Role of Vital Factors for the Success of Products of Small Entrepreneurs

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Abstract

Small Entrepreneurs are major contributors to the economic growth and job creation. They discover new ideas and business opportunities, bring together funds to establish a business, organizes and manages its operations in order to provide economic goods and services. Entrepreneurs have strong convictions, self motivation, will to grow and prosper tremendously. Entrepreneurship is the risk taking ability of the individual coupled with correct decision making. In this research, an attempt is made to explore the factors contributing to the success of the innovative products of small entrepreneurs statistically. This paper provides guidelines for the success of the products for small entrepreneurs. This could help to improve the ability of small entrepreneurs to develop and prosper in an increasing competitive and complex world. A model has been developed to forecast the success or failure of the product which will be useful for small entrepreneurs.

Keywords: Entrepreneur, success factors, forecasting model.

1. Introduction

The end result of a manufacturing process is a product to be offered to the marketplace to satisfy a need or want. Thousands of new products are introduced to the market every year. Many small entrepreneurs developing new products and modification to the existing products have become a necessity and way of life. Discovering which factors or practices lead to business success and failure is a primary and yet unfilled purpose of business. Understanding user needs, external and internal communications, product advantages and marketing efforts have been found to be related to the product success of small entrepreneurs [1].The context was India, a developing nation bound in a multitude of traditions and inertia. In spite of the importance and magnitude of the monetary expense ,the area of new products is still fraught with failures, risks and difficulties [2].Entrepreneur are able to spot options and create new directions for an industry. Typically they deal with ambiguity and change and that is a prerequisite for success in today's fast paced business world. They can distinguish real from imaginary pitfalls and the brightest among them can turn error into opportunity[3].Entrepreneurs always operate at the edge of their competence , focusing more of their resources and attention on what they do not yet know(eg; investment in R&D) than on controlling what they already know. They measure themselves not by the standards of the past but by visions of the future. Innovation is an essential ingredient for today's social and economic growth. It improves the quality of life, raise standard of living and enables entrepreneur to grow and prosper. Innovation is creating and introducing new ways of doing things, better use of goods, more efficient services and systems. Innovation use knowledge and information. It is desirable to develop a model that enables accurate prediction of the outcome of a new product before heavy expenditures are incurred [4]. Though there are many models to predict the success of the products of big Entrepreneurs all existing models require large number of data to forecast and hence there is need to have model to visualize the products at the idea stage itself based on the innovators thinking and theirs capabilities with single set of data. An attempt has been made to predict the success of the products of small entrepreneur based on single data.

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2. Research Methodology

This research relied on primary data collected by the survey method. The data was collected from the users about the product of small entrepreneurs. The survey data were collected from users of arecanut polishing machine. A set of 52 questionnaires was prepared. These questionnaires were grouped into eight factors viz; Consumer, Government Role, Economics of the product, Physical characteristics, Attributes of the product, marketing of the product, Entrepreneur's attribute, Environmental condition. Consumer factors refer to the consumer's purchasing capacity of the product status of the consumer. Government role refers to certifications and support from the Government. Economics of the product refers to the cost resale value, fuel consumption savings in time. Physical characteristics refer to weight, compactness, space occupation, availability in different size and quantity. Attributes of the product refers to reliability, robustness, safety, efficacy, adaptability, repairability. Marketing of the product refers to after sales service, resale value, self repairable. Entrepreneur's attribute refers to the investment capacity of the Entrepreneur, his capability to take risk, his capability of involvement etc. Environmental condition refers to labor availability, Government policies. A five point Likert scale ranging from 1=Unsatisfactory to 5=excellent was used to measure the extent to which users respond to each variable. The users were from different locations, varying economic condition and rural background. The users were personally contacted and interviewed. They were given the set of questionnaire and asked to fill up the questionnaire and their opinion about the product. The factors are given below:

Sl No	Factors
G1	Consumer
G2	Government Role
G3	Economics of the product
G4	Physical Characteristics
G5	Attributes of the product
G6	Marketing of the product
G7	Entrepreneur's attribute
G8	Environment condition

Addresses of users of the products were obtained from the entrepreneurs who manufacture the product and market on their own. Arecanut polishing machine was taken for the research purpose. The small entrepreneurs are Maruthi Engineering works, Chennagiri, (Davanagere District),Dharma Technologies, Tumkur, SR Agrotech, Tumkur .These entrepreneur's machine was approved by Agriculture Department, Govt. of Karnataka. They have produced innovative products namely Arecanut peeler, Arecanut polishing machine, Mini tipper.

3. Results and Discussion

3.1. Reliability of the data

Using Reliability calculator the reliability and validity of the data was found. The Cronbach alpha was found out to be 0.9543.This means that the data collected was reliable and valid.

3.2. Correlation Coefficient

The correlation Coefficient analysis was carried out. The Correlation Coeffecient matrix is given below

	G1	G2	G3	G4	G5	G6	G7
G2	-0.152						
	0.422						
G3	0.306	-0.132					
	0.100	0.487					
G4	0.227	0.090	0.472				
	0.228	0.635	0.009				
G5	0.308	0.232	0.457	0.609			
	0.098	0.218	0.011	0.000			
G6	0.320	-0.229	0.179	0.167	0.463		
	0.085	0.223	0.343	0.377	0.010		
G7	0.367	0.082	0.068	0.156	0.226	0.356	
	0.046	0.666	0.720	0.409	0.230	0.054	
G8	0.435	0.100	0.281	0.282	0.411	0.494	0.788
	0.016	0.597	0.132	0.131	0.024	0.006	0.000

Cell Contents: Pearson correlation

P-Value

The Pearson Correlation Coefficient between the groups was obtained. It was found that G3 & G7, G8 & G7 are strongly correlated as the Pearson Coefficient is greater than 0.7 .

3.3. Regression Analysis

The Regression analysis was done to predict the success of the product. Considering G7 (Entrepreneur's attribute)

as dependent variable and other variables as independent variable a multiple regression model was obtained in the form of an equation:

The regression equation is

G7 = - 0.48 + 0.066 G1 - 0.005 G2 - 0.0708 G3 + 0.0121 G4 - 0.0221 G5 - 0.024 G6+ 0.576 G8

Predictor	Coef	SE Coef	T	P
Constant	-0.475	3.768	-0.13	0.901
G1	0.0659	0.1251	0.53	0.604
G2	-0.0054	0.1752	-0.03	0.976
G3	-0.07080	0.06570	-1.08	0.293
G4	0.01205	0.06743	0.18	0.860
G5	-0.02211	0.06625	-0.33	0.742
G6	-0.0241	0.1679	-0.14	0.887
G8	0.5764	0.1133	5.09	0.000
S = 0.864045	R-Sq = 65.4%		R-Sq(adj) = 54.4%	
PRESS = 28.7958		R-Sq (pred) = 39.33%		

4. Hypothesis Testing

This test was conducted between group of factors namely;

Sl No	Factors
G1	Consumer
G3	Economics of the product
G5	Attributes of the product
G6	Marketing of the product
G7	Entrepreneur's attribute

The hypothesis are:

H1: There is significant difference role of consumer and marketing of the product

H2: There is significant difference between attributes of the product and marketing of the product

H3: There is significant difference between economics of the product and attributes of the product

a. Two-Sample T-Test and CI: G1, G6

Two-sample T for G1 vs G6

	N	Mean	StDev	SE Mean
G1	30	24.13	1.50	0.27
G6	30	13.80	1.35	0.25

Difference = mu (G1) - mu (G6)
Estimate for difference: 10.3333
95% CI for difference: (9.5950, 11.0716)
T-Test of difference = 0 (vs not =): T-Value = 28.03 P-Value = 0.000 DF = 57

H1: There is significant difference role of consumer and marketing of the product as P value is <0.1

b. Two-Sample T-Test and CI: G5, G6

Two-sample T for G5 vs G6

	N	Mean	StDev	SE Mean
G5	30	78.17	3.97	0.73
G6	30	13.80	1.35	0.25

Difference = mu (G5) - mu (G6)
Estimate for difference: 64.3667
95% CI for difference: (62.8109, 65.9225)
T-Test of difference = 0 (vs not =): T-Value = 83.99 P-Value = 0.000 DF = 35

H2: There is significant difference between attributes of the product and marketing of the Product as P value is <0.1

c. Two-Sample T-Test and CI: G3, G5

Two-sample T for G3 vs G5

	N	Mean	StDev	SE Mean
G3	30	28.07	3.05	0.56
G5	30	78.17	3.97	0.73

Difference = mu (G3) - mu (G5)
Estimate for difference: -50.1000
90% CI for difference: (-51.6291, -48.5709)
T-Test of difference = 0 (vs not =): T-Value = -54.77 P-Value = 0.000 DF = 58
Both use Pooled StDev = 3.5429

H3: There is significant difference between economics of the product and attributes of the product as P value is <0.1

5. Analysis of Variances (ANOVA)

One way ANOVA analysis was done with respect to dependent variable G7 and an independent variable G8

Source	DF	SS	MS	F	P
G8	5	39.430	7.886	23.55	0.000
Error	24	8.037	0.335		
Total	29	47.467			

S = 0.5787 R-Sq = 83.07% R-Sq(adj) = 79.54%

It is found that G8 and G7 are related to each other as p value is near to zero. But the other independent variables are not closely related like G8 which is as shown below

One-way ANOVA: G7 versus G3

Source	DF	SS	MS	F	P
G3	10	13.63	1.36	0.77	0.659
Error	19	33.83	1.78		
Total	29	47.47			

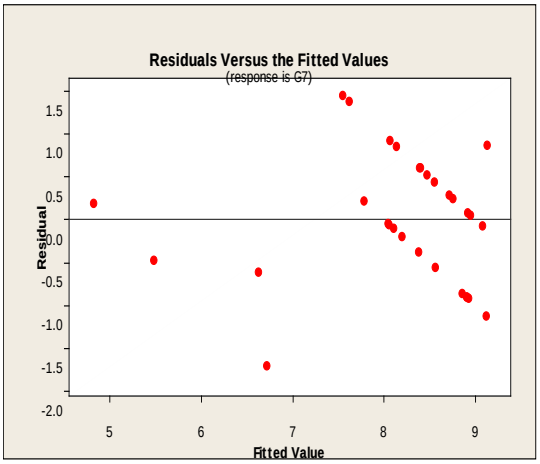
S = 1.334 R-Sq = 28.72% R-Sq(adj) = 0.00%

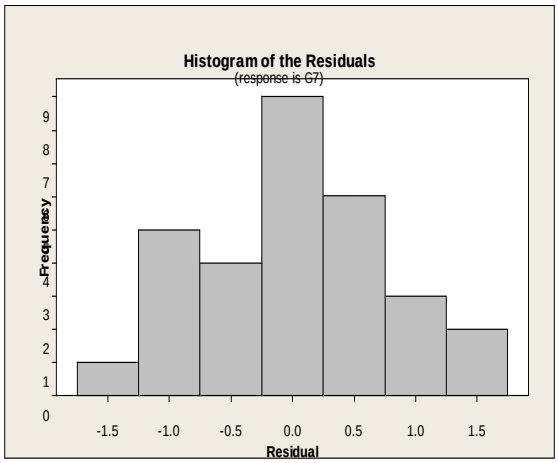
One-way ANOVA: G7 versus G4

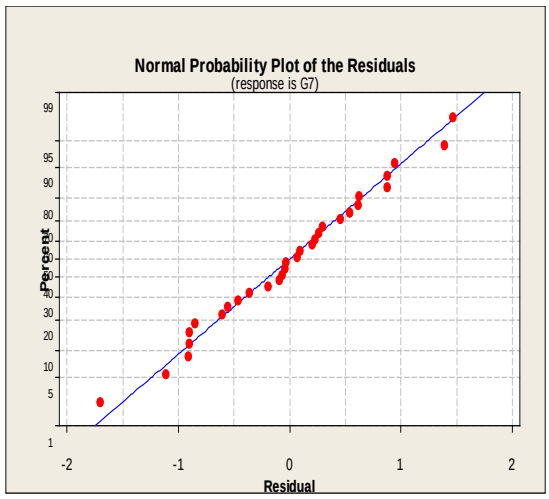
Source	DF	SS	MS	F	P
G4	10	11.02	1.10	0.57	0.815
Error	19	36.45	1.92		
Total	29	47.47			

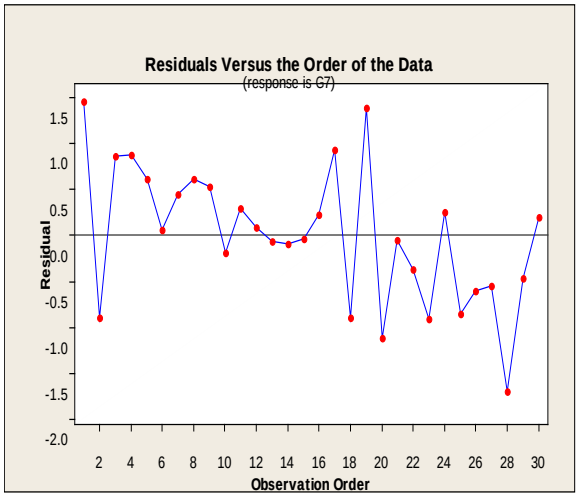
S = 1.385 R-Sq = 23.21% R-Sq(adj) = 0.00%

The relevant graphs are shown below:









6. CONCLUSION

It is found that for the success of product Entrepreneur should concentrate on all eight factors. Each factor has an impact on the success of a product. Especially for a new Entrepreneur Government support is most important. An Entrepreneur should have sufficient resources to convert customer needs to customer demand. The products which have failed lacked in providing the perceived superior advantages or the entrepreneur failed to effectively communicate to the user superior advantages. Entrepreneur lacked the credibility, competence and financial resources. Each of the entrepreneur failed to anticipate the problems in the turnaround of money and the consequence with respect to the successful commercialization the product. It may be concluded that the entrepreneur should give equal importance to all factors. If he neglects one factor it will have cascading effect on other factors.

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