured this notion of change in the statement "may you live in interesting times" (a curse and perhaps a blessing as well) and, as later noted by Charles Dickens, "it was the best of times, it was the worst of times."

Whether we use terms such as organizational renewal (Lippitt 1969), reinventing the corporation (Hammer and Champy 1993), the fifth discipline (Senge 1990), or change masters (Kanter 1983), the underlying concept is the same—planned change (Bennis et al. 1969) is far better than unplanned change (also known as uncertainty). We have seen how unplanned change (i.e., the impact that the Federal Reserve's continuous raising of the overnight lending rates had on the variable mortgages and sub-prime loans) and lack of forethought has wreaked havoc upon the world economic system and how the United States and other governments have had to intervene in their own economic systems to avoid economic calamity.

Keeping the aforementioned in mind, *NEJE* has had to plan some changes of our own to keep the journal viable and operational. The credit crunch caused by the subprime loan debacle has filtered its way to private universities; students who would normally rely upon student loans and/or their parents' economic support (i.e., through second mortgages) are finding that they can no longer afford private postsecondary education. Hence, Sacred Heart University (not unlike the editor's university, Long Island University) has had to take measures to reduce its operating costs—in this case, eliminating the hard-copy version of the journal.

This issue of *NEJE* does address the issue of change from several vantage points. The first article by Stephen K. Callaway, Kevin Celuch, and Gregory B. Murphy addresses the issue of knowledge management—more specifically, how strategic flexibility in small- and medium-sized enterprises is impacted by the role of information technology in managing external and internal relations. Their empirical study found that under conditions of low environmental change, IT capabilities were associated with greater reactive strategic flexibility. Specifically, IT capabilities enabling the management of internal activities were significant. Under conditions of high environmental change, IT capabilities were associated with greater proactive strategic flexibility.

Jianwen Liao, Harold Welsch, and David Pistriui examine organizational change, in this case entrepreneurs' expansion plans in Romania, by studying infrastructure predictors for such plans. Results indicated refined patterns of entrepreneurial growth, including resource aggregation, market expansion, and technological improvement. Overall, it was posited that infrastructure is positively related to entrepreneurial growth yet in most of the cases, the opposite proved to be true. These findings suggest that the Romanian entrepreneurs would pursue expansion plans in spite of the obstacles thrown into their path. These counter-intuitive findings reflect on the hardiness and perseverance of the Romanian entrepreneurs.

The third article, by Robert Barbato, Richard DeMartino, and Paul H. Jacques, addresses change through entrepreneurial motivation of nonemployer businesses. A nonemployer business is one that has no paid employees. This study uses a survey of 1600 MBA alumni to compare the entrepreneurial motivations of nonemployer entrepreneurs to conventional entrepreneurs and nonentrepreneurs. The findings indicate that nonemployer entrepreneurs differ in important ways, and future research is needed to understand more fully this large and important group of entrepreneurs.

Robert P. Singh discusses change in terms of the aging population as a target market as well as "mature" entrepreneurs. Older workers continue to make up an increasing portion of the workforce and these individuals represent an important growing demographic. They are a unique group and this article provides empirical results and discussion about the differences and importance of older entrepreneurs to the economy and as contributors to American society. Practical implications and future research directions are discussed.

Our application case by David E. Desplaces and Nancy K. McIntyre engages students on a number of issues common to doing business in the Middle East, certainly a change of venue for students who have been doing business in a Western society and culture. The case seeks to integrate issues of international management, and cross-cultural conflict and negotiation. In this case, DJ, the CEO of Offshore Service Company (OSC) was headed to the capital city of one of the most Islamic fundamentalist countries in the Middle East. He has just been notified that the captain and crew of three of his offshore maintenance vessels on lease to the government-owned oil company (GOOC) of that country have been seized for oil smuggling. They were caught red-handed offloading the fuel in the middle of the night in the Arabian (Persian) Gulf. According to customs regulations and international law, all assets involved in the contraband were seized. The captain and crew were also in danger of severe punishment under Sharia (Islamic law). This punishment could include fines, imprisonment, mutilation (i.e., the cutting off of their hands), and even death. After arriving in the capital city, DJ was informed by his local representative, Ahmed, that the government has

the right to keep the vessels and cargo they have seized and that the government may not be willing to let GOOC contract with OSC in the future.

We are fortunate, through the hard work and effort of our Associate Editor, Michele Masterfano, to have two book reviews. The first review by James W. Bronson examines *Entrepreneurship, Competitiveness and Local Development*, edited by Luca Landoli, Hans Landstrom, and Mario Raffa. This volume contains 11 of the best papers out of the 131 papers presented at the 2005 RENT conference. The RENT conference is jointly sponsored by the European Institute for Advanced Studies in Management (EIASM), and the European Council for Small Business and Entrepreneurship (ECSB). The change for most readers of *NEJE* will be that the research is based in Europe. (The European Union and its member nations constitute a source of data different in both qualitative and quantitative terms in comparison to data generally available in North America.)

The second review by Lisa Hayes examines *Designing Clothes: Culture and Organization in the Fashion Industry* by Veronica Manlow. The book provides a detailed, field-based anthropological look into the changing world of fashion. Readers are provided with information unique to the fashion industry, which is quite helpful for either launching a business or working in the field. Readers will also gain a better understanding of the fashion trade and the role of individuals within the corporate fashion structure. By spending time as an insider at the world renowned fashion firm of Tommy Hilfiger, the author was able to share experiences specific to the world of fashion design and bring the reader along for the journey.

We would again like to thank the associate editors, reviewers, authors, and production staff who have made our job a pleasurable one. We look forward to you, our reader's submissions, your comments on this issue (as well as the other past online issues), and your volunteering to assist in the arduous task of reviewing manuscripts.

Sincerely,

Herbert Sherman
Editor

Joshua Shuart
Associate Editor and Web Master

Lorry Weinstein
Editor Emeritus

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Strategic Flexibility and SMEs: The Role of Information Technology for Managing Internal and External Relations

Stephen K. Callaway

Kevin Celuch

Gregory B. Murphy

The purpose of the current study was to assess the impact of information technology on strategic flexibility for small- and medium-sized enterprises (SMEs). Results of the study show that under conditions of low environmental dynamism, IT capabilities are associated with greater reactive strategic flexibility. Specifically, IT capabilities enabling the management of internal activities was significant. Under conditions of high environmental dynamism, IT capabilities are associated with greater proactive strategic flexibility. Specifically, IT capabilities enabling the management of competitor information was significant. Managerial as well as future research implications are discussed.

Introduction and Literature Review

Substantial research has examined the importance of IT investments for firms, including if and how such investments may increase the strategic flexibility of firms (the ability to adapt to, and even anticipate, environmental changes, by altering strategy). On one hand, development of IT infrastructure should offer firms improved ability to obtain and manage internal and external information. Firms would have access to real-time information regarding important stakeholders. Much literature has emphasized the importance of gathering, disseminating, and responding to market information regarding a firm's market orientation (see for example, Kohli and Jaworski 1990; Narver and Slater 1990). More importantly, firms that possess the best market information, and respond accordingly, will have more strategic options, including adjusting product/service offerings and anticipating customers' future needs (Evans 1991; Achrol and Kotler 1999; Day 1999). Such abilities allow firms to operate more flexibly according to market dynamics.

On the other hand, a major investment in information technology may actually create a lock-in to a particular technology (Reddy 2006; Shapiro and Varian 1999). These past information technology systems, or legacy systems, may potentially reduce a firm's strategic flexibility (Reddy 2006). Information technology lock-in has special implications for intra-firm and inter-firm relationships, particularly in an increasingly dynamic external environment (the degree of uncertainty and rate of change in the environment; Hitt et al.

1998). For example, Tallon and Kraemer (2003) found that many firms made substantial investments in IT resources in order to build static capabilities, such as reducing operating costs, perhaps specific to a particular product or supplier (Prahalad and Krishnan 2002). However, the development of IT capabilities (superior coordination and information management abilities) tightly geared toward the achievement of such efficiency gains often made the firm more vulnerable to environmental dynamism. Ideally, IT should lower external coordination and internal organization costs by reducing search costs and enabling firms along the value chain to collaborate more closely (Gurbaxani and Whang 1991). Therefore, it is important to tailor IT investments toward building strategic flexibility to improve the management of internal and external relationships, which is appropriate given the level of environmental dynamism.

The overall degree of environmental dynamism may impact what type of strategic flexibility is important for small firms. The wrong kind of IT investments (not creating the appropriate capabilities) may actually limit strategic flexibility. For example, in an environment of low environmental dynamism, firms may only need to respond to these moderate environmental changes, indicating reactive flexibility (the ability to respond to current changes in the environment).

However, in periods of substantial volatility (high environmental dynamism), a higher degree and more difficult form of strategic flexibility becomes paramount, that is, proactive strategic flexibility (the ability to anticipate future changes in the environment). In volatile conditions, it becomes more important to stay ahead of the curve. Reacting to these radical, less predictable changes becomes less useful, because by the time the firm has adjusted, the environment has already changed again. In this case, firms must anticipate changes, and stay ahead of the trends. Therefore, a greater degree of environmental dynamism may demand greater proactive flexibility.

This issue is particularly important for small and medium-sized enterprises (SMEs). Indeed, small firms are not taking advantage of information technology to the same degree as larger companies (Cox et al. 2001; Peet et al., 2002; Sandberg and Vinberg 2000; Wagner et al. 2003). Further, with limited

resources, small firms must invest in IT wisely to achieve very specific goals, and cannot simply develop strong IT capabilities in a generic sense. With limited budgets, it is even more essential for small firms to have a well-developed strategic plan regarding their IT spending, and to customize their IT infrastructure appropriate for their circumstances (Broadbent and Weill 1997). They must develop very specific capabilities to grant them strategic flexibility for dealing with environmental turbulence.

According to Reddy (2006), the impact of IT on organization and performance has often been viewed from one of two perspectives: Coordination theory, with a focus on transaction costs for current relationships; and resource-based theory, with a focus on how IT can be a resource, or a dynamic capability, for a firm (see also Malone and Smith 1988; Malone et al. 1987; as well as Bharadwaj 2000; Byrd 2001; Hitt et al. 1998). The central question then is what specifically should the role of IT be: For superior coordination of current transactions or for building dynamic capabilities to better manage complex and changing business relationships? In the current study, we contend that the degree of environmental dynamism affects which of those perspectives is appropriate. With greater dynamism, the true source of competitive advantage becomes managerial IT knowledge about the nature of those changes, and what is driving them (Reddy 2006). That is, the valuable resource or capability is for SMEs to not get locked into any current, existing capability, but instead to be flexible enough to be able to obtain and interpret knowledge about a confusing external environment, and to develop the dynamic capabilities to succeed in those changing circumstances.

Therefore, the current study posits that when environmental conditions are more certain and slowly changing, SME's focus their IT capabilities to achieve internal and vertically integrated efficiencies so that they can better react to their environment; when environmental conditions are less certain and rapidly evolving, SME's focus their IT capabilities to more effectively gather/analyze information about external market participants as a means of anticipating environmental changes (see Figure 1 for this model).

Model and Hypotheses

Developing IT Capabilities

Fundamentally, IT investments, their nature and purpose, are critical strategic issues. Investing in IT is necessary for firms of all types to develop firm capabilities. Studies show that IT investments are critical to developing important capabilities, which in turn, should improve firm performance (Bharadwaj 2000; Powell and Dent-Metcalf 1997; Santhanam and Hartono 2003). Smaller firms in particular, who have limited resources, must invest in IT resources wisely, to develop specific IT capabilities.

The overall objective of IT investments should be clear, and should clearly target what specific IT capabilities need to be developed (Broadbent and Weill 1997). Central to these IT capabilities is the issue of managing internal and external relations; having up-to-date information and being able to respond to and even anticipate changes and trends regarding those constituencies.

These IT capabilities may relate to internal operations and cost efficiency, or external parties that may be driving the environmental changes. The focus on current internal efficiencies would include managing internal activities or managing the supply chain network. For example, a company employs an IT system that allows for comprehensive tracking of upstream costs and delivery schedules for products and services from various suppliers. Through the use of this system, the owner is better able to manage supplier costs and coordinate work flow with supplier delivery thereby decreasing project expenses. Through this process the company reaps financial performance improvements.

The focus on trends in external entities would include managing customer information and managing competitor information. In a similar scenario, a company employs an IT system that allows for comprehensive tracking of downstream customer demand for various projects. As such, the owner is better able to track trends in consumer demand for various options so that he or she may proactively adjust future plans in the anticipation of market desires. The extent of these changes will affect which entities are most critical.

An uncertain and dynamic environment often creates emerging customer niches and changing demographics compared to current customers, and where their needs tend to be rather latent and ambiguous (Callaway and Hamilton 2006). Firms need to be able to anticipate these evolving customer needs and generate new capabilities based on that knowledge, and discover new solutions to unexpressed needs of customers, as well as attract new customers (D'Aveni 1994; Leonard-Barton 1995). The most successful firms are committed to continuous market learning, and discovering latent needs and unserved markets (Slater and Narver 1998). In short, customer changes usually represent the leading edge of external changes, and firms must stay ahead of those changes to be successful.

Of course, those firms that do stay ahead of such changes may well be other competitors. Ultimately, a firm in a more dynamic environment may confront a new and entirely distinct set of competitors that often includes entrepreneurial startups. These smaller entrepreneurial firms may also pursue proprietary technology. As such, the capabilities and the technology of these firms are uncertain and volatile in a particularly dynamic environment (Callaway and Hamilton, 2006). Therefore, the more dynamic and volatile the external environment, the more important it is for firms to develop IT

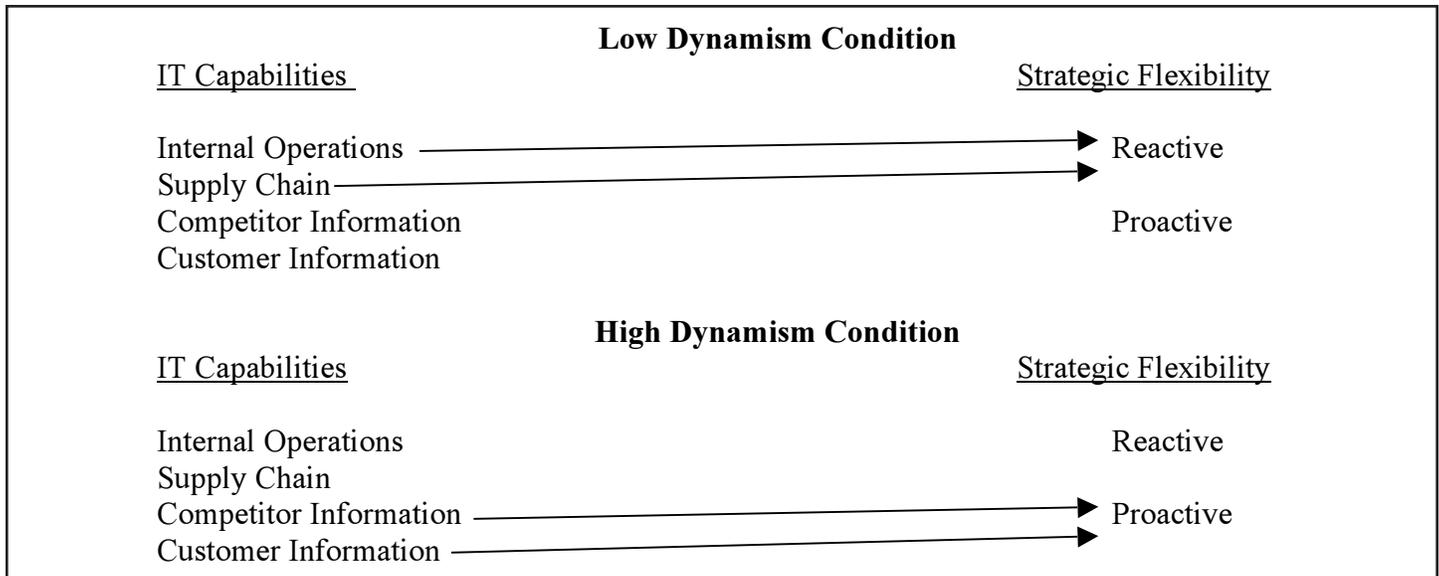


Figure 1. Model of Proposed Relationships

capabilities to manage customer and competitor information. On the other hand, a focus on cost efficiency (internal operations and the supply chain) is more appropriate for a less dynamic environment.

Generating Strategic Flexibility

Strategic flexibility refers to the ability to adapt to, and even anticipate, environmental changes by altering firm strategy (Bierly and Chakrabarti 1996; Nadkarni and Narayanan 2004). Strategic flexibility, or the ability to quickly respond in a proactive or reactive manner, enables firms to better manage risks (Grewal and Tansuhaj 2001). Because it includes multiple factors, strategic flexibility is a polymorphous construct (Grewal and Tansuhaj 2001). Strategic flexibility may comprise proactive (anticipatory) or reactive (adaptation) flexibility (Johnson et al. 2003). Proactive flexibility indicates an ability to anticipate changes in the environment, while reactive flexibility refers to the ability to rapidly and effectively respond to such changes once they become evident. Because IT capabilities improve a firm’s information flow, knowledge flow, and organizational learning, IT investments are critical for a firm’s strategic flexibility. Furthermore, the improved monitoring and coordination should also enable the firm to effectively react to environmental changes (Johnson et al. 2003).

Strategic flexibility is particularly essential for small firms. Large firms often possess enough slack resources to cover various contingencies, and may attain strategic flexibility by investing in several strategic options (Bierly and Chakrabarti 1996; Broadbent and Weill 1997; Grewal and Tansuhaj 2001). On the other hand, smaller firms must achieve strategic flexibility through entrepreneurial alertness and faster response

and implementation times (Hatch and Zweig 2001; Yu 2001). IT capabilities in particular help entrepreneurial ventures to achieve these important attributes, thereby enhancing their strategic flexibility. Hatch and Zweig (2001) argued that the success of small firms depends on their “ability to quickly adapt by modifying their competitive positioning, adjusting their value propositions and targeting different customer segments,” as well as to “quickly perceive the need for change and make it happen” (p. 45).

While IT capabilities help generate strategic flexibility in general, whether proactive or reactive flexibility becomes more important depends on the level of environmental dynamism. The degree of uncertainty and rate of change in the environment, such as technology, regulations, as well as changes with external entities, all affect the nature of strategic flexibility that is most critical for SMEs. Specifically, these environmental changes may include changing customer requirements, developing industry technology, evolving competitor tactics, product changes, and industry regulation.

Therefore, it is important for firms to consider the level of environmental dynamism when developing IT capabilities that will enhance their strategic flexibility (Bierly and Chakrabarti 1996; Hatch and Zweig 2001). That is, with changing customer requirements and demands, development of new technologies, emergence of new and different competitors and changing tactics, product introductions, and changing regulations, particular IT capabilities are essential for firms to adjust to or anticipate such market volatility. But because the level of dynamism in the environment affects whether strategic flexibility needs to be more proactive or reactive, firms need to take care to invest in the correct specific IT capabilities, depending on that environment.

According to Broadbent and Weill (1997), the strategic context of the firm indicates how the firm needs to connect, and structure its information technology infrastructure. This context affects whether the view of IT infrastructure would be dependent or enabling, indicating whether the primary value driver benefits the current strategy or provides for current and future flexibility. A dependent view of infrastructure indicates that infrastructure investments are geared toward responding to specific, known current strategies; while the enabling view of infrastructure indicates that investments are geared toward providing flexibility for firms to achieve their long-term goals and enable the rapid development of new products. The former emphasizes cost savings while the latter targets flexibility with respect to customers and competitors.

In the case of low environmental dynamism, SMEs will focus their IT capabilities in a way that reduces costs and targets their current strategies and options. Such firms will emphasize the efficiency of their cost structure, including their internal operations and their current supply chain. As such, IT capabilities will help the firm manage internal activities and their supply chain network. Therefore, those specific IT capabilities are expected to be associated with greater reactive strategic flexibility.

Furthermore, in periods of high environmental dynamism, SMEs will focus their IT capabilities in order to increase their potential to address possible future contingencies. As such, they will need to gather information on important external entities, such as customers and competitors, to stay ahead of the curve. These entities are likely driving many of the environmental changes. Firms must be able to read where the market is going and how competitors are maneuvering. Therefore, IT capabilities should help the firm manage customer information and competitor information, and those specific IT capabilities are expected to be associated with greater proactive strategic flexibility. Specifically,

Hypothesis 1a: Under environmental conditions that are more certain and slowly changing (low environmental dynamism), IT capabilities will be more strongly related to reactive strategic flexibility than proactive strategic flexibility.

Hypothesis 1b: Under conditions of low environmental dynamism, IT capabilities that help the firm manage the supply chain and internal activities will be more strongly associated with reactive strategic flexibility than capabilities that help the firm manage customer and competitor information.

Hypothesis 2a: Under environmental conditions that are less certain and rapidly evolving (high environ-

mental dynamism), IT capabilities will be more strongly related to proactive strategic flexibility than reactive strategic flexibility.

Hypothesis 2b: Under conditions of high environmental dynamism, IT capabilities that help the firm manage customer and competitor information will be more strongly associated with greater proactive strategic flexibility than capabilities that help the firm manage the supply chain and internal activities.

Methodology

Sample and Procedure

The sample for the current study consisted of a list of 1,300 small- to mid-sized companies (500 employees or less) located in the Midwest. A letter was sent to top management within each company, explaining the purpose of the research, a questionnaire, and a postage-paid return envelope. A total of 160 surveys were completed (a response rate of 12.3 percent). The responses came from various sectors such as retail, construction, and financial services. Of the sample responding, 36 percent of the companies had between 20–49 employees while 33 percent had between 50–99 employees. About half of the companies reported that some portion of their IT function was outsourced, and nearly all of these reported domestic outsourcing (96%).

The response rate of this study is typical of similar studies. In addition, nonresponse bias was assessed by testing for differences between early and late respondents on the variables used in the proposed framework for this study. No significant differences were found for any of the variables.

Questionnaire

Measures used in the questionnaire were adapted from constructs relevant to this research, and were based on a literature review of similar research as well as knowledge of regional firms. Early drafts of the survey were reviewed for readability and understandability. Ultimately, the final questionnaire included measures related to the following constructs: IT capabilities, environmental dynamism, and strategic flexibility. The purpose of the survey was to measure perceptions of top management regarding particular aspects of their companies under the assumption that these cognitions define the reality of their organizations. This approach is consistent with Day and Nedungadi (1994), and others, who argue the importance of perceptual aspects of managerial decision-making in the domain of competitive strategy.

Measures

IT Capabilities. IT capabilities included four seven-point items, where respondents provided perceptions regarding the extent to which IT capabilities help the firm manage: cus-

customer information, competitor information, internal operations, and the supply chain network, in order to achieve competitive advantage (scaled: very small extent...very great extent). Given the research objectives of the study, these items were examined separately in subsequent analyses. As such, this approach to assessing IT capabilities addresses what specifically the organization should be able to accomplish. This approach of measuring IT capabilities is consistent with conceptions derived in management, marketing, as well as IT strategy literatures. (see for example, Kohli and Jaworski 1990; Day and Nedungadi 1994).

Environmental Dynamism. Environmental dynamism comprised five seven-point items, indicating respondents' perception of the rate of change in the industry (scaled: change very slowly...change very quickly) according to specific dimensions. The five dimensions include customer requirements, industry technology, competitors' strategies and tactics, rate of products and services changes, and industry regulations. These five items were combined to form an overall measure of environmental dynamism. The coefficient alpha for the scale was .84. This approach to the construct is consistent with strategy and marketing literature (see for example, Maltz and Kohli 1996; Miller and Friesen 1983).

A median split was used to create the low environmental dynamism group (scores lower than 4 on the 1-7 scale) and the high environmental dynamism group (scores higher than 4 on the 1-7 scale). The split created groups with statistically significant different environmental dynamism means ($t=17.07$, $p<.001$). The mean for the low dynamism group was 3.09 ($n= 58$) while the mean for the high dynamism group was 5.03 ($n=91$). According to Hair et al. (1998), the group sizes resulting from the median split meet acceptable levels of power. Specifically, for analyses on samples between 50 and 100 using four independent variables, explained variances (R^2) between .10 and .20 are deemed to be truly significant at the .05 level.

Strategic Flexibility. Strategic flexibility was measured according to two dimensions—reactive and proactive, which is consistent with current conceptualizations in the strategy literature. Five seven-point items were used. For reactive strategic flexibility, respondents addressed their perceptions of the organizational capability of reacting/responding to five specific strategic imperatives. For proactive strategic flexibility, respondents indicated their perceptions of the organizational capability of proactively anticipating the same five strategic imperatives. These five strategic imperatives included: resource reallocation needs, the need to modify business partnerships, emerging market opportunities, changing environmental conditions, and changing organizational technology needs. Each of these items was scaled as much worse than competitors...much better than competitors. The coefficient alphas for the reactive and proactive strategic flexibility

scales were .84 and .89, respectively. This approach to strategic flexibility is consistent with management and marketing literature (see for example, Sanchez 1995; Teece et al. 1997; Eisenhardt and Martin 2000; Grewal and Tansuhaj 2001; Johnson et al. 2003).

Results and Analysis

The objective of the present research was to test the relationship between IT capabilities and strategic flexibility in lower and higher dynamism environments. Table 1 provides the correlation matrix for the measures used in this study. An examination of the correlation matrix provides some evidence for the validity of the measures. The two facets related to strategic flexibility are strongly correlated as would be expected as they are conceptually similar. In contrast, these two measures show much weaker correlations with conceptually related but different constructs such as environmental dynamism. In summary, associations among variables show some support for convergent and discriminant validity.

Variance inflation factors were used to assess the effects of multicollinearity among the independent variables used in the regression equations. The variance inflation factor scores were under 2.00 for both the low and high dynamism groups. Hair et al. (1998) consider variance inflation factors under 2 to indicate acceptable levels of multicollinearity. Accordingly, while the independent variables are not completely orthogonal, a frequent occurrence in behavioral research (Pedhazur 1982), the degree of collinearity is within acceptable standards.

Variable	1	2	3	4	5	6	7
1 IT Customer Information	1.00						
2 IT Competitor Information	.51	1.00					
3 IT Internal Operations	.59	.40	1.00				
4 IT Supply Chain	.46	.50	.43	1.00			
5 Proactive Strategic Flexibility	.32	.28	.36	.27	1.00		
6 Reactive Strategic Flexibility	.33	.27	.35	.22	.85	1.00	
7 Environmental Dynamism	.29	.35	.29	.49	.25	.26	1.00

Note: All correlations statistically significant at .01

Regression analysis was used to test the hypotheses. The results of the regression analyses related to hypotheses 1a and 2a are presented in Table 2. Results indicate that under conditions of low industry dynamism, IT capabilities are

more strongly related to reactive strategic flexibility than proactive strategic flexibility (F value of 2.896 and significance level of .031 for reactive strategic flexibility, compared to F value of 2.522 and significance level of .053 for proactive strategic flexibility). Furthermore, under conditions of high industry dynamism, IT capabilities are more strongly related to proactive strategic flexibility (F value of 3.556 and significance level of .010 for proactive strategic flexibility, compared to F value of 2.430 and significance level of .054 for reactive strategic flexibility).

Table 2. Results of Overall Model Tests for Hypotheses 1a and 2a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.094	4	2.274	2.896	.031
Residual	39.255	50	.785		
Total	48.349	54			

Predictor: IT Capabilities; Dependent Variable: **Reactive** Strategic Flexibility
 Moderator: **Low** Environmental Dynamism
 R Square: .188; Adjusted R Square: .123;
 Std Error of Estimate: .886

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.615	4	2.904	2.522	.053
Residual	57.571	50	1.151		
Total	69.185	54			

Predictor: IT Capabilities; Dependent Variable: **Proactive** Strategic Flexibility
 Moderator: **Low** Environmental Dynamism
 R Square: .168; Adjusted R Square: .101;
 Std Error of Estimate: 1.073

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.520	4	2.130	2.430	.054
Residual	72.755	83	.877		
Total	81.276	87			

Predictor: IT Capabilities; Dependent Variable: **Reactive** Strategic Flexibility
 Moderator: **High** Environmental Dynamism
 R Square: .105; Adjusted R Square: .062;
 Std Error of Estimate: .936

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.853	4	2.963	3.556	.010
Residual	69.172	83	.833		
Total	81.025	87			

Predictor: IT Capabilities; Dependent Variable: **Proactive** Strategic Flexibility
 Moderator: **High** Environmental Dynamism
 R Square: .146; Adjusted R Square: .105;
 Std Error of Estimate: .913

With respect to hypotheses 1b, it was argued that under conditions of low environmental dynamism, certain IT capabilities, specifically for management of internal activities and the supply chain network, will be associated with greater reactive strategic flexibility. This hypothesis is partially supported. In periods of low environmental dynamism, the management of internal activities was the significant factor, showing a t value of 2.086 and a significance level of .042. However, management of the supply chain network was not significant.

Table 3. Results for Hypothesis 1b

Model	Coefficients		Beta	t	Sig.
	Unstandardized	Standardized			
Constant	3.506	.345		10.159	.000
IT Customers	9.753E-02	.084	.205	1.157	.253
IT Competitors	-4.763E-02	.114	-.067	-.419	.677
IT Internal Op.	.183	.088	.356	2.086	.042
IT Supply Chain	-4.513E-02	.088	-.080	-.513	.610

Dependent Variable: Reactive Strategic Flexibility
 Moderator: Low Dynamism

Hypothesis 2b argued that under conditions of high environmental dynamism, certain IT capabilities, specifically for management of customer and competitor information, will be associated with greater proactive strategic flexibility. This hypothesis is also partially supported. In periods of high environmental dynamism, the specific IT capability that was significant was management of competitor information, showing a t value of 2.068 and significance of .042. However management of customer information was not significant. See Table 4.

Table 4. Results for Hypothesis 2b

Model	Coefficients		Beta	t	Sig.
	Unstandardized	Standardized			
Constant	3.694	.367		10.067	.000
IT Customers	1.022E-02	.071	.019	.143	.886
IT Competitors	.135	.065	.256	2.068	.042
IT Internal Op.	.122	.077	.205	1.587	.116
IT Supply Chain	-1.209E-02	.063	-.023	-.192	.849

Dependent Variable: Proactive Strategic Flexibility
 Moderator: High Dynamism

Discussion and Conclusions

The current study has developed and tested a model measuring the impact of IT capabilities on both proactive and reactive flexibility, given the degree of environmental dynamism.

Indeed, this study has demonstrated a positive relationship. Specifically, in periods of low environmental dynamism, IT capabilities are associated with greater reactive strategic flexibility, whereas in periods of high environmental dynamism, IT capabilities are associated with greater proactive strategic flexibility.

Appropriate IT investments will create the capabilities, by improving a firm's information flow, knowledge flow, and organizational learning (Johnson et al. 2003), to be able to anticipate such changes. Such firms then will be able to "quickly perceive the need for change and make it happen" and to "(modify) their competitive positioning, (adjust) their value propositions and (target) different customer segments" Hatch and Zweig (2001, 45). Most importantly, however, this study goes deeper into investigating the nature of capabilities and environmental dynamism, and has revealed which specific aspects of capabilities are most significant depending on that environment.

During low turbulence, firms can react to environmental changes, and focus inwardly, perhaps developing more efficient processes and improving the value chain. Interestingly, IT capabilities enabling managing internal activities was significant for reactive strategic flexibility, but managing the supply chain network was not. The reason for this may reflect the limited influence that SMEs may have with suppliers. Smaller firms may be able to respond to the environment and address internal operations, but may have very little bargaining power with many of their suppliers. In this context, investing in IT capabilities to manage suppliers then may do nothing to increase flexibility. This may be particularly true if some of the suppliers of the SMEs are larger corporations.

Perhaps even more surprising was the fact that IT capabilities enabling management of competitor information for proactive flexibility was significant, but not management of customer information. It would seem that managing customer information should be essential for proactive strategic flexibility in a turbulent environment. Once again, the reason for this finding may be that SMEs simply do not possess the resources and sophisticated market research techniques to stay ahead of the curve on reading market changes, and instead may rely on anticipating the moves by their closest competitors. This may be particularly true if some competitors are larger firms that do study the market themselves. Because of limited resources, it may be easier for SMEs to focus on a couple of key competitors, perhaps those who are

capable of capturing substantial market share quickly, rather than try to read potentially confusing and contradictory signals from perhaps thousands of customers. In short, anticipating competitors may be the most affordable way for SMEs to anticipate where the market is going. This points to the potential importance for the development of a competitive intelligence literature specifically related to SMEs.

Limitations of the present research include variables selected for inclusion as well as other potentially relevant explanatory variables. This study, as a matter of necessity, limited the variables selected for examination. While the variables chosen were based on theory, the authors recognize that other variables related to IT capabilities could influence strategic flexibility. Therefore, including additional variables holds the potential to increase the explanatory power of models examined in this research.

Future research could assess the generalizability of findings for particular industries. Would different dynamics associated with specific industries alter the results observed in the present study? In addition, given that IT capabilities were significantly related to reactive flexibility under low dynamism while IT capabilities were significantly related to proactive flexibility under high dynamism, future research could focus on the differential influence of dynamism on other strategic constructs.

Future research can also explore the variables used in the present research and firm performance linkages. Further, an exploration of flexibility constructs as they relate to different capability domains beyond IT could be interesting. What other constructs might shed additional light as antecedents of reactive and proactive flexibility? Finally, the addition of other potential moderators that might influence the impact of capabilities on strategic flexibility would be beneficial.

In conclusion, there are important implications of this study. Clearly it is important for small firms to make appropriate IT investments in order to develop IT capabilities. It is also clear that such developments need to target specific aspects of capability-building given the degree of environmental dynamism. A more proactive stance necessitates superior ability to read competitor maneuvering while a more reactive stance can target internal efficiency. Hopefully this study has begun to shed some light on the importance of which IT capabilities are most critical given specific environmental conditions.

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Entrepreneurial Expansion Plans: An Empirical Investigation of Infrastructure Predictors

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Entrepreneurship and the development of new business continue to be the forefront of socioeconomic development in virtually all economies today. Despite evidence of increasing research into entrepreneurial growth, the existing research is limited by the fact that most studies define entrepreneurial growth as a unidimensional construct and operationalize it as “realized” growth relying on financially based measures. Consequently, this article has two objectives: (1) to develop a set of accurate and comprehensive entrepreneurial growth measures; and (2) to test a series of hypotheses regarding precursors of growth intentions—more specifically, to what extent, infrastructure factors affect entrepreneurial growth intentions. These two questions were examined using Entrepreneurial Profile Questionnaire (EPQ) in the context of Romania.

Results from factor analysis revealed refined patterns of entrepreneurial growth, including resource aggregation, market expansion, and technological improvement. The relationships between infrastructure and entrepreneurial growth were tested using a multiple regression model. Overall, it was posited that infrastructure is positively related to entrepreneurial growth. However, in most of the cases, the opposite proved to be true. These findings suggest that the Romanian entrepreneurs would pursue expansion plans in spite of the obstacles thrown into their path. Perhaps they have already developed strategies about overcoming those obstacles and in that process have developed the strength, ingenuity, and confidence to grow their new business ventures. Perhaps the many years that Romanians were confronted with numerous political and economical obstacles have prepared them to be much more flexible and adaptive. These counter-intuitive findings reflect on the hardiness and perseverance of the Romanian entrepreneurs.

Entrepreneurship and small businesses have been designated as the “engines of growth” generating more new jobs than corporate America not only by the job creating phenomenon in the United States (Birch 1987) but also in developing and privatizing economies across the globe. Governments and policymakers have become keenly aware of the economic development benefits that are derived from the establish-

ment and growth of entrepreneurial endeavors.

In recent years, enlightened public policy strategists have chosen entrepreneurship as the vehicle to grow their national economies and improve their citizens’ quality of life. One socialistic/centrally planned economy after another have folded their tents and adopted a free enterprise system, including China, India, South Africa, and Indonesia (Koveos and Tang 2007). Small business growth is emerging as a global phenomenon.

The collapse of the former Soviet bloc combined with an increasingly globalized economy has allowed the entrepreneurial driven small business to become a dynamic impetus of economic growth and progress. New ventures are forming at unparalleled rates, and the spirit that infuses them is reshaping economies around the world (Byrne 1993).

Carland et al. (1984) suggested that planned growth is an important method of differentiating entrepreneurs from small business owners. Their approach may actually provide a map through the maze, helping to uncover the essence of entrepreneurship. From their perspective, planned growth is seen as the variable that distinguishes small business owners who are often satisfied with the status quo (nongrowth oriented) from “real entrepreneurs.” Presently there is a general lack of understanding of how entrepreneurial growth intentions and expansion plans evolve and take shape. From an extensive review of the literature, few comprehensive theoretical models exist to help explain the processes or probe the influences associated with planned growth intentions.

Surprisingly, little theoretical, quantitative, and rigorous literature focuses on decisions of entrepreneurs to develop their firms (Ward 1993). One of the fundamental problems at hand is how entrepreneurial growth is defined. Brush et al. (2008) suggest that “often there is no consensus on definition so disagreements arise because of scholars’ roots in different disciplinary areas” (249). It is not necessarily limited to historical measures of sales, number of personnel, or profitability. New conceptual approaches focusing on growth intentions and enterprise expansion can also supplement historical theories. Entrepreneurial aspirations, willingness, intentions, motives, and expansion plans can be put forth to complement existing theories that describe small business growth via increases in sales, employees or profits.

Dunkelberg and Cooper (1982) have also argued that growth intention in and of itself, represents an important entrepreneurial characteristic. Other researchers have found entrepreneurial growth intention to be a key determinant of small firm growth. Birch (1987) argued that attitude rather than sector or location determines growth and success. Brown (1995) suggested that entrepreneurial growth intention had a positive impact on small firm growth. Wiklund and Shephard (2003) researched the relationship between growth aspirations and actual growth finding confirmation. Similarly Gundry and Welsch (2001) found that entrepreneurs with higher growth intentions actually grew faster. The expectancy theory (Vroom 1964) suggests that entrepreneurs will choose to grow their ventures if they believe their efforts will result in new venture growth. This is especially true if they have specific growth plans first introduced by Pistrui et al. (1997) as “implementable attributes of planned growth (IAPG) which identify nineteen specific growth behaviors.” This latter relationship is based on the principle of “instrumentality” (Manolova et al. 2007), which refers to the link between performance and specific desired outcome. While many entrepreneurship researchers believe that growth is as much a matter of attitude as it is of economic aggregates (Fox 1996), little evidence exists supporting either argument (Wiklund et al. 2003).

With entrepreneurs seen as the “engineers” of the engine of growth, the field calls for research investigating their behavior and examining how the growth process operates. In essence, the process starts with a vision, a plan, and an intention to undertake expansion initiatives in their entrepreneurial endeavor. In fact, Carland et al. (1984) have distinguished “real entrepreneurs” who have greater expansion plans and initiatives, from small business owners who are satisfied with either the status quo or lower growth rates. It is the rapidly growing “gazelles” (Birch 1987) that actually provide the majority of economic growth and the creation of most of the new jobs.

Entrepreneurial visions must be transformed into intentions, which in turn are the precursors of start-up behavior. Therefore, as researchers it behooves us to establish and measure accurate growth intentions and identify predictors which enhance or detract from these expansion initiatives. Thus, this article has two objectives: (1) to identify a set of accurate and comprehensive growth intention measures representing actual decisions, and (2) to test a series of hypotheses regarding precursors of growth intentions. More specifically, it examines how the infrastructure factors affect entrepreneurial growth intention.

The area of growth intentions promises to be a rich mine of explaining economic behavior since it captures the essence of entrepreneurship (Busenitz et al. 2006). Very little research has been completed in this arena since economists

have regarded the precursors of economic growth too behavioral and ill defined for their econometric models. If a preliminary model based on infrastructure relationships can be developed, more elaborate predictors can be added to help explain this economic phenomenon.

Literature Review

Different Streams of Research in Entrepreneurial Growth

Organization scholars have increasingly recognized the importance of the research of new venture (Eisenhardt and Shoonhoven 1990). Indeed, entrepreneurial growth has been seen as a valuable source of administrative and technological innovation, job creation (Birley 1986), and the competitive disciplining of industries (Scherer and Ross 1990). However, a coherent theory of entrepreneurial growth is lacking (Ardishrioloi et al. 1998), despite a series of micro (behavioral) and macro (strategic) perspectives.

There are several streams of research in the areas of entrepreneurial growth. The first stream, strategic perspective of entrepreneurial growth, is consistent with the tenet of strategic management and organization theory where there is considerable evidence that a firm’s strategy, structure, process, environment, and the interface between these variables influence entrepreneurial growth. Studies in this direction are mainly concerned with the predictors such as industry categories (Hay and Ross 1989), entry barriers (McDougall and Robinson 1988), environmental munificence and dynamism (Covin and Covin 1989), competitive strategy and structure (Covin and Slevin 1990), and the interaction between structural, cultural, and environmental factors (Fombrun and Wally 1989). For example, Cragg and King (1988) evaluated the relationship between a wide range of planning activities in small firms and various performance measures. Covin and Slevin (1989) found a systematic relationship between managerial orientation, strategic posture, and firm performance under different environmental contexts.

Related research in this area focuses both on the initial originating conditions of new ventures as well as the process of origination on their subsequent growth. For example, Duchesneau and Gartner (1988) found that emphasis on a number of formal planning models, including assessing the market, considering a number of functional areas, and devoting more time to planning, were all related to entrepreneurial growth. Research in this direction confirmed that networks may impact not only the process of origination, but also the later practice and growth of the business. There is also a long tradition of studying the financing of new firms—a part of the entrepreneurial process that is clearly central to the assembly of resource. Studies in this direction are mainly concerned with the influence of the amount of initial capital and the sources of the capital on subsequent entrepreneurial

growth (Ahlstrom et al. 2004; Bruno and Tyebjee 1984; Dunkelberg et al. 1988).

While research in this direction illuminates the usefulness of certain activities and strategies in relation to entrepreneurial growth, they fall short in providing policy guidelines regarding how to promote entrepreneurial growth at the macro, or policy level.

The second stream of research, an organizational life cycle perspective, is based on the organizational stages of the growth hypothesis (Greiner 1972). These studies of entrepreneurial growth often apply a life-cycle analogy to organizations that assumes firms pass through a predictable sequence of stages as their product markets enlarge. For example, Scott and Bruce (1987) and Churchill and Lewis (1983) developed five stages of small business growth, including inception, survival, growth, expansion, and maturity. More recently (Chadha 2007) developed a model with four stages: exploration, launch, growth, and evolution. Studies are concerned either with the characteristics of entrepreneurial growth in various predetermined stages of growth, or with validating the stages of growth model. Because entrepreneurial growth may be neither orderly nor sequential, these studies, descriptive in nature, are also limited in generating guidelines for promoting entrepreneurial growth.

The third stream of research, the micro, behavioral perspective is primarily concerned with the characteristics of individual entrepreneurs, including their experience, their education, and their psychological makeup such as need for achievement, locus of control, risk-taking behavior, sacrifice, motivation, etc. For example, Bailey (1986) found that a certificate of education or trade qualification was related to a higher index of growth for his sample of 67 Australian entrepreneurs. Individuals' breadth of experience, functional experience, and management experience tend to be viewed as one of the major predictors of entrepreneurial growth (Davidsson 1991). The literature on the psychological characteristics of entrepreneurs demonstrates the diversity of approaches used by different researchers. In their literature review, Cooper et al. (1994) found that 31 different attributes such as sacrifice, motivation, intensity, and risk-taking behavior have been investigated for their relationship to entrepreneurial growth. Overall, research findings in this direction have been extremely inconsistent and contradictory, especially most of those studies narrowly focusing on the independent effect of the psychological make-up of entrepreneurs. More recently, Baum and Locke (2004) found that performance was related to goal setting, self-efficacy, and communicating vision.

Theoretical Limitations

Our literature reviews suggest several major limitations of current research in entrepreneurial expansion. First, simple

treatment of entrepreneurial growth measures seriously hampers model predictability, which contributes to conflicting results across existing studies. Consistent with the assessment of Hoy et al. (1992), we found that most studies define entrepreneurial growth as a unidimensional construct operationalized by a variety of growth measures ranging from increases in venture capital and market share to growth in sales revenue, accounting-based return on investment (ROI), or number of employees. One major problem of these measures is that new business ventures oftentimes do not exhibit monotonic sales growth. Therefore single-year sales or employment growth figures may capture aberrations not representing the true health of the firms. Conversely, if a researcher uses growth averages, such aggregated statistics again fail to capture complex growth patterns across time and may not accurately reflect the firm's current growth. Another problem with the financially based measures such as ROI and ROA, is that the data can be heavily influenced by decisions about owner-manager's compensation as well as industry margins. The upshot of this variety of measures is that comparability across studies is difficult. This is one of the reasons that little cumulative research can be identified in this area. Since longitudinal studies are often not possible, concurrent measures of growth intentions may more accurately reflect the near terms operational behavior of the firm.

Secondly, most studies measure "realized" growth, which may fail to capture entrepreneurial growth in resources bases, technology improvement, and even market expansion. Entrepreneurial growth in these aspects would not necessarily be reflected in current sales or profit figures of a business venture. Whereas these measures may be "final outcomes," it is necessary to ask the question about how these final objectives are achieved. A set of "implementable attributes," which are "intentions-based" measures, are called for. Bringing growth intentions down to a set of actual decisions with a timetable for implementation is viewed as being both realistic and timely.

In fact, researchers in the entrepreneurship arena already took note of the lack of reliable, valid, and meaningful growth measures hampering researchers' effort (Chandler and Hanks 1993). Block and Wagner (2006) found that performance was affected by how the entrepreneur came into his or her profession, such as by necessity or by opportunity. Since the literature does not categorize growth performance by motives, little faith can be placed on its measurement. Bygrave (1989a,b) criticized existing growth measures, lamenting the use of simple accounting-based measures that do not deftly fit "disjointed, discontinuous, and the non-linear process" of emerging businesses. Low and MacMillan (1988) also appealed to researchers to use concepts, measures, and methods grounded in theory and knowledge of entrepreneurial phenomena and called for a

contextual and process-oriented approach in developing measures. They viewed the development of reliable, valid, and meaningful growth measures as imperative to explaining and facilitating entrepreneurial growth. Surprisingly, little effort has been devoted to this directive so far.

Thirdly, the essential question of the extent to which infrastructure impacts entrepreneurial growth remains largely unanswered. This question is not quite as simple as it might appear, since we are interested in the impact of a wide range of infrastructure elements on entrepreneurial growth. Accepting the view of entrepreneurial growth as a multidimensional construct, we might expect some variance in the impact of different infrastructure conditions on various dimensions of entrepreneurial growth. A key research question should be: Are certain elements of infrastructure more relevant to certain types of entrepreneurial growth? Or, are other infrastructure elements less critical to certain types of entrepreneurial growth? What combination(s) of infrastructure element would maximize the potential of entrepreneurial growth? The answers to these questions will also have important strategic implications for policymakers formulating different infrastructure strategies to foster entrepreneurial growth. Research in this direction would also fill several gaps of the entrepreneurship literature and enhance our understanding of the role of macro, contextual factors in entrepreneurial growth.

Consequently, this study attempts to address the following two questions. First, what are the different dimensions of entrepreneurial growth? And secondly, to what extent, are the different dimensions of entrepreneurial growth affected by infrastructure factors. This question has been recently investigated in China (Ahlstrom et al. 2004) and Turkey (Kozan et al. 2006). It is of particular interest to policymakers in developing countries moving to a free enterprise economy.

Research Model and Hypothesis Development

Infrastructure and Entrepreneurial Growth

Theoretically, there are two sources where infrastructure factors can affect entrepreneurial growth. On the one hand, infrastructure conditions can have great impact on the functioning of business ventures that are already in operation. Within organizational research, the environment has often been viewed as the source of resources necessary for survival and growth (Dess and Beard 1984; Pfeffer and Salancik 1978). For example, business, informational, and financial services provided by the government have been viewed as important factors in stimulating entrepreneurial growth. On the other hand, infrastructure conditions will also affect the new ventures' structure, processes, and strategies at the time of their founding. The population ecologists argue that new firms are imprinted at the time of founding and this imprinting has

lasting effects on subsequent strategy, structure, and performance due to organizational inertia. The external control theorists suggest that organizations are imprinted by the environment at the time of founding in a manner that impacts their subsequent development and performance. This approach suggests that the ability of the new venture for growth may be determined by the external contextual factors that are outside the control of the entrepreneur (Aldrich 1990). Surprisingly, the effect of infrastructure on entrepreneurial growth, as a source of resource and environment imprints, has received little empirical attention so far.

Hypothesis Development

Entrepreneurial growth and development is affected by a myriad set of variables. One set of variables included in many predictive models are those based on the individual entrepreneur and his or her personal characteristics, such as personal drive, creativity, or initiative. However, individual personal characteristics are by themselves not strong enough predictors when they get swept away by macroeconomic forces (such as inflation or lack financing) or political forces (such as socialism or corruption/bureaucracy).

The research reported here focuses on a more "macro" approach, incorporating "infrastructure" variables as predictors of entrepreneurial expansion. Administrators of transition economies such as Romania are anxious to find "what works" and should be willing to provide various types of infrastructural support to encourage entrepreneurial growth. In their experimentation process, they will vary the amount and proportion of public resources available in fine-tuning the national allocation to achieve an optimum balance. Public policy therefore focuses on such important infrastructure programs as providing government assistance and business support services. Other "durable" or "hard goods" are adequate physical facilities and financial support. "Softer" elements such as the backing and support from harmonious family relationships also play an important role in encouraging entrepreneurial expansion. Another set of predictors includes informational services that provide entrepreneurs the knowledge to grow and expand. Each item alone is an important predictor, but taken together, they could provide an important policy thrust to encourage entrepreneurial expansion.

Government Assistance. Government agencies and programs such as the Small Business Administration (SBA) and the Small Business Development Center (SBDC) program in the United States are two good examples of how government can encourage small business expansion. It is often to the government's economic advantage to grow businesses thereby increasing their tax base and revenues. It also adds to the general well-being and quality of life of its citizens ("It's the economy, stupid!") which enhances politicians' election potential.

Hypothesis 1: The greater the government small business assistance, the greater the entrepreneurial expansion plans.

Business Support Services. Entrepreneurs alone cannot carry out complex expansion plans without some support from professional business services. They help shine the way along the path of risk and uncertainty. They encourage, answer difficult questions, conduct research, and provide professional advice. Their guidance, reasoned input, and past experience across various industries help focus the vision of the entrepreneur to expand his or her business.

Hypothesis 2: The greater the use of business support services, the greater the entrepreneurial expansion plans.

Family-Business Harmony. A family locked in conflict, pulling the wagon in several different directions, cannot hope to effectively expand its business. As in any complex undertaking, the concerted effort of every family member is required to pull off a common effort that external forces (competitors, competing projects) attempt to thwart. Sacrifices, moral support, encouragement, and family resources are required to complete the complex process of business growth.

Hypothesis 3: The greater the family business harmony, the greater the entrepreneurial expansion plans.

Physical Facilities. For growth activity to happen, it must be housed in a physical location that allows for expansion and flexibility. Warehouses, distribution facilities, factories, retail locations, manufacturing sites with offices, and managerial/technical staff are required. The existence of these physical facilities implies that they are sturdy, up-to-date, and secure to survive the wear and tear that invariably occurs during expansion stages.

Hypothesis 4: The greater the availability of physical facilities, the greater the entrepreneurial expansion plans.

Financial Support. Although barter exists as a medium of exchange in Romania, it is increasingly relying on financial resources for its expansion plans. Whether it is from foreign investment, government supported banks, family savings, joint ventures, or silent partners, Romanian businesses are becoming more Westernized with respect to their financing mechanisms. Creative and unusual methods of financing have come into play in expanding their business.

Hypothesis 5: The greater the availability of financial support, the greater the entrepreneurial expansion plans.

Informational Services. In the age of uncertainty and turmoil during the transition economy stages, it is increasingly important to provide accurate information for expansion planning. Information is essential to allow entrepreneurs to make aggressive leaps across the chasms of the future rather than short, incremental steps. Information is the trusted resource that allows for the building of bridges to the future. Libraries, universities, consultants, government offices, suppliers, and even family and friends contribute to the pool of knowledge that allows the entrepreneur to apply it to the design of growth strategies.

Hypothesis 6: The greater the availability of information services, the greater the entrepreneurial expansion plans.

Based on the rationale of these arguments and the previous literature, it is predicted that these six variables will explain a significant proportion of the variance in expansion plan endeavors. It is anticipated that the effects of these are cumulative, and work in concert to move the economy forward. It is also recognized that infrastructure alone is not the sole answer to explain why entrepreneurs grow their business, but it is an important, major set of elements that when taken together, contribute significantly to unraveling the mystery and filling in the gaps in our knowledge.

Research Design

Survey Instrument

The Entrepreneurial Profile Questionnaire (EPQ) was utilized as the data collection instrument. The EPQ was designed to survey the effect of individual, societal, and environmental factors on entrepreneurial expansion plans. From an individual perspective, the most vital aspects of the entrepreneur including his or her attitudes, beliefs, motivations, and opinions were captured. The role of social groups including the relationships of family and personal networks was also captured. The EPQ allows for the measurement of vital facts related to socioeconomic environment factors such as demographic information as well as the level and the type of environmental velocity found in society.

The EPQ was successfully piloted and validated through a series of studies in Russia, Poland, the Czech Republic, Hungary, Lithuania, Estonia as well as South Africa, Mexico, and the United States. The EPQ is an established research instrument which includes demographic, financing, motives, sacrifices, commitment, obstacles, information sources, and implementable attributes of planned growth among other

variables (Kozan et al. 2006; Liao et al. 2001; Pistrui et al. 2000; Pistrui et al. 1997; Welsch and Roberts 1994; Young and Welsch 1993) and has been adopted and administered in more than two dozen field sites/countries with documented validity and reliability. The research of the Romanian entrepreneurs is part of an ongoing cross-sectional project of investigating factors affecting entrepreneurial expansion in transforming economies. The EPQ was professionally translated and edited into Romanian, pretested, and then retranslated to clear up ambiguities or idiosyncratic terminology.

Operationalization of Entrepreneurial Growth: The Dependent Variable

Questionnaire items were constructed based on how an entrepreneur actually thinks and behaves. His or her intentions to grow the business are actually implemented through a wide range of actions and decisions within the working environment. By probing through interviews and having these decisions enunciated, the research team was able to construct the items and processes in which entrepreneurs actually engaged. Respondents were identified in nine cities through registrations with chambers of commerce. Because of difficulties anticipated regarding low response rates and the postal system, it was decided to personally interview, provide orientation, and administer the EPQ. This assured researchers a completed instrument based on clarifications provided to the respondents by a trained researcher. These growth items were actually condensed and summarized from a wider range of behaviors. Eighteen items were identified as representing a fairly comprehensive collection of decisions that entrepreneurs actually implemented. A series of complementary studies in different cultural/geographic settings confirmed the accuracy of these measures. These sites included Russia, Hungary, Poland, Estonia, Lithuania, Mexico, East Germany, and India. Entrepreneurial growth included the following dimensions:

- Computerizing current operations
- Upgrading computer systems
- Adding specialized employees
- Redesigning layout
- Offsite training of employees
- Redesigning operating methods
- Seeking additional financing
- Seeking professional advice
- Expanding scope of operating activities
- Adding a new product or service
- Selling to a new market
- Adding operating space
- Expanding distribution
- Expanding advertising and promotion
- Researching new markets

- Acquiring new equipment
- Replacing present equipment
- Expanding current facilities

Research Site: Romania's Privatizing Economy

To find a research site where the infrastructure of the economy was not yet fully developed, Romania was chosen since infrastructural elements of its privatizing economy were only yet evolving and had not yet been finalized. The research approach in this manner allowed new entrepreneurs to experience deficiencies that would be identified as lacking, as well as report those elements that were operating satisfactorily. Thus, the set of independent variables would have a wider distribution than say a fully developed economy with a more complete infrastructure in place. Romania provided the perfect regional context wherein entrepreneurs emerge, innovate, and establish new economic activities that drive economic growth.

A major assumption of the present research is that one of the greatest obstacles prohibiting the growth of entrepreneurship and private enterprise is an inadequate infrastructure. Romania's transportation, communication, and lagging financial institutions made private sector enterprise development difficult. Although some post-depression legislation supported entrepreneurship, the emerging nationalistic-fascist movement during the same period favored state control of enterprise (Pistrui 1999).

During the latter years of Communism, the state controlled in excess of 90 percent of the economic resources in Romania. The centralized state control continued to invest in heavy industry at the expense of consumer goods and agriculture. The country's infrastructure continued to lag behind what was required. The only sign of entrepreneurship appeared during the early days of the Ceausescu era in 1967 when the state permitted some private shops, restaurants, and boarding houses. This was short lived and a pacifying ploy aimed at both the West and the Romanian people themselves.

Romania and the emerging markets of the former Soviet bloc are rich in opportunity, but also, because of the political instability associated with transition, extremely volatile and risky. The lack of managerial training and competent employees seem to act as barriers to entrepreneurial growth and development. However, technical assistance, market information, legal services, transportation, and banking services seem to be making some headway in supporting the privatizing economic sector.

Thus, some infrastructural elements are being put in place, while others are still missing. There are many lessons to be learned in Romania as to which of these services are providing the most opportunity for entrepreneurs to develop

their business. The goal of this research is to identify and document which of these elements (if any) enable entrepreneurs to move forward in Romania.

Data Collection and Sampling Procedure

A sample representing wide selection of new business ventures across a variety of geographic areas as well as industries was taken. A cluster sampling technique was utilized to collect data from eight urban centers throughout Romania, including Bucharest, Brosov, Timisoara, Cluj-Napoca, Contanta, Arad, Craiova, and Galati. Business ventures were randomly selected from the client list of Romanian Small Business Development Center (SBDC) as well as from the local chamber of commerce private enterprise databases.

Personal interviews rather than random survey as the primary method of data collection was chosen for the following reasons. First, in a transforming economy like Romania, private business ventures are at the very early stage of development. In this situation, the interview method enhances the validity and reliability of the sample data. Secondly, the experience of Romanian research counterparts suggested a very low response rate for survey research. Two Romanian universities, the Academy of Economic Studies-Bucharest (ASE) and the Polytechnic University of Bucharest (PUB), assisted in the data collection process. Both ASE and PUB have an excellent network of contacts throughout Romania. A team of 30 Romanian scholars was assembled from both institutions. The research team members were familiarized with the EPQ and trained in the interview method. They were sent to each major urban center to conduct interviews with entrepreneurs who recently started their businesses. A total of 405 filled questionnaires was returned.

Test of Sample Randomness by Different Industrial Groups

One question that arises from the interview data collection approach is whether there is a random sample and to what extent the empirical findings from our research can be generalized to the population level. ANOVA was used to test if there was any sample bias in the convenience sample. As indicated in Table 1, the sample was grouped by different industries, which is the categorical variable in our model and company size measured by the number of employees as the dependent variable.

The ANOVA tests indicate that the group variable, industrial classification, is not a predictor of firm size, suggesting that we have a fairly reasonable unbiased sample even though a random procedure was not used in the sampling process.

Validation of Measurement: Factor Analysis

Both entrepreneurial expansion plan and infrastructure items were factor-analyzed. The factor analysis produces a clear

Table 1. ANOVA: Industrial Classifications as Categorical Variable and Size of Company by Number of Employees as Dependent Variable					
<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>Degree of Freedom</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig. Of F</i>
Main effect					
Size of company	5199.907	8	649.988	1.528	0.147
Explained	5199.907	8	649.988	1.528	0.147
Residue	115736.449	272	425.502	1.528	0.147
Total	120936.356	280	431.916		

structure with items loading on the appropriate factors, with only a few items being deleted because of low or incorrect loading. Results from the factor analysis of entrepreneurial growth reveal three factors—resource aggregation, market expansion, and technology improvement—which explain 60 percent of cumulative variance and demonstrate excellent validity (Table 2). Additionally, internal reliability tests showed strong Cronbach alphas ranging from 0.6744 to .8986.

Factor analysis of the independent variable, infrastructure, unveils six dimensions, including government assistance, business support services, family-business harmony, physical facilities, financial support, and informational services (Table 3). In total, these factors account for 60.1 percent of cumulative variance. Cronbach alphas for each of the factors ranged from 0.7034 to 0.8952, indicating excellent internal reliability.

For both dependent and independent variables, factor scores instead of summated scales were chosen and computed because of the desire of orthogonality of the measures in subsequent multiple regression analysis.

Method of Testing

The proposed hypotheses were tested using multiple regression models as indicated below. These regression models tested to what extent the six infrastructure dimensions affect entrepreneurial expansion, including resource aggregation, market expansion, and technology improvement. The standardized b_1 would indicate the relative importance of each factor in determining the entrepreneurial growth.

- (1) Resource aggregation = $a + b_1 * \text{Business support service} + b_2 * \text{Family and business harmony} + b_3 * \text{Financial support} + b_4 * \text{Government support} + b_5 * \text{Informational service} + b_6 * \text{Physical facility} + e$
- (2) Market expansion = $a + b_1 * \text{Business support service} + b_2 * \text{Family and business harmony} + b_3 * \text{Financial support} + b_4 * \text{Government support} + b_5 * \text{Informational service} + b_6 * \text{Physical facility} + e$

Table 2. Factor Analysis of Entrepreneurial Expansion Plan

<i>Dimensions</i>	<i>Factors</i>		
	<i>Resources Aggregation</i>	<i>Marketing Expansion</i>	<i>Technology Improvement</i>
Computerizing current operations	.67562	.16080	.39686
Upgrading computer systems	.75169	.13081	.35209
Adding specialized employees	.50997	.28878	.39490
Redesigning layout	.70612	.15634	.20802
Offsite training of employees	.63702	.18472	.28599
Redesigning operating methods	.77669	.10429	.19011
Seeking additional financing	.68532	.20874	-.04473
Seeking professional advice	.71995	.20976	.07246
Expanding scope of operating activities	.49574	.16172	.38090
Adding a new product or service	-.00030	.70851	.11896
Selling to a new market	.25643	.71719	-.00919
Adding operating space	.08556	.64224	.16052
Expanding distribution	.27710	.77900	.10915
Expanding advertising and promotion	.30434	.63887	.10803
Researching new markets	.32797	.49908	.05801
Acquiring new equipment	.19302	.13472	.72805
Replace present equipment	.39722	-.09928	.65728
Expand current facilities	.05007	.33438	.75644
Cronbach α	.8986	.7879	.6744
Cumulative variance explained by the three factors: 59.9%			

(3) Technological improvement = a + b1 * Business support service + b2 * Family and business harmony + b3 * Financial support + b4 * Government support + b5 * Informational service + b6 * Physical facility + e

Results and Discussion

The results of the regression analysis are summarized in Table 4 and Figure 1. Overall, all regression models are statistically significant. The six dimensions of infrastructure explained 43 percent of total variance of entrepreneurial expansion. However, there is significant disparity of the R square for each model. More specifically, infrastructure accounted for 26.9 percent of the variance of growth through resource aggregation, 11.46 percent for growth through market expansion, and 4.62 percent for technology improvement. This suggested that in a transition economy like Romania the impact of infrastructure on market expansion and technology improvement is limited. It is resource aggregation that is the dominant source of entrepreneurial growth (Figure 2).

At this stage of Romanian entrepreneurial development, policymakers need to focus on infrastructure resources that will facilitate resources aggregation and reconfiguration, rather than target technology improvement. Therefore, policymakers need to take into consideration the existing dominant pattern of the current stage of entrepreneurial growth as they

select the combination of infrastructure resources that can be offered to entrepreneurs.

Results from Model I (Table 4) indicate that business service and financial support have significant negative impact on resource aggregation in Romania, contrary to our hypothesized directions (H1, H4). Findings from Model I also demonstrate that information service is positively associated with resource aggregation, consistent with our hypothesis. The impact of family-business harmony on resource aggregation is positive as predicted, but statistically insignificant. To our surprise, government support has a negative impact on the resource aggregation of Romanian entrepreneurs, even though the impact is statistically insignificant. These findings suggest that Romanian entrepreneurs continue to expand despite the lack of business services and financial support. They tend to find innovative ways to deal with the unavailability of business service and financial support. Nevertheless, information services provided by the Romanian government do play an important role in resource aggregation. In a transition economy like Romania, the government information service is the primary source of information which entrepreneurs rely on to optimize the utilization of their resources.

Results from Model II show three infrastructure factors—business services, government support, and information

Table 3. Factor Analysis of Infrastructure Obstacles

<i>Dimensions</i>	<i>Factors</i>					
	<i>Business Service</i>	<i>Government Support</i>	<i>Financial Support</i>	<i>Family and Business Harmony</i>	<i>Physical Facilities</i>	<i>Informational Service</i>
Lack of distribution channels	0.4364	0.2273	0.4117	0.0970	0.2387	0.0510
Lack of market information	0.6496	0.2329	0.0060	0.0512	0.1540	0.3424
Lack of sources of technical assistance	0.7358	0.1074	0.1300	0.0626	0.1591	0.1687
Lack of managerial services	0.8201	0.1767	0.0769	0.1062	0.0810	0.1308
Lack of employees trained in financial affairs	0.7527	0.1749	0.2155	0.1945	-0.1158	-0.0865
Lack of employees trained in marketing	0.8114	0.1455	0.1294	0.1271	-0.0180	0.0268
Lack of legal services	0.5434	0.3961	0.3845	0.1477	0.0029	0.0739
Lack of international trading information	0.7344	0.1583	0.0807	0.0029	0.1385	0.1736
Lack of clear regulations re. Private entrepreneurship	0.2100	0.5447	0.2428	-0.1711	0.1988	0.3322
Negative attitude toward profit making	0.2358	0.4697	0.4279	0.1888	0.0696	-0.0169
Corruption	0.1389	0.6289	0.3105	-0.0328	0.0469	0.1462
Anti-market attitudes and behavior by government	0.0890	0.7697	0.2415	0.1015	0.0155	-0.0184
Government assistance agencies	0.2936	0.5012	0.3043	0.1407	0.0268	-0.1364
Bureaucratic red tape	0.2685	0.6893	-0.0436	0.0887	0.2966	0.1184
Roads	0.1971	0.6697	-0.1861	0.2384	0.2007	-0.0216
Lack of security	0.2933	0.5093	0.3430	0.1904	-0.0032	0.0222
Obtaining a loan	0.1401	0.1431	0.6217	0.0680	0.4334	0.0686
Extension of credit form suppliers	0.0913	0.0447	0.5891	0.2608	0.0097	0.0932
Lack of access to capital	0.1452	0.2308	0.6098	-0.0770	0.1644	0.2993
Scheduling business and family activities	0.1005	-0.0239	0.1857	0.6604	0.1001	0.0666
Fatigue from long hours	0.0772	0.0610	0.1641	0.6841	0.0587	0.0640
Bearing the entire risk of start-up	0.0041	0.1143	-0.1602	0.6685	0.0884	0.2202
Finding enough time to spend with my children	0.1137	0.0212	0.2549	0.6263	-0.1377	0.0987
Finding a good location	-0.0031	0.1008	0.0975	0.0522	0.8200	0.0248
Storage/warehouses	0.3021	0.3812	0.0608	0.2475	0.4621	-0.0679
Construction costs	0.2069	0.2045	0.3806	0.0115	0.5374	-0.0829
Lack of guidance and counsel	0.1967	0.0235	0.1074	0.3202	-0.1105	0.7462
Lack of knowledge of relevant information sources	0.2491	0.0780	0.1332	0.2170	0.0254	0.7937
Cronbach α	0.8952	0.8521	0.7034	0.7125	0.8149	0.7176
Cumulative Variance explained by the six factors: 60.1%						

services—are all negatively related to market expansion, contradictory to our hypotheses. Consistent with our prediction, market expansion is positively affected by physical facilities. The findings suggest several interesting observations. First, Romanian entrepreneurs did not rely on the government’s business services, support, and information services to seek market expansion. Second, because the dominant growth pattern of Romanian entrepreneurs is resource aggregation, only a small number of Romanian entrepreneurs realized the importance of intangible resources such as information and business service in market expansion. It is no surprise that they tend to focus on tangible factors such as physical facilities. These findings shed additional light on the assessment of the growth pattern of Romanian

entrepreneurs. Third, Romanian entrepreneurial growth in term of market expansion is not hampered by the lack of legal services, lack of technical assistance or lack of information services. In another words, Romanian entrepreneurs commit to market growth despite the obstacles in the business and information service area.

Results from Model III indicate that growth through technology improvement is positively affected by business-family harmony and information services, and again negatively related to government support. These findings suggest the following. First, family support is critical because growth through technology improvement is riskier than other growth alternatives such as resources aggregation and market expansion. Lack of basic business services and a shortage of venture cap-

Table 4. Summary of Regression Analysis

Models (dependent Variables)	Model I		Model II		Model III	
	Resources Aggregation		Market Expansion		Technological Improvement	
	<i>b_i</i>	<i>T</i>	<i>b_i</i>	<i>T</i>	<i>b_i</i>	<i>T</i>
Independent Variables						
Business Service	-.4056	-8.682***	-.1680	-3.251***	-.0090	-.172
Family-Business Harmony	.0435	.922	.0420	.804	.1161	2.191**
Financial Support	-.2817	-5.960***	.0759	1.452	.0461	.868
Government Support	-.0116	-.251	-1.032	-2.023**	-.1310	-2.532**
Informational Service	.1416	3.039***	-.2438	-4.729***	.1074	2.053**
Physical Facilities	.0643	1.345	.0991	1.875*	-.0356	-.664
Multiple R	.5186		.3385		0.2149	
R Square	.2690		.1146		0.0462	
Adjusted R Square	.2561		.009		0.0294	
F	20.9064***		7.3553***		2.7506**	

*a=0.1
**a=0.05
***a=0.01

ital in a transition economy require Romanian entrepreneurs to rely on the first and last resort—their family—for physical, financial, and emotional support. Second, Romanian entrepreneurs who relied on technology improvement as source of growth indeed recognized the importance of information services.

The impacts of financial support on market expansion and technological improvement are positive, but statistically insignificant. Surprisingly, we found that resource aggregation is negatively affected by financial support. These findings suggest that entrepreneurial growth in the form of market expansion and technological improvement would not necessarily have to rely on financial support. On the contrary, lack of financial support leads entrepreneurs to rely on expansion through reconfiguring existing resource bases.

The results in Table 4 also demonstrate the overall negativity of entrepreneurs toward government support and business service. In all growth models—resource aggregation (I), market expansion (II), technology improvement (III)—Romanian entrepreneurs regard government support and business service as negative factors, rather than positive factors as mainstream theories would predict. Such negativity

can be easily explained by the negative experience that Romanian entrepreneurs had in the past under the Ceausescu’s heavy-handed, central-planned economy. To a certain extent, they equate government intervention with government support.

The results also highlight the importance of family-business harmony in the entrepreneurial growth of Romania. In all three growth models, family-business harmony is positively related to technology improvement, resource configuration, and market expansion, despite that their impacts on the latter two are moderate and statistically insignificant. Nevertheless, it implies that family support is critical when a riskier expansion strategy like technology improvement is chosen.

Overall, infrastructure factors were hypothesized to be positively related to entrepreneurial expansion. However, in 6 of 10 cases, the opposite proved to be true. These findings suggest that Romanian entrepreneurs would pursue expansion plans in spite of the obstacles thrown into their path. Perhaps they have already developed strategies about overcoming those obstacles and in that process have developed the strength, ingenuity, and confidence to grow their new business ventures. Perhaps the many years that Romanians were confronted with numerous political and economical obstacles, have forced them to become more resourceful, flexible, and adaptive. This counterintuitive finding reflects on the hardiness and perseverance of the Romanian entrepreneur.

Conclusions

The findings reported here have important implications for policy-makers. Entrepreneurs may not necessarily pursue the three elements of growth and expansion in the same proportion as advocated by government directives. Also, government officials may not realize that economic growth and expansion can be compartmentalized and refined into various categories as these data would suggest. Since this is only the first pass at these data, it is possible that there could be a fourth and a fifth category that may have eluded capture. Nevertheless, the research raises an important question as to which group, government or entrepreneur, is leading the other. Is government more enlightened in pursuing economic development nationally or is the entrepreneur more enlightened in pursuing his or her economic self-interest individually?

This study also suggests that families, as a unit, are a powerful force as a network for collecting information and resources for the entrepreneur, not only as important resource providers for business expansion efforts, but also as a significant sociopolitical force in thwarting government efforts to move the economy in certain directions unsanctioned or unapproved by family leaders. Such behaviors

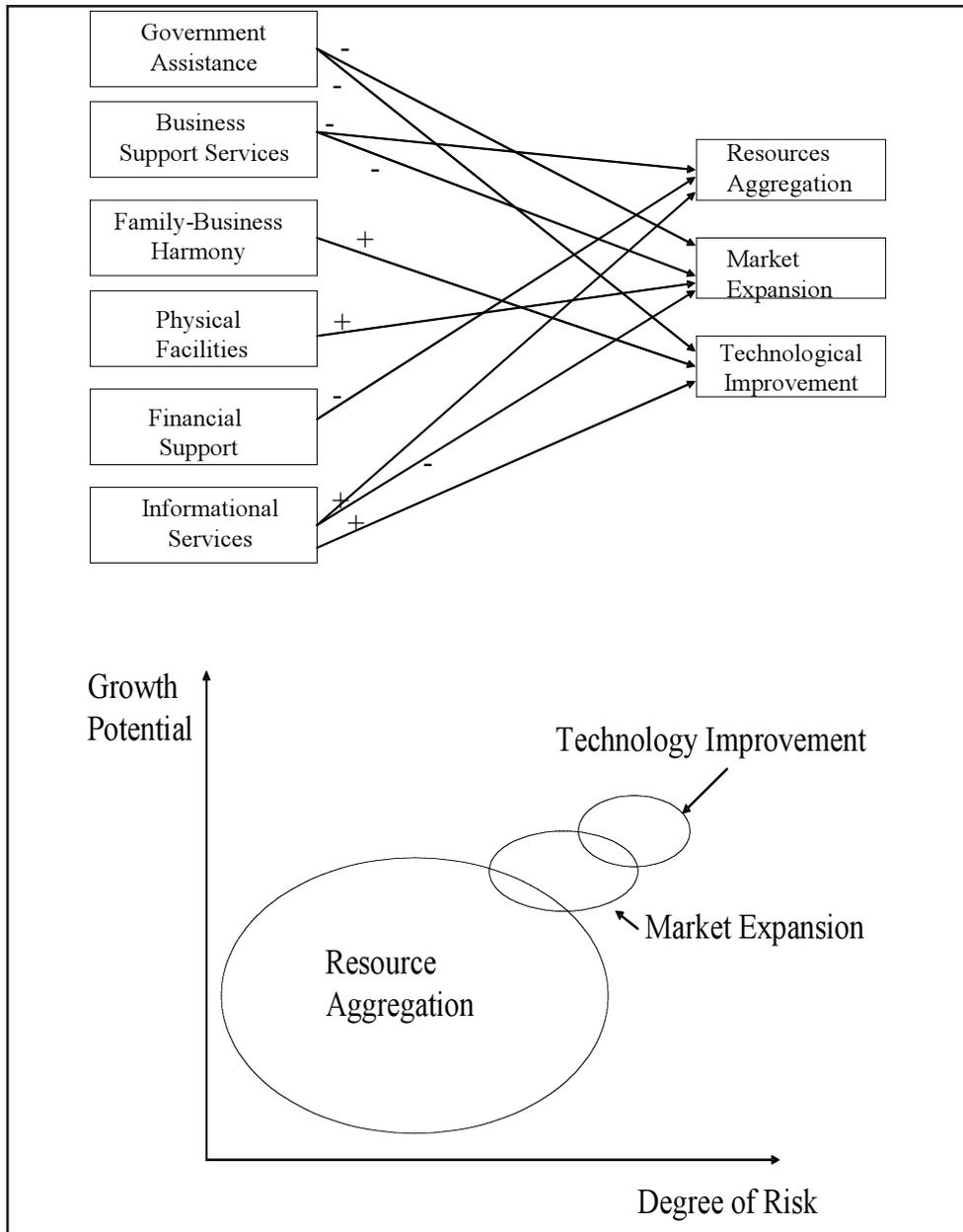


Figure 1. The Effect of Infrastructure on Entrepreneurial Expansion Plans

clearly show the flaws and weaknesses of command economies.

The study also suggests that intentions serve as a powerful force in economic behavior. Even though intentions are the best predictors of planned behavior, surprisingly little attention has been paid to categorize entrepreneurial expansion based on intention. As measures become more accurate and comprehensive, the predictive power of intention-based models will be enhanced.

The major conclusion of this study of Romanian entrepreneurs suggests there is no unitary way of promoting entrepreneurial growth. The effects of infrastructure on the three

dimensions of entrepreneurial expansion vary significantly. Therefore, policymakers need to formulate various infrastructure strategies, contingent on the dominant pattern of entrepreneurial growth being sought. Expansion in terms of resource aggregation and technological improvement is mostly determined by the quality of information service, while market expansion is most affected by physical facilities. Economic planners may want to recognize the contingent nature as well as the refinements in expansion planning identified in this study. In extending these findings, plans should be made to test this model in several different national settings.

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The Entrepreneurial Motivations of Nonemployer Entrepreneurs

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A nonemployer business is one that has no paid employees. The number and revenues of nonemployer businesses are increasing at a faster rate than other businesses, and they are an increasingly important alternative to other forms of entrepreneurship. Yet very little is known about these businesses. This study uses a survey of 1,600 MBA alumni to compare the entrepreneurial motivations of nonemployer entrepreneurs to conventional entrepreneurs and no entrepreneurs. The findings indicate that nonemployer entrepreneurs differ in important ways, and future research is needed to understand more fully this large and important group of entrepreneurs.

Although there are many studies of entrepreneurs and business owners, rarely do those studies focus on those who own a nonemployer business. Likewise, studies of business ownership seldom make a distinction between employer and nonemployer businesses. This is somewhat surprising, since according to 2002 Census data, there are 17.6 million nonemployer businesses, representing an increase of 2.2 million in the last five years. In addition, nonemployer businesses generated \$770 billion in annual revenues in 2002, a 31 percent increase since 1997 (U.S. Census 2004). The number of nonemployer establishments and their revenues grew at a much faster rate than employer businesses (U.S. Census 2004). The U.S. Census Bureau, which gathers data on nonemployer businesses from IRS tax forms, defines a nonemployer business as follows:

A nonemployer business is one that has no paid employees, and has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes. Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner's principal source of income. Many nonemployer businesses are part-time ventures, and an individual might operate more than one. (U.S. Census 2004: 8)

Nonemployer businesses are becoming increasingly important as the economy adjusts to the layoffs of the past

decade. Some have noted that the increase in nonemployer businesses is partly the result of older dislocated workers, who now have the means to finance a new venture and have lost the motivation to search for employment (Rigsby 2002). Nonemployer businesses are also often started by younger entrepreneurs, who benefit from the inexpensive start-up costs often associated with Web-based new ventures (Rigsby 2002).

While the literature studying entrepreneurs continues to grow, the increasing importance of nonemployer businesses and the lack of research on these businesses creates a need to explore and better understand how entrepreneurs who own nonemployer businesses differ from other entrepreneurs. In this article we compare nonemployer entrepreneurs to traditional entrepreneurs, and in particular we examine the differences in entrepreneurial motivations, using a survey of 1,600 MBA alumni spanning several years. In addition, we use the same survey to compare nonemployer entrepreneurs to alumni who are employed as nonentrepreneurs. These comparisons are particularly relevant for two reasons. First, by surveying a homogeneous group of MBA alumni, we smooth out differences in education level, business education, and career prospects. This allows for a more meaningful comparison. Secondly, by comparing nonemployer entrepreneurs to both traditional entrepreneurs and nonentrepreneurs, we are able to evaluate the extent to which nonemployer entrepreneurs are distinctive as an entrepreneurial group.

Entrepreneurial Motives *Achievement, Autonomy, and Flexibility*

The suggestion that entrepreneurs have distinctive characteristics has been explored since the early writings of Schumpeter (1934). Since then many researchers have reported finding characteristics that distinguish entrepreneurs from nonentrepreneurs, and several of these studies have explored the motives of entrepreneurs. Among the better known studies, McClelland argued early on that entrepreneurs were higher in achievement motivation (McClelland 1961, 1964), and this research gained support in some studies of high performing entrepreneurs (Smith et al. 1987; Johnson 1990). In reviewing prior quantitative and qualita-

tive research, Shane et al. (2003) concluded that need for achievement is positively related to entrepreneurial activity. In addition to achievement motivation, other researchers compared entrepreneurs to their corporate counterparts and found that a preference for autonomy differentiated entrepreneurs from managers (Sexton 1985). Lumpkin and Dess (1996) argued that one of the key dimensions of an entrepreneurial orientation is autonomy. In a survey of 300 alumni, it was determined that intending entrepreneurs have more positive attitudes toward independence (Douglas and Shepherd 2002), and other studies determined that entrepreneurs are more satisfied with their work than nonentrepreneurs largely because of the autonomy they enjoy (Hundley 2001). More recently, with the advent of increasing numbers of female entrepreneurs, studies of psychological characteristics of entrepreneurs have noted differences between male and female entrepreneurs, and, in particular, have concluded that some entrepreneurs are motivated by the flexibility to balance work and family goals in a way that is not available to those who work in a corporate setting (Buttner 1993; DeMartino and Barbato 2003; Parasuraman et al. 1996).

Distinguishing Among Entrepreneurial Types

Since this article examines nonemployer entrepreneurs, it is of particular importance to this study that several researchers not only found differences in motivation between entrepreneurs and nonentrepreneurs, but they also saw differences among different types of entrepreneurs.

Carland et al. (1984, 1988) advised researchers to make a distinction between entrepreneurs and small business owners. Others argued that the various studies of achievement motivation and autonomy were fragmented and called for additional research examining various types of entrepreneurs (Ginsberg and Buchholtz 1989). Yoo and Cooper (1991) classified entrepreneurs into two types: craftsmen, who prefer personal autonomy, and opportunists, who are more motivated by financial gain. Although there are pros and cons to measuring entrepreneurial propensity, Miner (1997a, 1997b) in particular has argued that studies of entrepreneurial propensity should acknowledge the different types of entrepreneurs that are being studied, and he has also found that these differences are reflected within a group of potential entrepreneurs. Still others have found that entrepreneurial propensity within entrepreneurs differs according to their culture, and they have argued that entrepreneurs should be grouped differently in this way (Mueller and Thomas 2001). As more researchers continue to conclude that entrepreneurs cannot be placed into one category, it becomes increasingly important to identify different types of entrepreneurs and to study the distinctions among these different types.

Researchers have also made comparisons between business owners and entrepreneurs. A study comparing 428 business owners to corporate managers in terms of achievement motivation found that entrepreneurs are higher in achievement motivation than corporate managers (Stewart et al. 1998); however, the study then went on to make a distinction between those small business owners who were not entrepreneurs and those who were entrepreneurs. When this distinction was made, the study concluded that small business owners were not higher in achievement motivation than corporate managers. This study did not make a distinction between employer and nonemployer businesses; however, 79 percent of the business owners studied employed fewer than 10 employees. In a survey of entrepreneurs who were mostly but not exclusively nonemployer entrepreneurs, Feldman and Bolino (2000) found that autonomy and flexibility were primary career motivators.

There is one more distinction among entrepreneurial types that has been explored by previous researchers, that is, the home-based business. Home-based businesses have been studied more than nonemployer businesses, and although it cannot be said that a home-based business is the same as a nonemployer business, we can gain insight into nonemployer entrepreneurs by examining some of the characteristics of home-based business owners.

Most studies of the motivations of home-based business owners focus on increased autonomy as a primary motivator. A review of the literature on Australian home-based business owners (Earles et al. 2006) revealed that they were motivated by a combination of extrinsic and intrinsic factors, including the autonomy to pursue interests and balance lifestyle needs. This finding was consistent with an earlier study that interviewed 46 home-based business owners (Jurik 1998). In this study most of the respondents with home-based self-employment reported having more freedom than their employed counterparts. Home-based business owners also reported increased autonomy through the ability to pursue interests that were enjoyable. A survey of 62 home-based textile artists asked owners to indicate why they felt successful (Soldressen 1998). A majority of owners indicated that their business was successful because they were doing something they enjoyed. In a study of white-collar workers who worked at home, researchers concluded that workers chose home-based work to reduce family conflicts (Ammons and Markham 2004). In one of the few studies that compared home-based entrepreneurs to nonhome-based entrepreneurs, Loscocco and Smith-Hunter (2004) found that home-based entrepreneurs experience less work-family conflict, worked fewer hours, and had more flexibility. Finally, a study of home-based female entrepreneurs that used both focus groups and surveys, concluded that autonomy and balancing work-family life were among

the important reasons for operating a business from home (Walker and Webster 2004).

The Motives of Nonemployer Entrepreneurs

Although the previously cited studies argue that different types of entrepreneurs, and small business owners in particular, have different entrepreneurial motives, no study to date has examined the entrepreneurial motives of nonemployer entrepreneurs, nor has there been an attempt to distinguish between the motives of nonemployer businesses and employer businesses. In fact, there are very few studies of nonemployer businesses, despite the large number of nonemployer businesses and despite the relatively high growth of these businesses, although observers have suggested that nonemployer entrepreneurs desire greater control over their lives (Daugherty 2001).

Despite this, it is possible to draw tentative conclusions based on the nature of nonemployer businesses, which, by their definition, are not capable of the growth associated with other businesses. And since previous studies have seen differences between traditional entrepreneurs and small business owners, it can be suggested that owners of nonemployer businesses may also differ from owners of employer businesses. As has been discussed, there is support in the literature that entrepreneurs are different from nonentrepreneurs in terms of their career achievement motivation, autonomy, and orientation toward balancing family needs with work needs. Since nonemployer businesses by their definition are not capable of the growth associated with other businesses, then it can be hypothesized that owners of nonemployer businesses will not exhibit the same entrepreneurial propensities as employer entrepreneurs, who own businesses that provide the opportunity for growth. In particular, the characteristics of nonemployer businesses limit what they can accomplish in terms of traditional measures of entrepreneurial achievement and autonomy; however, those who choose to own nonemployer businesses may be trading off achievement for greater flexibility in more evenly balancing career goals with family goals (family orientation). At the same time, it is possible that

Hypothesis 1a: Nonemployer entrepreneurs will be lower in achievement motivation than employer entrepreneurs.

Hypothesis 1b: Nonemployer entrepreneurs will be lower in autonomy motivation than employer entrepreneurs.

Hypothesis 1c: Nonemployer entrepreneurs will have higher family orientation than employer entrepreneurs.

While previous studies may guide us to examine the differences between nonemployer entrepreneurs and employer entrepreneurs, the same reasoning would apply to comparisons of nonemployer entrepreneurs to nonentrepreneurs. The suggestion that owners of nonemployer businesses are distinct from nonentrepreneurs is inherent in the nature of nonemployer businesses, in that there exists the opportunity for greater autonomy and flexibility, since these businesses are smaller and do not require the management of others. In the same sense, a nonemployer business cannot grow as large as a business with employees, and this puts constraints on traditional measures of entrepreneurial achievement. It may be true that nonemployer entrepreneurs represent a midway point between nonentrepreneurs and employer entrepreneurs in terms of achievement motivation. However, it would be expected that nonemployer entrepreneurs are at the high end in terms of autonomy motivation and the motivation to balance career and life goals.

Hypothesis 2a: Nonemployer entrepreneurs will be higher in achievement motivation than nonentrepreneurs.

Hypothesis 2b: Nonemployer entrepreneurs will be higher in autonomy motivation than nonentrepreneurs.

Hypothesis 2c: Nonemployer entrepreneurs will have higher family orientation than nonentrepreneurs.

Survey and Methods

A survey was administered to MBA alumni of a well-established business school. This MBA program was exclusively full time and admitted primarily traditional students in their late 20s to early 30s. Respondents were asked approximately 140 career-related questions pertaining to career status, decisions, choices, motivators, etc. The survey was administered to the entire population of MBA alumni, totaling approximately 5,800 individuals. More than 2,400 alumni responded to the survey, providing a response rate of 42 percent. This study reports results from those alumni graduating in the previous 20 years. This subcategory was selected for several reasons. First, prior to 1978 few alumni were systematically interested in pursuing careers in entrepreneurship. Second, prior to 1978 the demographic composition, in terms of gender diversity, dual income families, and other key variables explored in this research, were small and in flux. The sample excludes unusable responses and alumni who graduated more than 20 years after the study was conducted—creating a total sample size of 1,607. This analysis classifies respondents into three mutually exclusive categories: entrepreneurs

who own nonemployer businesses (n=73), entrepreneurs who own an employer business (n=182), and nonentrepreneurs (n=1352).

Measures and Statistical Analysis

Respondent group classifications were determined in the following manner. Individuals who own nonemployer businesses (nonemployer entrepreneurs) were designated by respondents indicating self-employment status and also working in a single-person occupation such as private attorney, consultant, etc. Individuals who own employer businesses (employer entrepreneurs) were designated by subjects indicating entrepreneurship as a profession, self-employment, and having either started/purchased their own company/franchise. Nonentrepreneurs included individuals who self-reported to be both full-time employed and also did not identify themselves as either self-employed or as an entrepreneur.

Consistent with the above literature review, the survey requested information relative to three career motivations (directly or indirectly employed) to distinguish and clarify entrepreneurial activity—career achievement, autonomy, and flexibility that permits balance between career and family interests (family orientation). Response options for each item ranged from “not at all important” to “very important.” Achievement orientation was operationalized by a six-item scale and subjects indicated their ratings of importance of each item when making their career decision. Measures of this construct were items capturing the subject’s self-rating of importance of the following in their career decision: ability to pursue interesting and exciting work, ability to create wealth, and exposure to entrepreneurial opportunities. The career achievement scale was created in a way that parallels items contained in the Work Orientation scale initially developed by Spence and Helmreich (1978) and subsequently extended by DeLong (1982) and Orrange (2002). This technique resulted in a measurement of achievement orientation that was continuous in nature and one that could be assumed to be normally distributed.

Autonomy as a career motivator was measured by a three-item scale. The construct was operationalized by the respondents’ self-reporting of their desire to be free from close supervision, desire for company ownership, and desire to become self-employed. This view of the autonomy construct contains items that reflect both the global view of the job autonomy construct as characterized by Hackman and Oldham’s (1980) Job Diagnostic Survey, but also acknowledge the multidimensional nature of the construct as suggested by the work of Nicholson (1984). As above, the creation of the autonomy scale resulted in a measure that was continuous in nature and one that did not depart from assumptions of normality.

Family orientation as a career motivator was measured by an eight-item scale. The construct was operationalized by the respondents’ self-reporting of their perceived importance of family-friendly employment policies, spouse/partner cocareer issues, geographic location, geographic restrictions, family obligations, children/school requirements, and quality of life. The family orientation scale was created in a way that parallels items contained in the Family Orientation scale initially developed by Spence and Helmreich’s (1978) research and those identified by the study initiated by Burke and Kong (1996). More recently, a study published by Orrange (2002) utilized items similar to those used in this research.

To verify the discriminant validity of this survey’s instrument, these 17 items were factor-analyzed and three interpretable factors with eigenvalues greater than 1.0 were identified. These factors corresponded to autonomy, family orientation, and career advancement orientation. Scale reliabilities (alpha), were 0.65, 0.79, and 0.67, respectively. These reliabilities are reasonable and adequate given that they represent items that mirror those in the preestablished instruments described above. Procedures used for this portion of the analysis were as detailed by Fabrigar et al. (1999).

Other measures used in this research consisted of single-item self-reports of marital status (married, partnered, divorced, or single), income status relative to partner (primary, equal, secondary), and sex (male/female). For the purposes of addressing the research questions outlined above, marital status was operationalized as married/partnered for the basis of comparisons with subjects who indicated they were single. Income status was grouped by married/partnered subjects who indicated they were either the primary or equal income earners in their household as compared to married/partnered subjects who reported that they were secondary income earners in the relationship.

As discussed above, the focus of this study was to identify contrasting attributes of nonemployer entrepreneurs, employer entrepreneurs, and nonentrepreneurs. This assessment entailed analysis of a number of pairwise comparisons. Myers and Well (2003) caution researchers to compensate for inflated alpha risks when performing such evaluations. To properly address this issue when comparing the scale means of group pairs, multiple comparisons were analyzed via conventional univariate analysis of variance followed by post-hoc tests using Bonferroni correction algorithms as per the procedure described by Shaffer (1995) and Miller (1991). According to Myers and Well (2003), the Bonferroni test is a conservative and robust test as compared to alternative ranking/multiple hypothesis testing methodologies.

To guard against the escalation of statistical risk when comparing estimates of group proportions, we applied a conventional chi-square test of differences in proportions followed by the Marascuilo procedure as identified by

Marascuilo and McSweeney (1977). P-values associated with the Marascuilo procedure were calculated according to the method presented by Abramowitz and Stegum (1972).

Findings

Means, standard deviations, and scale correlations associated with the group scale scores for each of the variables are included in Table 1.

Construct	Scale Mean	Std. deviation	Achievement Orientation	Autonomy
Achievement orientation	2.294	.437	-	
Autonomy	1.846	.610	.406**	-
Family orientation	1.981	.495	-.030	.142**

** p<.01 (two-tailed)

Achievement Orientation and Entrepreneurship Type

Mean scores on the achievement orientation showed that employer entrepreneurs were highest on this dimension, followed by nonemployer entrepreneurs with nonentrepreneurs scoring the lowest. When achievement orientation was analyzed and controlled for the influence of respondent's age (p<.001), a comparison of means revealed a statistically significant difference between the nonemployer entrepreneurs and employer entrepreneurs supporting Hypothesis 1a. Mean scale scores were as follows: nonemployer entrepreneurs, 2.330; employer entrepreneurs, 2.537; and nonentrepreneurs, 2.229. Results of the Bonferroni post-hoc test (Miller 1991) indicate that differences in mean achievement orientation scores between nonemployer business owners and nonentrepreneurs was not statistically significant (p=.137) failing to support Hypothesis 2a. See Table 2 for analysis details.

Autonomy and Entrepreneurship Type

When autonomy motivation is analyzed and controlled for the influence of respondent's age, a comparison of means reveals a number of statistically significant differences among the nonemployer entrepreneurs, employer entrepreneurs, and nonentrepreneurs. While age was used as a control variable, it did not have any practical effect on the results since its impact was below significance levels (p=.491). Mean scale scores for the autonomy construct were as follows: nonemployer entrepreneurs, 2.276; employer entrepreneurs, 2.634;

and nonentrepreneurs, 1.730. Results of the Bonferroni post-hoc test (Miller 1991) suggest that the motivation for autonomy was more important for employer entrepreneurs than any of the other two groups (p<.001). One particularly noteworthy finding associated with this construct was that nonemployer entrepreneurs' weighting of the importance of autonomy when choosing their current occupation was not statistically different (p=.255) than their nonentrepreneurial counterparts. See Table 2 for analysis details. This finding supports both Hypotheses 1b and 2b.

Family Orientation and Entrepreneurship Type

On the measure of family orientation, the results of a comparison of means, controlled for the influence of respondent's age (p=.002), were as follows: nonemployer entrepreneurs, 2.271; employer entrepreneurs, 1.979; and nonentrepreneurs, 1.934. Results of the Bonferroni post-hoc test (Miller 1991) suggest that the prospect of entering a career that could also enable the subject to address family priorities was clearly more important for nonemployer business owners than for any of the other two groups (p<.001). This confirms Hypotheses 1c and 2c. A comparison of family orientation scale scores for employer entrepreneurs versus nonentrepreneurs did not result in statistically significant (p=.676) differences. See Table 2 for analysis details.

Reference Group (I)	Comparison Group (J)	Achievement Mean Difference (I-J)	Autonomy Mean Difference (I-J)	Family Orientation Mean Difference (I-J)
Nonemployer entrepreneurs	Employer entrepreneurs	-.207***	-.358***	.292***
Nonemployer entrepreneurs	Non-entrepreneurs	.101	.546***	.338***
Employer entrepreneurs	Nonemployer entrepreneurs	.207***	.358***	-.292***
Employer entrepreneurs	Non-entrepreneurs	.308***	.904***	.045
Non-entrepreneur	Nonemployer entrepreneurs	-.101	-.546**	-.338***
Non-entrepreneur	Employer entrepreneurs	-.308***	-.904***	-.045

*** p<.001 (two-tailed)

Demographic Differences and Entrepreneurial Type

Previous literature has noted that demographic differences, especially gender differences, play a role in entrepreneurial motivations, with female entrepreneurs having a higher family orientation. The importance of gender increased when marital status was included (DeMartino and Barbato 2003). With this in mind, the data were analyzed to determine the extent to which there are gender differences among entrepreneurial types. The analysis of the data reveals significant gender-related differences among nonemployer entrepreneurs, employer entrepreneurs, and nonentrepreneurs. Of note, the employer entrepreneur group consists of 13.7 percent females, which suggest that females who are employer entrepreneurs are significantly underrepresented ($p < .001$) compared to what would be expected given female representation in the sample as a whole (25.9%). Conversely, the female nonemployer entrepreneur is overrepresented as referenced against the proportion of females represented in the sample. Table 3 illustrates the nature of gender representation in the sampling distribution by entrepreneurship category. The chi-square statistic associated with a test of proportion of these data suggests that the proportion of females represented across the three categories of entrepreneurs differs significantly ($p < .001$). Table 6 reflects the results of the Marascuilo procedure discussed above. The statistics in Table 6 indicate the significance of differences in all possible pairwise comparisons of differences in proportions of females represented in each of the entrepreneurial classifications.

	<i>Nonemployer Entrepreneurs</i>	<i>Employer Entrepreneurs</i>	<i>Non-entrepreneur</i>	<i>Totals</i>
Male				
n	39	157	994	1190
Male percentage in category	53.4	86.3	73.5	74.1
Female				
n	34	25	358	417
Females percentage in category	46.6	13.7	26.5	25.9
Totals (n)	73	182	1352	1607
Total sample percentage	4.5	11.3	84.1	100

$\Pi^2 = 30.488, p < .001$

The analysis also reveals significant differences in marital status among the entrepreneurial types. For example, while single individuals comprised 24.7 percent of the sample, non-

employer entrepreneurs were less than half that proportion (11.9%). Married/partnered subjects were overrepresented in the nonemployer entrepreneur group as compared to nonentrepreneurs. Tables 4 and 6 show the results of a chi-square test of differences ($p = .009$), as well as pairwise comparisons.

	<i>Nonemployer Entrepreneurs</i>	<i>Employer Entrepreneurs</i>	<i>Non-entrepreneur</i>	<i>Totals</i>
Married/partnered				
n	59	139	972	1170
Married/partnered percentage in category	88.1	80.3	74.0	75.3
Single				
n	8	34	341	383
Single percentage in category	11.9	19.7	26.0	24.7
Totals (n)	73	182	1352	1607
Total sample percentage	4.3	11.1	84.5	100

$\Pi^2 = 9.383, p = .009$

In addition, nonemployer entrepreneurs were significantly overrepresented among those with secondary incomes, and primary/equal income earners are disproportionately nonentrepreneurs. Fully 27.5 percent of nonemployer entrepreneurs were secondary income producers compared to 5.1 percent of the entire sample. Differences among the entrepreneurial types were highly significant ($p < .001$; see Tables 5 and 6).

	<i>Nonemployer Entrepreneurs</i>	<i>Employer Entrepreneurs</i>	<i>Non-entrepreneur</i>	<i>Totals</i>
Primary/equal income earner				
n	50	159	1286	1495
% primary/equal in category	72.5	89.8	96.8	94.9
Secondary income earner				
n	19	18	43	80
% secondary income in category	27.5	10.2	3.2	5.1
Totals (n)	69	177	1329	1575
% of total sample	4.4	11.2	84.4	100

$\Pi^2 = 9.383, p = .009$

Table 6. Differences in Proportion of Samples Represented in Study Groups by Sex, Marital Status, and Income Status

<i>Reference Group (I)</i>	<i>Comparison Group (J)</i>	<i>Proportion Female in Sample: Mean Proportion Difference (I-J)</i>	<i>Marital Status: Mean Proportion Difference in Samples Who Are Married/ Partnered (I-J)</i>	<i>Income Status: Mean Proportion Difference in Sample Who Are Primary Wage Earners (I-J)</i>
Nonemployer entrepreneurs	Employer entrepreneurs	.329***	.078	-.173**
Nonemployer entrepreneurs	Nonentrepreneur	.201**	.143**	-.243***
Employer entrepreneurs	Nonentrepreneur	-.128***	.063	.070**

**p<.01

***p<.001

Limitations

A number of limitations impact this analysis, and these should be kept in mind before drawing conclusions. All survey data were self-reported and, as a consequence, subject to a number of cognitive and motivational biases. Paulhus (1991) and Brown (1991) argued that the reporting of findings based on retrospective data is inherent in all survey research related to individual’s reporting of previous motives. Particular risk factors including memory distortion, self-serving, and social desirability bias may be intertwined with these results. Also, the stratified sample employed (MBA graduates of similar age) may be impacted by spurious factors that were not included in the model testing described above.

As is always the case in studies of self-reported data, there is a threat to the ability to generalize the study’s findings. Risks associated with these types of data include monomethod (single source) bias, which involves the collection of data at a single point in time. As a result, there is the potential for the confounding of artifacts related to the data collection with the constructs this research intended to measure (Avolio et al. 1991; Doty et al. 1993; Podsakoff et al. 2003). Research by Fitzgerald et al. (1997) suggests that by focusing respondent’s attention on specific entities, recall and reporting biases may be minimized and we believe that the specificity of the items and the nature of item content are consistent with that aim. Finally, a meta-analysis by Crampton and Wagner (1994) found that distortions associated with

self-reports are not common in research that stems from individual level data. We believe that the item order and specificity of the focal issue additionally minimized the possibility of self-report biases.

While the use of cross-sectional studies affords an attractive alternative to longitudinal studies, questions persist pertaining to the quality of data that results from the cross-sectional approach. Beckett et al. (2001) found that the quality of self-reported assessment of past events was “quite high across a range of topics” (p. 622), and hence it would be logical to extend the arguments supported by that example of social science research to this particular research effort. Another limitation of the study results from the possibility that the nonemployer entrepreneurs studied may only be temporarily nonemployer entrepreneurs. Perhaps they are between jobs or they may be taking time out from other employment while they raise a family. Perhaps they have decided to explore a career as a nonemployer entrepreneur, but they will soon tire of this or fail and move into some other form of employment. It is noteworthy that a high number of nonemployer entrepreneurs in this study are women, and this could indicate a higher percentage of nonemployer entrepreneurs who have temporarily left the workforce while they have dependent children at home. Further studies would be strengthened by studying long-term nonemployer entrepreneurs.

Conclusions

Nonemployer entrepreneurs represent an important and growing type of entrepreneur about whom we know very little. Even though many researchers have shown that it is important to distinguish among types of entrepreneurs, there has been little research on these entrepreneurs, even though they are one of the largest groups of entrepreneurs. While previous studies have concluded that employer entrepreneurs are distinctive in that they have a higher level of achievement motivation, and they are more motivated to seek autonomy and flexibility, no studies that have confirmed whether the same can be said of nonemployer entrepreneurs. This study provides evidence that nonemployer entrepreneurs are distinctive from employer entrepreneurs in important ways. Nonemployer entrepreneurs are weaker in achievement motivation than employer entrepreneurs. In fact, nonemployer entrepreneurs are more likely to resemble nonentrepreneurs than entrepreneurs. However, nonemployer entrepreneurs are quite different from nonentrepreneurs in other ways. Nonemployer entrepreneurs are motivated by the autonomy that comes from self-employment, but less so than employer entrepreneurs. Nonemployer entrepreneurs did score higher than both employer entrepreneurs and nonentrepreneurs in flexibility and how it affects the ability to manage work-family balance.

Given the nature of a nonemployer business, it is possible that nonemployer entrepreneurs are trading off the more typical entrepreneurial goals of growth and economic success in favor of greater autonomy and the flexibility to balance one's personal and work life. Nonemployer businesses offer an income that is limited, but they also place fewer constraints on the entrepreneur's freedom and flexibility. This may be particularly appealing to married/partnered entrepreneurs, whose income is secondary to the spouse's/partner's income, and, in fact, these individuals are an overrepresented minority of nonemployer entrepreneurs. The study also reveals a majority (58%) of the female entrepreneurs are nonemployer entrepreneurs. In contrast, less than 20 percent of the male entrepreneurs are nonemployer entrepreneurs. It may be that female entrepreneurs are more attracted to both the flexibility and life-work balance that nonemployer businesses offer.

The findings of this study may have policy implications especially for those providing assistance to entrepreneurs and small business owners. It is important to understand and acknowledge the different motivations of nonemployer entrepreneurs so that assistance programs reflect motivations that are different than traditional entrepreneurs, who are often driven by high levels of achievement and motivated to grow their business. It is important for policy-makers to know that there are many entrepreneurs who are motivated to create a balance between work and life, and loan programs, job creation programs, and other assistance programs should reflect this motivation as well as the more traditional ones. Likewise, nonemployer entrepreneurs as well as those who coach them, including accountants and other advisors, should understand the difference between personal goals

and financial goals. This distinction should also be reflected in those research studies that seek to measure entrepreneurial success using traditional outcome measures such as growth in revenues.

This study has shown that there is a difference between employer entrepreneurs and nonemployer entrepreneurs, and future studies of entrepreneurs need to take this into consideration so that future researchers can avoid the problem of conceptualizing entrepreneurs so broadly that they miss the distinctions among different types of entrepreneurs. However, there are several additional questions which this study has not been able to answer. For instance, do established nonemployer entrepreneurs wish to remain as such, or is it more common for a nonemployer entrepreneur to seek growth and to hire workers? Do those nonemployer entrepreneurs who have aspirations of growth differ from those who wish to remain as nonemployer entrepreneurs? Another important question that this study did not try to answer has to do with the gender implications of the research. Are there gender differences that would moderate the differences between nonemployer entrepreneurs and traditional entrepreneurs? These questions were outside the scope of this study, however, future research into these questions would shed light on this important subcategory of entrepreneurs.

As the number of nonemployer businesses continues to grow and greater numbers of individuals choose nonemployer business as a career, it will become more important to better understand the nonemployer entrepreneur. Future studies will need to examine larger and more representative samples of nonemployer entrepreneurs to begin answering additional questions that were beyond the scope of this study.

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The Aging Population and Mature Entrepreneurs: Market Trends and Implications for Entrepreneurship

Robert P. Singh

This article discusses the statistics and trends surrounding the rapidly aging U.S. population. Older workers will make up an increasing portion of the workforce and these individuals represent an important growing demographic target market. While much has been written about the aging population and the potential for entrepreneurs to target this growing market, little research has been conducted on older entrepreneurs. They are a unique group and this article provides empirical results and discussion about the differences and importance of older entrepreneurs to the economy and as contributors to American society. Practical implications and future research directions are discussed.

One of the most significant economic and sociodemographic trends in the United States is the aging of the American population. According to the U.S. Administration on Aging (AOA), one in eight (12.5%) Americans is now 65 years old or older. A century ago, just 4.1 percent of Americans were in that group. However, by 2030, it is expected that one in five Americans will be 65 or older (U.S.AOA 2007). As a result of medical advances, improved pharmaceuticals, and better education about healthy lifestyles, Americans are living longer, healthier lives. Thus, there have been, and will continue to be, significant changes to the demographic makeup of the United States.

In 2005, nearly 37 million Americans were 65 years old or older. By 2030, it is expected that the number of Americans who are 65 or older will nearly double to 71.5 million (Meyers 2007). By that time, this group of older Americans will represent more than 30 percent of all adults in the U.S. (Bosworth and Burtless 1997). These trends are not unique to the United States. The populations of major industrial countries are also aging rapidly. By 2030, those 65 and older will make up 40 percent of the adult populations in France and Great Britain, and an expected 50 percent of Germany and Japan (Bosworth and Burtless 1997).

When one looks at the sheer numbers of older Americans, the projections for the future, and the trends over the last several decades, it becomes clear that they represent a greater and greater percentage of the population. The “gray-

ing” of America, as well as other industrialized nations, presents both opportunities and challenges. For example, as the workforce gets older there are benefits of having more experience in the labor force, but the financial commitments of government programs such as Social Security and Medicare are also increasing (Bosworth and Burtless 1997; Pittock 2004).

The changing demographics have significant implications for entrepreneurship. For example, entrepreneurs are more likely to hire older workers and will have to become more cognizant of legal requirements, such as the Age Discrimination in Employment Act (ADEA) of 1967. The ADEA makes it illegal to discriminate against people who are older than 40 years of age. From a marketing perspective, the aging population represents a growing target market for entrepreneurs (e.g., Scarborough and Zimmerer 2005). As just one example of how this is creating new entrepreneurial opportunities, services such as for-profit hospice care have grown rapidly over the last 20 years (Newbold 2007). There is a significant shortage of geriatricians and the gap appears to be widening (Meyers 2007). Taking care of the elderly is already a multibillion dollar industry and the fact is that it will continue to grow.

Rather than look at the increasingly aging population as a target market for entrepreneurs to service, this article focuses attention on the unique qualities of older entrepreneurs, and discusses the growing need to promote entrepreneurship within the aging population. In coming decades, it is going to become more and more important for older Americans to remain financially productive. They will be living longer and they will represent a growing percentage of the population. Economic and sociodemographic realities would seem to support the need to promote entrepreneurship among older Americans.

To date, little research has focused on older entrepreneurs, and there has been little discussion of the growing importance of promoting entrepreneurship among the aging population. One of the major goals of this article is to draw attention to this unique group of entrepreneurs. Several guiding research questions are discussed, and then using General Social Survey (GSS) data they are tested. Following the empirical results, practical and academic

research implications are discussed and future research directions are proposed.

The Aging U.S. Population

To better frame the issue of why the aging population is so important for policy-makers, entrepreneurship researchers, and entrepreneurs, one need only look at the growing numbers of aging Americans. In 2004, no U.S. state had more than 20 percent of its population over the age of 65; however, by 2025, it is expected that 30 states will (Pittock 2004). In addition, it is projected that over the next three to four decades, the number of Americans who are older than 85 will quadruple (Meyers 2007). Table 1 provides the actual growth of the aging population from 1980 to 2000, as well as projections through 2050.

From 1980 to 2000, the number of Americans aged 55 or older grew from just over 47 million to nearly 60 million (25% increase). By 2050, it is projected that the figure will more than double to more than 132 million people. In addition, the number of Americans 75 or older grew from 10 million in 1980 to 16.6 million in 2000. This represents a 67 percent increase in this group. Projected figures show that nearly 50 million Americans will be aged 75 or older in 2050. Not surprisingly, the growing number of older Americans is pushing up the median age of all Americans. Over the last 20 years, the median age of Americans rose from 32 years to 37

years. Over the next 20 years, the median age will increase to more than 40 years.

These figures illustrate the rapid aging of the American population. They also demonstrate the growing size of the aging market in the United States. Entrepreneurs who are able to offer products and services that cater to this market should find it attractive because of its overall size and the rate of expansion, which promises to be quite strong for the next several decades. Given the growing number of older individuals in the U.S. population, it is likely that there will be a greater number of older entrepreneurs in the marketplace. Learning more about this group of entrepreneurs is important because there is likely to be a growing need to spur entrepreneurship among the members of this group. Some of the major reasons for this are discussed below.

The Need to Promote Entrepreneurship within the Aging Population

From a fiscal standpoint, older Americans have wide-ranging economic backgrounds. For example, 11 percent of Americans who are 65 or older live below the poverty line (Pittock 2004). This is slightly lower than the overall poverty rate of 12.7 percent for all Americans (U.S. Census Bureau 2005). At the same time, nearly the same percentage of older Americans earns incomes over \$50,000 (Whitman and Purcell 2006). Based on these figures, it appears that older

Table 1. Changing U.S. Demographics as a Result of Aging (Based on U.S. Census Bureau Figures and Projections)

<i>Item</i>	<i>1980</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>
Total U.S. population	226,546 (100%)	248,791 (100%)	281,425 (100%)	308,936 (100%)
Americans 55 years and older	47,253 (20.9%)	52,200 (21.0%)	59,267 (21.1%)	76,429 (24.7%)
Americans 65 years and older	25,550 (11.3%)	31,084 (12.5%)	34,992 (12.4%)	40,244 (13.0%)
Americans 75 years and older	9,969 (4.4%)	13,036 (5.2%)	16,601 (5.9%)	18,974 (6.1%)
Median U.S. population age	30.0	32.8	35.3	37.8

<i>Item</i>	<i>2020</i>	<i>2030</i>	<i>2040</i>	<i>2050</i>
Total U.S. population	335,805 (100%)	363,584 (100%)	391,846 (100%)	419,854 (100%)
Americans 55 years and older	97,363 (29.0%)	110,831 (30.5%)	121,679 (31.0%)	132,427 (31.5%)
Americans 65 years and older	54,632 (16.3%)	71,453 (19.7%)	80,050 (20.4%)	86,706 (20.7%)
Americans 75 years and older	22,853 (6.8%)	33,506 (9.2%)	44,580 (11.4%)	48,763 (11.6%)
Median U.S. population age	39.1	40.1	40.7	41.0

Note: Population figures are in 1000s

Americans are doing better financially than average Americans today. However, with Americans living longer, their retirement savings and pension benefits will have to be stretched over a longer period, which may increase financial pressures for older individuals. There is also a looming issue that may drive the numbers in poverty much higher. Of all Social Security beneficiaries aged 65 and above, nearly 70 percent receive more than half of their income from Social Security (Whitman and Purcell 2006). Given the growing concerns about the future long-term solvency of the Social Security program, this may be an economic time bomb just waiting to go off.

Pitcock (2004 p. 252) notes

Forty years ago, the number one concern of our seniors was dying. Now their top concern is that they will outlive their assets. Isn't that something? People are worried about what's going to happen to them financially—and we've seen that they have good cause for concern.

Their second concern is whether they will be able to maintain their independence. It ties back to the financial part. They want to remain independent.

It is critical that the growing number of older people have options and the ability to maintain their economic status. It is likely that firms will require the services of greater numbers of older workers to maintain global competitiveness. In addition, as discussed in this article, there are good reasons to expect older Americans to choose entrepreneurship. They will be even bigger contributors to the global economy over the next several decades, and understanding the unique qualities and needs of older entrepreneurs may help push economic growth.

Research Focus

The primary objective of this article is to draw research attention to the importance of older entrepreneurs, as they have not been well studied in the past. Although there are no a priori theoretically based hypotheses, several areas of research guided the investigation. These were educational attainment, personal financial situation, and having an entrepreneurial father.

The discussion in this article is data driven, and I recognize that data is not theory (e.g., Sutton and Staw 1995), however, I also view this work as exploratory and important because it examines entrepreneurs who have been largely ignored in the literature. I take the view of Weick (1995) that data analysis is critical to theory development. In addition, as DiMaggio (1995) points out, theory construction is social construction that often takes place after the fact. For these reasons, I believe the empirical tests and the discussion of results that follow are important because they can help shed light on the subject of entrepreneurship among older Americans.

Educational Attainment

Entrepreneurship theory has established a clear link between educational attainment and entrepreneurship (Fairlie 2004; Hisrich, Peters, and Shepherd 2005; Scarborough and Zimmerer 2005). Vesper (1980) found that between 60 and 90 percent of his sample of successful new businesses relied primarily on their education and experiences as sources of ideas for their businesses. Education has also been found to increase entrepreneurial intentions (Clark, Davis, and Harnish 1984) as well as opportunity search (Shook, Priem, and McGee 2003); therefore, it is considered a key determinant to self-employment (Walstad and Kourilsky 1998). This is not really surprising when one considers the challenges that many entrepreneurs face in obtaining credit and financing for their businesses as well as the planning, managerial and technical knowledge and experience that are required for success.

Educational attainment of Americans has steadily increased over the last several decades (U.S. Census Bureau 2007). In 1960, just over 41 percent of Americans earned a high school degree, and just 7.7 percent earned a college degree. In 2005, more than 85 percent of Americans had earned a high school diploma and 27.6 percent had earned a college degree. Given this trend, it is less likely for older Americans to have earned college degrees, or even high school degrees. This may serve as a drag on the rate of entrepreneurship. It is also likely that older entrepreneurs had lower educational attainment levels than younger entrepreneurs, because as a group, older Americans have lower educational attainment levels than younger Americans.

Financial Situation

Although, many firms start out with a small amount of capital provided by the founder, and little wealth is required to enter most entrepreneurial ventures (Hurst and Lusardi 2004; van Gelderen, Thurik, and Bosma 2005), those persons having a higher net worth are more easily able to leverage their net worth to obtain sufficient degrees of venture financing through external sources, if necessary for successful venture start-up and operation. A person's asset level has been found to play an important role in determining whether they choose self-employment over working for others (Blanchflower and Oswald 1998; Fairlie 1999; 2004). Research has shown that having access to capital at the start-up phase affects firm size (van Gelderen, Thurik, and Bosma 2005) as well as the ability to sustain it operations (Bates 2000; 2006). Some potential entrepreneurs never take the plunge because they are unable to assemble sufficient financial capital to start their firms (Bates 2000; 2006). Thus, having higher asset and net worth levels affords individuals easier access to capital, and subsequently entry into self-employment.

For many older Americans, financial obligations such as mortgages or the costs of raising and educating children are no longer a factor. They have paid off their houses and their children have graduated from college and/or moved out on their own. In addition, given the lower rate of poverty for older entrepreneurs and the fact that a fairly large percentage of older Americans make more than \$50,000 per year, it is possible that they have enough access to start-up capital in their personal financial portfolios.

Having Fathers Who Were Entrepreneurs

A significantly higher percentage of entrepreneurs have fathers who are/were self-employed than nonentrepreneurs (Hisrich, Peters, and Shepherd 2005; Hundley 2006). In fact, the offspring of entrepreneurs are two to three times more likely than those who do not have entrepreneurial parents to become entrepreneurs themselves (Lentz and Laband 1990; Fairlie 1999; Dunn and Holtz-Eakin 2000; Hout and Rosen 2000). It is possible that there is an “entrepreneurial gene” (Nicolaou et al. 2008) that has yet to be identified, but research on this subject has been limited. Instead, researchers have focused on more tangible benefits of having entrepreneurial parents.

Dunn and Holtz-Eakin (2000) argue that financial and human capital benefits are two possible explanations for why the offspring of the self-employed display a greater propensity to become entrepreneurs. The financial capital explanation refers to the fact that capital market constraints limit an entrepreneur’s ability to finance a start-up venture (e.g., banks will not extend loans to start-up ventures that have no history of operations), which can be a significant obstacle to becoming an entrepreneur. In short, the authors reason that family credit markets may substitute for formal access to funds. Dunn and Holtz-Eakin’s (2000) second explanation, human capital, is that parents transmit to their children valuable work experience, reputation, or other managerial human capital.

Lentz and Laband (1990) explain that business owners obtain industry-specific, integrated managerial skills from two potential sources: market experience and premarket experience. The researchers refer to market experience as “the school of hard knocks,” and they refer to premarket experience as the equivalent of an internship that takes place prior to starting their own firm, and under the auspices of their parents’ (or other family member’s) business.

Entrepreneurship is an unstructured activity that requires a wide variety of skills. Obviously, education can provide some of those skills and financial resources are important. Entrepreneurial family members can serve as informal sources of information that can be useful for helping to shed light on the challenges and difficulties faced by entrepreneurs. This benefit can give would-be entrepreneurs a more

realistic understanding of how to become a successful entrepreneur. In this study, we focused on these three elements to see how older entrepreneurs compared with younger entrepreneurs.

Research Methods

Data and Sample

For the purpose of this study, older entrepreneurs were individuals aged 55 years or older. All of the findings reported in this study come from analyses of the GSS data. The GSS is a personal interview survey of a representative sample of hundreds of U.S. households conducted by the National Opinion Research Center (NORC). A full description of the GSS project is available at the NORC website (<http://www.norc.org/projects/genSOC1.asp>). A number of websites allow public access to the GSS data. The data were downloaded from the University of California, Berkeley’s Survey Documentation and Analysis website (see <http://sda.berkeley.edu/archive.htm>).

Table 2 summarizes the total number of respondents contained within the GSS and breaks down the numbers of working individuals and self-employed individuals who were 54 years old or younger and 55 years or older. Not surprisingly, a much greater percentage of individuals under 55 years old are working full time and part time; however, nearly double the percentage of workers aged 55 and older are self-employed. Most of the empirical results in this article focus on differences between the younger and the older self-employed individuals.

The GSS contains a standard core of demographic and attitudinal questions, plus topics of special interest. It has been administered annually from 1972 until 1994, when it became a biennial survey. Because of its usage of permanently worded questions, the survey allows researchers to examine the opinions and issues faced by the U.S. population over time. In total, more than 38,000 respondents have answered over

<i>Responses</i>	<i>54 Years or Younger</i>	<i>55 Years or Older</i>
Total number of respondents	32,547 (100%)	13,959 (100%)
Working full time (% of total)	19,922 (61.2%)	3,131 (22.4%)
Working part time (% of total)	3,646 (11.2%)	1,085 (7.8%)
Self-employed individuals working full or part time (% of workers)	2,745 (11.7%)	894 (21.3%)

3,260 different questions since the survey's inception (NORC 2007).

I studied the differences between older entrepreneurs (those age 55 and older) and other groups of entrepreneurs over the last several decades (data were available for respondents from 1972–2004). In this study, entrepreneurs are “self-employed” respondents within the GSS. In this article, I refer to “entrepreneurs” as those individuals who were identified as “self-employed” in the GSS. The terms “self-employed” and “entrepreneurs” are used interchangeably in this article. This is consistent with prior entrepreneurship studies (e.g., Bingham and Melkers 1989; Butler and Herring 1991; Hout and Rosen 2000). The statistical methods utilized in this study include t-tests, chi-square tests and logistic regression analyses.

Results

As a first test, I tested for changing participation in the workforce over the last four decades. Table 3 illustrates the fact that a greater number of workers from both age categories are now working full or part time. In the 1970s, about 63 percent of individuals under 55 years old worked. For those above 55, just more than 30 percent worked. Today, 76.1 percent of individuals under 55 and nearly 35 percent of people 55 or older are now working. The changes are likely a result of increasing numbers of women in the workforce and the fact that Americans are living longer, healthier lives.

<i>Decade</i>	<i>54 Years or Younger</i>	<i>55 Years or Older</i>
1970s	62.9%	30.6%
1980s	72.4%	27.9%
1990s	77.6%	29.5%
2000s	76.1%	34.8%

Among those who are working full time or part time, individuals aged 55 or older are much more likely to be self-employed (see Table 4). Older, working Americans are twice as likely to be entrepreneurs as their younger counterparts. Interestingly, there has been little change in the percentage of younger and older working Americans who choose entrepreneurship over the last 40 years. About 10 to 12 percent of workers under 55 are self-employed, while 20 to 23 percent of those over 55 choose entrepreneurship. As Americans age and a greater number of older individuals stay in the workforce, it is likely that the number of older entrepreneurs will increase more rapidly than the number of younger entrepreneurs.

It is interesting to note that older workers are more satisfied with their financial situations and with their jobs than

<i>Decade</i>	<i>54 Years or Younger</i>	<i>55 Years or Older</i>
1970s	9.5%	20.4%
1980s	12.9%	20.2%
1990s	12.1%	22.2%
2000s	11.5%	22.8%

younger workers (see Table 5). However, both groups of entrepreneurs are even more satisfied than those working for others, in terms of their financial situations and jobs. Older entrepreneurs report no significant difference in income than younger entrepreneurs but both older and younger entrepreneurs earn more than those who work for others. Younger entrepreneurs are significantly more satisfied with their financial situations than are younger nonentrepreneurs. However, older entrepreneurs are significantly more satisfied than younger entrepreneurs—even though they report no difference in income. In addition, while both older and younger entrepreneurs appear equally satisfied with their jobs, they are both more satisfied than their working counterparts.

Turning attention to the importance of education and having a self-employed father, we find that both are important to becoming an entrepreneur. To test these, two separate multinomial logistic regression analyses were conducted—one for individuals younger than 55 years and one for 55 and older individuals (see Table 6). Multinomial logistic regression is appropriate for this part of the study because the dependent variable (self-employment) is a categorical variable.

Although neither model had very high pseudo R^2 values,

<i>Item</i>	<i>Non-Ent. (54 years)^a</i>	<i>Ent. (54 years)</i>	<i>Ent. (55+ years)</i>	<i>Non-Ent. (55+ years)^b</i>
Satisfaction with financial situation ^c	2.06***	1.90***	1.73***	1.77
Job satisfaction ^d	1.78***	1.45	1.39	1.53***
Respondent income ^e	8.94***	10.33	10.25	8.74***

*** $p < .001$

^a Significance of difference to entrepreneurs 54 years old or younger.

^b Significance of difference to entrepreneurs 55 years old or older.

^c Satisfaction with financial situation, 3-point scale (1=satisfied to 3=not sat.).

^d Job Satisfaction, 4-point scale (1=very satisfied to 4=very dissatisfied).

^e Income was measured using categorical items for income ranges.

Table 6. Logistic Regression Results for Self-Employment

<i>Independent Variables</i>	<i>54 Years or Younger</i>	<i>55 Years or Older</i>
Intercept	-2.403***	-2.034***
Self-employed father	.756***	.746***
High school degree	.047	-.132*
4 Years of College	.199***	.450***
Decade-1970s	-.391***	-.049
Decade-1980s	.028	-.063
Decade-1990s	.048	-.096
Model chi-square	391.95***	234.18***
CoxSnell R ²	.015	.021
Nagelkerke R ²	.031	.037

*p<.05
 *** p<.001

Notes: Numbers in the cells are the exponentiated coefficients. Since the decade variable involves four groups (1970s, 1980s, 1990s, and 2000s), the decade variables are the dummy variables representing those four groups that use the 2000s as the reference category.

the variable significance levels show that for both older and younger entrepreneurs, having a self-employed father was positively and significantly related to becoming self-employed. For older entrepreneurs (but not for younger entrepreneurs), having a high school diploma made them less likely to choose self-employment. However, having four years of college education was positively and significantly related to becoming self-employed for both groups. This relationship was even more pronounced for older entrepreneurs. Thus, it appears that education plays an even more important role for older entrepreneurs than for younger entrepreneurs.

Again we can see that, over time, there has been no real change in the self-employment rate of older entrepreneurs, but the results indicate that during the 1970s, younger individuals were significantly less likely to become self-employed when compared to the 2000s. This is consistent with the results shown in Table 4.

An additional chi-square test was conducted to see if older and younger entrepreneurs differed with respect to having a self-employed father. The results in Table 7 clearly show that having an entrepreneurial father made all of the respondents much more likely to become an entrepreneurs themselves. However, older entrepreneurs were much more likely to have self-employed fathers than younger entrepreneurs.

Finally, the mean levels of educational attainment showed that younger individuals were significantly more likely to have achieved higher levels of education (see Table 8). Respondents who were younger than 55 years achieved almost two additional years of education than those individ-

Table 7. Chi-Square Test of Importance of Having a Self-Employed Father

<i>55 and Older</i>	<i>Father Status</i>	<i>Self-Employed</i>	<i>Someone Else</i>
No	Self-employed	941 (18.8%)	4,057 (81.2%)
	Someone else	1,418 (9.7%)	13,220 (90.3%)
Yes	Self-employed	417 (29.1%)	1,015 (70.9%)
	Someone else	381 (17.2%)	1,838 (82.8%)

The chi-square test revealed significant differences at the p<.001 level.

uals who were older than 55. The mean figures also show that younger individuals averaged more than a high school diploma (12 years of education is equivalent to graduating from high school). However, older entrepreneurs averaged 1.2 years of education more than all older respondents, compared to the less than 0.6 year difference between younger entrepreneurs and all younger respondents. This narrowed the gap with younger entrepreneurs by nearly a year and again shows that education plays a larger role for older entrepreneurs. That is, those older individuals who have more education are more likely to become entrepreneurs than younger individuals.

Discussion

The empirical results in this study show how quickly the U.S. population is aging and they also show that a greater percentage of older workers choose to become entrepreneurs when compared to younger workers. This has remained consistently true over the last four decades. These data suggest that the growth rate of older entrepreneurs is likely to be among the fastest of any age group of entrepreneurs. This is why I argue that older entrepreneurs represent an important and growing subset of all entrepreneurs, but as I also point out, little research has been conducted on this unique and growing group.

Clearly both education and having a self-employed father was important to the entrepreneurs in this study. This is con-

Table 8. Average Number of Years of Education

<i>Respondents</i>	<i>Younger</i>	<i>Older</i>
All respondents	13.15***	11.35***
Self-employed individuals	13.71***	12.54***

***p<.001

sistent with prior findings in the literature; however, the results seem to show that these factors were significantly more important to older entrepreneurs. Older individuals are less likely to have a college degree than younger individuals, but for those individuals aged 55 and older with a college degree, the multinomial logistic regression results indicate that they are more than two times as likely to become an entrepreneur.

As far as the importance of having an entrepreneurial father, the chi-square analyses showed that older entrepreneurs are 10 percent more likely to have had a self-employed father than younger entrepreneurs (significant at the $p < .001$ level). Given the educational differences between older and younger individuals, and the finding that a greater percentage of working people over the age of 55 choose self-employment, the importance of having a self-employed father may be more of an antecedent to new venture creation for older workers. It is possible that work experience compensates for the lower education level, but being able to draw on the knowledge, skills, and mentoring of a self-employed father is also likely to help older entrepreneurs found their new venture start-ups.

The issue of capital does not seem to be any more (or less) of a factor for older entrepreneurs than for entrepreneurs in general. Government statistics show that older Americans have diverse economic backgrounds similar in many respects to the general population. There was no difference in the reported income levels of younger versus older entrepreneurs, but both sets of entrepreneurs reported higher incomes than their respective comparison groups of working individuals (those who worked for others). However, older entrepreneurs indicated that they were significantly more satisfied with their financial situations than younger entrepreneurs. The reasons for this difference are unclear. It may be that younger workers have to worry about family obligations (e.g., children's education, feeding a family), while older entrepreneurs are more likely to live in "empty nest" households. Or perhaps younger entrepreneurs simply have higher expectations. Future research is needed to better understand the reason(s) for this difference.

Finally, the results of this research suggest that there are significant economic benefits to promoting entrepreneurship. Encouraging and promoting entrepreneurship among the elderly may help alleviate some of the growing pressures on retirement savings as greater numbers of Americans live longer. Entrepreneurship among the elderly may also help reduce the reliance on Social Security benefits for income. Concerns about the long-term solvency of Social Security and the fact that Americans' retirement savings will have to go a longer way point to the need for new and innovative solutions for older Americans to remain financially independent.

One possible way of spurring entrepreneurship among older Americans is through innovative education programs. Formal training and education programs may help older individuals better understand the steps and benefits of entrepreneurship. These can be used to overcome the lower education levels and can be particularly useful for those who did not have self-employed fathers. Universities and community colleges, as well as private training firms, can be entrepreneurial themselves by offering needed programs to this growing target market. In addition, public policy-makers may want to consider subsidies or offer tax incentives to start businesses. Given the changing demographics of the population as a result of aging, future economic growth and prosperity at the local, state, and national levels will increasingly require increased productivity from this segment of society. Even a 1 or 2 percent increase in the entrepreneurial new venture creation rate among the elderly would result in tens of thousands of new jobs for the economy. Obviously, it would have a significant positive impact on American society.

Future Research Directions

One of the goals of this article is to discuss older entrepreneurs to make researchers aware of their growing importance to society and some of their unique qualities. This group of entrepreneurs is likely to grow, perhaps even more rapidly than any other group of entrepreneurs, but very little is known about them. With so many research questions that need to be answered with respect to older entrepreneurs it is hard to know where to begin. Even basic questions remain unanswered, such as just how much of a financial contribution do older entrepreneurs make? How many Americans do they employ, and when hiring, are they more likely to hire older individuals? What types of businesses do they start and what are their financial goals? Unfortunately, the GSS data did not include any information about the types of firms founded by the entrepreneurs in this study, nor did it have any information on the financial performance of those firms.

It would appear that the older entrepreneurs in this study are largely satisfied with their financial situations, but it could be that they are already financially secure and are simply pursuing small entrepreneurial ventures as a hobby to while away their time. Or, they may be building the next great American company. These older entrepreneurs are also within the large, rapidly retiring "baby boomer" generation. This personal experience gives them the ability to better recognize the needs and desires of those within this target market. However, I could not test whether this was the case. That is, were they focusing their entrepreneurial ventures on older individuals or on the overall population? Research is needed to better understand the target markets for older entrepreneurs' ventures.

Another interesting question is: How much risk do they tolerate and how does it compare to younger entrepreneurs? This may tell us something about the types of businesses and the amount of personal investment these entrepreneurs are willing to make. I divided the GSS respondents into just two groups—those over 55 and those under 55. It may be that dividing the population into three or four groups may yield more interesting and important findings. For example, younger entrepreneurs in their 20s may be willing to tolerate greater risk in pursuit of greater potential rewards because they know they have many years to overcome a financial loss. However, older entrepreneurs may not be willing to risk as much because they recognize that they do not have the same time to overcome financial losses.

Aside from the apparent economic benefits of entrepreneurship, there may be possible health benefits for older individuals. Staying intellectually and physically active may extend the length and the quality of life. For those who do not wish to work for others, starting and operating a new venture may give them the mental and physical stimulation they may otherwise not get. Studying the longevity and quality of living for older entrepreneurs versus other groups of older nonentrepreneurs may provide interesting findings. Although it is not reported in any of the earlier tables, the GSS data revealed that the mean age for the older entrepreneurs was 67.7 years. This was significantly ($p < .05$) older than the mean age for the population of older people in general (67.2 years). This result is consistent with the idea that entrepreneurship can help people live longer. However, because the GSS data are cross-sectional, we cannot deter-

mine causality. It may be that people who are healthier and who live longer are the ones who engage in entrepreneurship. Again, further research is required.

One final suggestion would be to see if older entrepreneurs have any benefits as a result of their added years of work experience, or with respect to their personal social networks? They may have learned more in the school of “hard knocks” and as a result of their more extensive work experience, they may have added access to financial and human capital through their social networks. These are just some of the many empirical questions that are ripe for study.

Conclusion

This study makes an important contribution to the entrepreneurship literature by introducing and drawing attention to an important and relatively understudied area of research—entrepreneurship among older Americans. It is one of the only studies that I am aware of that focuses on this unique group of entrepreneurs. As discussed in this article, there are significant societal and economic benefits to promoting entrepreneurship within the older population of Americans. However, the simple fact is that as the population ages, greater numbers of older entrepreneurs will emerge. It is important for scholars to recognize the trend and the benefits of studying this group of entrepreneurs. There is much future research, particularly longitudinal research, needed to further develop the theory in this important area. Through the data analysis and discussion here, I hope that researchers will be able to further build theoretical frameworks to test hypothesized relationships in the future.

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Revisiting Doing Business in the Middle East

David E. Desplaces

Nancy K. McIntyre

T*his case engages students on a number of issues common to doing business in other countries, specifically in the Middle East. It is intended to be a basis for class discussion rather than to illustrate either effective or ineffective handling of the situation. The case seeks to integrate issues of international management and cross-cultural conflict and negotiation. Students are challenged to diagnose a cross-culturally sensitive situation and develop solutions in a team environment under limiting time restraints. This case is also designed to help students understand the cultural aspects of a situation and how different solutions could have major consequences on the bottom line of a company.*

Aboard an Offshore Services Contractor's (OSC) flagship somewhere in the Arabian (Persian) Gulf, the captain and crew, as well as two other support vessels owned by OSC, were busy offloading fuel. It was the middle of the night. While the fuel was actually intended for an offshore drilling rig owned by the government of one of the most fundamentalist Islamic and radical countries in the region, offloading the fuel and selling it to smugglers had been a profitable business venture for OSC for quite a while.

In fact, over the years, the company had successfully offloaded more than 745,000 gallons of fuel worth close to \$500,000. The captains of all three ships, along with all of the crew members had received money for either actively taking part in the embezzling scheme or for looking the other way when the offloading took place. Although they felt that the risk was worth the payoff, the crew knew that they risked being charged with contraband. They also understood that if they were caught, according to Islamic law, custom's regulations and international law, it would mean that they would risk losing all of the assets of OSC, and might also receive stiff prison terms under horrific conditions.

As the captain scanned the water watching for Coast Guard vessels that regularly patrolled the Arabian Gulf waters, he thought about all of the stories he had heard of boats that had been boarded and searched by the various Coast Guards of countries in the Middle East—stories that included the loss of the cargo, the seizure of the ships, and

even imprisonment for the captain and crew. He knew that getting fired by OSC was the least of his worries. What concerned him even more was that if he and his crew members were caught stealing the fuel, they risked being punished under the regulations of Sharia, often referred to as Islamic law. This punishment could include fines, imprisonment, mutilation (i.e., the cutting off of their hands), and even death.

A few hours later, the lights of the Coast Guard vessels scanned the deck of the OSC vessels, and began the process of seizing both the vessels and the cargo. The captain realized that he and his crew might have just made the biggest mistake of their lives. Although he could not get a signal on his cell phone and thus could not contact the CEO of OSC, he hoped that his boss would hear the news soon and come to the rescue of the crew of the three vessels that were now being seized.

Offshore Service Company

Offshore Service Company (name disguised) was formed to provide ships to service offshore drilling platforms. OSC was the brainchild of DJ (name disguised), a 59-year-old British national who had been living and working as a civil engineer in the Middle East for 25 years. DJ worked hard to build both his business and his reputation in the petroleum service industry. He was now living in Dubai, the economic capital of the United Arab Emirates (UAE) in the Arabian Gulf. Recognizing the growing need of large petroleum companies for expert offshore and marine support services, DJ formed the company in 1977. With the help of a local partner, DJ created OSC as an integrated service provider of a range of products and services for oil, gas, and petrochemical companies (mostly providing support and resupplying drilling rigs on the seas).

Although DJ was now the managing partner of a large, successful company, his company had humble beginnings. DJ and his partner had started their operation by subleasing three tugboats and three barges to local petroleum companies that wanted short-term commitments to such equipment. Over the years, he watched his business grow to a fleet of many ships, including five tugboats, seven supply/utility ships, two platforms, two barges, and various support ships,

all of which were partially owned by subsidiaries of the company. All of the ships were owned on a lease-to-purchase agreement, and required full insurance coverage to protect the value of the investment. At the time of the smuggling incident, OSC employed more than 340 staff and crew members from 19 different countries. As the company grew, DJ expanded OSC's customer service territory past the traditional geographic boundaries of the UAE.

The UAE is a federation of seven emirates or states. The main religion in the region is Islam and Muslims make up 96 percent (Shi'a, 16%) with Christians, Hindus, and representing the remaining 4 percent. Although the emirates are predominately Muslim, they uphold Sharia (Islamic law) to differing degrees in their courts. For instance, in Dubai, the legal system is based on Sharia, but it incorporates elements of Western legal systems in such areas as commercial law.

One expansion outside of the UAE occurred when DJ decided to do business with the government-owned oil company (referred to as GOOC) in one of the Islamic and radical countries of the region. Although he realized that a commercial undertaking in this country might be risky (not a well-established business environment, strong involvement of the government in the economy, and radical views), he carefully weighed the risks and decided to initiate service offerings with GOOC. At the time of the smuggling incident, OSC's contracts with this oil company were valued at more than \$17 million and included the use of five vessels over the span of five years. Three of those vessels were now in the hands of the government of the country that was home to GOOC.

A Brief Overview of Sharia

Sharia denotes an Islamic way of life that, according to Muslims, has been derived from Islam. To Muslims, it represents the religious code for living in the same way that the Bible offers a moral system of conduct for Christians. Sharia has been adopted by many Muslims as a matter of personal conscience and in many Middle Eastern countries is enforced by the courts. While the courts in some countries have adopted all of the elements that make up Sharia, others enforce limited elements such as inheritance, banking, and contract law.

Calling Sharia "law" can be misleading, as Sharia extends beyond law. Sharia is the totality of religious, political, social, domestic, and private life. Sharia is primarily meant for all Muslims, but in some countries, it is applied to non-Muslims living in a Muslim society. The regulations of the Sharia can be divided into two groups: (1) regulations on worship and ritual duties, and (2) regulations of juridical and political nature.

With respect to the juridical and political impact of Sharia, individuals accused of a crime are not presumed to be innocent as they are in the United States. Consequently, it is customary that when people are considered suspects in a crime or litigation they are jailed regardless of the evidence, and

then questioned about their involvement. Governments in many Muslim countries have been accused by the Western media of convicting people to reinforce governmental power and control public opinion, regardless of the truth or fairness to all parties. Furthermore, the leadership in some Muslim countries has been accused of supporting and harboring international terrorism, making normal economic exchanges and cooperation difficult. Therefore, economic relationships with the West have been limited by trade restrictions on economic, cultural, and political levels.

In this case, Sharia has a strong impact on how the government treats the men and on the punishment that might be meted out. In this particular country, the legal system was based on Sharia. The principles of government are stated to be justice, equality, and consultation, in accordance with Sharia. Punishments for serious crimes (stealing, drug, adultery, rape, and murder) include amputation and death by beheading, hanging, or, in rare cases, stoning (Encarta.com 2003).

The government might also have a claim on the 10 percent performance bond taken out by OSC. GOOC, and thus the government, might claim negligence on the part of OSC, and therefore be entitled to the money secured under the performance bond. The government might also make the argument that they are entitled to the vessels seized. DJ is pondering how this might affect his negotiation with the company and the customs officials upon his arrival.

Existing Relationship Between OSC and GOOC

The oil industry plays a vital role in the economic well-being of many countries in the Middle East. Oil is a source of energy and revenue, but the infrastructure to extract it requires constant investment, updating, and maintenance. Given the choices made by the country that DJ is doing business with, they have not had the benefit of international economic and technical cooperation that other countries in the Middle East have enjoyed. Due to this country's poor relationship with the West (United States and Europe), opportunities to find and enlist expert services to maintain the current industry infrastructure are limited or nonexistent because most large multinational corporations are often pressured by Western states not to conduct business with this country. Due to GOOC's involvement with the government, it is next to impossible to contract with Western companies. However, an Arab-based company with oil service expertise, such as OCS, would be the perfect fit.

In June 1999, DJ signed a five-year service contract with GOOC. The contract stipulated that OCS would provide the expertise and equipment necessary to maintain and update nine oil fields, which included five ships necessary to provide the services. Of the five ships, three were responsible for monitoring the offshore oil fields, supplying the platforms

with food and fuel, and transporting personnel and equipment as needed. The supplying of fuel necessary to operate GOOC's platforms and offshore bases was done according to a set schedule. OCS was currently three and a half years into the contract with one and a half years to go. At the time of the smuggling incident, OSC had received \$6.5 million for services rendered, and was owed another \$1.5 million in outstanding invoices. Under contract stipulations, and as was customary in the oil production business, OCS was required to obtain performance bonds totaling 10 percent of the total contract value (more than \$1 million in this case). That money could be used by GOOC in the event OCS was negligent in its duties. Also, as customary in the industry, all ships were insured for replacement value.

In addition, at the time of the incident DJ and a partnering company were negotiating with GOOC the possibility of additional contracts to include various projects worth \$60 million for the next six years alone.

DJ's Dilemma

When DJ landed in the capital city, he was met by his local representative, Amed, who is a native of the country. A car was waiting to take DJ to meet with the OCS lawyers working the case. In an hour they would head to GOOC's corporate headquarters where they were to meet with the GOOC's operations director who was furious over the situation. The operations director had already indicated to Amed that not only did he want to keep the seized ships, he was considering refusing to pay the outstanding invoices and might call upon customs' officials to jail DJ and Amed, too.

DJ understood that this matter would not boil down to just replacing the fuel and paying a fine. He knew that under international law, illegal activity involving contraband automatically grants the government the right to seize all the

assets involved, regardless of ownership. Due to the contraband activity, the ships had automatically become the property of the government. As DJ began to realize the financial impact—estimated replacement value for the ships was \$8.5 million according to insurance policies and \$1.5 million in outstanding invoices—his blood pressure rose.

Amed confirmed to DJ that the crews had been treated well and had been provided legal representation through OSC's lawyers. However, what appeared to complicate the matter was that a third party was involved in the scheme. The party that convinced the crews to participate in the operation in the first place was the project maintenance manager for GOOC's operations. In short, one of GOOC's own employees was the ringleader and responsible for initiating the pilfering of the fuel. GOOC's operations director appeared to have been caught off guard as customs officials informed him of the allegations after the ships were seized, and he was being pressured to put the blame on OCS to avoid embarrassing GOOC and the government.

What Should DJ Do?

DJ was unsure of how to proceed. He was concerned for his crew and his equipment, worried about the future of the contract, and wondered if he would be able to leave the country at all. He realized that he needed to defuse the situation and that his company was at stake.

DJ had a number of things to consider. First and foremost, he needed to figure out how to protect his crew and get them out of jail as soon as possible. He wanted to ensure their safety and he wanted to regain ownership of his vessels. He also wanted to be sure that he could continue to do business with GOOC. For planned negotiations, like contract negotiations, DJ always spent a great deal of time preparing for the negotiation meetings. In this case, DJ had very little time to prepare.

Note: The instructor's manual is available upon request from the author at desplacesd@cofc.edu.



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Book Review

Entrepreneurship, Competitiveness and Local Development

James W. Bronson

Luca Iandoli, Hans Landstrom, and Mario Raffa, eds., *Entrepreneurship, Competitiveness and Local Development*. Northampton, MA: Edward Elgar Publishing, Inc. 2007. 279 pages. \$125.00

Entrepreneurship, Competitiveness and Local Development, edited by Luca Iandoli, Hans Landstrom, and Mario Raffa, is the second volume in a series of selected papers from the annual Research in Entrepreneurship conference (RENT). This volume contains 11 of the best papers out of the 131 presented at the 2005 RENT conference.

The conference is jointly sponsored by the European Institute for Advanced Studies in Management (EIASM), and the European Council for Small Business and Entrepreneurship (ECSB), so it should be no surprise that all of the authors are affiliated with European institutes and universities. Therein lies a singular strength of the volume: The research is based in Europe. The European Union and its member nations constitute a source of data different in both qualitative and quantitative terms in comparison to data generally available in North America. These differences in available data translate into varying perspectives on otherwise familiar avenues of research. A second strength stems from the editor's introduction, which offers an excellent recapitulation of the history of entrepreneurship research with some emphasis on the European contribution.

Organization of the Book

Following the historical review, the editors present a case for organizing the book's content into four major sections: (1) the local context as sociogeographic entity, (2) the importance of knowledge flow and creation in local networks, (3) organizational models and management issues for small firms operating within local networks, and (4) the role of entrepreneurs within networks. This four-part organization should increase the functionality of the book. However, the editors have chosen to present each paper alphabetically by first author, as a standalone chapter, thus obviating the potential linkages among papers.

Synopsis of the 11 Chapters or Papers

Chapter 1: Bertoni, Columbo, and Grilli employ an econometric analysis to offer compelling evidence that, in Italy, venture capital financing stimulates firm growth as opposed to firm growth attracting venture capital.

Chapter 2: Bruyneel, Carree, and Peeters find that unemployment is not an incentive to become an entrepreneur in Belgium.

Chapter 3: Dijkstra, Kemp, and Lutz investigate the effect of entry barriers on new ventures in the Netherlands and reveal that accepted barriers are often not regarded by entrepreneurs as detrimental to entry.

Chapter 4: Domotor and Hader compare entrepreneurial traits to entrepreneurial attitudes finding that, in Austria, attitudes are better predictors of intent.

Chapter 5: Gabrielsson and Politis utilize a Swedish sample to find that career experience and career motives determine entrepreneurs' preference for causal or effectual modes of reasoning.

Chapter 6: Gibcus, de Jong-t hart, and Kemp use a longitudinal database to examine factors determining the growth of start-ups in the Netherlands.

Chapter 7: Terjesen and O'Gorman explore the role of gender differences in the supply of venture financing in Ireland.

Chapter 8: Uhlaner and van Santen investigate the relationship between contextual variables and knowledge management practices in technology-based Dutch businesses.

Chapter 9: Wauters and Lambrecht look at motivators for entrepreneurship in refugees located in Belgium and find that integration into the host society is a compelling rationale.

Chapter 10: Welter, Smallbone, Isakova, and Aculai investigate gender differences in the transitional environments of Ukraine, Moldova, and Uzbekistan. Their results indicate that environmental factors dominate gender differences.

Chapter 11: Wijbenga, Postam, and Stratling employ a Dutch sample to investigate the role of venture capital in the development and quality of control systems in entrepreneurial firms.

Conclusion

If a readings book is to create value, that value must be in the selection of articles and the rationale behind the selection. *Entrepreneurship, Competitiveness and Local Development* does meet the criteria for creating value on the first count. The editors' introduction, with overview and categorization of entrepreneurship research, constitutes an excellent background for additional readings or research extension, while the originality and quality of the papers is worthy of the reader's interest. If the book has a failing, it is on the second

count. The editors have not provided linkages across the chapters, nor have they chosen to organize the chapters into the four research categories suggested in the book's introduction.

The editor's introduction to this volume stands alone, either as an introduction or as a refresher, to anyone desiring a brief history of entrepreneurship research. Beyond the introduction, this volume will be of value to researchers with an interest in European entrepreneurship research.



About the Author



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Book Review

Designing Clothes: Culture and Organization in the Fashion Industry

Lisa Hayes

Veronica Manlow, *Designing Clothes: Culture and Organization in the Fashion Industry*, New Brunswick, NJ and London, UK: Transaction Publishers, 2007. 313 pages. \$34.95.

In *Designing Clothes: Culture and Organization in the Fashion Industry*, author Veronica Manlow gives a detailed look into the fascinating world of fashion. If you have ever wondered what it would be like to experience the culture inside a fashion company, then you will truly enjoy this book. The unique fashion industry information provided is helpful for either launching a business or working in a related field. The reader will gain a better understanding of the fashion business and the role of individuals within the corporate fashion structure. The culture existing in the world of fashion is complex, competitive, vivid, pulsating, and very fast paced. By spending time as an insider at the world renowned fashion firm of Tommy Hilfiger, the author is able to share experiences specific to the world of fashion design and bring the reader along for the journey.

The five chapters in Part I of the book lay the foundation for understanding the fashion industry as it is today. The first chapter takes the reader on a brief trip through the history of modern-day clothing, showing how fashion has evolved over time. Fashion as a form of self-expression has long been a part of society. Fashion can portray a personal image and even create an identity. It is explained here how class and status, both of which can confer power or authority, take a leading role in the dynamic of dressing and thus shape the world of fashion.

Chapter two details the growth of the domestic fashion industry and shows how a new market is instantly created as the economy in the United States expands its middle class. The effect of French haute couture, which originated in Paris, is stressed, particularly how it continues to drive much of the industry today. By the late 1940s, America finally became a fashion center in its own right and subsequently the ready-to-wear business followed in the 1950s. This timeline allows the reader to fully comprehend the role that designers play in

today's corporate fashion culture. The current scope of the industry is accurately summed up with Manlow's quote: "Today's ready-to-wear fashions require a complex network of organizations traversing national boundaries sometimes for its design and increasingly for its production and dissemination—the latter being both actual (sales) and symbolic (media)" (Manlow 2007: 91).

In the third chapter, the author discusses the role of fashion designers within the industry: the diversity of their creative styles, the prominence they have achieved, and the power of their identity. Men's fashion and its history are examined as it relates to women's fashion. This is important as the author's case study in Part II chronicles a company whose designer, Tommy Hilfiger, started in men's wear, therefore filling a void in the U.S. marketplace. As society changed over time, and fashion gradually infiltrated all classes, designers became arbiters of personal style. The reader is introduced to Charles Fredrick Worth, credited with creating the first haute couture house in Paris and setting international fashion standards. Other influential designers such as Coco Chanel, Claire McCardell, and Bonnie Cashin are mentioned to illustrate how fashion houses function in Europe and the United States.

Manlow explains that the creation or development of a symbol or logo to represent a designer that could be used on clothing did much to add status to dressing. "The designer logo was an important development that would contribute to the broad recognition of designers and a massive demand for their highly visible products" (Manlow 2007: 99). A logo, such as the Ralph Lauren polo horse and rider, recognized around the world can represent the designer instantly and suggest a certain lifestyle that people are eager to be part of. It is also discussed that designers must be very creative, quick to recognize industry trends, and be exemplary leaders while developing new ideas and products on multiple levels.

The fourth chapter focuses on leadership within the fashion industry and the direct correlation to the ultimate success of the organization. Manlow focuses on leadership as it pertains to the creative enterprise that is common among design firms. The many examples presented show how the organization within the fashion industry is so diverse. She shows the importance of allowing flexibility from traditional

management structures and about other unique requirements. This helps to convey the high value placed on fashion industry leaders. "The personal charisma of the founding entrepreneur or the tradition provides the glue that holds the organization together" (Davis and Scase 2000). The author emphasizes the importance of charisma as it applies to the leaders or designers of both high fashion and mass market firms. Transferring charisma from an individual designer to an entire brand to maintain currency and excitement even after the original designer is no longer involved is paramount. Examples of this are outlined as necessary to keep a company vital in the competitive fashion industry. "Without such steps the Liz Claiborne name would have ceased to hold any significance in contemporary fashion let alone find the capital to continue to exist" (Manlow 2007: 160).

At the end of Part I Manlow compares many different types of organizational cultures within the fashion industry and discusses the direct impact on employees. The author explains why the mission of an organization should be collective and describes the fragile balance between the goals of the firm and those of the individual. From some of the examples, Manlow implies that the fashion business is not always fair. "In the fashion industry organizational effectiveness, or the success of a company, is not necessarily correlated with a fair and democratic work environment" (Manlow 2007: 170). The author discusses how frequently it is required at many fashion firms to possess the right look, which will reinforce the brand, merely to get hired.

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About the Author



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Prof. Hayes' area of research focuses on green fashion, textiles, and production as it relates to the future of design. She is currently working on the research, design, and production of an entirely "green" sportswear collection for presentation at the Eco-Fashion Show at the NCSU College of Textiles in North Carolina in April 2009. In November 2008 she presented her research on innovative synthetic fiber at for the International Conference on Sustainability of the Fashion Chain: Crop to Shop in New Delhi. Prof. Hayes has presented papers most recently at Costume Society of America and Virginia Association of Teachers conferences. She was also cocurator for "Inside the Designer's Studio: Bonnie Cashin" at the Leonard Pearlstein Gallery in Philadelphia. Prof. Hayes is a member of Costume Society of America, International Textile Apparel Association, and Fashion Group International.

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