



AN EMPIRICAL ANALYSIS ON DETERMINANTS OF HOUSEHOLD DEBT

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ABSTRACT:

This paper Investigates the drop in income can make it difficult to manage both their ongoing spending and their regular repayments, households with debt may be more vulnerable when confronted with an income shock. The increase in household debt will be beneficial for welfare. According to the life cycle hypothesis the points of desire households can be borrow for their smooth consumption for their lifetimes and also for the purchase of durable goods like houses or cars. The households can borrow according to the reduced incomes and also in recessions and debts can be paid in certain period of highest income. According to the smoothing consumption of the entire lifetimes, purchase of durable goods can be borrow through ability of households depth in the neighbourhood's financial market, standard of credit. This paper studies about the elements impacting household debt and objectives are framed. The study presents about the significant variables that have major influence in the house hold debt.

Keywords: Debt; Interest Rate; Households; Salary; Debt cycle.

Introduction:

The term "household debt" refers to any and all obligations owed by households, including those owed by charitable organizations that provide assistance to households that call for the payment of principal or interest to creditors on predetermined data. Debt is determined as of the aforementioned liability classes: loans, including mortgage and credit card loans, and additional payables. As a proportion of the household's net disposable income, the indicator is determined. In many countries, household debt has historically been substantial. The 2008 financial crisis acted as a warning about the negative effects of rapidly rising household debt. High-level economies, for example, Switzerland, Canada, Australia, and others have recorded a noticeable increment of family obligation compared with extra cash, showing in excess of 15 rate points of Total domestic output from 2007 to 2015 (IMF, 2017).

In the past, households with a lot of debt have reduced their spending to amplify economic shocks. According to the most recent evidence, countries with higher initial debt to income ratios experienced larger reductions in consumption that resulted from the global financial crisis and put strain on economic activity. Due to the fact that the drop in income can make it difficult to manage both their ongoing spending and their regular repayments, households with debt may be more vulnerable when confronted with an income shock. The following are the goals of this paper's analysis of the variables influencing household debt:

- To Access the determinants of Household Debt

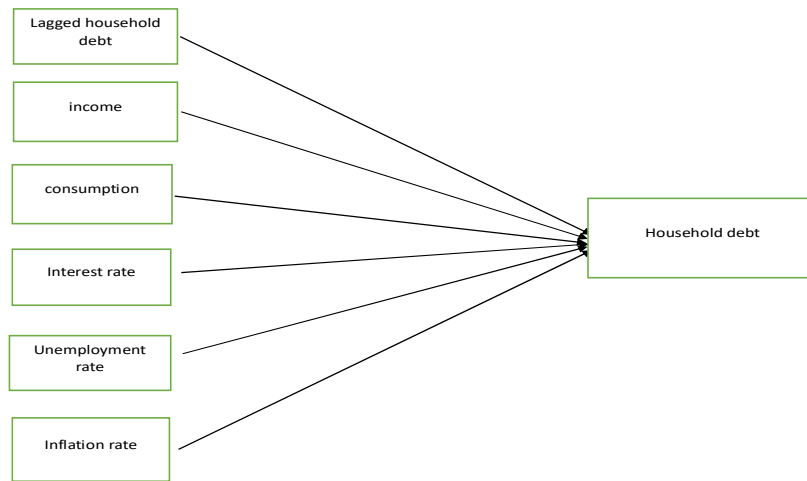
- To Access relationship between independent variables and dependent variables.

Literature Review:

Personal debt can be Raised due to Beneficial welfares. The life cycle of the hypothesis can be described in key points whether the desire households can borrow for the easy out of their consumption through their duration of life, they can buy for consumer goods and cars Modigliani and Brumberg (1954). The main principles are that households can borrow during recessions or times of lower income and pay back their loans debts during times of expansion or higher income. Government rules have a significant impact on whether lending is encouraged or discouraged. Milton and Friedman (1957) In line with the life cycle theory supplemented with the permanent and theory of everlasting income, present spending can depend not only on current income but also on predicted incomes over the life time. However, households would be wise to borrow money now in order to balance out their consumption throughout the course of their lifetimes, even in the expectation of increased future revenue. Alfaro and Gallardo (2012) Using a survey, however, to analyze economic debt. In Chile in 2007—the EFH household survey about family earnings and debt will be conducted for the first time. Increased household debt on a sudden basis could cause solvency issues, and vulnerabilities could cause problems, particularly during times of crisis. Jacobsen and Naug (2004) However, look at the factors that contribute due to the debt-to-income ratio's increase for households in Norway, which led in the end that it was caused by rising home values and low rates of interest. It is interesting to note that they have kept up with the partial correction of housing prices, which has led to a long-term growth in debt as a result of increased price of home sales, which has given them access to credit thanks to the collateral. Anundsen and Jansen (2013) The investigation into the reasons for growing debt in Norway reveals that the capital investment in housing, the interest rate, and housing turnover are the key contributors. Kotze and Smit (2008) It has examined the debt incurred by South African households in South Africa by focusing on the small scale. Along The expensive price of prior debt servicing, it also takes into account the key drivers' overall literacy. Bloxham and Kent (2009) It has been noted that the household debt to income ratio has increased in Australia, which is mostly because of financial regulation that results in less credit constraints and good inflation, which has translated into stable interest rates encouraging lending. Philbrick and Gustafsson (2010) This study looked at the elements that affect household debt and found that over the long term, changes in debt ratio have a favorable relationship with property loan rates and costs. Finally, they come to the judgment that monetary policy successfully translates resulting in stable and low interest rates, to the increase in debt held by households. As stated by has used the CVAR model to investigate the problem of household debt. Inflation, however, also has an impact on the impact of credit supply, which is reduced as a result of the principal of erosion. Meng Hoang and Siriwardana (2013). According to author that the demand which affects the opposite directions it has increased demand for debtors in the borrowing but as a devaluating according to real terms. According to the author has find the relationship between household debt and also for inflation rate. Though GDP has been explained through the channel of confidence, consumption expenditure it also explained by behavior of the

households. Although the debt is positively significant, this author has discovered that it negatively affects average salaries, the percentage of youth individuals, and the and the share of people with advanced degrees. Williemae and SanromanG (2022) This demonstrates that company ownership, and specifically investment in risk, is a key household driver. Mian and Sufi (2015) Different direction Additionally, studies have looked into the relationship between debt and income. As an illustration, it demonstrates that household liabilities can exhibit a procyclical pattern and that the debt to income ratio is both positive and important.

Proposed Conceptual Framework:



Research Methodology

Data used:

Lagged Household Debt, Income, Consumption, Interest Rate, Unemployment Rate and Inflation Rate are independent Variables and Household Debt is the dependent variable taken into consideration for this particular study. This study uses quantitative research methodology. In this quantitative exploration, the information is gathered and is dissected involving the Factual Bundle for the Sociologies and the result are communicated as mathematical information. The study's questionnaire is constructed in a structured manner for data collection. Additionally, empirical research is used in the study. The testing technique utilized in the review is accommodation examining where 250+ polls were circulated on the web. There were 210 responses recorded. A Likert scale of 1 for strongly disagreeing and 5 for strongly agreeing is used to collect the responses. The pilot study was directed the really take a look at the validity and reliability. SPSS programming was utilized to analyze the information. Tools like Regression analysis, Correlation analysis, reliability analysis and SEM analysis were used to analyze the data.

Analysis and Interpretation

Demographic Analysis:

S.No	Demography Variable	Category	Frequency	Percentage (%)
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1	Gender	Male	128	66
		Female	66	34
2	Age	13-25	95	50
		26-30	47	24
		31-40	23	12
		40-50	20	10
		50 and above	9	4
4	Education	Secondary School	112	58
		Diploma	39	20
		Under-Graduation	22	11
		Post-Graduation	14	7
		Doctorate	7	4
5	Income	0-20,000	25	13
		21,000- 50,000	95	49
		Above 50,000	74	38

Table 1: Demographic Analysis

210 people gave their responses to the study. According to the table above, 66 female respondents and 128 male respondents make up 66% and 34% of the total respondents, respectively. The age range of 13 to 25 is represented by 95 of the respondents or 50% of the total number of responses. 47 respondents fall under the classification old enough gathering between 26-30, which is to 24% of absolute respondents. Twenty-three respondents, or 12 percent of the total, fall into the 31- to 40-year-old age range. 20 respondents fall under the class old enough gathering between 40-50, which is to 10% of all out respondents. 9 respondents fall under the class old enough gathering 50 or more, which comprises to 4% of absolute respondents.

In terms of educational qualifications, 58% of respondents, 112 of them having completed secondary school, fall into this category. 39 respondents fall under the classification of Confirmation instruction, which comprises to 20% of complete respondents. 22 respondents fall under the classification fulfillment of college degree, which comprises to 11% of all out respondents. 14 respondents, or 7% of the total, have completed a postgraduate degree, making up the completion category. Seven respondents, or 4% of all respondents, have completed their doctoral studies. In terms of their income, 25 respondents, or 13 percent of the total, earn between 0 and 20,000 rupees per month. 95 respondents, or 49 percent of all respondents, fall into the income range of Rs 21,000 to 50,000. 74 respondents, or 38 percent of all respondents, earn more than 50,000 dollars per year.

Correlation Analysis:

Correlations						
	Lagged Household Debt	Income	Consumption	Interest Rate	Unemployment Rate	Inflation Rate

Lagged Household Debt	Pearson Correlation	1	.597**	.896**	.879**	.557**	.767**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N		210	210	210	210	210
Income	Pearson Correlation		1	.597**	.896**	.879**	.557**
	Sig. (2-tailed)			.000	.000	.000	.000
	N			210	210	210	210
Consumption	Pearson Correlation			1	.626**	.633**	.584**
	Sig. (2-tailed)				.000	.000	.000
	N				210	210	210
Interest Rate	Pearson Correlation				1	.865**	.642**
	Sig. (2-tailed)					.000	.000
	N					210	210
Unemployment Rate	Pearson Correlation					1	.670**
	Sig. (2-tailed)						.000
	N						210
Inflation Rate	Pearson Correlation						1
	Sig. (2-tailed)						.000
	N						210
**. Correlation is significant at the 0.01 level (2-tailed).							

Table 2: Correlation Analysis

From the above table, it is clear that the correlation is high between Lagged Household Debt and Consumption which is 0.896. At the same time, the correlation is low between Income and Inflation Rate which is 0.557. From the above table it is clear the independent variables are significant towards predicting the dependent variable. Without correlating with any of them, this analysis examines the strength of the association between two research model variables. Its value falls between -1 (very negatively correlated) and +1 (strongly positively correlated). We can infer from the preceding table that all the variables have positive correlations with one another.

Regression:

Model Summary					
Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Sig.
1	.732 ^a	.536	.530	3.688	0.000
a. Predictors: (Constant), Lagged Household Debt, Income, Consumption, Interest Rate, Unemployment Rate and Inflation Rate					
b. Dependent Variable: Household Debt					

Table 3: Model Summary - Regression

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.939	2.652		5.633	0.000
	Lagged Household Debt	.088	.042	.094	2.101	0.036
	Income	.312	.068	.218	4.557	0.000
	Consumption	.228	.102	.185	2.229	0.026
	Interest Rate	.270	.136	.171	1.979	0.048
	Unemployment Rate	.234	.112	.167	2.085	0.038
	Inflation Rate	.234	.112	.167	2.085	0.038
a. Dependent Variable: Household Debt						

Table 4: Coefficients – Regression

The purpose of using regression for this study is to describe the relationship between a set of independent variables with the dependent variable. While comparing this standard value with the above table all the t values are showing greater than 1.96, hence all the independent variables are showing significance with the dependent variable. Lagged household debt significant value is showing 5.633 with p value of .000, INCOME VALUE significant value that shows 4.577 with p value .0036, CONSUMPTION IS shows that significant value of 2.229 and p value of 0.026. INTEREST RATE IS showing significant value of 1.979 and p value of 0.048.

UNEMPLOYMENT RATE shows significant value of 2.085 and p value of 0.038 and INFLATION RATE is showing significant value of 2.085 and p value of 0.038.

Reliability Analysis:

Reliability Statistics

Cronbach Alpha	Cronbach Alpha Based on Standardized Items	No. of Items
.960	.955	27

Table 5: Reliability

Structural Equation Modelling:

The Structural Equation Modelling analysis through AMOS software is as shown in the below diagram. The analysis of the SEM comes after the measurement model has been evaluated. According to Hair et al. (2013), the structural model is a statistical analysis technique created for evaluating the strength of postulated links between the various latent components in the research model under consideration.

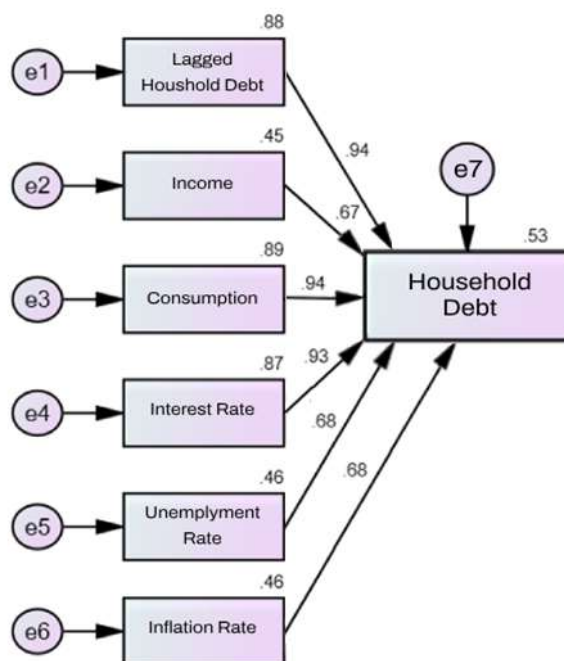


Figure 2: Structural Equation Modeling

Indices	Value	Suggested value
Degree of Freedom	9	-
Chi- square minimum	3.640	< 5.00 (Hair et al., 1998)
Goodness of Fit Index	0.955	> 0.90 (Hu and Bentler, 1999)
Adjusted Goodness of fit index	0.933	> 0.90 (Hair et al. 2006)

Normed Fit index	0.949	> 0.90 (Hu and Bentler, 1999)
Comparative fit index	0.953	> 0.90 (Daire et al., 2008)
Root Mean square Residuals	0.055	< 0.08 (Hair et al. 2006)
Root Mean square of approximation.	0.067	< 0.08 (Hair et al. 2006)

Table 6: Indices and the obtained value with suggested value

According to table 6, the obtained p value is clearly above 0.05, indicating perfect fit. The (AGFI) value is 0.933, while the (GFI) value is 0.955. It is a good fit because the GFI and AGFI values are above 0.9. In addition, the (CFI) of close to 1.000 indicates that it is nearly a perfect fit. Additionally, the RMSAR value of 0.055 and the RMSEA value of 0.067, both lower than or equal to 0.08, indicate that it is perfectly fitted.

Findings:

From the above analysis it is clear that,

- A total of 210 people responded to survey.
- From the correlation test it is clear that the relationship between all independent variables are significant. And looking into all Pearson Correlation no value go below 0.5.
- The regression analysis it is clear all the independent variables are significant towards predicting the dependent variable.
- From the SEM analysis, it is clear that the suggested model is perfectly high and highly recommendable.

Discussion:

Our first findings indicate a prominent impact on the household debt. Debt in individuals often has a connection to income. Although households with higher incomes are often more prepared to take on debt, they may also have simpler credit availability. If families from lower socioeconomic groups cannot afford to pay their debts, they might face financial challenges. The amount of debt that households have can be greatly impacted by the current credit card and loan interest rates. Households may be more likely to take on debt when interest rates are low since borrowing is cheap. On the other hand, borrowing becomes more costly when interest rates are high, which may better borrow.

Only when household debt levels are high does' inflation become an issue. The positive indicates that decreased household debt is a result of rising inflation. The supply effect may be able to explain this creditor downplay their loan offer considering the principal's decline. Additionally, a demand effect is present in the reverse way inflation lowers debt in practical terms, boosting the Availability of the family for further borrowings. Nevertheless, with regard to the quantile that exists statistical relevance, the substantial amount of household debt may be a drag on demand impact. Therefore, a negative sign indicates that the supply effect is dominant. In addition, Iacoviello (2008) claimed that rather than a large discrepancy between income and spending, households take on more debt as a means of smoothing out their consumption in

unpredictable times. However, how households choose to spend their money may indicate that they plan to apply for loans. Meanwhile, Tudela and Young (2005) highlighted that the long-run increase in debt relative to income has mainly been associated with the rise in homeownership and the reduction in the level of inflation over the 1990s. However, a tiny percentage of research have indicated that household debt serves a useful purpose. There are some researchers that contest its limitations. The role of lags has been added to the model unemployment, inflation rate, interest rate, home price, and family debt. Numerous research endeavours have endeavoured to comprehend the variables that dictate the rise in debt held by household. One of the most well-known researchers in the area, Fisher (1930), offered proof of the significant impact of personal debt. As stated by Fisher, households borrow when their income is insufficient to cover their expenses. The theory of life cycle (LCH) (Modigliani & Brumberg, 1954) provides a leading explanation for why some households might borrow money to finance consumer expenditure. According to the LCH, households may have had earlier years when their required or desired level of consumption exceeded their income. Based on Friedman's permanent income hypothesis (PIH), which was published in 1957, consumers can finance this gap by taking out loans that will be paid back with future income.

Conclusion :

The study's motive is to examine the primary causes of mortgage debt. The LCH are followed by the review of the theoretical foundation of household debt. The conceptual system shows the household obligation relies upon the Lagged Household Debt, Income, Consumption, Interest Rate, Unemployment Rate, and Inflation Rate. The economy as a whole is more or less susceptible to shocks depending on the amount and distribution of household debt. This has repercussions for financial and macroeconomic stability. National banks and different specialists need to screen advancements in family obligation. In particular after economic shocks, the behaviour of aggregate expenditure is influenced by a number of characteristics of household debt. How much a household will reduce its consumption is influenced by a number of factors, including the duration and amount of debt, as well as whether debt has financed the purchase of liquid assets like housing. The distribution of debt among households can amplify these changes by aggregating them. In turn, households with limited credit access or less room for self-insurance are more likely to experience this kind of amplification. Since these families are additionally liable to be more unfortunate families, monitoring the circulation of obligation by pay and abundance can assist with demonstrating an economy's weakness to intensification.

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