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## Results of Testing Impact of Motivation of Nascent Entrepreneurs on Sales Growth of Entrepreneurship

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### **Abstract:**

*Entrepreneurship has a significant impact on the economic growth of countries. In order to promote entrepreneurial activities in countries and to encourage more people to start their business, the motivation of entrepreneur has to be understood. Entrepreneurships that have the highest impact on economic growth also have the highest growth in revenue. The study analyses the relationship between different motivational factors and the revenue growth in the first 3 years after the company was founded. The relationship is tested by multiple regression analysis and is based on the PSED II dataset. The need for achievement has significant impact on the revenue growth between year 1 and 2 as well as between year 2 and 3. The impact of the need for achievement on the revenue growth is positive first and negative on the revenue growth between 2 and 3. Other motivational factors like the desire for independence, desire for social recognition and desire for financial success have no significant impact on the revenue growth. The findings of the study are recommended for governmental institutions to create a framework for people with the dominant motivational factor "need for achievement", in order to become entrepreneurial active.*

**Keywords:** *Entrepreneurship, entrepreneur, revenue growth, motivational factors, PSED II*

### **1. Introduction**

For the development of a country, entrepreneurship is a significant factor. According to Davisson et al., entrepreneurships contribute between one third and one fourth of the growth of the economy. (Davidsson, Lindmark & Olofsson, 1994) According to an OCED study, sixty to seventy percent of new companies fail in the first two years. Since countries have to invest in entrepreneurship before the enterprises pay taxes and create jobs, the main priority is to encourage entrepreneurs who have a high probability to start successful companies. (OECD, 2003)

In order to identify entrepreneurs who are likely to start a successful company, entrepreneurs have to be clustered to predictive the future development of their founded company. One cluster how entrepreneur can different from each other is the motivation to start a company. The motivation of entrepreneurs can give an indication about the future performance of the founded company. Motivation is a factor which could be influenced by governmental institution by creating the right framework for people with motivation to start a business which has a predicted high chance to be successful.

Rauch and Frese wrote in their article, that most studies do not test the relationship between the entrepreneurial motivation and entrepreneurial success. Especially in the first years after founding a company, the entrepreneur has a high impact on the development of the company and is therefore the main reason for success or failure of the entrepreneurship. (Rauch & Frese 2000) Other authors agree that the motivation of the entrepreneur is important for the development of the founded company. (Baumol, 1968) This was also the result of the study by Shane, Locke and Collins that motivation is the key factor for entrepreneurial success. These authors also stated that the understanding of motivation is very important for the development of enterprises which are founded by the entrepreneur. (Shane, Locke & Collins, 2012)

#### *1.1. Statement of Research Problem*

Initiatives to motivate people to become entrepreneurial active should be addressed specifically to people who have a high probability to become financially successful entrepreneurs. The financial success is the preliminary condition to achieve any other goal that the entrepreneurs tries to achieve with the entrepreneurship. Therefore, the motivation of successful entrepreneurs should be analyzed and understood.

#### *1.2. Object of the Study*

Object of the study is stated as following:

Motivational factors of nascent entrepreneurs

### 1.3. Aim of the Study

The aim of the study is to analyze the relationship between the motivation of nascent entrepreneurs and the growth rate of their entrepreneurship over a time period of 3 years after the business was founded.

### 1.4. Research Question

Following research question is guiding the study:

What impact do different domination motivational factor of entrepreneurs have on the sales growth of entrepreneurships?

### 1.5. Research Hypothesis

Various motivational factors have a differentiated impact on the sales growth of entrepreneurship

### 1.6. Significance of the Study

Results of the study are relevant for entrepreneurs who are in the decision process of becoming an entrepreneur. In addition to that, the results support venture capitalists to look for dominating motivational factors of entrepreneurs depending on the goal of their investment. Governmental institution can create structural frameworks for those entrepreneurs who have the highest probability to start companies with high growth rates. For current employees who are deciding to start their own business, the results of this study indicate them to leave or to stay with the employer and start or not to start their own company by providing the probability to be successful with the entrepreneurship in terms of sales growth.

### 1.7. Scope of the Study

The study is based on the PSED data set from the University of Michigan which involves entrepreneurs in the USA. The study focuses on the motivation of entrepreneurs and the growth sales of the entrepreneurship.

### 1.8. Limitation of the Study

Sample size of the study is solely based on entrepreneurs in the USA which limits the possibility for generalization of the results to other parts of the world. Success of the entrepreneurship is exclusively calculated by growth rates which does not include expenses. The study is limited to 3 years after founding the entrepreneurship by the entrepreneur. Long-time effects of the motivation are not part of the study. PSED data set recorded the initial motivation of the entrepreneur no longer than 6 month after the company was founded. Changes in motivation of the entrepreneur are not considered in this study. Clustering the results in different industries and sectors will not be provided by the study. The study focuses on the influence of the motivational of entrepreneurs. There are other factors which have an influence on the sales growth of the entrepreneurship but are not part of this study.

## 2. Methodology

### 2.1. Material

Research in the field of entrepreneurship has been hampered by the fact that there are no sufficient large data set available for examination. Such a broad data set is important to understand the process of founding a company entirely. The first PSED study was conducted in year 1998 and 2000. In the beginning, a detailed interview was conducted over the phone. This was followed by yearly interviews for 3 years.

The procedure for PSED I was the basis for the Global Entrepreneurship Monitor. The Global Entrepreneurship Monitor is a research program that includes a presentative sample in more than 40 countries and 138 national surveys. The Global Entrepreneurship Monitor compares national standards of countries compared to the activities on business start-ups. However, this does not show the development of nascent businesses over time.

The research design of PSED II is an improved version of the procedure for PSED and GEM. PSED II differs from the other data sets because it is created over 5 years. Through the experience of PSED I and GEM, some methodological improvements have been incorporated. This allowed to record more reliable data. PSED II has a much larger sample which allow multivariate analysis methods to generate more valuable results. Through the PSED data, conclusions about 12.6 million nascent entrepreneurs and 7.4 million new ventures in the United States can be drawn. (Reynolds et al., 2005)

The data set was so created to analyze three types of analysis. Firstly, the types of people and teams are should be figured out who pursue the process of business creation. In addition, it should be analyzed what happens during the planting process. The correlation between the activities and characteristics of individuals as well as the different results of the foundation is to be investigated.

The research process consisted of three phases. In the first phase, the representative sample was identified. These consisted of entrepreneurs who are active in the process of business creation. These were identified through telephone interviews, which are drawn from a representative sample of households in the United States and must meet 4 criteria to be included. (1) The participants themselves must be in a process of business creation. (2) They must have participated in the past 12 months ago in a start-up activity. (3) They expect to own a businesses or parts of a business of their own. (4) The founded company is still in the start-up phase. Therefore, it may not yet be seen as an operating business at the point to be considered. (Davidsson, 2006)

In the interview phase, from October 2005 to January 2006, 31,845 people were called to identify 1,214 nascent entrepreneurs. These represent 12 million people who are involved in entrepreneurial activity. The screening process was performed by a commercial survey companies. The screening process took 2 minutes in average. In the second phase, a 60-minute interview from the University

of Michigan Institute for Social Research was conducted. The third phase consisted of follow-up calls that were set exactly 1 year after the first telephone interview. Then the other interviews were conducted every year.(Reynolds & Curtin, 2007)

## 2.2. Methods

As the first step, the PSED II data set was cleaned in the way that it was limited to all rows were all information about the motivation as well as the financial information about the growth of the entrepreneurship over a timeframe of 3 years were included. In that way, the data set was reduced to 103 rows were all information was available. The motivational variables are clustered by factor analysis to four motivational factors. The relationship between these four motivational factors and the revenue growth between year 1 and 2 as well as year 2 and 3 are tested by multiple regression analysis.

## 2.3. Presentation of Results

Results of multiple regression analysis is presented in several tables which includes model summary, ANOVA and coefficients for the models revenue growth year 1 to 2 and the motivational factors as well as the model revenue growth year 2 to 3 and the motivational factors.

## 3. Results

The following results show the influence of the several motivational factors on the financial success of the entrepreneurship which is indicated as the growth of revenue. The motivational factors are calculated by factor analysis which can be found in the article "Clustering motivational factors: An empirical evidence based on the PSED study". (Kisker, 2014) The motivational variables: "achieve and be recognized", "fulfill personal vision", "develop idea for product", "power to influence an organization" are clustered as the motivational factor "need for achievement". Variables "financial security", "earn larger personal income", "built greater wealth" and "build business kids can inherit" are clustered as the motivational factor financial reward. "Continue family tradition, higher social status, follow example of admired person and respected by family are related to the factor social recognition. The variables "freedom to adapt work approach" and "greater flexibility in life" is clustered to the motivational factor "independence." The result of the multiple regression analysis between the four motivational factors and revenue growth from year 1 to 2 is stated in the following tables.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,204	,042	,003	79,31920

Table 1: Result of the multiple regression analysis of the motivational factors and the growth of revenue from year 1 to 2. Own table

The correlation which is indicated by R and R square is  $R = 0,204$  and an  $R \text{ square} = 0,42$ . There is only a small value for the adjusted R square with 0,003 and 79.31920 for the standard error. P value as the indication of the significance of the model is 0,371. This indicates that the model overall is not significant. Dependent variable is explained by 27160,154 Sum of Squares. There is no significant relationship between the motivational structure and the growth of the founded business in the year 1 to 2.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	27160,154	4	6790,039	1,079	,371
	Residual	622861,956	99	6291,535		
	Total	650022,110	103			

Table 2: Analysis of variance of the motivational factors and the growth of revenue from year 1 to 2. Own table

Having a more detailed look at the results for the coefficients of each motivational factor it can be concluded that the need for achievement is close to be significant with a p value of 0,067. The motivational factor need for achievement is the only positive B value with 15,848. The result is that only the need for achievement of entrepreneurs has an impact on the revenue growth in the first year.

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20,323	7,778		2,613	010
	Need for achievement	15,848	8,559	,199	1,852	,067
	Financial reward	-2,380	8,838	-,030	-,269	,788
	Social recognition	-2,065	8,623	-,026	-,240	,811
	Impendence	-8,334	8,352	-,105	-,998	,321

Table 3: Coefficients of the relationship between the motivational factors and the growth of revenue from year 1 to 2. Own table

The most influential motivational factor for the sales growth of entrepreneurship is the need for achievement. It can be interpreted in the way that entrepreneurs with the desire for achievement are focused on the sales. This indicates that entrepreneurs with this dominant factor are more likely to take risks.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,212	,045	,006	234,02489

Table 4: Result of the multiple regression analysis of the motivational factors and the growth of revenue from year 2 to 3. Own table

Looking at a more advanced stage of the founded company, it can be concluded that the results of the revenue growth between year 2 and 3 is very similar to the revenue growth between 1 and 2. R value is very similar with 0,212 but a little bit stronger. This is also the case for the R square with 0,045 and the adjusted R square with 0,006.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	255043,739	4	63760,935	1,164	,331
	Residual	5421997,045	99	54767,647		
	Total	5677040,784	103			

Table 5: Analysis of variance of the motivational factors and the growth of revenue from year 2 to 3

For the model of the relationship between the motivational factors and revenue growth it can be concluded that the situation is very similar to the year 1 to 2 in the way that it is also not significant. The p-value for the relationship is 0,331. The depend variable is described by the model by 255043,739. As a result it can be stated that others factors besides the motivation have an impact on the growth of sales.

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	64,415	22,948		2,807	,006
	Need for achievement	-47,418	25,251	-,202	-1,878	,063
	Financial reward	13,812	26,077	,059	,530	,598
	Social recognition	13,057	25,441	,056	,513	,609
	Impendence	-23,894	24,642	-,102	-,970	,335

Table 6: Coefficients of the relationship between the motivational factors and the growth of revenue from year 2 to 3. Own table

Looking at the influence of the motivational factors on the revenue growth from year 2 to 3 separately, it can be concluded that the motivational factor need for achievement is still the only significant factor with a p value of 0,063. There is a difference to revenue growth between years 1 to 2 in the way that the impact of need for achievement is negatively. Furthermore, it can be concluded that the desire for achievement has the biggest impact on the revenue growth.

#### 4. Discussion

The model of the four motivational factors in relationship to business surviving success is not significant. Business surviving success is explained by other factors than the motivation. These factor have to be added to the model and tested again to find a significant model in order to describe the relationship between internal and external factors and the business surviving success. Analysis of each of the motivational factors shows that the need for achievement has a significant impact on the growth of revenue from year 1 to 2. The impact of the factor need for achievement is also strong. In comparison to the positive influence of the need for achievement, all other three factors, the desire for independence, desire for financial success and the desire social recognition have a negative impact on the growth of revenue between year 1 and 2 but are not significant. Revenue growth between the first and the second year after the business was founded, is especially achieved by entrepreneurs who are motivated by the need to achieve something in their life. It cannot be finally concluded that entrepreneurs with a different motivation have a negative impact on the growth of revenue since the relationship is not significant.

The model of the relationship between the four motivational factors and the revenue growth between year 2 and 3 is also not significant. The same result can be found when analyzing the impact of each of the motivational factor on the revenue growth. The significance of need for achievement is the same for the revenue growth between year 1 and 2 as well as year 2 to 3. It is noticeable that the impact of the revenue growth between year 2 and 3 is negative. In addition to that, the impact is strong with a B value of -47,418. This means the motivation of need to achievement has a negative and strong effect on the revenue growth between year 2 and 3. The motivational factor desire for independence and desire for social recognition have the opposite impact on the dependent variable.

## 5. Conclusion

The motivational factor need for achievement is the only motivational factor which has a significant impact on the revenue growth. It can be concluded that entrepreneurs who want to achieve something in life, are focused on the revenue. This is the result for the growth between 1 and 2 as well as between 2 and 3. In addition to that, the impact of this motivational factor is positive in the beginning and changes to become negative. This change of impact is also true for the motivational factors desire for social recognition and financial success. The motivation is recorded in the beginning of the process to start a business and is not recorded for every year. In that way it cannot be concluded that a changing motivation has a more positive impact than a motivation which stays the same in the whole process.

Furthermore it can be concluded, that the motivational factor desire for financial success has a negative impact on the revenue growth between year 1 and 2 as well as between years 2 and 3. It is also noticeable that the level of significance stays the same for both models which indicates that impact of the motivation of entrepreneurs has a stable impact on the revenue growth over the years.

## 6. Recommendations

It is recommended for venture capitalists to analyze the entrepreneur that they want to invest in. The motivation of the entrepreneur has an influence on the growth of sales of the entrepreneurship that venture capitalists are interested to invest in. It is recommended to identify entrepreneurs who start a business because they want to be recognized for the achievement they reach, fulfill a personal vision, develop an idea for a product or want to have the power to influence the organization. Governmental institutions are advised to create conditions that encourage people with the need for achievement motivation to start their own business. People who are thinking about becoming entrepreneurial active should consider their motivation and the impact on the business. For them it can be an indicator for their change to be successful in terms of financial success.

Research in the field of entrepreneurship can add to these findings by analyzing the relationship between these motivational factors and other financial indicators. The expenses should be taken into account in order to get a better understanding of the profit of the entrepreneurs who are driven by the different motivational factors. Further research is recommended for changes in motivation. The PSED II dataset records the initial motivation to start a business. This initial motivation could change over the time and other motivational factors become dominant. To analyze this research question, a new dataset has to be created. With the PSED II dataset, the motivational factors can be set in relationship with other variables. There are 6000 variables available with the dataset.

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