



MULTIPLE REGRESSION MODEL IN ESTIMATING RELATIONSHIP AMONG SELECT VARIABLES OF TRADING ENTREPRENEURS IN EDAPPADI TOWN

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ABSTRACT

Trading entrepreneurs role in selling goods carries vital importance. He / she contributes sincere efforts in making sales in his / her concern. Keeping this idea in the mind of the researcher, made an attempt to identify the relationship exist among the variables selected for this purpose. Seventy-five pertinent sample respondents contributed their views and the same was used as primary data for data analysis. Collected data was analysed using multiple regression analysis and suitable suggestions were made based on the findings of the study.

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INTRODUCTION

Entrepreneurship is a journey gives more experience in buying merchandise from the manufacturers / the channel member and selling the same to its potential customers. Entrepreneurs happiness leads that organisation with more effective in long-run. At this juncture, the researcher made an attempt to identify the level of satisfaction with various select variables for this study.

METHODOLOGY

The present study used primary data and the same was collected using a well-structured questionnaire in the study area. The collected data was analysed using Multiple Regression analysis with Enter method to arrive the results of analysis.

Multiple Regression Analysis

The regression is a statistical relationship between two or more variables. When there are two or more independent variables, the analysis that describes such relationship is the multiple regression. This analysis is adopted where there is one dependent variable that is presumed to be a function of two or more independent variables. In multiple regression, a linear composite of explanatory variables is formed, in such a way that it has maximum correlation with an active criterion variable.

The main objective of using this technique is to predict the variability of the dependent variable, based on its co-variance with all the independent variables. It is useful to predict the level of dependent phenomenon through Multiple Regression Analysis models, if the levels of independent variables were given. The linear multiple regression problem is to estimate coefficients of $\beta_1, \beta_2, \dots,$

β_j and β_0 such that the expression,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_j X_j$$

provides a good estimate of an individual Y score based on the X scores,

Where,

Y = Level of satisfaction perceived by the respondents

X₁ = Respondents' Age

X₂ = Respondents' Education Level

X₃ = Respondents' Annual Income

X₄ = Respondents' Number of Family Members

X₅ = Respondents' Type of Family

X₆ = Respondents' Type of Entrepreneur

and $\beta_0 + \beta_1 + \beta_2 + \dots + \beta_j$ are the parameters to be estimated.

A regression is a statistical tool used to find out the relationship between two or more variables. In simple regression, there will be only two variables; one variable is caused by the behaviour of the other one. The former is defined as an independent variable and the latter is defined as a dependent variable. When there are two or more independent variables, the analysis that describes the relationship between the two is called multiple regression. The main objectives of using this technique are to predict the variability of the

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dependent variable based on its co-variance with all the independent variables. It is useful to predict the level of dependent phenomenon through multiple regression analysis models, if the level of independent variables is given.

DATA ANALYSIS AND DISCUSSIONS

Table No 1

| Variables Entered / Removed | | | | |
|--|---|-------------------|--------|--|
| Model | Variables Entered | Variables Removed | Method | |
| Multiple Regression | Age of the respondents, Income P.A, Educational Qualification, Type of family members, Type of Entrepreneur | None | Enter | |
| a. All requested variables entered. | | | | |
| b. Dependent Variable: Level of Satisfaction | | | | |

Table No 2

| Coefficients | | | | | | |
|--|-----------------------------|------------|---------------------------|------|--------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | |
| | B | Std. Error | Beta | | | |
| | (Constant) | 1.959 | 2.103 | - | .932 | .355 |
| | Age of the respondents | 1.158 | .312 | .216 | 3.714 | .000 |
| | Educational Qualification | .239 | .307 | .046 | .781 | .438 |
| Multiple Regressior | Income P.A | 3.530 | .217 | .806 | 16.252 | .000 |
| | Number of family members | 3.034 | .327 | .656 | 9.275 | .000 |
| | Type of family | 2.789 | .413 | .441 | 6.747 | .000 |
| | Type of Entrepreneur | .202 | .199 | .057 | 1.011 | .316 |
| a. Dependent Variable: Level of Satisfaction | | | | | | |

Table No 3

| Model Summary | | | | |
|--|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| Multiple Regression | .921 ^a | .848 | .835 | 1.220 |
| a. Predictors: (Constant), Age of the respondents, Income P.A, Educational Qualification, Type of family, Number of family members, Type of Entrepreneur | | | | |

Table No 4

| ANOVA | | | | | |
|--|----------------|----|-------------|--------|-------------------|
| Model | Sum of Squares | Df | Mean Square | F | Sig. |
| Regression | 565.352 | 6 | 94.225 | 63.292 | .000 ^a |
| 1 Residual | 101.234 | 68 | 1.489 | | |
| Total | 666.587 | 74 | | | |
| a. Predictors: (Constant), Age of the respondents, Income P.A, Educational Qualification, Type of family, Number of family members, Type of Entrepreneur | | | | | |
| b. Dependent Variable: Level of Satisfaction | | | | | |

The multiple linear regression components is found statistically a good fit as R² value is .848. It shows that six independent variables which contribute to about 84.80 percent on the variations in the level of satisfaction are statistically significant at 1 percent and 5 percent level respectively. The table indicates that the co-efficient of age, Income (p.a), Educational Qualification, Type of family, Number of family members, Type of Entrepreneur are positively associated with the level of satisfaction on trading entrepreneur. Further, it indicates that these variables that contribute to the level of satisfaction on trading entrepreneur are statistically significant implying that their influence is stronger than the other variables.

The rate of increase in the level of satisfaction shows better results of the independent variables such as the unit change in age of the respondents with 3.714, with 0.781 units change in education, with 16.252 units in income of the respondents, with 9.275 units change in number of family members, with 6.747 units change in type of family, and with 1.011 units change in type of entrepreneur.

Thus from the above analysis, the following observations could be made. The level of satisfaction perceived by the selected sample respondents on trading entrepreneurship is positively associated with the factors like age, educational level, income of the respondents, number of family members, type of family, and type of entrepreneur.

CONCLUSION

From this research is concluded that, the variables selected for this purpose is positively associated with the dependent variable i.e., the level of satisfaction on trading entrepreneurship. Further it is observed that, income earned by the entrepreneurs through their trading has a high positive relationship and the same was proved from the analysis. Hence it is advised to the manufacturers/the distribution channel members to offer better schemes to enjoy more income out of it. This may lead to have further high positive relation with their level of satisfaction and that in turn support to sell more quantity in their outlets.

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