

Predicting Family Savings Using Demographic Variables as Antecedents

Indira A

Part-time doctoral research scholar, Management studies,
Mother Teresa Women's University, Kodaikanal, Tamil Nadu
Email: aindira75@gmail.com

R Neelamegam

Advisor, Research Centre in Business Administration,
VHNSN College (Autonomous), Virudhunagar, Tamil Nadu
Email: dr.r.neelamegam@gmail.com

Date of Submission: 10th August 2021 Revised: 25th October 2021 Accepted: 13th December 2021

Abstract- Predictive analytics relies on historical data, past trends, and assumptions to answer questions about what will happen in the future. The present research paper aims to predict family savings using demographic variables as independent variables. The survey results demonstrate that the five independent variables: educational expenses, family income, debt repayment, household size, and the number of earning members, could predict the amount of family savings of the respondents. The results also confirm that no evidence of multicollinearity exists among the five independent variables. The contribution of this research paper is to add two more independent variables, namely, educational expenses and debt repayment to the existing demographic variables used to predict family savings, which is one of the objective measures of financial behaviour.

Keywords: Predictive analytics, Demographic variables, Family Savings, Multiple regression, Forward method and Multicollinearity.

INTRODUCTION

Predictive analytics uses historical data, historical trends, and assumptions to make predictions about the future. This historical information would be fed into a quantitative model that considers the data's most significant trends and patterns. After that, the model is applied to current data to predict future events. Business applications that use predictive analytics data can recommend actions that will result in positive developments, which can assist businesses in making better decisions. Predictive analytics enables analysts to forecast whether a change would help them mitigate risk, enhance efficiency, and raise

revenue. At its core, predictive analytics enables the analyst to identify the most likely outcome based on the current data and how the outcome can be influenced (Parthasarathy, 2021).

Multivariate analysis

Multivariate analysis is a statistical method used to analyse data containing more than two variables simultaneously. Additionally, it may imply resolving problems in which multiple dependent variables are analysed concurrently with other variables (Great Learning, 2020). Linear regression is a widely used multivariate technique in predictive analytics. The regression analysis determines the relationships between variables and forecasts a value known as the response or Y variable. An Independent variable is used to predict the outcome of Y in linear regression. Multiple regression is a technique that predicts an outcome using two or more independent variables.

Demographic Variables

Demographics is the term used to describe the characteristics of research participants or specific characteristics of a population. Demographics is derived from two Greek words: "dēmos", which means people and "graphō", which means picture. By definition, demographic variables are independent variables since they cannot be manipulated. Age, gender, years of education, marital status, homeownership, family income and household size are examples of demographics. The measurement of demographic variables can be done as either continuous/metric variables or as categorical variables, depending on the situation and context in which they are used. For example, age can be measured in numbers (Number of years of age) as well

as categories (Below 20, 20 to 40, 40-60, Above 60) (Lee & Schuele, 2012).

Demographics are vital because they help to comprehend a population's characteristics. Business entities use demographics to understand their customers better and establish strategic business and marketing plans. The nature and type of product or services to be delivered are also determined by accurate demographic data analysis. The demographics of an individual influence financial behaviour and decisions. Hence, it is imperative to study the existing literature on the influence of demographic data on individual's financial behaviour.

PRIOR RESEARCH

The demographic characteristics linked to financial stress in Australian households are the number of dependents, dependent children, number of income-earners, and household head's age. Additionally, whether the householder has immigrated recently from North Africa, the Middle East, or Asia (occasionally) is also linked to financial stress (Worthington, 2006). Yuh & Hanna (2010) reported that spending less than income is influenced by age, race or ethnicity, education, marital status, and the existence of younger children.

Children in the home, separation or divorce, unemployment, and the possession of a credit or charge card are all associated with a decreased likelihood of saving (Fisher, 2010). The presence of young dependents in a family has a consistent and negative impact on household savings, and this relationship is significant (Brookins et al., 2015). Variables such as one's gender, level of education, and affiliation with a few ethnic groups influence household saving behaviour (Ajija et al., 2021). Demographic information such as age, gender, income, job category, and years of experience moderate the relationship between the individual's financial behaviour and financial well-being (Prakash et al., 2022).

Income and level of education are the most significant and positive predictors of retirement planning for women in their thirties. While large families may have less discretionary income, contributions to retirement plans seem unaffected by family size (Hassan & Lawrence, 2007). Income had an overall more significant with long-term and short-term financial behaviour than the respondents' age group (Henager & Cude, 2016).

The dissaving per cent of the retired aged in Japan is about 25% to 31% of their yearly disposable income. Decrease in social security benefits, rise in consumption expenditures, and rise in taxes and social insurance premiums have contributed to the hike in the dissaving of the retired and aged population since 2000 (Horioka, 2010). In contrast, Xiao et al. (2015)

found that the score on the financial capability index is positively associated with age.

The household's income level has a positive and significant influence on the saving of the household, while family size has a negative and significant influence (Abid & Afridi, 2010). The larger family size has lower monthly savings and higher monthly consumption expenses than the smaller family size (Kiran & Dhawan, 2015). A smaller, single-family dwelling has a higher tolerance for risk than a larger family (Muktadir-Al-Mukit, 2020). Reddy & Mahapatra (2017) conducted a study among working adults in India and found that demographics influence risk tolerance levels. A ten per cent increase in the likelihood of going for higher education increases the saving rate by 5.9 per cent (Bollinger et al., 2022).

Age and occupation significantly affect the respondents' responsible financial management behaviour (Bapat, 2020). There is a significant relationship between respondents' investment behaviour and their age as well as their occupation (Ahammad & Lakshmana, 2016). Age, years of homeownership and net income were important socio-demographic variables in explaining the differences in aggregate household asset ownership (Hira, 1987). The source of influence on money beliefs, attitudes, and behaviour vary across age groups (Hira, 1997).

A person's income, level of education, age, racial or ethnic background, and ethnicity are all demographic factors that significantly affect financial behaviour (Robb & Woodyard, 2011). In urban settings, saving modes were substantially associated with educational attainment, respondents' income, and the presence of dependents. Family monthly income, household size, number of earning members, and dwelling types were significant among rural sample respondents (J. Thiravia & Santhi, 2014).

Parents save money for larger dowry payments during their daughters' marriage (Anukriti et al., 2022). The life-cycle model and trends in the demographic structure are significant in explaining Chinese household savings rates (Banerjee et al., 2010). Young men with a high income who are married and who adhere to fundamental operational investment criteria invest more in mutual funds (Kaur & Kauhisk, 2016). There is an association between a person's socio-demographic characteristics, such as nationality and education level, and financial well-being (Riitsalu & Murakas, 2019). Having a high income is associated with positive savings (Amari et al., 2020).

RESEARCH GAP

The following research gaps were identified through a careful review of the literature. The majority of the existing literature focuses on the subjective

dimension of financial behaviour; only a few studies discuss the objective measure of financial behaviour, which is the amount of family savings. Existing research has not examined the effect of debt repayment, current debt, and educational expenses on family savings. No India-specific research studies examining objective measures of working women's financial behaviour were found among the reviewed articles. Notably, only a small number of researchers collected data through personal interviews, while a majority relied on data collected by institutions or the Government.

RESEARCH METHODOLOGY

The Objective of the Study

The objective of the present research paper is to predict family savings using demographic variables as antecedents.

Population and Sampling

The study population consists of women employees who work in garment manufacturing firms in the Tirupur district of Tamil Nadu, India. The sample is derived from the sampling frame of these women employees through the multistage sampling method. The sample size required for this study is determined based on the formula and the table values suggested by Krejcie & Morgan (1970), and the sample size is 384.

Type of data and data collection method

Demographics like the respondent's age and their education level are significant antecedents to the level of risk tolerance. Financial knowledge is another crucial antecedent to risk tolerance. Similarly, several researchers have contributed to the discussion of demographic influence. The demographic details that can be assessed as metric data are considered in this research work. Primary data were collected through personal interviews. The secondary data pertaining to the research studies were collected from books, various printed and online journals and the research and analytics institutions' web pages. The references were cited using the Mendeley reference manager.

Independent and dependent variables

The demographic variables chosen for the study are the age of the respondents, the size of the household, the number of earning members, the number of dependents, the income of the respondent and the income of family members, family income (derived variable), educational expenses, amount of current debt, and the amount of debt repayment per month. All the above are independent variables, family saving is the dependent variable, and all the variables are measured as metric data.

Proposed Predictive Model

Here multiple regression analysis is performed to determine the extent of the linear relationship of one dependent variable, the family savings and the ten independent variables. The F-test is used in multiple regression to determine whether the coefficients collectively affect Y.

The hypothesis is as follows:

$$H_0: \beta_0 = \beta_1 = \dots = \beta_n = 0$$

H₁: At least one of the regression coefficients (β_i) is not equal to zero.

The statistical model is as follows:

$$Y = a + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \beta_4(X_4) + \beta_5(X_5) + \beta_6(X_6) + \beta_7(X_7) + \beta_8(X_8) + \beta_9(X_9) + \beta_{10}(X_{10}) + e$$

Where,

Y = Dependent variable {Family savings_{predicted}}

X₁ = Independent variable {Respondents' Age}

X₂ = Independent variable {Household size}

X₃ = Independent variable {Number of earning members}

X₄ = Independent variable {Number of Dependents}

X₅ = Independent variable {Respondents' Income}

X₆ = Independent variable {Family Members' Income}

X₇ = Independent variable {Family income}

X₈ = Independent variable {Educational Expenses}

X₉ = Independent variable {Amount of Current Debt}

X₁₀ = Independent variable {Debt repayment}

$\beta_1 - \beta_{10}$ = Regression coefficients

e = Residual Error

ANALYSIS AND DISCUSSION

The 'Multiple Regression - Forward Method' determines the linear relationship between demographic variables and family savings. The forward method is a technique for selecting variables to include in a regression model that starts with no variables and then adds variables one at a time based on how well they predict the outcome of the regression model (Hair Jr. et al., 2014).

Table 1 presents a summary of all the possible models. The fifth model is considered the final model because of the highest R and R square values. The fifth model's values determine the linear relationship between demographic variables and family savings. Five of the ten independent variables are included in determining the linear relationship. They are educational expenses, family income, amount of debt repayment per month, household size, and the number of earning members. The respondent's age, the number of dependents, the respondent's income, family members' income, and the amount of current debt are excluded from the analysis.

Predicting Family Savings Using Demographic Variables as Antecedents

'R' is the coefficient which represents the relationship between the predicted and observed values of Y (Family savings). 'R Square' indicates the amount of variation explained by predictor variables in the dependent variable. The increase in the adjusted R-squared value indicates that the additional predictor variables contribute to the model's value.

Table 1 Model Summary - Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.592 ^a	0.351	0.349	2399.35
2	0.711 ^b	0.505	0.502	2097.74
3	0.755 ^c	0.570	0.566	1958.00
4	0.777 ^d	0.604	0.600	1880.33
5	0.786 ^e	0.617	0.612	1851.31

a. Predictors: (Constant), Educational Expenses

b. Predictors: (Constant), Educational Expenses, Family income

c. Predictors: (Constant), Educational Expenses, Family income, Debt repayment

d. Predictors: (Constant), Educational Expenses, Family income, Debt repayment, Household size of the respondents

e. Predictors: (Constant), Educational Expenses, Family income, Debt repayment, Household size of the respondents, Number of earning members

The regression's standard error indicates the average distance between the observed values and the regression line. For the fifth model, 'R', 'R Square', 'Adjusted R Square', and 'Standard Error of the Estimate' are 0.786, 0.617, 0.612, and 1851.311, respectively. The 'multiple correlation coefficient' (R) value, 0.786, indicates the relationship between 'Family savings' and the five independent variables: Educational Expenses, Family income, Debt repayment, Household size of the respondents, and the Number of earning members is quite strong. 'R Square' value of 0.617 denotes that the five independent variables explain 61.7 per cent of the variation in Family savings.

The ANOVA table below summarises the values of degrees of freedom, Sum of Squares, Mean Square, F statistic value, and F statistic's significance value.

Table 2. ANOVA^a Table - Multiple Regression analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
5	Regression	2090577630.43	5	418115526.09	121.99	<0.001**f
	Residual	1295538631.81	378	3427350.88		
	Total	3386116262.24	383			

a. Dependent Variable: Family savings

f. Predictors: (Constant), Educational Expenses, Family income, Debt repayment, Household size of the respondents, Number of earning members

'total degree of freedom' is 383. The regression model is constructed using five independent variables. As a result, 378 is the number of residual degrees of freedom.

The 'Regression Sum of Squares' represents the total variation in Family savings (dependent variable) that the regression model explains. According to table 2, the 'Regression Sum of Squares' is 2090577630.43 and the 'Total Sum of Squares' is 3386116262.24, indicating that the regression model accounts for approximately 61.74 percent of the total variability in the observed data. The value of 1295538631.81 for the 'Residual Sum of Squares' indicates how much variation in the Family savings (dependent variable) remains unexplained by the regression model (Sharad, 2019).

The 'degrees of freedom of a regression model' refers to the number of independent variables included in the model. The 'residual degrees of freedom' value is calculated by subtracting the number of variables estimated from the total degrees of freedom. With 384 observations in this study, the

The 'Mean Square for Within Groups' is referred to as the "Mean Square Error," or MSE. The 'Mean Square for Regression and Residual' is calculated by dividing the 'Sum of Squares' by the 'degrees of freedom'. Hence 'Mean Square' for 'Regression' and 'Residual' are 418115526.09 and 3427350.88, respectively. The F statistic's p-value (significance value) indicates the reliability of the independent variables' predictive power. F statistic = 121.99 with a p-value of less than 0.05 indicates that independent variables such as educational expenses, family income, amount of debt repayment per month, household size, and the number of earning members significantly predict the dependent variable, Family savings. F statistic (121.99) can be calculated by dividing the 'Regression Mean Square' (418115526.09) by 'Residual Mean Square' (3427350.88).

Predicting Family Savings Using Demographic Variables as Antecedents

The Coefficients table (Table 3) contains information about the Model number, Predictor variables, Beta value of Unstandardised Coefficients and their associated Standard Error, the Beta value of Standardised Coefficients, t statistic value and its associated significance value, and Collinearity Statistics.

Table 3. Coefficients table - Multiple Regression Analysis

		Coefficients ^a					Collinearity Statistics	
Model	Predictor variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Tolerance	VIF
		B	Std. Error					
5	(Constant)	179.038	387.20		4.624	0.000		
	Educational Expenses	-0.091	0.010	0.358	-9.039	0.000	0.646	1.548
	Family income	0.281	0.018	0.793	15.311	0.000	0.377	2.653
	Debt repayment	-0.287	0.036	-0.360	-8.039	0.000	0.504	1.984
	Household size of the respondents	-443.552	91.195	-0.193	-4.864	0.000	0.643	1.556
	Number of earning members	-758.144	210.460	-0.174	-3.602	0.000	0.433	2.312

a. Dependent Variable: Family savings

Predicting Family Savings

The predictor variables column in Table 3 indicates that the predictor variables are Constant, Educational Expenses, Family income, Debt repayment, Respondents' household size, and Number of earning members. Unstandardised coefficient beta values are measured on different scales. As a result, the comparison of coefficient magnitudes of one variable over another cannot be determined using the

unstandardised coefficient values. However, these values are used to construct the regression equation. For this regression model, the following regression equation is constructed.

$$\text{Family savings}_{\text{predicted}} = 1790.388 - 0.091(\text{Educational Expenses}) + 0.281(\text{Family income}) - 0.287 (\text{Debt repayment}) - 443.552 (\text{Household size of the respondents}) - 758.144 (\text{Number of earning members})$$

Constant, with a value of 1790.388, indicates that this is the predicted value of Family savings when all other independent variables are 0. The 'Unstandardised coefficient beta estimates' indicate the increase in family savings predicted by a one-unit increase in the independent variables. Thus, for each unit increase in Educational Expenses, the Family savings decrease by 0.091 units, assuming that all other independent variables remain constant. Whereas, for every unit increase in family income, family savings increase by 0.281 units if all other independent variables remain constant. Family savings decrease by 0.287, 443.552, and 758.144 units for each unit increase in debt repayment, household size of respondents, and the number of earning members, respectively, assuming that all other independent variables remain constant.

The t-value for each predictor variable is calculated by dividing the coefficient by the standard error. The standard error of the coefficient indicates the accuracy with which the coefficient was estimated; the more accurate the calculation, the lower the standard error. If the p-value (significance value) of the t-statistic is less than 0.05, it is concluded that the coefficient is significantly different from zero. As shown in Table 3, the t-statistic for each predictor variable is significantly different from zero (statistically significant).

Collinearity of independent variables

When two or more predictor variables in a multiple regression model have a strong linear relationship, this phenomenon is called multicollinearity. The presence of multicollinearity can be estimated by the Variance Inflation Factor (VIF) values. VIF is more appropriate than a correlation matrix for calculating the relationship between a variable and a group of other variables.

A VIF value of five or greater indicates a high degree of multicollinearity between independent variables (Bhandari, 2020). A tolerance value of less than 0.1 indicates that the independent variable is redundant and should be excluded from further analysis (Gill, 1986). As illustrated in Table 3, the VIF value for each independent variable in the regression model is significantly less than the critical value of 5, and the tolerance value is greater than

0.1.Hence, there is no evidence of multicollinearity in the analysed data.

Effect of Predictor Variables

The Standardised beta coefficients are estimated after standardising the values of the dependent and all predictor variables. As a result, all

variables are converted to the same scale, which facilitates the comparison of coefficient magnitudes and determines which predictor variable has more effect. Table 4 lists the predictor variables in order of their effect and their associated Standardized beta coefficients.

Table 4. Standardised Beta coefficients of Predictor Variables

Predictor Variables	Standardised Beta coefficients
Family income	0.793
Debt repayment	-0.360
Educational Expenses	-0.358
Household size of the respondents	-0.193
Number of earning members	-0.174

According to the “Standardized Beta coefficients” values, Family income is the most important predictor variable, followed by Debt repayment, Educational Expenses, Household size of the respondents and Number of earning members, respectively.

To summarise the key points, the R-value, 0.786, indicates that the relationship between Family savings and the five independent variables is quite strong. ‘R Square’ value of 0.617 denotes that the five independent variables explain 61.7 per cent of the variation in family savings. Family income is the most important predictor variable. The unstandardised coefficient beta values help to predict family savings.

IMPLICATIONS OF THE STUDY

The most important thing to remember is that in order to increase savings, debt repayment and educational expenses must be reduced. Even though the children attend a government school, the parents incur additional costs for tuition fees. The education department should concentrate on improving the teaching-learning process so that no additional tuition is required.

The debt repayment amount is determined not only by the amount borrowed but also by the percentage of interest charged. Though formal financial institutions have an emergency borrowing provision, the borrowing process is complicated for low-income people to follow. The interest rate ranges from 10% to 20%, which is higher than that of other loans offered by formal financial institutions. The loan processing difficulties and interest rates make accessing these emergency credit options difficult. Hence, formal financial institutions need to consider ways to simplify the process, which would also allow them to expand their operations.

One important point to remember is that households should prioritise increasing earnings per

person because the number of earning individuals is inversely proportional to the amount of money saved by the family.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

FinTech advancements have resulted in the widespread use of digitalisation in financial transactions. Hence, further research might be conducted about the level of adoption of digitalisation and the factors that enable or disable the adoption in the mode of saving by blue-collar workers. This line of inquiry could lead to some interesting findings. No male employees from garment manufacturing companies were included in this research study. When data from both genders are collected, the gender difference in all variables of interest can be assessed.

CONCLUSION

This article demonstrates that demographic characteristics are antecedents in predicting family savings behaviour using the data obtained from female employees working in garment manufacturing companies. While a majority of the research studies examine the subjective elements of financial behaviour, this paper concentrates on the objective aspects of financial behaviour, which means that all of the variables utilised for analysis are measured as metric data in this document.

Acknowledgement, Conflict of Interest and Financial Aid

The present authors express their gratitude to all respondents for their spending time and giving a response, and to their fellow researchers for their contributions to demographic research. The authors would also like to express their gratitude to the anonymous reviewers of this article. The authors do not have any conflict of interest. The authors did not receive any financial aid for this research

REFERENCES

- Abid, S., & Afridi, G. S. (2010). Assessing the Household Saving Pattern of Urban and Rural Households in District Muzaffarabad. *Pakistan Journal of Life and Social Sciences*, 8(2), 137–141.
- Ahammad, D., & Lakshmana, B. C. (2016). Influence of Demographic Factors on the Investment Behaviour of Individual Investors of Rayalaseema Region. *International Journal of Scientific Engineering and Technology Research*, 05(46), 9603–9605.
- Ajija, S. R., Abduh, M., Wasiaturrahma, W., & Hudaifah, A. (2021). Ethnicity and Household Savings in Indonesia. *Research Anthology on Personal Finance and Improving Financial Literacy*, 138–150. <https://doi.org/10.4018/978-1-7998-8049-3.ch009>
- Amari, M., Salhi, B., & Jarboui, A. (2020). Evaluating the effects of sociodemographic characteristics and financial education on saving behavior. *International Journal of Sociology and Social Policy*, 40(11/12), 1423–1438. <https://doi.org/https://doi.org/10.1108/IJSSP-03-2020-0048>
- Anukriti, S., Kwon, S., & Prakash, N. (2022). Saving for dowry: Evidence from rural India. *Journal of Development Economics*, 154. <https://doi.org/10.1016/j.jdeveco.2021.102750>
- Banerjee, A., Meng, X., & Qian, N. (2010). The Life Cycle Model and Household Savings : Micro Evidence from Urban China. *Chinese Economy Working Group Meeting*. <http://conference.nber.org/confer/2010/CWGF10/program.html>
- Bapat, D. (2020). Antecedents to responsible financial management behavior among young adults: moderating role of financial risk tolerance. *International Journal of Bank Marketing*, 38(5), 1177–1194. <https://doi.org/10.1108/IJBM-10-2019-0356>
- Bhandari, A. (2020). *What is Multicollinearity ? Here 's Everything You Need to Know*. Analytics Vidhya. <https://www.analyticsvidhya.com/blog/2020/03/what-is-multicollinearity/>
- Bollinger, C., Ding, X., & Lugauer, S. (2022). The expansion of higher education and household saving in China. *China Economic Review*, 71. <https://doi.org/10.1016/j.chieco.2021.101736>
- Brookins, O. T., Ahmad, M. H., Ahmad, N., & Saeed, N. (2015). The impact of age structure on household saving: An empirical investigation in three South Asian economies. *International Journal of Economic Perspectives*, 9(3), 47–56.
- Fisher, P. J. (2010). Income Uncertainty and Household Saving in the United States. *Family and Consumer Sciences Research Journal*, 39(1), 57–74. <https://doi.org/10.1111/j.1552-3934.2010.02045.x>
- Gill, J. L. (1986). Outliers, residuals, and influence in multiple regression. *Journal of Animal Breeding and Genetics*, 103(1–5), 161–175. <https://doi.org/10.1111/j.1439-0388.1986.tb00079.x>
- Great Learning. (2020). *Overview of Multivariate Analysis | What is Multivariate Analysis?* <https://www.mygreatlearning.com/blog/introduction-to-multivariate-analysis/>
- Hair Jr., J. F., Black, W. C. , Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (Seventh). Pearson Education Limited.
- Hassan, K. M., & Lawrence, S. (2007). An Analysis of Financial Preparation for Retirement. In *NFI working papers* (No. 08; NFI Working Papers).
- Henager, R., & Cude, B. J. (2016). Financial literacy and long- and short-term financial behavior in different age groups. *Journal of Financial Counseling and Planning*, 27(1), 3–19. <https://doi.org/10.1891/1052-3073.27.1.3>
- Hira, T. K. (1987). Money management practices influencing household asset ownership. *Journal of Consumer Studies & Home Economics*, 11, 183–194. <https://doi.org/10.1111/j.1470-6431.1987.tb00071.x>
- Hira, T. K. (1997). Financial attitudes, beliefs and behaviours: differences by age. *Journal of Consumer Studies and Home Economics*, 21(3), 271–290. <https://doi.org/10.1111/j.1470-6431.1997.tb00288.x>
- Horioka, C. Y. (2010). The (dis) saving behavior of the aged in Japan. *Japan & The World Economy*, 22, 151–158.
- J. Thiravia, M. G., & Santhi, P. (2014). Saving Behaviour among Unorganized Sector Workers in Coimbatore District. *International Journal of Research in Commerce and Management*, 5(12), 52–59. <http://ijrcm.org.in/commerce/index.php%5Cnhttp://search.ebscohost.com/login.aspx?direct=true&db=ecn&AN=1535241&site=ehost-live>
- Kaur, I., & Kauhisk, K. P. (2016). Determinants of investment behaviour of investors towards mutual funds. *Journal of Indian Business Research*, 8(1). <https://doi.org/http://dx.doi.org/10.1108/JIBR-04-2015-0051>
- Kiran, T., & Dhawan, S. (2015). The Impact of Family Size on Savings and Consumption Expenditure of Industrial Workers: A Cross-Sectional Study. *American Journal of Economics and Business Administration*, 7(4), 177–184. <https://doi.org/10.3844/ajebasp.2015.177.184>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607–610. <https://doi.org/https://journals.sagepub.com/doi/abs/10.1177/001316447003000308>
- Lee, M., & Schuele, C. M. (2012). Demographics. In N. J. Salkind (Ed.), *Encyclopedia of Research*

- Design*. SAGE Publications, Inc.
<https://doi.org/http://dx.doi.org/10.4135/9781412961288>
- Muktadir-Al-Mukit, D. (2020). Do sociodemographic factors have influence on risk tolerance level of stock market investors? An analysis from a developing country perspective. *South Asian Journal of Business Studies*.
<https://doi.org/10.1108/SAJBS-11-2019-0193>
- Parthasarathy, S. (2021). *What Is Predictive Analytics?* Logi Analytics.
<https://www.logianalytics.com/predictive-analytics/what-is-predictive-analytics/>
- Prakash, N., Alagarsamy, S., & Hawaldar, A. (2022). Demographic characteristics influencing financial wellbeing: a multigroup analysis. *Managerial Finance*.
<https://doi.org/10.1108/MF-09-2021-0466>
- Reddy, K. S., & Mahapatra, M. S. (2017). Risk Tolerance , Personal Financial Knowledge and Demographic Characteristics- Evidence from India. *The Journal of Developing Areas*, 51(3), 51–62.
- Riitsalu, L., & Murakas, R. (2019). Subjective financial knowledge, prudent behaviour and income: The predictors of financial well-being in Estonia. *International Journal of Bank Marketing*, 37(4), 934–950.
<https://doi.org/10.1108/IJBM-03-2018-0071>
- Robb, C. A., & Woodyard, A. S. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning*, 22(1), 60–70.
- Sharad, V. (2019). *How to Read a Regression Table*. Learn to Code.
<https://www.freecodecamp.org/news/https-medium-com-sharadvm-how-to-read-a-regression-table-661d391e9bd7-708e75efc560/>
- Worthington, A. C. (2006). Debt as a source of financial stress in Australian households. *International Journal of Consumer Studies*, 30(1), 2–15. <https://doi.org/10.1111/j.1470-6431.2005.00420.x>
- Xiao, J. J., Chen, C., & Sun, L. (2015). Age differences in consumer financial capability. *International Journal of Consumer Studies*, 39(4), 387–395.
<https://doi.org/10.1111/ijcs.12205>
- Yuh, Y., & Hanna, S. D. (2010). Which households think they save? *Journal of Consumer Affairs*, 44(1), 70–97. <https://doi.org/10.1111/j.1745-6606.2010.01158.x>