The Impact of Distance from a Nation's Commercial Center on Entrepreneurs' Managerial Skills, Firm Success and Performance

John E. Butler
Shidler College of Business
University of Hawai`i at Mānoa
Honolulu, Hawai`i 96822 USA

Wai Chamornmarn
Faculty of Commerce and Accountancy
Thammasat University
Bangkok, 10200 Thailand

Stephen Ko
Dept. of Management and Marketing
The Hong Kong Polytechnic University
Hong Kong

Abstract

This research looks at the impact of a firm's distance from the center of governmental, commercial and financial activities on entrepreneurial capabilities, tendencies and firm performance. This is especially relevant in developing countries, because few cities tend to usually have the infrastructure and educational resources that are seen as needed for entrepreneurial activity to flourish.
A matched sample of 269 Thai entrepreneur/business owners and their partners/senior managers/co-founders, representing every region of the country, provided the data for this study. Results indicate that certain skills had an impact on performance, but that distance had neither a direct or moderating effect on firm performance. There was some evidence that those farther from the center of activities were less adapt with respect to marketing and financial analysis, but their entrepreneurial traits and skills in other areas were not different from more centralized located entrepreneurs.

1. Introduction

Countries characterized as emerging economies have traditionally focused on attracting foreign investment for large commercial ventures or infrastructure projects. However, in recent years some of these countries have paid increased attention to developing local entrepreneurs and taking steps that facilitate entrepreneurial behavior as a way to increase meaningful employment and stimulate economic growth (e.g., Birch, 1979, 1987). Recent research in crowdfunding suggest that this approach could be increasingly important to the economic growth because it provides investment revenue to firms that historically have not had access to venture capital (e.g., Allision, Davis, Shor & Webb, 2015), with a side benefit being the expansion of the middle class. Entrepreneurial research has examined a large number and variety of programs designed to increase the rate of entrepreneurial behavior as well as the ultimate success of new firms (Sautet, 2013). However, in general, the assumption has been that the type of assistance needed in cosmopolitan urban areas is different than what is needed by potential entrepreneurs in non-urban areas (McElwee, 2006), with the prevailing view being that urban entrepreneurs need a more sophisticated level of business knowledge.

In many countries there is a child's book that contrast the sophisticated life of the "city mouse" with that of the less sophisticated "country mouse." The original story was actually one of Aesop's Fables.

Although the country mouse always returns home to the "good life" we are left with the impression that the city has more cultural and economic opportunities (e.g., Benjamin (1987). Governments often act in the same fashion and assume that the types of business programs needed by those more distant from the center of commercial and economic activity should be focused on basic business information and encourage entrepreneurial activity focused on basic needs rather than extensive wealth creation (e.g., Suntornpithug & Suntornpithug, 2008). In many cases they operate on the assumption that provincial entrepreneurs are fewer in number because the traits associated with successful entrepreneurial behavior and business founding are less present in these provincial populations. These beliefs have their roots in early entrepreneurship research that emphasized traits as the key factor in explaining entrepreneurship (e.g., McClelland, 1961). However, at the entrepreneurial level, very little research has been focused on examining the extent to which these operating assumptions are true.

This research examines the extent to which location, in terms of its nearness to the center of governmental, commercial and education activities really matters in terms of entrepreneurial behavior and the ability to subsequently operate their firm successfully. This is important, because if distance really does matter it would be important to know if it matters at the levels where traits are developed, or manifests itself in the business skills needed to successfully operate a firm. It would also be important to governments in terms of planning their degree of Wi-Fi diffusion to non-metropolitan areas with respect to the diffusion of business related knowledge.

2. Model and Hypotheses

Entrepreneurship has a strong research tradition that suggests that entrepreneurs normally have a high need for achievement (McClelland, 1961). Rotter (1966) extended this research based and theorized that entrepreneurs with a high need for achievement also believed that they could shape external events. He labeled his concept locus of control. Individuals with high internal locus of control tend to believe that they can overcome obstacles and are more likely to engage in uncertain activities such as entrepreneurship. The model for this research (See Figure 1) depicts a link between having a strong internal locus of control and firm performance. Thus,

H1: Firms with entrepreneurs/owners with higher levels of internal locus of control will have higher levels of performance

The second link in the research model relates to the ways successful entrepreneurs think about business issues. The way that owners approach certain business decisions has been long embedded in the entrepreneurship literature (Kirzner, 1973; Knight, 1921). Entrepreneurs have been depicted as more comfortable taking risks, being confident and ambitious, willing to attempt to start a new business even after failing in their previous venture, and seeing obstacles in the environment as an opportunity. We have labeled the combination of these attitudes as entrepreneurial way of thinking, which is related to Covin and Wales (2012) concept of entrepreneurial orientation (Covin & Wales, 2012), although it is more focused on entrepreneurs managerial competences

. *H2: Entrepreneurs who place a higher value on managerial competences will have firms with higher levels of performance.*

Self-efficacy refers to the degree to which an entrepreneur believes that their effort will lead to the desired outcome. It is generally associated with higher levels of firm performance. Normally, when self-efficacy is related to increased effort in specific business areas, it suggests that higher levels of effort and higher levels of performance (Boyd & Vozikis,1994)

. *H3: Entrepreneur/owners with higher levels of self-efficacy with respect to marketing, management, financial control and risk taking and innovation will have high levels of firm performance.*

Some firms are just better at performing those tasks needed to successfully operate a business. These include the analytical, human and inventive activities that drive business growth. Firm that are better at these tasks should have higher levels of performance (Magoutas, Papadogonas & Sfakianakis, 2012), at least that is one of the premises on which is built the delivery of business subjects at all levels.

H4: Firms with higher levels of capability with respect to business processes will have higher levels of performance.

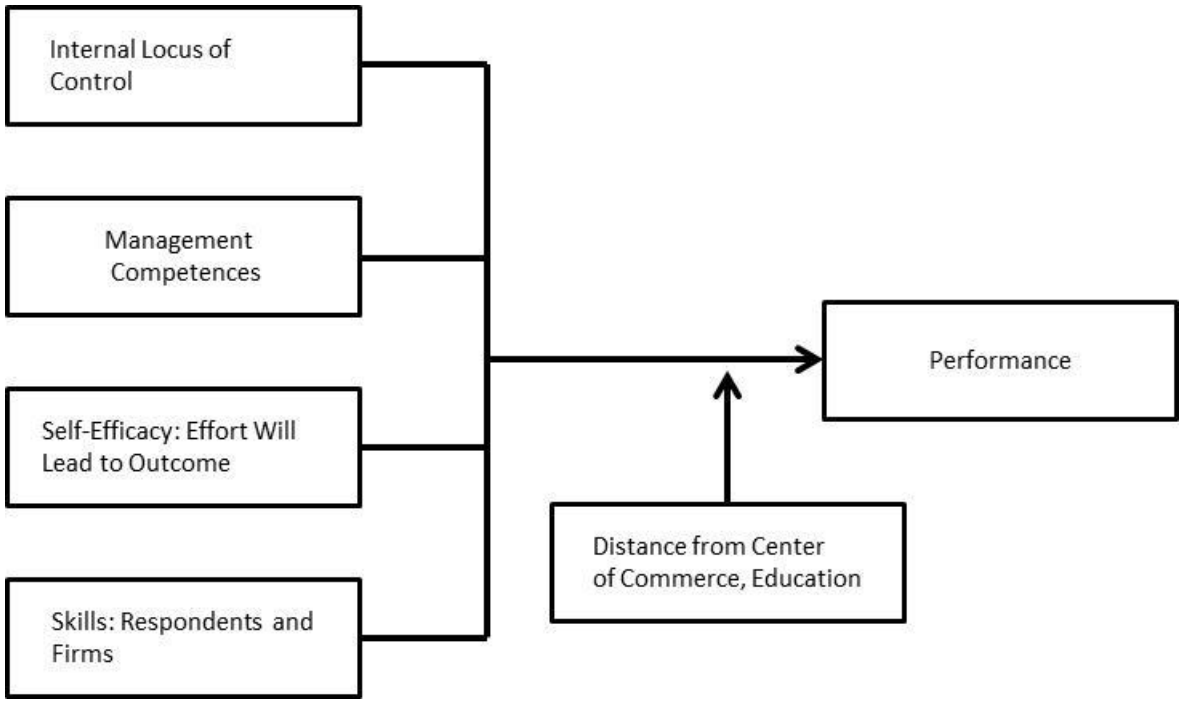
The final hypothesis relates to the impact of distance. In general firms that are closer to commercial, educational, financial and educational centers should have much easier access to information, opportunities, and infrastructure needed to be successful.

Thus, to the degree that locus of control, managerial competences, self-efficacy and higher levels of capability with respect to business process impact on performance, distance should moderate that effect.

> *H5: Distance will have a moderating effect on the impact that the trait and skill related factors have on firm performance.*

These hypotheses are depicted in Figure 1, which serves as the model for this research.

Figure 1. Factors affecting entrepreneurial performance



3. Method

3.1. Sample

Data was collected from two distinct groups at regional business meetings of business groups, corresponding of what would constitute a chamber of commerce in many countries. The first group of respondents consisted of 554 entrepreneurs/business owners and the second set included 498 partners/senior managers/co-founders working for the same set of firms. The second set provided a way to collect additional information about these firms without making the survey too long. We were able to obtain a matched set of data in 301 cases, but 32 of these were eliminated because they had more than 1,000 employees or had missing data. While considering firms with up to 1,000 employees as SMEs, which would be unusual in developed economies, Thai firms, especially manufacturers tend to have a larger number of employees and to also directly employee a large number of cooks, maintenance and security personal. Thus, the final matched sample used in the analysis involved 269 firms.

Table 1 contains some descriptive statistics for the respondents and their firms, which are typically used in entrepreneurship research and are relevant control variables here (Stewart, Watson, Carland, & Carland, 1999).

Table 1. Descriptive statistics

Variable	Matched Sample N=269
Firm Age	19.4 years
Original Founders	69%
Sex of respondent owner	65% male
Sex of second respondent	58% male
Have started another business	37%
Age of respondent owner	44.2
Age of second respondent	42.2
Family had Business (% yes)	53.1
Number of Employees 1999	104
Number of Employees 1996	118

These respondents came from every region in Thailand, and represented firms in 33 of the country's 76 provinces. It should be noted that the vast majority of the respondents (55%) are from the Bangkok metropolitan area, but most of Thailand's business activity also occurs in this region. An examination of the mean differences for the constructs and variables used in this research revealed no statistically significant differences between the Bangkok firms and the firms in other provinces.

Retailing (41%), parts manufacturing (7%), finished goods manufacturing (47%) and wholesaling activity (20%) were the major categories represented, with some firms involved in multiple activities. Slightly over 20% of the firms indicated direct involvement in exporting while 7% indicated they were directly involved in importing. In general, the distribution is typical of the major business activities in Thailand. Approximately 50% of the firms had less than 10 million baht (US$250,000) in assets, although some firms (1.9%) had over 700 million baht (US$17,250,000) in assets. A large number of the respondents had university degrees (55.9%), but 8.2% had six years or less of formal schooling. Many of the respondents had a business degree (22.4%), or had taken some courses in business (48.6%).

While it is hard to categorize the degree to which the sample is representative because of a lack of industrial census data, this sample appears to have higher levels of education and more females than would be present in a random sample of all SMEs in the country. In part this may be the result of the fact that the firms selected were members of a business organization support group, which would attract relatively more established and successful firms.

3.2. Data Collection

Data was collected under the sponsorship of the Human Resources Institute of Thailand as part of an effort to develop a profile of entrepreneurs and their firms. The Thai equivalent of the chambers of commerce was used to generate contacts in the various regions of the country. Survey professionals from the Human Resource Institute personally administered the survey. The survey was written and composed in Thai, although in many cases the items used were taken from English language research. In those cases the items were back translated from Thai back to English to ensure the integrity of the translation. Refusals to participate were rare, although this was probably a function of the governmental status of the survey takers and the fact that the local chambers provided the contact firms.

3.3 Measures

In addition to the demographic items the survey for the entrepreneurs in the first sample contained items related to their attitudes about management, locus of control, skills and performance. The second set of respondents were asked questions that were related to how effective their firms were in performing certain tasks or in terms of their general capabilities.

A modified set of 19 items from Rotter's (1966) locus of control scale was used as an index for external and internal locus of control. The 6 filler items Rotter used and 4 items that did not fit the Thai context were eliminated from his scale. Items were coded 1 for external locus and the higher the respondent's total score, the more they are considered to have an external locus of control.

There was a section that related to characteristics that the researchers theorized successful businesspersons should possess, in terms of the way thing think about operating their business. These were anchored by opposites. For example, risk was coupled with risk aversions and like to compete against others was coupled with like to compete against myself. *De nova* items were needed because the research goal here was to identify ways that entrepreneurs viewed their dependence on the environment and the degree to which their thinking about managerial practices represented credible business practices. In addition, many existing scales asked questions with reference to behavior that is cast in a Western context. (e.g., Rizzo, House, & Lirtzman, 1970). Respondents were asked to rate the anchors separately, so a set of 32 items on a 4-point scale emerged. The validity of the items was established by correlating the 16 matched sets. All correlation coefficients were negative and statistically significant, which indicates that respondents were consistent in their ratings of these opposites. The 16 items designed to be associated with entrepreneurial behavior were selected for inclusion and subjected to a factor analysis using a varimax rotation. This resulted in a four factor solution. Items with high cross loadings or a loading below below .5 were not included in any of the constructs. Only one factor had a sufficient level of reliability (α = .78) to be included in the subsequent analysis. This factor included items related to having a proactive management posture and included a tendency to change, reduce costs, control their environment, focus on profits and have ambitious dreams for their business.

The 22 item self-efficacy scale of Chen, Green and Crick (1998), with some minor adaptation was used. This resulted in a four factor solution, compared with their five factor result of Chen et al (1998). As with the previous analysis, items with high cross loadings or with loadings below .5 were excluded. The constructs identified related to risk taking and financial controls (α = .82), management (α = .87), marketing (α = .81) and innovation (α = .80), are substantially confirm those in the earlier research of Chen et al. (1998).

Respondents were then asked about the usefulness of sources of information and the degree to which they had certain skills, with items that used a five point scale. Sources of information included business acquaintances, personal friends, family members and employees. The skills assessed included marketing advertising, research capability and loan generation capability. These items loaded on two factors, with one construct capturing the four skill items (α = .71) while the other represented the information sources (α = .62), which was not used in subsequent analysis because of its low reliability.

The final set of items was the competence items that were rated by the second set of respondents from the same firm. This included a total of 50 items, that access the firms capability in terms of their capabilities related to employees and planning, business analysis and evaluation, manufacturing, marketing, financial controls and ability to gain benefits from things such as government programs. Five factors emerged when the items were subjected to a factor analysis, while three factors had sufficient reliability and validity to be included in the analysis. The first four item factor represented how well the firm delivered customer services (α = .91). A second three item factor related to their analytical capabilities (α = .86), while the final six item factor involved human resource items (α = .78).

Respondents were asked to provide information about comparative measures of performance, which have been found to be highly reliable (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1986; Slevin & Covin, 1997). These measures were related to sales growth, profitability, quality, cost reduction capability, and competence of management. There were also asked for the percentage increase or decrease that their firm had experienced in profits, assets and market share during the past three years. The subjective item related to profitability is used as the dependent variable in this analysis.

3.4. Analysis

Correlation analysis was used to test the relationship between the independent variables, constructs and performance. It was also used as the basis for eliminating certain items from further analysis. Then regression analysis was used to test for both direct and moderating affects, as well to control for size and age, which could both have an impact on the firm's performance.

4. Discussion and Results

The correlation results (See Table 2) provide some support for the research model. The four measures of self-efficacy(marketing, management, innovation, risk taking) have positive and statistically significant correlations with performance (profit). This would provide some support for H3.

In addition, one of the measures of managerial skills (quality, honesty and planning) was positive and statistically significant, which provides some support for H4. Locus of control (not reported in Table 2) also had a positive and statistically significant correlation with performance, providing some support for H1.

Table 2. Correlation results

	No. Employees	2	3	4	5	6	7	8	9	10	11
2 Firm Age	.26**										
3 Active Management Posture	-.04	-.00									
4 Risk Taking	.16*	.16*	.08								
5 Management	.08	.04	.20**	.64**							
6 Marketing	.18**	.02	.02	.55**	.51**						
7Innovation	.09	-.05	.03	.57**	.53**	.47**					
8Quality, Honesty & Planning	.20**	.04	.09	.39**	.33**	.48**	.25**				
9Service Capability	-.03	-.08	.01	-.06	.04	.07	.04	.04			
10 Analytical Capability	.03	-.04	.03	.-.03	.06	.11	.00	.14*	.69**		
11. HRM Capability	.03	-.04	.03	.05*	.14*	.12	.04	.11	.65**	.67**	
12. Profit	.37**	.10	.04	.20**	.20**	.20**	.18**	.34**	.03	.07	.10

** Correlation is significant at the 0.01 level
* Correlation is significant at the 0.05 level

The correlation results provided little support for the notion that distance has an impact on performance, or those constructs that do impact performance (See Table 3). Firm size, in terms of number of employees has a negative and statistically significant correlation with distance. This indicates that firms farther away from the center tend to be smaller, which makes sense given they are in less populated areas. The only other statistically significant negative correlations relate to the self-efficacy measures related to finance and marketing. This would suggest that outlying firms feel less confident about marketing and financial tools leading to desired outcomes that do their city counterparts.

Table 3. Correlation of distance from major metropolis with other constructs

	Distance
Number of Employees	-.124*
Firm Age	-.089
Active Management Posture	.005
Risk Taking	-.151*
Management	.015
Marketing	-.127*
Innovation	-.058
Quality, Honesty & Planning	-.047
Service Capability	.055
Analytical Capability	.070
HRM Capability	.105
Profit	.031

Correlation is significant at the 0.05 level

The regression results reported (See Table 4) only include those where there was a statically significant coefficient for one of the independent variables in the model. Each of the models was run for the entire range of performance measures and only three models resulted in statistically significant results. In model 2, where quality was the performance indicator, locus of control and service capability were statistically significant. This supports H1, and provides partial support for H4. The combination of the two factors is logical, since service capability would be a large quality component for many of these firms.

Table 4. Regression results

Variable	Model (1) Sales Growth	Model (2) Quality	Model (3) Cost Reduction	Model (4) Management Competence
Constant	2.66**	.894	.872	.844
No. Employees	.205**	.118	.172	.126
Firm Age	.001			
Locus of Control		.046**	-.002	.020
Active Mgt. Posture		.011	.013	.014
SE Risk/Taking Fin. Controls		.288	.256*	.293**
SE Management		-.049	.0.092	-.089
SE Marketing		.091	.014	.088
SE Innovation		-.023	.017	.038
Quality/Planning		.099	.040	.051
Service Capability		.178*	.101	.086
Analytical Capability		-.050	-.076	-.042
HRM Capability		-.029	.055	.112
R^2	.14	.17	.23	.16
F-Statistic	21.7**	5.95	6.68**	5.43**

Cost reduction capability is the dependent variable in Model 3. As might be expected Factors related to financial controls were statistically significant. This provides some support for H3. It is also logically consistent that firms that are more capable of achieving cost reductions, would also be more confident in using their financial analysis capabilities to achieve these ends.

Managerial competence was the dependent variable in Model 4. In this mode financial controls or their use to achieve goals was statistically significant. While this also support H3 to some extent, it also seems to suggest that firms may view managerial competence in fairly narrow terms that relate to the use of analytical tools.

Finally, the introduction of distance into the various regression equations was not statistically significant in any cases. Thus, H5 was not support. In this sample distance did not have any influence on the degree to which locus of control, self-efficacy with respect to marketing or financial risk taking had an impact on profit.

5. Conclusions

The results of this research did not support for a link between distance and those factors related to entrepreneurial behavior and entrepreneurial success as hypothesized. While disappointed by lack of support for our research hypotheses the results are a positive for developing economy countries, especially those trying to enhance the level of entrepreneurship in less urban or centrally located areas. They suggest these entrepreneurs who are more distance from the commercial and education center of a country are just as competent as their metropolitan counterparts.

Obviously, there are certain limitations associated with this research and the data used in this research, but the lack of strong findings suggests that with the exception of some analytical skills in the area of finance and marketing those who are distance from commercial centers are relatively competent. This suggests that governments may want to formulate rural business development programs to reflect the fact that entrepreneurs in these areas appear to have the same set of entrepreneurial traits as others, and a rather sophisticated set of business skills in most area.

6. References

Allison, T. H., Davis, B. C., Short, J. C., & Webb, J. W. 2015. Crowdfunding in a prosocial microlending environment: Examining the role of intrinsic versus extrinsic cues. *Entrepreneurship Theory and Practice*, 39(1), 53-73.

Benjamin, A. 1987. *Country mouse and the city mouse*. New York: Golden Books.

Birch, D.L. 1979. *The job generation process*. Cambridge, MA: MIT Program on Neighborhood and Regional Change.

Birch, D.L. 1987. *Job creation in America: How our smallest companies put the most people to work*. New York: Free Press.

Boyd, N.G. & Vozikis G.S. 1994. The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 19 (Sept.) 63-77

Chen, C.C., Greene, P.G., & C, A. 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing* 13, 295-316.

Covin, J.G. & Wales, W. 2012. The measurement of entrepreneurial orientation. *Entrepreneurship Theory and Practice*, 36(4), 677-702.

Kirzner, I. 1973. *Competition and entrepreneurship*. Chicago: University of Chicago Press.

Knight, F. 1921. *Risk, uncertainty and profit*. Boston: Houghton Mifflin.

Magoutas, A.I. Papadogonas, T.A. & Sfakianakis, G. 2012. Market structure, education and growth. *International Journal of Business and Social Science*, 3(12) 88-95.

McClelland, D. 1961. *The achieving society*. Princeton, NJ: Van Nostrant.

McElwee, G. 2006. Farmers as entrepreneurs: Developing competitive skills. *Journal of Developmental Entrepreneurship*, 11(3), 187-206.

Rizzo, J.R., House, R.J., & Lirtzman, S.I. 1970. Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly* 15, 150-163.

Rotter, J.B. 1966. Generalized expectation for internal versus external control of reinforcement. *Psychological Monograph 38* (Whole No. 609), 1-28.

Sautet, F. 2013. Local and systematic entrepreneurship: Solving the puzzle of entrepreneurship and economic development. *Entrepreneurship Theory and Practice*, 37(2), 387-402.

Suntornpithug, N. and Suntornpithug, P. 2008. Don't give them fish, show them how to fish: Framework of market-driven entrepreneurship in Thailand. *Journal of Small Business and Entrepreneurship*, 21(2), 181-194.

Steward, W.H. Jr., Watson, W.E., Carland, J.C., & Carland, J.W. 1999. A proclivity for entrepreneurship: a comparison of entrepreneurs, small business owners and corporate managers. *Journal of Business Venturing* 14, 189-214.