Can Tho University Journal of Science
website: sj.ctu.edu.vn

DOI: 10.22144/ctu.jen.2016.103

# ENTREPRENEURIAL CHARACTERISTICS AND PRIVATE FIRM PERFORMANCE IN THE MEKONG RIVER DELTA

Phan Anh Tu and Nguyen Hong Diem
*College of Economics, Can Tho University, Vietnam*

**ARTICLE INFO**

*Received date: 13/08/2015*
*Accepted date: 08/08/2016*

**KEYWORDS**

*Entrepreneurial characteristics, firm performance*

**ABSTRACT**

*This study investigates the impacts of entrepreneurial characteristics on firm performance, based on asurvey of 807 private firms in 2004 and 2009 in the Mekong River Delta (MRD) in Vietnam. Controlling for firm characteristics and industry characteristics, this study found that entrepreneurial characteristics are directly related to firm performance. Specifically, the results show that there is partial support for an inverted U-shaped relationship between tenure and firm performance. While entrepreneurs with higher education and higher levels of informal education are strongly associated with higher firm performance, entrepreneur's risk-averse behaviour has no connection. The study reinforces the importance of entrepreneurs in private firms in the MRD in comparison with the earlier empirical evidence and suggests further research in the future.*

Cited as: Tu, P.A. and Diem, N.H., 2016. Entrepreneurial characteristics and private firm performance in the Mekong river Delta. Can Tho University Journal of Science. Vol 3: 38-48.

## 1 INTRODUCTION

Recently, private firms are considered as a locomotive for Vietnam's economy, a country with economic growth rates of 7% annually. The number of private firms increases significantly since there have been government policies supporting on investment, privatization and removal of barriers. Most small- and medium-sized private firms are managed by one person (Phan, 2012). Although the role of business managers has been widely investigated in the Western countries (Smith *et al*., 1994), the role of entrepreneurs in transition economies in general and Vietnam in particular has not been emphasized in both theory and empirical survey due to the limit of survey data. This paper fills in this gap by investigating the relationship between the entrepreneurial characteristics and firm performance.

The roles of entrepreneurs are important because of their contribution to the economic growth for both country and region in particular. Although there are many explanations for the economic growth in a country, we suggest that entrepreneurial activities have certain influences. Economic transition has brought new opportunities for (new) entrepreneursin Vietnam. Number of Small and medium-sized enterprises (SMEs) has increased twofold during the past two decades. More importantly than adaptive capacity, the "spirit" of entrepreneurs is considered as the main driving motivation for Vietnam's economy. However, many new firms do business with small-scale activities due to the effects of purely agricultural production and entrepreneurs' risk aversion, whichcan help firms to get initial investment capital rapidly (Ninh*et al.*, 2007), while these firms' performance showed significant differences in comparison with different industries (General Statistics Office of Vietnam - GSO).

Although economic transition has created new opportunities, it still lacks the mechanisms to stimu-

late the new establishment of the firms as well as the strong legal system to protect intellectual property rights and binding contract. This caused many obstacles to entrepreneurship and business activities for entrepreneurs (McMillan and Woodruff, 2002). Besides, the competition between state-owned enterprises (SOEs) and private enterprises is quite unequal. SOEs usually take more advantages than private enterprises. For example, SOEs have a longer lifespan, a long-time network relationship with government officials, more favourably treatment on contracts and import and export quotas as well as investment opportunities in comparison with private firms. They also have more advantages in getting loans from Vietnamese banking system. The four major banks of Vietnam (i.e., Bank for investment and development, Bank for foreign trade, Bank for agriculture and rural development, Bank for Commerce and Industry), which account for approximately 70% of total Vietnamese bank assets, often give priority in supporting the SOEs instead of private firms which is often low reputable firms and considered to be at high-risk from loans (Lensink and Nam,2008). In some cases, both legitimacy, defined as the right to take action under laws and rules, and network relationships with government officials of entrepreneurs in private firms are more disadvantaged than in SOEs.

In the context aforementioned, although difference in the role of entrepreneurial characteristics becomes very important for firm performance. Characteristics of the entrepreneurs or the owners include age, education, level of experience and entrepreneurial capabilities possessed. Thus, the characteristics of the owner may reflect entrepreneurial capabilities that will influence very much on business strategies, market orientation, methods of financing, management practices and especially social capital. For example, a good personal relationship with government officials in a transition economy like Vietnam may help firms to access (scarce-) resources, to do business easily and to improve firm's performance ultimately. Many empirical studies reveal the contribution of these entrepreneurial characteristics to the success of a firm or firm performance. For instance, Bruderl *et al*. (1992) found that the level of education and work experience possessed by the entrepreneurs is very positively related to the probability of the success of a business. For instance, level of education may be very important for the success of the business as they equip the owner with commitment, determination and advanced problem solving skills, while special knowledge may determine firms' survival and growth (Cooper *et al*., 1994).

This study includes five sections.Section 2 describes the theoretical background and hypotheses. Part 3 explains research methodology whereas section 4 gives the discussion and the results. Finally, conclusions are presented in section 5.

## 2 THEORETICAL BACKGROUND AND HYPOTHESES

### 2.1 Entrepreneurial characteristics and firm performance

Upper-echelon theory associated with entrepreneurial individual characteristics built by Hambrick and Mason (1984) has significant influence on the explanation for firm performance. According to this view, a series of human capital variables are known as the observed variables influencing on firm performance such as individual characteristics of the managers. For example, experience and qualifications (function), professional background, and the psychological characteristics are unobserved (individual characteristics and values of managers related to the other specific values, attitude and the other references affecting on strategic decisions and ultimately firm performance). Consistent with this theory, individual characteristics in this study was defined by the contributions of both observed individual characteristics (experience, education and general knowledge) and unobservable ones (the level of risk aversion). Hambrick and Mason (1984) indicate that the firm performance reflects the individual characteristics of senior leaders in the firm and the managers at higher levels have a significant impact on organizational performance because of their decisions. Hrebiniak and Joyce (1985) demonstrate that the strategic choices of managers have a significant impact on firm performance. Adams *et al.* (2005) find that firm performance will be much different when decision-making right tends to be concentrated in the manager of the firm. This effect will be even stronger when one of the founders is the owner. This situation reflects the most significant influence on firm performance.

Personal experiences and values related to organizational performance are reflected through their strategic choices (Finkelstein and Hambrick, 1996). Finkelstein and Hambrick (1996) argue that the viewpoint about decision-making behaviour is appropriate when considering the highest senior leaders, who face the complexities and ambiguities in business activities. They must select the appropriate information and give solutions. The definition about what is important depends on their knowledge for each case.Wiersema and Bantel (1992) find that characteristics such as managerial

experience, education and experience are useful indicators that indicate the changing trend of organization's strategy. It is found that firm performance is not only affected by the education of entrepreneurs. Another important characteristic also includes managerial experience of entrepreneurs because entrepreneurs with more experience tendto pay more attention to the development process of formal strategies or professional strategies than those with less appropriate managerial experience (Karami *et al*., 2006).

In summary, a noted important feature in Upper-echelon model by Hambrick and Mason is the focus on the concept of a team or a group of management (so-called Top Management Team) instead of individual entrepreneurs. Although top management team theory is important in most cases, it is probably not appropriate for the case of Vietnam. An important point of our study differs from previous studies is that entrepreneur of private firm has absolutely right to make their decisions and very often is a founder. Therefore, the more entrepreneurs trust on mission "in the palm", the more they try their best to control firm performance in such a positive way (Miller *et al*., 1982). This shows that the variety in the characteristics of entrepreneurs and the relationships with firm performance have attracted the attention of many economic managers in general and academic researchers in particular, especially how to establish the theoretical background about the managers of the firms and organizational theory becomes important. It is noted that the focus on entrepreneurscan depend on the assumption that entrepreneurs have a significant impact on firms' organizational activities and performance.

### 2.2 Hypotheses

**Tenure.** There are some convincing arguments as well as empirical evidence supporting the complex relationship between entrepreneurs' experience and firm performance instead of a linear causality relationship. Previous studies have found that managers' experience have a positive relationship with firm performance in the stable industries whereas it has a negative relationship with the unstable industries (Norburn and Birley, 1988). The reason is that the stable conditions in the industry will induce a lot of experience and the improvement of performance whereas the dynamic and volatile conditions will stimulate new things and readiness for new things. Finkelstein and Hambrick (1990) believe that the managers hold executive position in longer time, their strategies tend to focus more on stability and effectiveness than on products, markets and/or innovation (Grimm and Smith, 1991). Miller (1991) argues that the longer the managers hold tenure position, the more they may lose sensitivity to organizational environment and hence do not create any changes and innovation in order to keep moving on the development of the firm over the time. Reuber and Fisher (1999) emphasize that researchers should understand the descending benefits of experience instead of accepting the linear relationship between experience and performance. Hambrick and Fukutomi (1991) find out a nonlinear relationship between tenure position and firm performance. Chandler (1996) also indicates a nonlinear relationship between the depth and the breadth of experience and a similarity between skills and capacity as well as sales growth. Therefore, we propose the following hypothesis:

*Hypothesis 1: There is a nonlinear relationship between tenure and firm performance.*

**Education.** Educational background of an entrepreneur is an important variable. We examine both formal education and non-formal education in this study. Formal education is defined as education related to knowledge gained in the elementary schools, secondary schools, colleges, or universities (Eshach, 2007). Formal educational environment is created in which learning occurs when knowledge is transferred from the teacher to the students in the education system established (Gerber *et al*., 2001). In such circumstance, attendance is mandatory. Short-term training courses are similar to formal education because it often occurs in a structured and scheduled system. However, it usually relates to intrinsic motivation of learner and often held in the training centre or in short-term training courses of institutes and thus differs from formal education.

Education measures knowledge and basic competency of individuals. Entrepreneurs with higher education are expected to create more creative solutions when facing with complexity. Education has a direct relationship with firm performance (Norburn and Birley, 1988) and an indirect relationship with innovation levels of the firm (Bantel and Jackson, 1989) as well as a change in corporate strategy (Wiersema and Bantel, 1992). For instance, the education level of managers is an important factor which can positively influence the development process of firms' strategies and performance. Strategic awareness of entrepreneur plays an important role in formulating business strategy.We expect that firms with higher educational level of the managers will gain more outstanding performance than those with lower educational level of the managers. Therefore, we propose the following hypotheses:

*Hypothesis 2a: There is a positive relationship between educational level of the managers and firm performance.*

Investing in human capital, such as participating in management training courses resulting in higher salary - is assumed with a higher capacity (Becker, 1993). The ascending educational capital has a positive relationship with the innovation accessibility regardless of any education forms (Barker III and Mueller, 2002). Many studies on the influence of non-formal education (i.e. short training courses such as management, accounting, marketing) and the empirical evidence related to firm performance are scarce. We also provide reasonable arguments to expect about the positive relationship between managers' non-formal education and firm performance. This is because the more short-training courses entrepreneurs participate in, the more updated knowledge they learn, and the better the performance of the firm they can manage, especially in a fierce competition environment, risky, unpredictable, and even they can pursue some strategies. Moreover, participating in these training courses is also an opportunity for entrepreneurs to meet each other and exchange information, knowledge, and establish networks with not only government officials but also partners, suppliers, and customers. This is a good opportunity to improve firm performance significantly. We, therefore, propose the hypothesis 2b:

*Hypothesis 2b: There is a positive relationship between non-formal education and firm performance.*

**Risk aversion.** The level of risk aversion refers to a situation that manager tends to choose less risky solution when facing with the choice of comparable benefits. Nakamura (1999) claims that risk aversion results in a negative relationship between investment opportunity and risk.If a manager is afraid of risk, which may lead to unwillingness in investment, even ifthey may earn high rate of return. Therefore, it seems to be risk-averse entrepreneurs will miss the opportunity to improve firm performance. Risk-averse entrepreneurs often believe that their success is a result of luck or result of an appropriation by deception. With such attitude, entrepreneurs will respond in a negative way and be understood as a shy and hesitant response. Previous studies indicate a positive relationship between an executive manager who was not afraid of risk and the level of innovation (Daellenbach *et al*., 1999). Hambrick and Mason (1984) found that firms managed by young people might pursue riskier strategies and made a greater contribution to growth and profits than those managed by old and risk-averse managers.Apparently, it is also supported by Gupta and Govindarajan (1984). Hence, when entrepreneurs involve in decision making, the more risks they undertake, the higher the profit they gain. In line with this statement, we expect that in a competitive, complex and unpredictable business environment, the risky decisions or strategic changes might be necessary for success. Therefore, we propose the following hypothesis:

*Hypothesis 3: There is a negative relationship between risk-averse entrepreneur and firm performance.*

### 2.3 Control Variables

We control firm characteristics and industry characteristics in the model. Firm characteristics include employee education, firm age, firm size and ownership types. There is a difference in employee education. Employee education can improve firm performance because of its support for the development of skills and innovation capacity; employeeswith higher level of education potentially makehigher productivity (Hersch, 1991). Firm age might be a potential variable to moderate financial value of firms derived by managers (Jayaraman *et al*., 2000). Older firms might have lower performance than younger firms due to out-dated technologyand inertia.

Previous business studiesclaim that firm size plays an important role in explaining about firm performance (Singh and Whittington, 1975). Specifically, large firms have advantages such as low cost and high return because of their ability to access capital (Hall and Weiss, 1967) and economic advantages of scale (Montgomery, 1985). Ownership structure can affect firm performance, especially in a transition economy like Vietnam in which there are differences between family ownership or private ownership andlimited company or joint-stock company. For example, with ownership concentration on cash flows, family ownership has motivation and power to be responsible for gaining the benefits themselves at the current cost. By contrast, limited company owned by many shareholders is assumed to evaluate the investment opportunity by using the principles of market value aiming at maximizing the value of surplus cash flows (Anderson and Reeb, 2003).

The context of industry refers to industrial areas and the competition levels. Firm performance might be a function of activities in profitable industries (Schmalensee, 1985). Studies on organizational theory argue that differences in profits among firms can be explained by the number of members in industry. Similarly, industry perfor-

mance can be explained by the barriers to market entry along with other structural features (Paint, 1991). Firms operating in developing industries or in new industries are expected to have better performance than those in longstanding industries or weak industries. New industries mainly relate to the service. The last control variable is the level of competition. Competitive structure of the markets in transition economies like Vietnam is different and ever-changing.Several firms are doing business in a low level of competition due to low demand and high risk, while potential customers are not familiar with products and services. The other firms do business in growing markets with high level of competition due to high entry rate (Eisenhardt and Schoonhoven, 1990).On the other hand, firms in the growth markets often undergo a low level of competition due to slow and steady growth demand.

Taking all together, we propose our conceptual model as Figure 1 below:

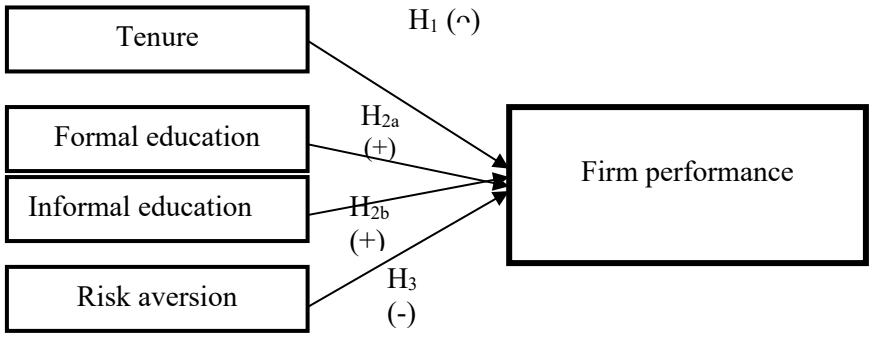


**Fig. 1: Conceptual model**

## 3 METHODOLOGY

### 3.1 Samples

In Vietnam, secondary data can be collected in every province easily through departments such as statistic department, department of planning and investment, tax office, but these data are often aggregated data and could not be applied for analysis in reality. For this reason, the main tasks of this study include designing and doing a survey with large scale in order to gather information. Such business survey in Vietnam is rare. One of the implications is that managers are not familiar with providing secret business information to the outside or answering the questionnaire measured by Likert-scale. This study uses the two separated dataset collected in 2004 and 2009. Our target of using the two separated dataset is to (1) (re-) confirm our conceptual model, (2) to compare whether there is a difference about the characteristics of entrepreneurs and firm performance at different points in time. This is important because in the context of Vietnam's ever-changing issuing policy under the stress of international economics integration the role of entrepreneurs (managers/owners) are more important in determining firm survival and eventually performance. For example, to exist in the high competitive market entrepreneurs need to be educated to acknowledge the violation of the market. Well-educated or much experience managers are supposed to capture opportunities better than those with low-educated or less experience and eventually better performance.Compared with other surveys, it contains adequate information and provides a unique opportunity to study the impact of the entrepreneurial characteristics and firm performance.

Our research procedure includes three stages. In the stage of preparation, we built a questionnaire consulting by many researchers, managers, and other business questionnaires. Next, we conduct a survey of respondents in two provinces of MRD, namely Can Tho and Kien Giang. Afterward, questionnairesare revised. Final questionnaires consist of 35 questions in 2004 and 62 questions in 2009 provide us an opportunity to measure the variables in the model. Moreover, we suggest that direct personal interview would be the best strategy for collecting firm data in Vietnam. The first reason is the sensitivity of some questions such as sales, profit, etc. Besides, a survey by post is predicted to have high non-response rate whereas computer survey connecting internet was impossible at this time in Vietnam. Personal contact is important in Vietnamese business culture. The second reason is that although the first secondary data provides us a list of private firms, we do not believe in the reliability of these data due to out of updated, especially the activities of new firms, business acquisition, or ownership changes. To sum up, direct personal interview is the best strategy for business managers.

In the next stage, an interviewing team including teachers and students of the school of Economics and Business Administration, Can Tho University was trained about interview questionnaire. Especially, the interview is conducted by local language, which makes respondents feel comfortable, easy and thus answer more accurate.

In the final stage, we conduct extensive interviews including 606 private firms in 6 out of 13 provinces in MRD (namely Kien Giang, An Giang, Dong Thap, Can Tho, Vinh Long, and Soc Trang) in 2004 and 2005 and 201 firms of 13 provinces in MRD, Ho Chi Minh City and Binh Duong province in 2009. Our research focuses on MRD because this region has experienced as a significant increase in the number of private firms in recent years, but the performance of these firms show much differences in their profits. More particularly, private firms in this region are recognized to have a significant contribution to country's GDP. These provinces have the highest firm density in the country.

Sample is collected from entrepreneurs who are willing to cooperate instead of selecting sample before interviews. Respondents are entrepreneurs or direct managers of the firms.Business owners or the managers of the firms have the final authority to makedecision and impact directly on firm strategy. If respondents agree, we start the interviews, otherwise we move to another firm. If the owner is absent, we leave the questionnaire and come back later. During the interview, the topics such as experience, education, investment, loans, and industrial contexts are discussed. Some additional questions are also questioned to change the atmosphere that enables respondents to tell their stories.

Such approach results in a satisfied response rate. We obtain the answers from 606 of 1,000 enterprises and 201 of 300 enterprises contacted in 2005 and 2009, respectively. Sometimes, there are some missing observations for specific variables. To do the regression, we excluded all missing values. This allows us to have adequate information including 395 observations with response rate of equivalent 40% in 2004 and 119 observations with response rate of 67%. This response rate is considered to be appropriate for analysis (Aidis and vanpraag, 2007). The reasons of not participating in the survey included: not disclose information, too busy, uncomfortable feeling when asked about the business. We cannot collect the information on non-reaction and therefore we cannot verify asymmetric sample. However, we believe that the quality of the survey, the interview process, and a significant number of respondents provide high confidential level of the data sources.

### 3.2 Measurement

We measure firm performance by turnover (taking natural logarithmfor this variable to have the normal distribution). Tenure or managers' experience is measured by the total number of years holding management position (tenure) for both current firm and previous firms. The longer time managers hold management positions, the more experience they have. Formal education is measured by a dummy variable equal to 1 for the business owners' education level from 12 of classification (zero otherwise). Non-formal education is measured by the number of times participating in management training courses. This type of education aims to improve knowledge in areas such as management, marketing, and accounting. We use a dummy variable to measure entrepreneurs' level of risk aversion, with risk-averse entrepreneur taking the value 1, zero otherwise. It means that risk-taking ability depends on the interests of the owners. To measure attitudes toward risk, managers are asked to choose between two situations: (1)investing a million VND can surely earn a hundred thousand of interest certainly; and (2) investing a million VND can earn two hundred thousand of interest with only 50% successful probability.

Firm age is measured by subtraction of the establishing year from the current year. Employee education is measured by a continuous variable for regression results in 2004, whereas it is measured by the number of employees who obtain graduate degree in 2009. The level of competition is measured by a dummy variable, which equals 1 for the owners think that firm doing business in the high competitive industry, and zero otherwise. However, this variable is measured by a four-point scale (low, medium, high, and very high) in a survey conducted in 2009. Ownership type is measured by a dummy variable, with private ownership taking the value 1 and others taking the value zero (joint stock companies, private limited firm, collective firm or family firm). Industrial sector is measured by two dummy variables: 1 for trade and service, zero otherwise (manufacturing and/or production is a based case). Firm size is measured by number of employees (regular worker) working for companies.

### 3.3 Model specification

Based on the arguments from the conceptual model, we construct our model specification below in order to estimate the influence of entrepreneurial characteristics on firm performance while controlling firm characteristics and business environment.

$$Sale(Y) = \beta_0 + \beta_1 Tenure + \beta_1 Tenure^2 + \beta_2 formal\ education + \beta_3 informal\ education + \beta_4 Risk\ aversion + \beta_5 firm\ age + \beta_6 private\ ownership + \beta_7 firm\ size + \beta_8\ employee\ education + \beta_9 level\ of\ competition + \beta_{10} service\ sector + \beta_{11} trade\ sector$$

In which:

The dependent variable (Y) is firm sale (VND million, taking natural logarithm). We estimated this model by OLS methods in order to predict the impacts of independent variables on firm sale.

## 4 FINDINGS

The impact of entrepreneurial characteristics on firm performance is estimated by regression model (OLS). Sometimes, sample includes missing observations; we delete all the observations containing missing values by the default method(listwise). This results in sampling of 395 observations and 119 observations in 2004 and 2009, respectively. Tables 1 and 2 report the descriptive statistics and correlation coefficients while the regression results are provided in Table 3.

**Table 1: Bivariate correlation and descriptive statistics (N = 395)**

| | Obs | Mean | St. dev | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Sales | 395 | 6.40 | 1.87 | 1.00 | | | | | | | | | | | |
| 2.Tenure | 395 | 8.05 | 6.56 | 0.01 | 1.00 | | | | | | | | | | |
| 3.Formal education | 395 | 0.22 | 0.41 | 0.26 | -0.09 | 1.00 | | | | | | | | | |
| 4.Non-formal education | 395 | 1.00 | 2.58 | 0.22 | -0.01 | 0.12 | 1.00 | | | | | | | | |
| 5.Risk Aversion | 395 | 0.88 | 0.33 | -0.05 | 0.09 | -0.11 | 0.03 | 1.00 | | | | | | | |
| 6.Firm age | 395 | 7.76 | 7.72 | -0.12 | 0.63 | -0.19 | 0.06 | 0.11 | 1.00 | | | | | | |
| 7. Private ownership | 395 | 0.52 | 0.50 | 0.11 | -0.09 | 0.00 | 0.04 | -0.11 | -0.08 | 1.00 | | | | | |
| 8. Firm size | 395 | 18.54 | 58.04 | 0.31 | 0.05 | 0.11 | 0.18 | 0.04 | -0.03 | -0.07 | 1.00 | | | | |
| 9.Employee education | 395 | 1.39 | 0.61 | 0.16 | -0.13 | 0.36 | 0.17 | -0.15 | -0.14 | -0.08 | 0.06 | 1.00 | | | |
| 10.Level of competition | 395 | 0.67 | 0.47 | 0.12 | 0.01 | -0.02 | -0.01 | -0.06 | -0.06 | 0.11 | -0.02 | 0.00 | 1.00 | | |
| 11.Service sector | 395 | 0.16 | 0.37 | -0.09 | -0.08 | 0.05 | 0.06 | 0.04 | -0.14 | 0.00 | 0.17 | 0.14 | 0.01 | 1.00 | |
| 12.Trade sector | 395 | 0.50 | 0.50 | 0.11 | -0.15 | 0.10 | 0.04 | -0.06 | -0.13 | 0.05 | -0.17 | 0.03 | 0.04 | -0.45 | 1.00 |

**Table 2: Bivariate correlationand descriptive statistics (N = 119)**

| | Obs | Mean | St. dev | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Sales | 166 | 8.92 | 2.32 | 1.00 | | | | | | | | | | | |
| 2.Tenure | 190 | 10.56 | 7.08 | 0.21 | 1.00 | | | | | | | | | | |
| 3.Formal Education | 199 | 0.72 | 0.45 | 0.18 | -0.11 | 1.00 | | | | | | | | | |
| 4. Non-formal education | 188 | 6.09 | 5.42 | 0.36 | 0.29 | 0.24 | 1.00 | | | | | | | | |
| 5.Risk Aversion | 182 | 0.84 | 0.37 | 0.05 | -0.17 | 0.15 | 0.04 | 1.00 | | | | | | | |
| 6.Firm age | 199 | 7.96 | 7.62 | 0.12 | 0.42 | -0.04 | 0.23 | -0.01 | 1.00 | | | | | | |
| 7. Private ownership | 192 | 0.33 | 0.47 | -0.28 | 0.16 | -0.34 | -0.24 | -0.09 | 0.11 | 1.00 | | | | | |
| 8. Firm size | 184 | 213.48 | 914.44 | 0.28 | 0.05 | 0.13 | 0.20 | -0.18 | 0.04 | -0.14 | 1.00 | | | | |
| 9. Employee education | 185 | 1.38 | 9.06 | 0.05 | -0.02 | 0.06 | 0.03 | 0.04 | 0.02 | -0.09 | 0.13 | 1.00 | | | |
| 10.Level of competition | 197 | 2.69 | 0.69 | 0.04 | -0.05 | -0.06 | 0.22 | 0.07 | -0.07 | -0.10 | 0.05 | 0.04 | 1.00 | | |
| 11.Service sector | 200 | 0.34 | 0.47 | 0.02 | -0.06 | 0.13 | 0.08 | 0.02 | -0.03 | -0.20 | 0.09 | -0.06 | 0.10 | 1.00 | |
| 12.Trade sector | 200 | 0.62 | 0.49 | -0.13 | -0.05 | -0.19 | -0.03 | 0.09 | 0.09 | 0.22 | -0.14 | 0.06 | -0.15 | -0.24 | 1.00 |

**Table 3: HierarchicalRegression model of entrepreneurial characteristics and firm performance**

| | 2004 (N = 395) | | | 2009 (N = 119) | | |
|---|---|---|---|---|---|---|
| **Independent Variables - Sales (log)** | (1) | (2) | (3) | (4) | (5) | (6) |
| ***Control Variables*** | | | | | | |
| Firm age | -0.02 | -0.03 ** | -0.03 ** | 0.04 | 0.00 | 0.00 |
| | (0.01) | (0.02) | (0.02) | (0.03) | (0.03) | (0.03) |
| Private ownership | 0.48 *** | 0.44 ** | 0.44 ** | -1.17 *** | -0.95 ** | -1.04 ** |
| | (0.18) | (0.17) | (0.17) | (0.40) | (0.42) | (0.44) |
| Firm size | 0.01 *** | 0.01 *** | 0.01 *** | 0.00 ** | 0.00 ** | 0.00 ** |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Employee education | 0.46 *** | 0.24 | 0.24 | 0.00 | 0.00 | 0.00 |
| | (0.15) | (0.15) | (0.15) | (0.02) | (0.02) | (0.02) |
| Level of competition | 0.42 ** | 0.42 ** | 0.42 ** | 0.02 | -0.12 | -0.16 |
| | (0.19) | (0.18) | (0.18) | (0.27) | (0.28) | (0.28) |
| Service sector | 0.75 *** | -0.80 *** | -0.80 *** | -0.29 | -0.27 | -0.35 |
| | (0.27) | (0.27) | (0.27) | (0.41) | (0.40) | (0.41) |
| Trade sector | 0.29 | 0.19 | 0.19 | -0.28 | -0.26 | -0.26 |
| | (0.20) | (0.20) | (0.20) | (0.40) | (0.40) | (0.40) |
| ***Main Variables*** | | | | | | |
| Tenure | | 0.03 * | 0.05 | | 0.05 * | 0.13 |
| | | (0.02) | (0.04) | | (0.03) | (0.10) |
| Tenure squared | | | -0.00 | | | -0.00 |
| | | | (0.00) | | | (0.00) |
| Education | | 0.75 *** | 0.75 *** | | 0.15 | 0.19 |
| | | (0.22) | (0.23) | | (0.44) | (0.44) |
| Non-formal education | | 0.10 *** | 0.10 *** | | 0.08 ** | 0.08 ** |
| | | (0.03) | (0.03) | | (0.04) | (0.04) |
| Risk Aversion | | 0.01 | 0.00 | | 0.51 | 0.59 |
| | | (0.27) | (0.27) | | (0.48) | (0.49) |
| Constant | 5.13 *** | 5.12 *** | 5.06 *** | 8.95 *** | 8.00 *** | 7.72 *** |
| | (0.32) | (0.42) | (0.45) | (0.87) | (1.05) | (1.10) |
| ***Fitness indices*** | | | | | | |
| $R^2$ | 0.19 | 0.24 | 0.24 | 0.16 | 0.25 | 0.25 |
| Adj. $R^2$ | 0.17 | 0.29 | 0.22 | 0.11 | 0.17 | 0.17 |
| F. | 12.15 *** | 10.53 *** | 9.66 *** | 3.10 *** | 3.24 *** | 3.01 *** |
| $\triangle R^2$ | | 0.05 | 0.00 | | 0.09 | 0.00 |
| F. $\triangle R^2$ | | 6.46 *** | 0.24 | | 3.08 ** | 0.64 |
| Observation | | | 395 | | | 119 |

*Standard Error in parenthesis*
Significance level: *** p<0.01, ** p<0.05, * p<0.1

All regression models are statistically significant (F = 12.15; 10.53; 9.66; 3.10; 3.24; 3.01, p < 0.01) and multiple correlation coefficients (R - squared) are 0.19, 0.24, 0.24, 0.16, 0.25, 0.25 respectively indicate the consistency of statistical models. Specifically, models (2) and (5) show the explanatory power of the model improved after adding the main variables into the model ($\Delta R^2$ = 0.05 and 0.09; there are significant at p < 0.01 and p < 0.05) whereas in model (3) we did not find significant differences after adding tenure squared. A discussion about regression results will departure from models (2) and (5) as follows:

Hypothesis 1 predicts a curvilinear relationship between the tenure of entrepreneurs and firm performance is just partially supported. Although the signs tenure variable and tenure squared have the sign of predictable coefficients as expected, square variable is not statistically significant in models (3) and (5) (β = -0.00, non-significant - n.s and β = -0.00, n.s), instead this variable is linear and significant only in model (2) and model (5) (β = 0.03 and β = 0.05, p<0.10). This indicates that entrepreneurs holding management positions in a short time make more contribution to the improvement of firm performance than thoseholding this position for a long time. Some suggests that the longer time entrepreneurs hold management positions, the more they become overconfident leading to rigidity and tend to be slow in responding with the pressure from outside (Meyer, 1975). However, it is very difficult to identify exactly when the number of tenure has a negative impact on firm performance.

Obviously, entrepreneurs' experience in our sample is below this point and entrepreneurs have few years of tenure make a significant contribution to firm performance.

Hypotheses 2a and 2b predict education of entrepreneurs (formal education and non-formal education) have strong statistical significance in model (2) ($\beta = 0.75$, $p < 0.01$; $\beta = 0.104$, $p < 0.01$) although this coefficient is insignificant in model (5). Non-formal education variable also results in a positive relationshipwith performance and there were significant differences at 1% and 5% in both models (2) and (5). Obviously, even if in a transition economy like Vietnam the level of education of entrepreneurs is a problem. The success key of entrepreneurs in a high volatile and risky environment is hard to judge instead of evaluating the adaptability throughaccumulated knowledge and experience. Entrepreneurs who are able to adapt to the new business environment will be successful while entrepreneurs are unable to adapt will face bankruptcy risk. The level of education reflects the degree of an individual's acceptance and openness and the willingness to make innovation (Barker III and Mueller, 2002). Thus, entrepreneurs who have higher education and participate more frequently in non-formal education (management training courses) tend to invest morebecause they can access and better utilize investment opportunities than owners with lower education and less involved in non-formal courses. Moreover, they also have many opportunities to access capital because of a better understanding of loan application procedures and building a relationship network, especially relationships with government officials. Indeed, education provides skills and adaptability for entrepreneurs to be able to respond well in a volatile environment. Participating in training courses entrepreneurs can update knowledge, management skills and simultaneously avoiding obsolescence.

Hypothesis 3 is not supported by the data in models (2) and (5) ($\beta = 0.01$ and $\beta = 0.51$, n.s). We predict that the level of risk aversion of entrepreneurs will have negative impact on firm performance. Risk aversion indicates the reluctance of entrepreneurs to accept an uncertain bargain instead of a firm bargain according to their expectation. Data shows that the majority of respondents are aware of they are risk-averse. The positive coefficient of this variable implies that (even if not statistically significant) risk-averseentrepreneurs will find successful opportunities to nourish firm performance. The explanation may be that typical entrepreneurs have an extensive individual networksas well as have professional knowledge which allow them to operate business activities successfully and therefore reduce direct influence of this variable on firm performance (e.g., "slow is better than fast", according to Vietnamese).

Finally, it is worth to pay attention to the verification results of the control variables that indicate the support of control variables convincingly, especially data in 2004. Most of entrepreneurial characteristics can explain firm performance. Firm age has negative influence on firm performance ($\beta = -0.03$, $p < 0.05$) in 2004, but insignificant difference in 2009 ($\beta = 0.00$, ns). Older firms have less adaptability than younger firms. Indeed, whenever a new firm enters the market its sales often increase significantly in the early stage because of using predatory pricing strategy to gain market share, and this means that older firms are difficult to maintain their market share. The larger-sized firms have better performance in both columns (2) and (5) ($\beta = 0.01$ and $\beta = 0.00$, $p < 0.01$). Although the majority of enterprises are SMEs, of course, there is difference in their size. Larger-sized firms have more advantages such as lower costs and higher profits because of their ability to access capital and economies of scale(Montgomery, 1985). In Vietnam, many private firms, especially production or manufacturing firms, experience the peak season on business because of an increase in demand that requires firms often hire more employees. Despite of rising costs, an increase in production results inbetter firm performance.Regression results also demonstrate that private ownership performs better than others ($\beta = 0.445$, $p < 0.05$) in column (2) but lower than the others in 2009. Employees education has a positive significant relationship with performance in model (1), however, it is not significant in model (2) ($\beta = 0.462$, $p < 0.01$ and $\beta = 0.23$, n.s respectively), and also insignificant in model (5). Argument for this variable is similar to education variable. Thus, employees with higher education level are relevant to skills and capabilities enable firms to adapt better to new contexts and capturebetter business opportunities. Firms operating in service sector have worse performance than those in production or manufacturing sectors ($\beta = -0.80$, $p < 0.01$) in column (2). The level of competition makes firm performance improved in column (2) ($\beta = 0.42$, $p < 0.05$). High level of competition challenges firmsactively to improve efficiency, innovation and productivity and thereby improves firm performance.

## 5 CONCLUSION

The role of entrepreneurs in economic theory and in Western economies has been well-established

(Brush *et al.*, 2008), however, the role of entrepreneurs is not empirically emphasized. We believe that entrepreneurs play an important role in transition economies (Yamakawa *et al.*, 2008). They create many jobs, productivity growth, innovation, and induce crowding-out effects to economic growth for the whole region. However, firm performance in transition economies like Vietnam and MRD in particular has not been emphasized yet. This study has two contributions.

The first contribution is relevant to the role of entrepreneurial characteristics and entrepreneurs are the objects of investigation. The results confirm that the entrepreneurial characteristics (which aretenure, education, non-formal education) playan important role in explaining firm performance. The second contribution is related to empirical data. In analysis of the relationship between entrepreneurial characteristics and firm performance, we indicated that these data were special and they werecarefully collected by a questionnaire.

Some limitations are also known. Firstly, we used cross-sectional data collected within one year. This choice might limit the ability to generalize results and thus analyse causal relationships. Secondly, in non-response analysis, regression result may be limited due to lack of information that entrepreneurs who decline the interview or do not cooperate. Thirdly, age is one of the important personal characteristics in relationship with firm performance because it can emphasize personal background and personal experiences outside organization; however, it has not been examined. Also,ones can argue that a clear distinction should be created following the indirect influence of environmental and organizational characteristics.For example, the ownership structure and number of enterprises in the industry could affect behaviours of entrepreneurs in relationship with firm performance. In addition, we do not examine managerial experience diversity; perhaps refer to the number years of experience in functional field, in the industry or organization entrepreneurs experienced (Duchesneau and Gartner, 1990).A valuable challenge for future research should be a development for deeper explanation that how psychology of entrepreneurs impact on firm performance. For example, how intermediate factors of social adaptability and communication impact on therelationship between entrepreneurial characteristics and firm performance. However, such study is out of scope.

Finally, an important implication of this study is also valuable for local authorities. Hence, it is necessary to improve education for entrepreneurs who become more imperative. Especially, the types of short -term trainings not only play an important role in motivating investment and innovation of the firms, but also create conditions for firms enable to access such as new knowledge, exchange knowledge, experience, information, innovation, and further establish business networks.

## REFERENCES


Adams, R., Almeida, H., Ferreira, D., 2005. Powerful Entrepreneurial And Their Impact On Corporate Performance. The Review of Financial Studies.18(4).

Aidis, R., vanpraag, M., 2007. Illegal entrepreneurship experience: Does it make a difference for business performance and motivation? Journal of Business Venturing. 22(2): 283-310.

Anderson, R.C.,Reeb, D.M., 2003. Founding-family ownership and firm performance: Evidence from the S&P 500. The Journal of Finance.58(3): 1301-1328.

Bantel, K.A.,Jackson, S.E., 1989. Top management and innovations in banking: does the composition of the top team make a difference? Strategic Management Journal.10(S1): 107-124.

Barker III, V.L., Mueller, G.C., 2002. CEO characteristics and firm R&D spending. Management Science. 782-801.

Barney, J., 1991. Firm resources and sustained competitive advantage. Journal of management.17(1): 99.

Becker, G.S., 1993. Human capital.The University of Chicago Press.

Brush, C.G., Manolova, T.S., Edelman, L.F., 2008. Separated by a common language? Entrepreneurship research across the Atlantic. Entrepreneurship Theory and Practice.32(2): 249-266.

Bruderl, J., Preisendorfer, P.,Zeigler, R., 1992. Organizational Survival. American Sociological Review. 57: 227-242.

Chandler, G.N., 1996. Business similarity as a moderator of the relationship between pre-ownership experience and venture performance. Journal article by Gaylen N. Chandler; Entrepreneurship: Theory and Practice.20:

Cooper, A.C., Gimeno-Gascon, F.J.,Woo, C.Y., 1994. Initial Human and Financial Capital as Predictors of New Venture Performance. Journal of Business Venturing. 9: 371-395.

Daellenbach, U.S., McCarthy, A.M., Schoenecker, T.S., 1999. Commitment to innovation: The impact of top management team characteristics. R&D Management.29(3): 199-208.

Duchesneau, D.A., Gartner, W.B., 1990. A profile of new venture success and failure in an emerging industry. Journal of Business Venturing.5(5): 297-312.

Eisenhardt, K.M.,Schoonhoven, C.B., 1990. Organizational growth: Linking founding team, strategy, environment, and growth among US semiconductor ventures, 1978-1988. Administrative Science Quarterly.35(3): 504-529.

Eshach, H., 2007. Bridging in-school and out-of-school learning: Formal, non-formal, and informal education. Journal of Science Education and Technology.16(2): 171-190.

Finkelstein, S., Hambrick, D.C., 1990. Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. Administrative Science Quarterly. 35(3): 484-503.

Finkelstein, S.,Hambrick, D.C., 1996. Strategic leadership: Top executives and their effects on organizations: West Publishing Company.

Gerber, B., Marek, E., Cavallo, A., 2001. Development of an informal learning opportunities assay. International Journal of Science Education. 23(6): 569-583.

Grimm, C.M.,Smith, K.G., 1991. Research notes and communications management and organizational change: A note on the railroad industry.Strategic Management Journal.12(7): 557-562.

Gupta, A.K.,Govindarajan, V., 1984. Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. The Academy of Management Journal.27(1): 25-41.

Hall, M., Weiss, L., 1967. Firm size and profitability. The Review of Economics and Statistics.49(3): 319-331.

Hambrick, D.C.,Fukutomi, G.D.S., 1991. The seasons of a CEO's tenure. Academy of Management Review.719-742.

Hambrick, D.C.,Mason, P.A., 1984. Upper echelons: The organization as a reflection of its top managers. The Academy of Management Review.9(2): 193-206.

Hersch, J., 1991. Education match and job match. The Review of Economics and Statistics.73(1): 140-144.

Hrebiniak, L.G.,Joyce, W.F., 1985. Organizational adaptation: Strategic choice and environmental determinism. Administrative Science Quarterly.30(3): 336-349.

Jayaraman, N., Khorana, A., Nelling, E., Covin, J., 2000. CEO founder status and firm financial performance. Strategic Management Journal.21(12): 1215-1224.

Karami, A., Analoui, F., Kakabadse, N.K., 2006. The CEOs' characteristics and their strategy development in the UK SME sector: An empirical study.Journal of Management Development.25(4): 316-324.

Lee, D.Y.,Tsang,E.W.K., 2001. The effects of CEO Personality, background, and network activities on venture growth.Journal of Management Studies.38: 583-600.

Lensink, R.,Nam, M.V., 2008. Economic Development of the Mekong Delta in Vietnam.CDS Research paper No. 27.

McMillan, J.,Woodruff, C., 2002. The central role of entrepreneurs in transition economies. The Journal of Economic Perspectives.16(3): 153-170.

Meyer, M.W., 1975. Leadership and organizational structure. The American Journal of Sociology.81(3): 514-542.

Miller, D., 1991. Stale in the saddle: CEO tenure and the match between organization and environment. Management Science.37(1): 34-52.

Miller, D., De Vries, M.F.R.K.,Toulouse, J.M., 1982. Top executive locus of control and its relationship to strategy-making, structure, and environment. Academy of Management Journal. 237-253.

Montgomery, C.A., 1985. Product-market diversification and market power. The Academy of Management Journal.28(4): 789-798.

Nakamura, T., 1999. Risk-aversion and the uncertainty-investment relationship: a note. Journal of economic behavior & organization.38(3): 357-363.

Ninh, L.K., Thong, P.L., Nghiem, L.T., Tu, P.A., Khai, H.V., 2007. Determinants of private firms' investment decisions in Mekong River Delta. *Economic studies*.4: 47-55.

Norburn, D., Birley, S., 1988. The top management team and corporate performance. Strategic Management Journal.9(3): 225-237.

Paint, L.W., 1991. An investigation of industry and firm structural characteristics in corporate turnarounds. Journal of Management Studies.28(6): 623-643.

Reuber, A.R., Fischer, E., 1999. Understanding the consequences of founders' experience. Journal of Small Business Management.37: 30-45.

Tu, P.A., 2012. The impact of entrepreneurialcharacteristics on bribery incidence in transition economies. Asian Academy of Management Journal. 17 (2): 155-175.

Schmalensee, R., 1985. Do markets differ much? The American Economic Review.75(3): 341-351.

Singh, A., Whittington, G., 1975. The size and growth of firms. The Review of Economic Studies.42(1): 15-26.

Smith, K.G., Smith, K.A., Olian, J.D., Sims, H.P., O'Bannon, D.P., Scully, J.A., 1994. Top management team demography and process: The role of social integration and communication. Administrative Science Quarterly.39(3): 412-438.

Wiersema, M.F.,Bantel, K.A., 1992. Top management team demography and corporate strategic change. The Academy of Management Journal.35(1): 91-121.

Yamakawa, Y., Peng, M.W.,Deeds, D.L., 2008. What drives new ventures to internationalize from emerging to developed economies? Entrepreneurship Theory and Practice.32(1): 59-82.