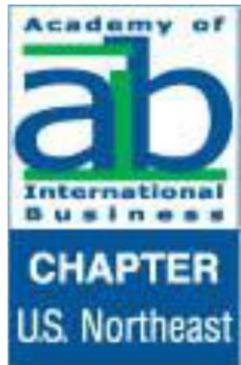


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# **RELATIONSHIP BETWEEN STUDENTS' GRADES AND SCHOOL YEAR AND THEIR INTENTION FOR ENTREPRENEURSHIP: SOME PIONEERING FINDINGS**

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## **ABSTRACT**

This article studies if there is a relationship between the Lubin School students' current year of education and their cumulative grade point average—and their intention to starting a business once they have completed their undergraduate studies? The research showed that there is no statistical relationship between these students' current year of education—and their intention to starting a business once they have completed their undergraduate studies. The analysis also showed that there is no statistical relationship between these students' cumulative grade point average—and their intention to starting a business once they have completed their undergraduate studies. This is the first study of its kind that explored the relationship between (a) students' year of education and their intention to start a business once they have completed their undergraduate studies and (b) students' cumulative grade point average and their intention to start a business once they have completed their undergraduate studies. My claim about these pioneering findings is based upon an extensive title review (including their summaries) of hundreds of articles related to these factors listed in EBSCO.

## **RESEARCH METHODOLOGY<sup>i</sup>**

A 6-page questionnaire containing 91 questions (variables) was designed for this study for distribution among selected undergraduate students at the Lubin School of Business, Pace University, New York during December 2004 – December 2005 period.<sup>ii</sup>

Copies of the questionnaire were sent to the author's faculty colleagues who agreed to allow their students to participate in the study. Of the 435 responses completed by the students, 390 were included for further analysis in this study. Forty-five of these were found unusable for the study for various reasons.

## **PURPOSE OF RESEARCH**

The overall purpose of this continuing research is to find if there is a statistical relationship between a number of independent variables and the Lubin School of Business students' intention to become entrepreneurs after they have completed their undergraduate education.

The objective of this article is limited to analyzing selected variables as stated in the following hypotheses:

1. Null Hypothesis: There is no statistical difference between the Lubin students' current year of undergraduate education (first year, second year, third year, or fourth year)—and their intention to starting a business once they have completed their undergraduate studies.  
① Alternate Hypothesis: There is such a statistical difference.
2. Null Hypothesis: There is no statistical difference between the Lubin students' cumulative grade point average as of the preceding semester (A's, B's, C's, or lower than C's)—and their intention to starting a business once they have completed their undergraduate studies.  
① Alternate Hypothesis: There is such a statistical difference.

The independent variables (students' year of education and students' cumulative grade point average) were tested against the dependent variable (intention to become entrepreneur). Exhibit 1 lists the exact questions related to these variables as included in the questionnaire.

### **LIMITATIONS OF STUDY**

This is a study of the Lubin students who were taking undergraduate business courses (accounting, information system, management, or marketing) at different class levels (first, second, third, or fourth year) during the study period. The 390 students chosen for the study were all different individuals. This is not a study of the same individuals as they progressed from their first year of study through to their fourth year.

### **DEFINITION, REQUIREMENTS, AND EDUCATION**

Let me first present a brief overview of the definition, requirements, and educational aspects of entrepreneurship.

#### **Entrepreneurship Definition**

According to the Wikipedia, the free Encyclopedia, the term first appeared in the French Dictionary "Dictionnaire Universel de Commerce" of Jacques des Bruslons published in 1723. Entrepreneur in English is a term applied to a person who is willing to help launch a new venture or enterprise and accept full responsibility for the outcome (Wikipedia 2012). Here are some other definitions:

1. 1934: Schumpeter: According to him entrepreneurs are innovators who use a process of shattering the status quo of the existing products and services, to set up new products, new services (Wikipedia 2012).
2. 1961: David McClelland: An entrepreneur is a person with a high need for achievement [N-Ach]. He is energetic and a moderate risk taker (Wikipedia 2012).

3. 1964: Peter Drucker: An entrepreneur searches for change, responds to it and exploits opportunities. Innovation is a specific tool of an entrepreneur hence an effective entrepreneur converts a source into a resource (Wikipedia 2012).
4. According to a European Commission report (2008), “entrepreneurship refers to an individual’s ability to turn ideas into action. It includes creativity, innovation, and risk taking, as well as the ability to plan and manage projects in order to achieve objectives.”

### **Entrepreneurs: Born or Made**

Like the traits theory of leadership that argues that the leaders are born and cannot be made, there are people who contend that entrepreneurs are also born and cannot be educated and trained to become one.

Birch once said that if you want to teach people to be entrepreneurs, you can’t. To them, entrepreneurship, like leadership, is a function of some invisible personality attributes (in Aronson 2004).

According to Thompson (2004; quoted in Alain Fayolle 2008), talent and temperament cannot be taught.

On the other hand, Peter Drucker once said that “It is becoming clear that entrepreneurship, or certain facets of it, can be taught. Business educators and professionals have evolved beyond the myth that entrepreneurs are born not made.” The entrepreneurship is not magic, it’s not mysterious, and it has nothing to do with the genes. It’s a discipline. And, like any discipline, it can be learned” (Drucker 1985, in Kuratko 2005).

I am one of those many other writers who maintain that entrepreneurship, like leadership, is a function of certain skills and attitudes which can be acquired and improved upon through education and experience. If one can learn to become a medical doctor, he/she can also learn to become an entrepreneur. Actually, it is sometimes easier to become an entrepreneur than to be qualified as a physician or physicist. If Birch were opining today, I am sure he will have entirely different thoughts.

### **Entrepreneurship Education**

The merits of entrepreneurial education have been cited by several people. Entrepreneurship education could help students establish and manage a business properly. It could also help them prepare for working for someone else.

According to Muster (2009), if the engineers want to attain their goals (either by creating a firm, or by being creative within an existing firm), they have to create connections, form partnerships outside established fields, organize the distribution of tasks, and receive financial support, among others. The Innovation and Entrepreneurship specialization aims to provide them with this type of competency.

The significance of the entrepreneurship education is evidenced by the fact that a growing number of institutions, other than the business schools, are offering courses and programs in the various fields of entrepreneurship. These include, among others, the schools of arts, engineering, medicine, nursing, and sciences.

In its March 2008 reports, the European Commission recommended that teaching of entrepreneurship should be integrated in more curricula, not just in the curricula of business or economic studies.

## RESEARCH FINDINGS & DISCUSSION

Several statistical techniques, such as chi-square, regression analysis, and t-test, are available to test the validity of a set of data. All the same, only the chi-square technique has been used to test the validity of data used in this research, because the data gathered amply satisfy the following four primary assumptions of the Pearson's chi-squared test: (a) Independence of observations, (b) large enough expected cell counts, (c) randomness of data, and (d) sufficient sample size (Yates, Moore & McCabe, 1999).

### Research Findings

A summary of the statistical analysis of data related to the two hypotheses stated above is presented in Exhibit 2. It also shows the decisions reached based on this analysis.

This analysis endorses the acceptance of the Null Hypothesis 1: That there is no statistical difference between these students' current year of education (1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup>/4<sup>th</sup> year)—and these students' intention to starting a business once they have completed their undergraduate studies. The calculated value of  $X^2$ , 1.61729, is smaller than the tabulated value of  $X^2$ , 9.49, with 3 degrees of freedom with  $\alpha=.05$ .

This analysis also endorses the acceptance of the Null Hypothesis 2: That there is no statistical difference between these students' cumulative grade point average—and these students' intention to starting a business once they have completed their undergraduate studies. The calculated value of  $X^2$ , 2.18879, is smaller than the tabulated value of  $X^2$ , 7.82, with 3 degrees of freedom with  $\alpha=.05$ .

### Discussion

This is the first study of its kind that explored the relationship between (a) students' year of education and their intention to start a business once they have completed their undergraduate studies and (b) students' cumulative grade point average and their intention to start a business once they have completed their undergraduate studies. My claim about these pioneering findings is based upon an extensive title review (including their summaries) of hundreds of articles related to these factors listed in EBSCO.

Due to the lack of similar studies to review and compare, the survey of literature presented below is limited to a study of some other variables that reflect upon the students' intention for entrepreneurship.

Bhandari (2006) in his study of students at a university in India found that “luck” and “to lead other people” have a statistical relationship with the intention to start their own business after completing education.

In another study of students at Pace University's Lubin School of Business, Bhandari (2012) found that there is no statistical difference between these students' gender—and their intention to start a business once they have completed their undergraduate studies.

A research by Wilson et al. (2004; in Shinnar, Pruett, and Toney) also concluded that men expressed higher entrepreneurial interest than did women, a relation that was consistent across Hispanic, Black, and White youth (Wilson et al).

In a study of secondary school students enrolled in the Young Achievement Australia (YAA) enterprise program, Peterman and Kennedy (2003) found that the participants, after completing the enterprise program, reported significantly higher perceptions of both desirability and feasibility of starting a business.

According to Crispeels (2008), the drive towards (or away from) entrepreneurship comes from the potential entrepreneur's perception towards own skills and the environment. The more confident the potential entrepreneur is about these factors, the more likely the step towards nascent entrepreneurship becomes.

### **SUGGESTIONS FOR RESEARCH**

This research shows that the Lubin School of Business students' intention to become entrepreneurs is not related to their year of education (first year, second year, third year, or fourth year of undergraduate education). Likewise, their cumulative grade point average has no statistical relationship with their intention to become entrepreneurs.

I make the following suggestions for further research:

1. Relationship between grades and intention for entrepreneurship among graduate level students by their majors in the area of business: accounting, economics, finance, management, marketing, etc.
2. Relationship between grades and the discipline of arts: English, geography, history, law, mathematics, philosophy, etc.
3. Relationship between grades and the disciplines of science: engineering, information systems, medicine, nursing, etc.

**Exhibit 1**  
**List of Independent and Dependent Variables Used for Research**  
**(With their Original Question Numbers)**

**Independent Variables**

9. What is your current year of education (check one):

- (a) 1st year of undergraduate study \_\_\_\_\_; (b) 2nd year of undergraduate study \_\_\_\_\_;  
(c) 3rd year of undergraduate study \_\_\_\_\_; (d) 4th year of undergraduate study \_\_\_\_\_;  
(e) 1st year of graduate study \_\_\_\_\_; (f) 2nd year of graduate study \_\_\_\_\_

12. What is your cumulative grade point average as of the preceding semester/term (check one):

- (a) A+, A, A- \_\_\_\_\_ (b) B+, B, B- \_\_\_\_\_; (c) C+, C, C- \_\_\_\_\_; (d) Lower than C \_\_\_\_\_;

**Dependent Variable**

15. After you have finished your education (whether you have attained a degree or not), what do you **intend** to do (check one):

- a. Start my own business \_\_\_\_\_;  
b. Work for a business owned by an immediate family member (spouse, parent, brother and/or sister) \_\_\_\_\_;  
c. Work for someone else \_\_\_\_\_

**Exhibit 2**  
**Relationship between Selected Variables and Students' Intention for Entrepreneurship**

Null Hypothesis	Total No. of Respondents	No. of Respondents Who Wants to be Entrepreneurs	X <sup>2</sup> Calculated Value	X <sup>2</sup> Critical Value	Degree of Freedom, a=.05	Decision on Null Hypothesis
There is no relationship between Students' Current year of education (1 <sup>st</sup> year to 4 <sup>th</sup> year) and Their Intention for Entrepreneurship	391	177	1.61729	9.49	3	Accept
There is no relationship between Students' Cumulative GPA and Their Intention to Become Entrepreneurs	380	169	2.18879	7.82	3	Accept



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