

# **Risk Factors and Business Models**



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## **Understanding the Five Forces of Entrepreneurial Risk and the Causes of Business Failure**

**D. Anthony Miles**

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*Risk Factors and Business Models:  
Understanding the Five Forces of Entrepreneurial Risk and the  
Causes of Business Failure*

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## Abstract

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One of the primary concerns in a small business is the problem of risk. Many who begin the start-up process terminate it in less than one year. Of those that survive, many are unable to achieve sustained growth and profits. Small-to-medium business enterprises (SME) have a 50% to 90% chance of failure within the first five years. While there are measures of personal risk behavior of entrepreneurs, the literature contains no measure of risk orientation for the enterprise.

The purpose of this study was to develop and validate a researcher-designed instrument to measure the critical forces of business risk. The 37-item Entrepreneurial Risk Assessment Scale (ERAS) was developed from key theoretical concepts grounded in economics, marketing, management, finance, and entrepreneurship literature. It was developed and finalized through a process of reviewing literature, subject matter expert panels' review, and a pilot test. The a priori assumption of the ERAS constructs were (a) personal characteristics, (b) intangible operations, (c) enterprise operations, (d) market climate, and (e) business environment.

This study utilized a quantitative methodology to establish construct, content, and criterion validity using Bryant's (2000) framework found in *Reading and Understanding More Multivariate Statistics* edited by Grimm and Yarnold (2000). A sample ( $N = 276$ ) was taken from an urban/suburban area in South Texas. A principal axis factoring (PAF) analysis was used to establish construct validity; a principle component analysis (PCA) was used to establish content validity; and a logistic regression was used to establish criterion validity. Reliability was assessed within the efforts to establish content validity.

What emerged from both the factor analyses were five new factors of entrepreneurial risk that were different from the a priori assumptions and thus renamed: (a) customer and resources, (b) security, (c) operations, (d) external pressures, and (e) other/alternate factors. The results of the PAF and PCA provided strong support for the content and construct validity of the ERAS instrument. In the assessment of criterion validity, the logistic regression analysis showed the endogenous factors, (a) customer and resources, and (c) operations reliably predicted risk behavior of both nascent and incumbent SMEs.



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## RISK FACTORS AND BUSINESS MODELS

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## RISK FACTORS AND BUSINESS MODELS

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# Table of Contents

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Abstract .....	v
Acknowledgements.....	vii
Dedication: Special Page of Acknowledgements.....	ix
List of Tables .....	xvii
List of Figures.....	xix
List of Abbreviations.....	xxi
List of Variables .....	xxiii
<b>Chapter 1: Introduction .....</b>	<b>1</b>
Background of the Study.....	1
Statement of the Problem .....	4
Purpose of the Study.....	4
Research Questions.....	4
Significance of the Study .....	4
Methodology .....	5
Assumptions of the Study.....	5
Delimitations of the Study .....	5
Definition of Terms .....	6
Summary of Chapter 1 .....	6
<b>Chapter 2: Literature Review .....</b>	<b>9</b>
Classifications of Risk.....	10
Financial Risk.....	11
Financial ratios as predictors of firm performance.....	12
Graham’s “Mr. Market” allegory .....	13
Graham’s “Margin-of-Safety” principle.....	13
Risk Assessment .....	13
Risk assessment factors.....	13
Business plan and risk assessment.....	13
Launch decision factors .....	13
Success Factors.....	16
Management practices.....	16
Success constraints .....	16
Failure Factors .....	17
Other causal factors of failure.....	17
Enterprise failure in industry types .....	21
Failure due to industry decline.....	23
Effects of failure .....	23
Enterprise Behavior Characteristics and Orientation.....	24
Family-owned enterprises.....	25
Theoretical Basis for Instrument Development .....	25

## RISK FACTORS AND BUSINESS MODELS

Personal Characteristics Risk Forces .....	25
Industry experience .....	26
Education.....	27
Gender .....	27
Ethnicity.....	28
Ethnicity and gender.....	28
Wages/compensation from the enterprise.....	28
Intangible Operation Risk Forces .....	29
Business entity type .....	29
Capital investment intensity .....	29
Owner time dependency.....	29
Other intangible forces and influences.....	30
Enterprise Operation Risk Forces .....	30
Labor/operating costs.....	30
Equipment systems investment .....	30
Diseconomies of scale/Internet .....	30
Internet/disintermediation.....	31
Business design risk.....	32
Protection mechanisms.....	32
Intellectual property risk.....	32
Velocity of profit .....	32
Customer turnover/turnaround .....	32
Market Climate Risk Forces .....	33
Market potential.....	33
Market entry/exit barriers .....	33
Competition intensity.....	35
Business climate/economic location.....	35
Government regulation constraints .....	36
Social responsibility risk.....	36
Business Environment Risk Force.....	36
Environment/natural.....	36
Security risk .....	36
Insurance protection .....	37
Energy/fuel risk.....	37
Terrorism risk.....	37
Globalization risk.....	37
Global competition .....	38
National competitive advantage .....	38
Categories of globalization risk.....	39
Technology risk.....	40
Product life cycle .....	43
Business and industry classification by market saturation .....	44
Consumer monopoly-type industries.....	44
Consumer competitive-type industries .....	44
Commodity-type industries .....	45
Franchising as an alternative .....	45
Selection of Variables.....	46
Rationale for selection of variables .....	48

Conceptual framework of study.....	51
Summary of Chapter 2.....	53
<b>Chapter 3: Methodology.....</b>	<b>55</b>
Entrepreneurial Risk Assessment Scale (ERAS).....	55
Development of the Instrument.....	55
Scale types used in the instrument.....	55
Variable types used in the instrument.....	56
Subject matter experts for instrument.....	56
Field test of instrument.....	56
The ERAS Theoretical Model.....	57
Theory development and research.....	57
Validating the theoretical model.....	57
Research Design Strategy.....	59
Appropriateness of design.....	59
Statistical analysis design.....	60
Data Analysis.....	60
Methods Used to Establish Validity and Reliability.....	61
Construct validity.....	61
Content validity.....	61
Criterion validity.....	62
Reliability.....	62
Institutional Review Board (IRB) Approval.....	62
Refinements to the ERAS Instrument and Finalized Version.....	63
Population.....	63
Sample Size Determination.....	64
Sampling Frame.....	65
Data Collection Process.....	65
Summary of Chapter 3.....	67
<b>Chapter 4: Results of Study.....</b>	<b>69</b>
Sample Characteristics.....	69
Data Cleansing.....	69
Descriptive Statistics of Demographic Data.....	70
Descriptives of SME owners.....	70
Descriptives of SME industry types.....	71
Validity and Reliability Analysis.....	72
Construct Validity of 30 items.....	73
Face Validity of 30 items.....	73
Subject matter expert panels.....	73
Convergent validity for 30 items.....	74
Eigenvalues of 30 Items.....	74
Factor loadings and communalities.....	75
Convergent validity of 22 Likert items.....	79
Factor loadings and communalities.....	79
Correlation among factors.....	79
Discriminant validity of 22 Likert items.....	83
Content Validity for Likert items.....	83

## RISK FACTORS AND BUSINESS MODELS

Built following review of the literature .....	83
Principal component analysis of the ERAS instrument .....	83
Reliability .....	84
Factor structure of the ERAS instrument.....	88
Factor scores of nascent and incumbent SMEs.....	90
Criterion Validity .....	90
Comparing the ERAS theoretical model with conclusive factor structure ....	92
Summary of Chapter.....	95
<b>Chapter 5: Discussion and Conclusion.....</b>	<b>97</b>
Introduction.....	97
Relating the Results of the Findings to the Literature.....	97
Conclusions from the Research.....	98
Factor scores and observations.....	100
Conclusions on validity and reliability.....	101
Contribution to Field of Study in Entrepreneurship.....	101
Theoretical contributions of the study.....	102
Limitations of the Research.....	104
Self-reported data.....	104
Industry types .....	104
Ethnic composition .....	105
Geographical constraints.....	105
Time constraints.....	105
Time and research costs.....	105
Recommendations for Future Research.....	106
Research endogenous and exogenous variables as factors .....	106
Longitudinal study .....	107
Apply study on a state and national basis .....	107
Apply study on an international basis.....	107
Development of new factors .....	108
Research behavior of franchises vs. non-franchises.....	108
Expand the instrument for examining web-based SMEs .....	108
Apply to academic research on entrepreneurship.....	109
Develop a more defined taxonomy on SMEs.....	109
Implications for Practice and Future Uses of ERAS Instrument.....	109
Governmental agencies that counsel businesses.....	109
Practitioners in the field .....	110
Business schools.....	110
Summary of Chapter 5.....	111
<b>References .....</b>	<b>113</b>

**Appendices I ..... 135**  
Appendix A: UIW Application for Institutional Review Board Approval ..... 136  
Appendix B: UIW Protocol Submission Letter..... 138  
Appendix C: UIW Informed Consent Form Letter Approval ..... 139  
Appendix D: Subject Matter Experts Roster and Signed Verifications..... 140  
Appendix E: ERAS Survey Instrument-Paper Version..... 148

**Appendices II ..... 153**  
Appendix A: Pilot Study and Field Testing Results:  
    Beta Version of ERAS Instrument ..... 154  
Appendix B: ERAS Beta Version - Entrepreneur Survey Instrument ..... 163

Index ..... 169

About the Author ..... 173





## List of Tables

---

Table 1: Definition of Terms .....	7
Table 2: Summary of Entrepreneurial Risk Factors .....	47
Table 3: Literature Sources for ERAS Instrument Development .....	49
Table 4: ERAS Instrument Scale Properties and Classes .....	56
Table 5: Major Industries in Bexar County 2007 .....	64
Table 6: Sampling Results of SME Participation in the ERAS Instrument Survey.....	70
Table 7: Summary of Demographic Descriptives of SME Owners .....	71
Table 8: Descriptive Demographic Statistics on the Industry Types of the SMEs.....	72
Table 9: Eigenvalues, Variance, and Cumulative Percentages for Factors of the 30 Likert Items.....	75
Table 10: Results of 30-item Principal Axis Factoring Analysis.....	77
Table 11: Eigenvalues, Variance and Cumulative Percentages 22 Items .....	79
Table 12: Results of 22-item Principal Axis Factoring Analysis (PAF).....	80
Table 13: Results of Pearson’s Correlation for ERAS Factor Scores.....	82
Table 14: Results of 19-item Principal Component Analysis Factors with ERAS.....	85
Table 15: Cronbach’s Alpha Reliability Statistics for ERAS Instrument by Factor.....	87
Table 16: Factor Structure of ERAS Instrument and Defining Variables.....	88
Table 17: Factor Scores, Means, Standard Deviations of Nascent and Incumbent SMEs .....	91
Table 18: Results of Logistic Regression Analysis Predicting ERO Behavior .....	92
Table 19: Comparison between the ERAS Model and Conclusive Factor Structure .....	93
Table 20: Summary of Measures Used for Establishing Validity and Reliability .....	102
Table 21: Pilot Study Demographics of Gender and Marital Status.....	156
Table 22: Pilot Study Demographics of Age and Educations Level .....	157
Table 23: Pilot Study Demographics of Ethnicity, Gross Income Generated from Business, and Time Length of Owning Business .....	158

RISK FACTORS AND BUSINESS MODELS

Table 24: Pilot Study Results of Eigenvalues, Percentages of Variance, and Cumulative Percentages for Beta Version of ERAS Instrument ..... 159

Table 25: Pilot Study Factor Analysis Results of 22-item and 9-Factor Solution Loadings with Beta ERAS Risk Variables..... 160

## List of Figures

---

Figure 1: Conceptual Framework of Study Model .....	52
Figure 2: ERAS Theoretical Model.....	58
Figure 3: ERAS Conclusive Factor Structure.....	89



## List of Abbreviations

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BET	Black Entertainment Television
BPEA	Business Plan Evaluation Aids
CD	Compact Disk
CFA	Confirmatory Factory Analysis
DOS	Diseconomies of Scale
EFA	Exploratory Factory Analysis
EO	Entrepreneurial Orientation
ER	Entrepreneurial Risk
ERAS	Entrepreneurial Risk Assessment Scale
ERO	Entrepreneurial Risk Orientation Behavior
FA	Factor Analysis
IRB	Institutional Review Board
KMO	Kaiser-Meyer-Olkin Measure
LLC	Limited Liability Corporation
LLP	Limited Liability Partnership
NAIC	North American Classification System
PAF	Principle Axis Factoring
PCA	Principle Component Analysis
ROI	Return on Investment
SAS	Statistical Analysis System ®
SBA	Small Business Administration
SBDC	Small Business Development Center
SEM	Structural Equation Modeling
SME	Small-to-Medium Business Enterprise
SPSS	Statistical Package for Social Sciences®
SSL	Sum of Squared Loadings
UIW	University of the Incarnate Word
USASBE	United States Association for Small Business and Entrepreneurship



## List of Variables

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AGE	Age
BCL	Business Climate/Economic Location
BET	Business Entity Type
CIR	Capital Investment Intensity
CMP	Competition Intensity
CTO	Customer Turnover/Turnaround
DSI	Diseconomies of Scale/Internet
EDU	Education
ENC	Environmental Climate
EOS	Equipment/Systems Investment
ETH	Ethnicity
EXI	Expertise in Industry/Field
GND	Gender
GLB	Globalization Risk
GRC	Government Regulation Constraints
INC	Income
IFC	Inflation/Energy/Fuel Costs
INT	Intellectual Capital
LBO	Length of Business Ownership
MEB	Market Entry/Exit Barriers
MPR	Market Potential
PMF	Protection Mechanisms
SCR	Security Risks
SRB	Social Responsibility
SRF	Social Risks
TRF	Terrorism Risks
TDP	Time Intensity Dependence
VOP	Velocity of Profit





# Chapter 1

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## Introduction

The rate of survival for small-to-medium business enterprises has been and continues to be a challenging issue. A major problem with the pursuit of business ownership or entrepreneurship is the significant risks that are involved (Stanley & Danko, 1996). The problem is the high rate of failure of small-to-medium business enterprises (SME) and the often-ignored risk factors that act as strong antecedents. By nature, all businesses are risky; one's capacity to assume those risks is the defining concept of entrepreneurship (Cantillon, 1732/2001; Kanbur, 1982). Entrepreneurship is the polar opposite of safety and the two do not mix.

The Small Business Administration (SBA) defines a small-to-medium business enterprise (SME) as a business that has less than 500 employees (SBA Advocacy, 2007). "Entrepreneurial risk" (ER) is operationalized as "the risks that are associated with the success or failure of a business enterprise" (Ahwireng-Obeng & Mokgohlwa, 2002, p. 33). The economics literature states there are two general subcategories within the concept of entrepreneurial risk: (a) *endogenous variables*, factors controlled within the firm such as price, advertising, and operations; and (b) *exogenous variables*, factors outside the control of the firm such as consumer incomes, competitor prices and the weather (Dollinger, 1999; Hirschey, 2006; Hirschey & Pappas, 1992).

### Background of the Study

The inspiration for conducting this study was the 2006 United States Association for Small Business and Entrepreneurship (USASBE) Conference in Tucson, Arizona. The researcher had the opportunity to present the topic as a workshop on a related subject concerning entrepreneurial risk metrics and measurement. The USASBE Conference provided the researcher an impetus to pursue this subject matter further as a research study. During the question and answer period following of the presentation, a few of the researchers in the audience stated how much they enjoyed the presentation on the subject of entrepreneurial risk measurement. After the positive responses received from the presentation at the conference, the researcher decided this subject needed more exploration; and would make an interesting dissertation topic for research.

Notably, a remarkably large percentage of people who begin the start-up process terminate it less than one year later (Shane, 2008). The SBA Office of Advocacy's general rule of thumb is that a new employer business has a 50% chance of surviving five years or more (Headd, 2003). The Small Business