



## The Impact of Non Earning Members on Monthly Savings of the Industrial Workers: A Micro Study

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### ABSTRACT

The present study examines the impact of non earning members on the monthly savings of the industrial workers, whose savings when channelized in productive investments can speed up the process of capital formation in the Indian economy. The results indicated that with the rise in number of economically inactive members, the saving income ratios of the industrial workers witnessed a downward trend. The regression results revealed that when compared with the benchmark group (less than 3 non earning members), the maximum decrease in monthly savings of Rs. 1006 was observed with respect to the workers having more than 5 dependent family members, which was followed by a reduction in savings by Rs. 661 for the workers having 3 to 5 non earning members in their family. This validates the a priori expectation that economically dependent members have a significant negative bearing on monthly savings of the industrial workers.

**KEYWORDS :** Non Earning Members, Monthly Savings, Industrial Workers.

### Introduction

The importance of savings as a crucial determinant of long term economic growth of a country has been globally examined by the economists. However, the lower levels of individual savings do adversely affect the household saving rates and have a cascading effect on the process of capital formation in the economy. While, there are number of factors that have a constraining effect on the saving levels of the individuals, this research paper mainly examines the impact of non earning dependent members on the monthly savings of the industrial workers, whose savings when channelized in productive investments can speed up the process of economic growth of the Indian economy.

The non earning members absorb a considerable proportion of economic resources of the family, thereby restricting the economically active members to reduce their present savings to gratify the demands of the dependent family members. Since, the economically passive members do not contribute towards the process of income generation, their consumption expenses impose a restraint on the propensity to save of the earning members of the family (Higgins and Williamson, 1997). A number of studies point out that every addition to the non earning group in a household creates an added burden on the bread earners, who are compelled to defer their savings in a bid to support the dependent family members (Mason, 1998). Consequently, the saving income ratios of the breadwinners are adversely affected when a considerable portion of their income is spent on supporting the expenses of the economically passive family members. In view of this research evidence, the present study connotes and hypothesises that non earning family members have a negative impact on the savings of the industrial workers (Fry and Mason, 1992).

There is a dearth of research work in India that has examined the effect of dependent family members on savings of the industrial workers. Therefore, motivated by the desire to address the existing research lacunae and important position occupied by industrial workers as potential source of savings (Arora et al., 2015) as well as agents of economic growth, the present study attempts to empirically investigate the effect of non earning family members on the monthly savings of the industrial workers.

### Objectives of the Study

The main objective of the study is to examine the impact of non earning members on the monthly savings of the industrial workers. Additionally, it also aims to study the pattern of saving income ratios of the industrial workers with varying number of non earning family members.

### Research Methodology

The present study is based on cross-sectional primary data pertaining to 100 industrial workers engaged in steel firms in Chandigarh city, which was collected using the questionnaire-interview combination

through the field survey that was carried out during the months of January and February, 2013. Since, in the present study, the number of dependents ranges between 1 and 6 members, therefore they have been categorized into 3 groups. In view of the fact, that the number of non earning family members is being treated as a categorical independent variable, consequently the dummy variable regression model was used to examine its impact on the monthly savings of the industrial workers. The cardinal rule for the introduction of a dummy variable says that when a qualitative independent variable has 'w' categories, then 'w-1' dummy variables are introduced in the regression model (Wooldridge, 2013). With respect to the present study, since the non earning family members are categorized into 3 groups, hence 2 dummy variables were created in the following manner:

$D_1 = 1$ , when a worker has 3 to 5 non earning members in the family  
 $= 0$ , for otherwise.

$D_2 = 1$ , when a worker has more than 5 non earning members in the family

$= 0$ , for otherwise.

The regression equation showing the functional relation between the dependent variable and the set of dummy independent variables is expressed as:

$$S_i = \beta_0 + \beta_1 D_{1i} + \beta_2 D_{2i} + U_i \quad (1)$$

The estimated monthly savings of workers with varying number of non earning family members is calculated in the following manner:

$$\hat{S}_i = \beta_0 + \beta_1 \quad (2)$$

Where,

$S_i$  = Monthly savings of the workers expressed in Rs.

$\hat{S}_i$  = Estimated Monthly savings of the workers expressed in Rs.

$\beta_0$  = intercept term representing estimated monthly savings of workers having less than 3 non earning members in their family (the benchmark category).

$\beta_i$  =  $i$ th differential intercept coefficient,  $i = 1, 2$ .

$D_1$  and  $D_2$  are dummy independent variables representing different non earning (dependent) groups.

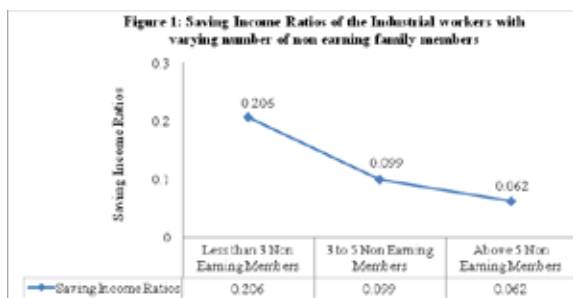
$U_i$  = stochastic error term.

The estimates of the dummy variable regression model were computed through the method of Ordinary Least Squares (OLS) with the help of statistical software 'STATA' Version 12. In addition to the regression model, the saving-income ratios of the workers across varying number of non earning family members were also computed to examine their propensity to save.

**Results and Discussion**

**The Pattern of Saving Income Ratios of the Industrial Workers**

Figure 1 shows that when number of non earning members is less than 3, the saving income ratios of the industrial workers was observed to be 0.206, which falls to 0.099 for the workers having 3 to 5 economically dependent family members. However, as the number of non earning member increases above 5, the saving income ratios further falls to 0.062, thereby indicating that the number of dependent members has a negative bearing on saving income ratios of the workers.



Source: Graph constructed on the basis of field survey data (2013)

**Results of Regression Analysis**

Table 1 shows that both the intercept term and the differential intercept coefficients of the dummy variable regression model were observed to be statistically significant ( $p < 0.01$ ). The intercept term represented the estimated monthly savings of workers having less than 3 non earning members in their family (the benchmark group), which was observed to be approximately Rs. 1306. The negative sign of the significant differential intercept coefficients ( $D_1$  and  $D_2$ ) indicated the decrease in monthly savings of the workers with rise in number of non earning members in their families. The regression results revealed that when compared with the benchmark group (less than 3 non earning members), the maximum decrease in monthly savings to the tune of Rs. 1006 was observed with respect to the workers having more than 5 economically dependent family members, which was followed by a reduction in monthly savings by an amount of Rs. 661 for the workers having 3 to 5 non earning members in their family. The value of adjusted  $R^2$  indicated that non earning members explained about 31.6% variation in monthly savings of the industrial workers. Further, the statistically significant F-test value (23.55), established the overall significance of the regression model.

**Table 1: Estimates of the Dummy Variable Regression Model**

| Non Earning Member Groups (DIV)   | Estimated Coefficients  | White's Robust Standard Errors | t-ratios | p-value |
|---|-------------------------|--------------------------------|----------|---------|
| Intercept (Constant)  | 1305.882 ( $\beta_0$ )  | 149.309                        | 8.746**  | 0.000   |
| 3 to 5 members ( $D_1$ )  | -660.946 ( $\beta_1$ )  | 153.548                        | -4.304** | 0.000   |
| Above 5 members ( $D_2$ )   | -1005.882 ( $\beta_2$ ) | 161.738                        | -6.219** | 0.000   |
| $R^2 = 0.3298$ ; Adjusted $R^2 = 0.3160$ ; F- statistic (2, 97) = 23.55** |                         |                                |          |         |

Note: i) DIV represents dummy independent variable  
 ii) \*\* denote that the t-statistic is statistically significant at 1% level.  
 Source: Authors' Calculations.

**Table 2: Estimated monthly savings of the Industrial Workers**

| Non Earning Member Groups | Estimated Monthly Savings (Rs.) |
|---------------------------|---------------------------------|
| Less than 3 members       | 1305.882                        |
| 3 to 5 members            | 644.936                         |
| Above 5 members           | 300                             |

Source: Authors' Calculations.

As shown in table 2, the estimated monthly savings of the industrial workers with less than 3 dependent members was observed to be highest than the workers with increasingly higher number of non earning members (Rs. 1306 > Rs. 645 > Rs. 300 in approximate terms). Thus, the results confirmed that the rise in number of non earning members in the family has a significant negative impact on the monthly savings of the industrial workers on an average. These results are in alignment with the research work of Unny (2002), who reported that with increasing number of economically dependent family members, the household income is diverted towards meeting their consumption expenses, thereby resulting in significant decline in average savings of the earning members.

**Conclusions and Policy Suggestions**

The results of the present revealed that with the rise in number of economically inactive members, the saving income ratios of the industrial workers, on whom the non earning members depend for their daily living expenses, witnessed a downward trend. This is indicative of the fact that the number of economically dependent members has a negative bearing on propensity to save of the workers. The regression results further validated that rise in number of non earning members in the family has a significant negative impact on the monthly savings of the industrial workers. This observation has far reaching economic implications as decrease in personal savings would adversely affect the household saving rate and has the potential to subsequently depress the process of capital stock accumulation in an economy. Against such concerns, encouragement to self employment, provision of sustainable job opportunities and revamping the education system by making it more job oriented are some of the modest steps that are warranted to be undertaken by the government so as to reduce the number of economically dependent individuals in the context of speeding up the savings of the industrial workers, who are potent vehicles of capital formation and growth of an economy.

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