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THERE ARE FEW DIFFERENCES BETWEEN SUCCESSFUL AND FAILED SMALL BUSINESSES

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ABSTRACT

Literature supports the idea that the difference between a successful and a failed small business is dependent upon the firm having (or using with more efficiency) greater access to variables such as (capital...management skills). With a sample of 216 matched pairs this study used bivariate statistics to test the hypothesis that successful businesses have significantly better results for all 15 literature variables ($p<.05$). The test results reveal that successful firms made significantly greater use of only two variables: professional advisors and their parents owned a business. At variance with the literature and expectations, the failed business owners had a higher level of education and experienced fewer staffing difficulties. It can be concluded that there may not be a valid and reliable set of variables that can distinguish success from failure, and that a different methodological research approach may be necessary. It can be implied that success comes from examining and understanding these variables and applying them for the specific situation at hand.

INTRODUCTION

The important role of small business suggests that an understanding of why firms fail and succeed is crucial to the stability and health of the economy (Gaskill, Van Auken, & Manning, 1993). Of major concern to any would-be entrepreneur is the chance of success for the proposed business. Success versus failure prediction research benefits entrepreneurs; those who assist, train and advise them; those who provide capital for their ventures; suppliers, and public policy makers (Altman, 1983; Ballantin, Cleveland, & Koeller 1992; Cameron, Kim, & Whetten, 1987; D'Aveni, 1989; Dugan & Zavgren, 1989; Koh & Killough, 1990; Pech & Alistair, 1993; Storey, Keasey, Watson, & Wynarczyk, 1987).

There are many studies that analyze business success versus failure. However, as Gaskill, Van Auken, and Manning (1993) stated: there are many questions still to be resolved and warrant additional exploration... previous studies do not provide a comprehensive or unified explanation for small firm failure... comparisons are needed between successful and failed small business owners.

Prior empirical studies of failure have concentrated almost exclusively on financial ratio data, though other studies of failure usually cite managerial variables as being critical

(Scherr, 1989). The usefulness of ratio-based business failure prediction models have been questioned (e.g., Alves, 1978; Corman & Lussier, 1991; Gilbert, Menon, & Schwartz, 1990; Shelton, 1986; Stockton, 1989; Sommers & Koc, 1987). For example, El-Zayaty (1986) found ratio models to be poor predictors of bankruptcy: of 132 businesses predicted to fail, only 5 were discontinued over a five-year period. These models had about a 97 percent Type II error rate. Storey et al. (1987) indicated that qualitative data can provide at least as good predictions as traditional financial ratios. This study is not based not financial ratios, but on quantitative and qualitative managerial factors contributing to success or failure.

To date, no other success versus failure studies have been found that compare the resources of successful and failed businesses: to determine bivariate statistical differences through surveying failed businesses- using matched pairs. Other studies (Cooper et al., 1990 & 1991; Reynolds, 1987 & 1989) have surveyed firms conducting business; then after a year or longer, some of the firms failed. At that time, they compared the responses of the failed firms and the surviving firms to analyze the differences without ever questioning the failures to ask them why they failed. This matched pairs design avoids comparing larger businesses to smaller ones, retailers to manufacturers or construction companies, older to younger firms, and businesses from different locations by controlling for these variables.

VARIABLES DISTINGUISHING BUSINESS SUCCESS FROM FAILURE: THE LITERATURE

There is no generally accepted list of variables distinguishing business success from failure. However, prior research has created discrepancies within the literature by citing different variables as contributing factors to success or failure. The two most commonly stated distinguishing variables are capital and management experience. In 20 journal articles only 14 (70%) specifically state that these two variables contribute to success versus failure; however other studies claim they do not. The list of success versus failure variables in this study was developed by including the fifteen major variables, identified in 20 journal articles, as contributing to success versus failure. See Table 1 for an explanation of the 15 variables, and Table 2 for a comparison of the 20 studies that support, do not support, or do not mention each variable.

The Literature Variables

$S/F = f$ (capital, record keeping and financial control,
industry experience, management experience,
planning, professional advisors, education,
staffing, product/service timing, economic timing,
age of owner, partners, parents owned a business,
minority, marketing skills)

TABLE 1

Explanation of Success versus Failure Variables

Capital (capt). Businesses that start undercapitalized have a greater chance of failure than firms that start with adequate capital.

Record keeping and financial control (rkfc). Businesses that do not keep updated and accurate records and do not use adequate financial controls have a greater chance of failure than firms that do.

Industry Experience (inex). Businesses managed by people without prior industry experience have a greater chance of failure than firms managed by people with prior industry experience.

Management Experience (maex). Businesses managed by people without prior management experience have a greater chance of failure than firms that are managed by people with prior management experience.

Planning (plan). Businesses that do not develop specific business plans have a greater chance of failure than firms that do.

Professional Advisors (prad). Businesses that do not use professional advisors have a greater chance of failure than firms using professional advisors.

Education (educ). People without any college education who start a business have a greater chance of failure than people with one or more years of college education.

Staffing (staff). Businesses that cannot attract and retain quality employees have a greater chance of failure than firms that can.

Product/Service Timing (psti). Businesses that select products/services that are too new or too old have a greater chance of failure than firms that select products/services that are in the growth stage.

Economic Timing (ecti). Businesses that start during a recession have a greater chance of failure than firms that start during expansion periods.

Age (age). Younger people who start a business have a greater chance of failure than older people starting a business.

Partners (part). A business started by one person has a greater chance of failure than a firm started by more than one person.

Parents (pent). Business owners whose parents did not own a business have a greater chance of failure than owners whose parents did own a business.

Minority (mior). Minorities have a greater chance of failure than nonminorities.

Marketing (mrkt). Business owners without marketing skills have a greater chance of failure than owners with marketing skills.

TABLE 2

A Comparison of Variables Identified in the Literature as Factors Contributing to Business Success versus Failure

Senior Author	Independent Variables														
	capt	rkfc	inex	maex	plan	prad	educ	staf	psti	ecti	age	part	pent	mior	mrkt
Barsley	F	-	F	F	F	F	-	-	-	-	-	-	-	-	-
Bruno	F	F	-	F	F	-	-	F	F	F	-	-	-	-	F
Cooper 90	F	-	N	N	F	F	N	-	F	F	F	F	-	F	-
Cooper 91	F	-	F	N	-	F	F	-	N	N	N	N	F	F	-
Crawford	-	-	F	-	-	F	F	-	-	N	N	-	-	-	-
D+B St.	F	F	F	F	-	-	-	-	-	F	-	-	-	-	-
Flahvin	F	F	F	F	-	F	-	F	-	-	-	-	-	-	-
Gaskill 93	N	F	F	F	F	F	N	-	-	N	-	-	-	-	F
Hoad	-	-	F	N	N	F	F	-	-	-	-	-	-	-	-
Kennedy	F	-	-	F	F	-	-	-	-	F	-	-	-	-	-
Lauzen	F	F	-	F	F	-	-	F	-	-	-	-	-	-	-
McQueen	F	-	F	F	-	-	-	-	-	-	-	-	-	-	F
Reynolds 87	F	F	-	-	F	-	-	N	F	-	-	-	-	-	N
Reynolds 89	F	F	-	-	F	-	N	N	F	-	N	F	-	-	-
Sage	F	-	-	F	-	-	F	-	-	-	-	-	-	-	-
Sommers	-	-	-	F	F	-	-	F	-	-	-	-	-	-	-
Thompson	N	-	-	F	F	-	-	F	F	-	-	-	-	-	F
Vesper	F	F	F	F	N	F	F	-	F	F	-	F	-	-	F
Wight	F	F	-	F	-	F	-	-	-	-	-	-	-	-	-
Wood 89	-	F	F	F	F	-	F	-	-	-	-	-	-	-	-
Total F	14	10	10	14	11	9	6	5	6	5	1	3	1	2	5
Total N	2	0	1	3	2	0	3	2	1	3	3	1	0	0	1
Total -	4	10	9	3	7	11	11	13	13	12	16	16	19	18	14

F supports variable as a contributing factor
N does not support variable a contributing factor
- does not mention variable as a contributing factor

Research Question and Hypothesis

Do successful and failed businesses have equal resources? According to the literature review, although there are discrepancies, the successful businesses should have the more favorable resources for all 15 variables. This study will support or not support each of the major 15 variables in the literature through bivariate testing. If the successful firms do have significantly greater resources ($p < .05$) than this study supports prior research. However, if the successful firms do not have greater resources, than researchers should reconsider the methodological approach to determine success versus failure.

Hypothesis: Successful small businesses have significantly greater resources ($p<.05$) than failed businesses for all 15 variables.

METHODOLOGY

This study adopts Dun & Bradstreet's (1993: i) definitions of failure and discontinuance. Business failures are firms involved in court proceedings or voluntary actions involving losses to creditors. Chapter 7 and Chapter 11 companies are both considered to have failed due to loss to creditors: Chapter 7 companies liquidate their assets whereas Chapter 11 companies restructure their debt and stay in business. Firms going out of businesses without loss to creditors are not considered business failures: they are discontinued businesses. To be considered a success the business must make at least industry average profits.

Sample

The sample was limited to the six New England states--Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The population of failed businesses includes Chapter 7 and 11 companies. Due to difficulties in locating liquidated business owners, the sample frame was Chapter 11 companies. The failure sample was generated from the bankruptcy court records. The questionnaire was first mailed to each owner/CEO filing Chapter 11 during the most recent year. The questionnaire was then mailed to each failed respondent's successful company match. Matching was selectively based on size (number of employees), age (all firms are ten years old or less), location (same state and city, or city close by), and industry (same Dun & Bradstreet classification) to ensure relevant comparisons. The combined percentage of failure and successful company matched response rate is 39 percent. A total of 216 usable questionnaires equally divided between failed and successful firms were returned and analyzed.

Measurement

To increase reliability, the questionnaire was carefully developed through four pretests with each of the variables defined on the questionnaire. One of the major concerns was response rate. Because the questionnaire's length was limited in order to increase the response rate, a trade-off was made; rather than having several repeat questions, the questionnaire used one open-ended question to check reliability. There was only one nonreliable response (.005%); therefore, reliability is inferred.

The questionnaire had 15 questions designed to measure the successful and failed businesses' resources for each of the 15 variables identified in the literature. In the variables column, in (parentheses) of Table 3, the measurement of each variable is given. Columns Two through Five provide the failed and successful mean and standard deviation, or frequency.

In addition to the descriptive data in Table 3, the sample of small businesses included approximately 20 percent from Connecticut, 5% Maine, 44% Massachusetts, 19% New

Hampshire, 9% Rhode Island, and 6% Vermont. The mean age of the failed and successful firms was 5.5 and 5.8 years. The mean, median, and mode of the number of employees for the failed and successful firms were: 25.33, 15.00, 5.00; 22.22, 8.00, 2.00 respectively. Industry representation (as classified by Dun + Bradstreet) includes approximately: 2 percent agriculture, 14% construction, 17% finance, 10% manufacturing, 22% retailing, 3% wholesale, 6% transportation and communication, and 25% services.

The failed and successful descriptive statistical measures for each of the 15 variables were compared using the appropriate bivariate test for the measurement scale. The variables measured on the ratio scale compare the successful mean to the failed mean using the paired t-test. The variables measured on the seven point Likert scale are ordinal data comparing mean ranks using the Wilcoxon matched pairs signed ranks test; however, the means rather than mean ranks are given in Table 3 for easier comparison. The variables measured on the nominal scale compare frequency distributions using the Mcnemar paired chi-square test. See Table 3 column six for the T, Z, and X^2 values of bivariate testing. At the bottom of the table is a listing of which test was used with each variable. The significant differences are identified with asterisks.

BIVARIATE STATISTICAL RESULTS

Hypothesis Test of Differences Between Successful and Failed Businesses

According to the hypothesis which was based on the literature the successful small businesses should have significantly greater resources ($p < .05$) than failed businesses for all 15 variables. However, this was not the case. The successful businesses had significantly greater resources for only 2 of the 15 variables (13%). Successful businesses did make greater use of professional advisors, and more of them had parents who owned a business. However, counter-intuitive to the literature, the failed business had significantly greater resources for two variables. Failed business owners had a higher level of education and an easier time staffing. Refer back to Table 3 for a comparison of all variables and a listing of the type of test used for each variable.

DISCUSSION

The results of this study contradict prior literature and common expectations. Part of the discrepancy between this study and the literature may be due to the fact that of the 20 articles only 5 are based on good empirical research (Cooper et al., 1990 & 1991; Gakill et al., 1993; Reynolds, 1987 & 1989). The other articles are based primarily on secondary source and opinions.

TABLE 3

Descriptive and Bivariate Statistical Results

Variables	Failed Mean/ Frequency	Fail stand dev	Success Mean/ Frequency	Succ stand dev	Bivariate test
1. Capital (1 adequate - 7 inad)	4.75	1.61	4.60	1.54	Z 0.753
2. Record keeping and financial control (1 poor - 7 good)	4.69	1.72	4.77	1.54	Z 0.392
3. Industry experience (number of years)	10.00	8.34	8.39	7.99	T 1.53
4. Management experience (number of years)	9.29	7.74	7.63	8.21	T 1.51
5. Planning (1 specific - 7 no plan)	4.09	1.71	3.84	1.52	Z 1.171
6. Professional advice (1 used - 7 not used)	3.96	1.72	3.03	1.39	Z 2.679**
7. Education (number of years)	15.32	2.98	14.53	2.59	T 2.30*
8. Staffing (1 difficult - 7 easy)	5.05	1.59	4.29	1.72	Z 3.469***
9. Product/Service timing (1 intro. - 7 decline)	3.94	1.45	3.95	1.31	Z 0.204
10. Economic timing (1 recession - 7 expan.)	4.19	1.85	4.20	1.76	Z 0.209
11. Age of owner (number of years)	37.17	8.81	35.89	8.84	T 0.89
12. Partners (number with partners)	62		70		X^2 1.45
13. Parents (# who owned a business)	33		45		X^2 4.46*
14. Minority (# of minority owners)	8		6		X^2 0.31
15. Marketing (1 unskilled - 7 skilled)	4.46	1.77	3.94	1.76	Z 1.749
a. Age of business (number of years)	5.49	2.80	5.82	2.78	T 0.877
b. Size (number of employees)	25.33	37.79	22.23	42.33	T 0.567

n = 108 failed, and 108 matched successful firms

a + b are letters because they are not success versus failure variables

Bivariate test to determine significant differences:

Paired t-test-- Variables 3,4,7,11,a,b

Wilcoxon matched-pairs signed ranks test-- Variables 1,2,5,6,8,9,10,15
Mcnemar (a paired Chi-square test)-- Variables 12,13,14

Significance level	*	$p < .05$
	**	$p < .01$
	***	$p < .001$

The trend towards requiring empirical research as a criteria for publication should continue.

Should results that contradict prior literature and common expectations be published? Such findings can in fact serve to add to our insights. However, contradictions should only be published if they are based on meticulously developed and executed empirical research designs. Again, this study has a large sample size of 216 with a response rate of 39 percent which is large for studies actually surveying failed businesses. The matched pairs design controls for firm size, industry, regional context, and age of the firm. All four are considered to have a statistically significant impact on firm survival (Cooper et al., 1990 & 1991; Reynolds, 1987 & 1989). Critical to survey research is the sample. In addition to the sample methodology presented, bivariate testing was used to determine the validity of the sample, and to address nonresponse bias. Results are presented in the next three sub-sections.

Validity of the Chapter 11 Company Sample

Chapter 11 firms are early representatives of closed businesses. Wood (1990) reported less than 5 percent of Chapter 11 companies survive whereas Flynn (1989) reported a 10 to 12 percent survival rate. In this study 14 percent of the respondents were in Chapter 7 proceedings. The responses of the Chapter 7 companies were compared to the Chapter 11 companies to determine differences. Of the questions testing the model, none were significantly different ($p < .05$). Therefore, t-testing infers that the dominantly Chapter 11 sample is a valid representation of failures.

Sample Representation

To ensure that the sample represents the population, a comparison was made of the sample failure frequency distributions to the failure population by state and industry. The population figures include Chapter 7 and Chapter 11 failures (Dun + Bradstreet 1993). Using the chi-square test, there is no significant difference ($p<.05$). In other words, businesses in all six states, and all types of businesses, are represented by about the same percentage in the sample as the population which they represent. Percentage representation of the sample was listed above.

Nonresponse Bias

Nonresponse bias was minimized in this study by including initial nonrespondents in the sample, and by comparing statistically the initial nonrespondents' data to that of the initial respondents to ensure that there is no significant difference. Approximately 10 percent of the sample includes initial nonrespondents. Of the questions testing the model, no responses are significantly different ($p<.05$). The t-test and chi-square test results infer that the sample is not problematic due to nonresponse bias.

IMPLICATIONS AND CONCLUSIONS

There are discrepancies in the literature about which variables do in fact distinguish business success from failure (Table 2), and between the literature and the findings of this study. In other words, there is no valid and reliable list of variables to date. Does this mean that practitioners and researchers cannot benefit from this research? Certainly not. They should realize that there are few significant differences between successful and failed small business owners, that there are exceptions to the rule, and that there may not be a valid and reliable set of variables that can distinguish business success from failure. For example, this study found only four out of 15 significant differences (and two were the reverse of expectations) between successful and failed businesses, and all have exceptions. Each is presented separately:

1. Significantly more successful business owners had parents that owned their own businesses than owners of failed businesses. However, more successful owners did not have parents that owned a business than those that did (63 vs. 45).

2. Successful businesses make significantly greater use of professional advisors than failed businesses. However, a couple of the owners stated the reason for their failure was poor professional advice.

3. Failed business owners had a significantly higher level of education than successful business owners. However, some of the successful business owners had master and doctorate degrees.

4. Failed businesses had less difficulty staffing than successful businesses. However, some of the successful firms reported no difficulty.

Does the observation that failed business owners how have a higher level of education and less difficulty staffing imply that education and staffing are not important? No. Significant does not always mean important. When examining the educational difference, it is only about two-thirds of a year. The failed business owners' mean level of education is about 3 1/3 years of college whereas successful owners is 2 1/2. Having more education does not cause failure, nor success. The level of difficulty staffing is a self-reported perception. The difference could be due to perception, or the fact that the owners of failed businesses were not as selective in recruiting, selecting, and retaining "good" employees. One cannot conclude that if a business does not have difficulty staffing it will fail. In addition, one cannot conclude that it is necessary to have parents who owned a business since this is beyond the control of the entrepreneur. Similarly one cannot conclude that a business owner must use professional advice to be successful. These factors are helpful, but not necessary.

Implications For Practitioners

A major implication for would-be entrepreneurs is that they should not seek to compare themselves to a list of variables and think: if I meet all/most of these criteria variables I will be a successful business owner, nor, if I do not meet all/most of these criteria I will not be

successful. In addition, some of the variables are beyond the entrepreneur's control. One cannot influence their parents owning a business or being a minority. The would-be entrepreneur can benefit from prior research by considering these variables when making the decision to start a business, but realize that there are exceptions and limitations to their use. And that resources such as experience and skill can be attained before and during business ownership.

This same implication applies to those who assist, train and advise entrepreneurs, those who provide capital for their ventures, suppliers, and public policy makers. Those who assist, train and advise entrepreneurs should make them aware that variables do help to distinguish business success or failure, but there are many exceptions to the rule. Those who provide capital and supplies to new ventures should consider the variables, but be aware of their limitations for predicting success or failure. Public policy makers should continue to support small business with an understanding of these variables.

Implications for Researchers

A major implication for researchers is the reality that a valid and reliable list of variables, a model, that can distinguish business success from failure does not exist. There may be a more effective approach to the study of business success versus failure. Perhaps we can learn from leadership research. In the early 1900s, using leadership trait theory, researchers tried to identify a set of characteristics, that distinguished leaders from followers. By the late 1940s, theorist focused on what the leader did, behavioral leadership, in order to find the one best leadership style in all situations. By the late 1960s, contingency leadership theory focused on determining the appropriate leadership for a given situation,.

This study supports the emphasis of Robinson and Pearce (1984) and Cochran (1981) on the importance of focusing research studies on single industries within specific regions of the country. The size of the business may also be a factor. This research approach more closely resembles contingency theory, and could be called contingency theory of business success versus failure. Researchers must realize, however, that there may not be a valid and reliable list of variables even within specific industry segments.

A major contribution of this study is the use of Chapter 11 companies and the matched pairs design. Gaskill et al. (1993 & 1994) calls for comparative studies between successful and failed small businesses but notes the difficulties involved in obtaining usable samples of failed businesses. As shown in this study, Chapter 11 companies are a representative sample of failed businesses. Hence using Chapter 11 companies overcomes most of the difficulties involved in obtaining failed samples. The matched pairs design can be used to help control for industry, size, location, age, etc.

In addition, it would be helpful to have a universally accepted operational definition of business failure. This study supports the use of Dun & Bradstreet's definition which distinguishes failed business from discontinued businesses. There is also a need for empirical research rather than reporting secondary sources or giving opinions on why businesses succeed or fail. Researchers should report discrepancies in the literature and between the

literature and their studies. The use and limitations of any list of variables or models that predict success versus failure should be clearly stated, and over-generalizations of findings should not be made.

As with any study, this research has limitations. Eight of the fifteen variables (capital, record keeping and financial control, planning, professional advice, staffing, product/service timing, economic timing, and marketing) are the subjective self-reported perceptions of business owners (see Table 3). Although self-reported perceptions are a recognized and frequently used method of data collection, recognition must be given to the fact that the data collected may not mirror the exact extent of the business owners' resources. Therefore, it is recommended that further research incorporate more objective measures for these variables. And because the sample was taken from eight industries in New England, results may be different for single industry studies or for studies based in other parts of the USA, or countries.

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