

FINDINGS FROM TESTING THE RELATIONSHIP BETWEEN BUSINESSES SURVIVING SUCCESS AND MOTIVATIONAL FACTORS OF NASCENT ENTREPRENEURS.

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Abstract: Entrepreneurship has a significant influence on the development and economic growth of countries. Whereas successful entrepreneurship create jobs and pay tax to countries, unsuccessful entrepreneurship unnecessary bind resources. A wide variety of factors have an influence on the business surviving success. This study shows that the motivation of the entrepreneur has an influence of almost 10% on the business surviving success. The model between the motivational structure and the geometric mean of the return on sales over three years is significant. Analyzing different motivational factors show, that people who are founding a business because of the desire to be independent as well as desire for social recognition have a significant and positive influence on the business surviving success. The study shows, that the influence of the motivation on the geometric mean of return on sales over three years as well as the return on sales in year one, two and three after the company was founded. The results provides governmental institutions as well as venture capitalists a framework in order to analyses the motivational of entrepreneurs before investing in company.

Keywords: Entrepreneurship, entrepreneur, motivation, motivational structure, business surviving success, return on sales

1 Introduction

The influence of entrepreneurship on the economic growth of a country was already mentioned by Schumpeter in the beginning of the 19th century. According to Schumpeter, entrepreneurship promotes the technical development of a country and promotes innovation in countries. (Schumpeter 1934) Societies of countries are influenced positively by high entrepreneurial activities within in countries. For example, successful entrepreneurs create new jobs in countries. (Aldrich 1999) Within the entrepreneurial process, inefficiencies in societies of countries are shown. (Kirzner, 1997) Furthermore, entrepreneurship is forcing competitors to be more efficient and innovative. (Schumpeter 1934)

Literature shows a lack of connection between entrepreneurship and the motivation of entrepreneurs. At the same time, it becomes clear, that the entrepreneurs has high share of the explanatory power for the success of entrepreneurship. (Rauch and Frese, 2000) The role of the motivation of entrepreneur was analyzed by other authors. They show that the motivation is an important factor for the development of the founded enterprises. (Shane et al, 2012) Baumol et al. even point out that the motivation of the entrepreneur is the key element to explain the process of establishing a new company. (Baumol, 1968)

2 Materials and Methods

Data set of entrepreneurship are rare since it is difficult to identify entrepreneurs in the first years and they are most often not willing to share detailed information. The first data set with a large scale is PSED I, which was recorded in the late nineteenth. Entrepreneurs were called every year for 3 years to record a large set of variables. Based on the first PSED, which was recorded exclusively in the USA, the GEM (Global Entrepreneurship Monitor) was conducted in fourteen countries. This data set was used to compare countries regarding the entrepreneurial activities. The weakness of this dataset is, that it didn't record the development of the founded business over time.

The second data set of PSED took the experience of the prior dataset and improved it further in terms of methodological issues. The data sample of the PSED II dataset is representative for 12.6 million entrepreneurs in the USA, which is significant larger sample than PSED I and the GEM. In addition to the size of the sample and the methodological improvements, the PSED II differs from the other dataset since it records the data for 5 years. The PSED II is recorded in order to gain a more detailed

picture on the people who become entrepreneurial active, the entrepreneurial process itself and the relationship between the characteristics of the entrepreneur and the outcome of the entrepreneurship. (Reynolds et al., 2005)

The record of the PSED II dataset started in the year 2005 by calling 31,845 people in the USA by a professional screening company in order to identify people who are in the process to find a business. The study was initiated and organized by the University of Michigan. The identification of the entrepreneurs are based on several factors. The entrepreneur has to own the business, participate in entrepreneurial activities by himself and the founded business has to be in an early stage of the development. In total, 1214 entrepreneurs were identified who were willing to participate in the survey. The interview to identify the entrepreneur in the screening interview call was only two minutes. The first interview was sixty minutes and among a wide range of information, the motivation of the entrepreneur was recorded. The entrepreneur were called exactly one year after the initial interview for the following five years. (Davidsson, 2006) (Reynolds & Curtin, 2007)

PSED II is the largest dataset about entrepreneurship available, but also has some information missing for specific variables. For example, the entrepreneurs were not always willing to share the financial information. In the first step, the dataset has to be cleaned for rows which have missing information. The necessary information for this study are the motivation of the entrepreneur to start the company as well as all information about the revenue and expenses for the first 3 years. The identified records in the dataset, which include all relevant information, are 103 sets.

The motivation of the entrepreneur was recorded by 14 motivational variables. The entrepreneurs rated themselves on a scale from 1 to 5. In that way, there is one or more dominant motivational factors in the motivational structure of the entrepreneur. The motivational variables from the PSED II dataset were analysis by factor analysis. The result of the analysis is, that there are four motivational factors with have significant loadings from the motivational variables. The four factors identified are the desire for independence, need for achievement, need for social recognition and the desire for financial reward. The business surviving success is demonstrated by different financial factors. The financial information from the PSED II data are the expenses and revenue for 3 years. Based on this information, the profit for each year is calculated. With the information on the revenue and profit, the return on sales is calculated for all 103 founded enterprises. The return on sales for the first 3 years after the company was founded are 3 indicators for the business surviving success. In the next step, the geometric mean of the return on sales over three years is calculated. This financial indicator provides a stable picture on the business surviving success over the years.

The relationship between the motivational factors and the business surviving success, indicated by the return on sales for each year separately as well as the geometric mean on the return on sales over three years, is tested by a multiple regression analysis. The results of each of the multiple regression analysis is shown separately and interpretation is done by taking into account all different results. The results of the multiple regression analysis are demonstrated in several tables in the next chapter.

3 Results

The relationship between the need for achievement, desire for financial reward, strive for independence as well as the need for social recognition and the geometric mean of 3 years on the return on sales is build and evaluated. The four motivational factors are the dependent variables and the geometric mean of the return on sales as the business surviving success is the

independent variable. The relationship is tested with a multiple regression analysis and tries to foresee the business surviving success based on the motivation of the entrepreneur.

The impact of different factors of motivation on the business surviving success is described by the R square of the multiple regression analysis. R-square is the measure for the explanatory power of the whole model and indicates the variance of the dependent variable described by the independent variable. The multiple regression analysis show an R-square of 0.083. It can be concluded, that 8.3 percent of the business surviving success is explained by all factors of the motivation. Other factors which have an influence on the success, have a share of 91.7 percent.

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | ,288 | ,083 | ,046 | ,26824 |

Table 1: Model Summary of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success

R square is based on the amount of predictors of R value corrected. Whereas the multiple correlation is the correlation between R of the predicted value and the observed value. R is the correlation of the motivational factors and the business surviving success. Testing the multiple correlation coefficients between the business surviving success and the motivational factors results in an R of 0.288 with a standard error of 0.26824. It can be concluded that the calculated prediction of the business surviving success has a change of 27 percent to be wrong.

ANOVA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---------------|----------------|-----|-------------|-------|------|
| 1. Regression | ,645 | 4 | ,161 | 2,243 | ,070 |
| Residual | 7,123 | 99 | ,072 | | |
| Total | 7,769 | 103 | | | |

Table 2: ANOVA of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success

ANOVA analysis is conducted to get a more detailed insight of in the results. Sum of squares shows the ratio and variances of the multiple regression analysis. This sum of squares is 0.645. $0.645 / 7.769 = 0.083$ is the R square. The proportion of variance, which is not to be explained by the model, is quantified by 7.123. The result of the F-test is 2.243 and the p-value is 0.07. Therefore, the p-value is slightly higher than 0.05. Also the p-value is higher than 0.05, it can be concluded that a relationship between the motivational structure of the entrepreneur and the geometric mean of the return on sales over 3 years as the business surviving success exist

Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 1,284 | ,026 | | 48,816 | ,000 |
| Need for achievement | ,034 | ,029 | ,123 | 1,168 | ,246 |
| Financial reward | -,048 | ,030 | -,173 | -1,593 | ,114 |
| Social recognition | ,026 | ,029 | ,096 | ,906 | ,367 |
| Impendence | ,063 | ,028 | ,228 | 2,217 | ,029 |

Table 3: Analyse of the coefficients of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success

By analyzing the impact of each of the motivational factors on the business surviving success, a differentiated result can be seen. The B value is the weight for the influence of each independent variable on the dependent variable. For the need for achievement, a positive weight with 0.034 is calculated. The significance of this factor is 0.246. The results in the table

'Coefficients' show additionally, that only the motivational factor 'Financial reward' is negative. This motivational factor has an opposite influence on the business surviving success compared with the other three factors. From analyzing the significance of each motivational factor, it can be concluded, that the desire for independence has a small p-value of 0.029, which is below 0.05. The three other factors have a higher p-value than 0.05. This indicates that the desire for independence has a positive and significant influence on the business surviving success.

From analyzing the geometric mean of the return on sales over 3 years as the financial indicator for business surviving success, it can be concluded, that the model itself is close to the significant level of 0,05. Looking on the factors of motivation separately, the desire for independence has a significant and positive impact on the business surviving success.

3.1 Year 1

The next model which will be analyzed is the impact of the motivational structure on the geometric mean of the return on sales in the first year.

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | ,303 | ,092 | ,055 | ,33127 |

Table 4: Model Summary of the multiple regression analysis between the motivation of the entrepreneur and the business surviving success in year 1

The motivation structure in the first year explains the business surviving success with an R Square of 0.092 and an R of 0.303. The dependent variable is explained by the motivational structure by 9.2 percent.

ANOVA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---------------|----------------|-----|-------------|-------|------|
| 1. Regression | 1,100 | 4 | ,275 | 2,506 | ,047 |
| Residual | 10,864 | 99 | ,110 | | |
| Total | 11,964 | 103 | | | |

Table 5: ANOVA results of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 1

The significance level of the model is below 0.05 with 0.47. It can be concluded, that the motivational structure of an entrepreneur has a significant impact on the business surviving success in the first year.

Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 1,341 | ,032 | | 41,291 | ,000 |
| Need for achievement | -,007 | ,036 | -,021 | -,199 | ,843 |
| Financial reward | -,019 | ,037 | -,056 | -,518 | ,606 |
| Social recognition | ,072 | ,036 | ,211 | 2,000 | ,048 |
| Impendence | ,070 | ,035 | ,206 | 2,013 | ,047 |

Table 6: Analysis of the coefficients of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 1

By analyzing the motivational factors it becomes clear, that two factors have a significant impact on the business surviving success. In the first year after the company was founded, the desire for independence has a significant influence with a p value of 0.047. The b-value is 0.070, which shows a strong influence on the business surviving success. The second factor which has a significant impact is the need for social recognition.

Social recognition has a significant impact with a p value of 0.048 and a B-value of 0.072.

The multiple regression analysis of the return on sales in year 1 shows, that the motivational structure of entrepreneur on the business surviving success is significant. In addition to that, the social recognition as well as the desire for independence in the first year are significant.

3.2 Year 2

For the second year after the company was founded, the motivational factors have a small impact on the business surviving success with an R Square 0.009 and an R of 0.094.

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | ,094 | ,009 | -,031 | ,43418 |

Table 7: Model Summary of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 2

Analyzing the significance of the model, there is no significant relationship between the motivational structure and the business surviving success. The p-value is 0.926 and significant higher than the 0.05.

ANOVA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---------------|----------------|-----|-------------|------|------|
| 1. Regression | ,167 | 4 | ,042 | ,222 | ,926 |
| Residual | 18,663 | 99 | ,189 | | |
| Total | 18,830 | 103 | | | |

Table 8: ANOVA of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 2

The coefficients of the model show, that there is no significant relationship between one of the motivational factors. The relationship for 'financial rewards' and 'social recognition' have a negative influence on the business surviving success.

Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1,258 | ,043 | | 29,539 | ,000 |
| | Need for achievement | ,025 | ,047 | ,060 | ,544 | ,588 |
| | Financial reward | -,039 | ,048 | -,092 | -,815 | ,417 |
| | Social recognition | ,012 | ,047 | ,028 | ,254 | ,800 |
| | Impendence | -,003 | ,046 | -,007 | -,069 | ,945 |

Table 9: Analysis of the coefficients of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 2

3.3 Year 3

In the third year after founding the company, the influence of the motivational structure on the business surviving success increases, compared to the influence in year 2. The R square increased to 0.069 and R of 0.264.

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | ,264 | ,069 | ,032 | ,74455 |

Table 10: Model summary of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 3

The significance of the model between the business surviving success and the motivational structure of the entrepreneur is 0.126. The significance is higher than in year 2, but higher than in year 1.

ANOVA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---------------|----------------|-----|-------------|-------|------|
| 1. Regression | 4,099 | 4 | 1,025 | 1,849 | ,126 |
| Residual | 54,881 | 99 | ,554 | | |
| Total | 58,980 | 103 | | | |

Table 11: ANOVA results of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 3

Analyzing the coefficients of the models shows, that there is a significant factor. The impact of the motivational factor 'independence' is significant with a p-value of 0.026.

Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1,267 | ,073 | | 17,349 | ,000 |
| | Need for achievement | ,048 | ,080 | ,064 | ,602 | ,549 |
| | Financial reward | -,130 | ,083 | -,172 | -1,572 | ,119 |
| | Social recognition | ,183 | ,081 | ,242 | 2,262 | ,026 |
| | Impendence | -,040 | ,078 | -,053 | -,512 | ,610 |

Table 12: Analysis of the coefficients of the multiple regression analysis between the motivational structure of the entrepreneur and the business surviving success in year 3

The other three factors are not significant. The factors 'financial reward' and 'independence' have a negative influence on the business surviving success.

4. Discussion

The results of the analysis show, that there is an influence between the motivational structure of entrepreneurs and the business surviving success. The relationship is significant between the geometric mean of the return on sales over three years and the motivational structure, as well as the return on sales in the first year and the motivational factors. This indicates a strong influence of the motivation on the financial indicators of business surviving success. In both cases, almost 10% of the business surviving success is explained by the motivation. Considering all factors which potentially have an influence on the entrepreneurship, 10% can be considered as a high share. Therefore, it is necessary to analyze the motivation of entrepreneurs in detail.

Comparing the significance of the first year with the second and third year, it can be concluded that the influence is higher in the beginning of the entrepreneurship. This can be explained by the fact, that in the first year it is more likely that the entrepreneur works by himself without employees. This increases the influence of the entrepreneur on the founded company.

Analyzing the different motivational factors shows, that the desire for independence has a significant relationship between the geometric mean of the return on sales over 3 years. Furthermore, the desire for independence is significant in the first year after the company was founded. This shows, that the motivational factor 'independence' has a high influence on the business surviving success. The second motivational factor, which has a significant influence on the business surviving success, is the desire for social recognition. It influences the return on sales in the first year after the company was founded as well as on the third year. No significant relationship can be identified in the second year as well as on the geometric mean of the return on sales.

The other two analyzed factors, the desire for financial reward as well as the need for achievement have no significant relationship with the different financial indicators for business surviving success.

5 Conclusion

It can be concluded, that people who are driven by the desire for independence and social recognition have a higher change to found a business which has a high return on sales and therefore a higher change to survive. For institutions, which invest in entrepreneurship, it is recommended to analyze the entrepreneur. The motivation of the entrepreneur indicates the change for success of the investment. The institutions to which these results are recommended, are for example governmental institutions which try to support entrepreneurship in their country as well as private venture capitalists who expect a high profit from their investment.

Further research can take into account additional financial indicators to analyses the effect of the motivation. The next step would be to analyses the entrepreneurship between countries which differentiate by promoting different kinds of motivation to start enterprises.

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