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# Impact of Rural Migration on Savings of the Migrants: A Case Study of Tumkur District

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**Abstract**

This research paper deals with the impact of migration on saving habits of the migrants before and after migration, since the origin of human race migration is inevitable, the primitive man used to migrate from one area to other area in search of food therefore migration is demographic or environmental phenomena. India is a country of more than seven lakh villages, major portion of the India's population exists in the villages, and their primary source of livelihood is agriculture. In our country majority of the rural people are experiencing the problem of poverty as well as unemployment. Low productivity, seasonality and overcrowding in agriculture very often and force them in order to vacate their birth place in seeking employment openings in urban areas, the present research study is moving in the same direction to capture the effect of rural migration on human development in the context of saving capacity of the migrants before and after migration in the study area of Tumkur, Pavagada and Sira. As many migration studies stated that migration has resulted in increase in the income of the migrants which results an increase in savings which leads to enhance the quality of human life .In this paper primary data is collected and the tools like anova , regression and other tools are used to observe the impact of migration on income and savings of the migrants of study and findings are drawn as a result of migration the income as well as savings of migrants are positively increased in the study area.

**Keywords:** Migration, Migration Stock, human development,

## Introduction

India is a country of villages even today 68% population lives in the rural areas and their main source of livelihood is agriculture , unfortunately agriculture productivity is very less due low rainfall and lack of irrigation facilities which is the root cause for economical backwardness in rural areas and due to this poverty cannot be alleviated so far and this is the main obstacle for the development of any country which made a section of society is unable to fulfill the basic necessities of life like bread, cloth, house and education. In rural areas people don't get an employment, their main livelihood is mostly agriculture and in some cases seasonal employment in agriculture, that's why workers face a lot of problems Migration is a complex phenomenon and has different dimensions in terms of duration, nature of origin, destination and characteristics of migrants. In the migration literature different types of migration has been identified, for instance, internal and external migration, emigration, immigration, seasonal migration, rural-urban migration, return migration, step migration, chain migration and so

## Meaning of Human Migration

The word migration may be defined as a change of residence from one place to other place or in other

words migration refers to a movement of a person from one place to other place .This operational definition of migration is used extensively in the literature and stated by United National Migration Agency namely Global Organization for Migration (IOM). Human migration can be voluntary or involuntary. In the literature and at the global level, there is no collectively accepted meaning of migrations; however, the person who moves temporarily or permanently is known as migrant. The recent policies at the global level have perceived human migration as one of major pivotal factor for expanding development. In the economic history of world for the first Agenda for Sustainable Development of 2030 identifies the impact of human migration on ecological progress. Under the enlisted 17 sustainable development objectives, 11 goals are closely related to the indicators or targets very much relevant to human mobility or human migration. The core theme of the agenda "leave no one behind" includes migrants too.

**Review of Literature**

The study of Jean-Pierre Vidal focuses on a probable effect of emigration on human capital a formation. Emigration as a higher return to skill nation offers a positive encouragement to human capital investment. The study highlights the positive correlation between the level of human capital formation of the source nation and the probability of emigration. The study also envisages the flow in emigration leads the source country to an out of an under-development trap. The problem of convergence controversies discussed in the study. (Vidal, 1998).

The role of remittances studied by Edward J. Taylor. International migrant remittances exceeded US$ 70 billion during 1995; thus, the remittances used as a proxy to state development. The study emphasizes migration promotes development dynamics, more production and investment in the perfect competition market. Migration also creates the growth of income and income linkages. This empirical evidence states that remittances are a symbol of the positive factor in economic development(Taylor, 1999).

The study of Mishra and Reddy explains the major socio-economic variables of seasonal migration and permanent migration from rural to urban areas. The study extensively used the empirical data of Bihar. The regression analysis helps in elucidating the higher the size of the family and higher the dependency ratio is the major cause for a higher level of seasonal migration since to mitigate the higher maintenance expenses of the family. The permanent migration is more prone among higher caste educated household (Mishra, 2005).

The research work of Mariapia Mendola explains the unique feature of rural out-migration as economic development. The movement of rural people for either temporary or permanent is a repetitive activity. This regular activity has extensive effects on household, persons and also areas. This paper also includes the recent trends of migration, cost and returns of migration. Hence, the core theme of linking rural migration as economic development narrated in this paper (Mendola, 2006)

**Objectives of the study**

1. To study the concept of migration
2. To study the trends in savings of the migrants in the study area India
3. To analyse the impact of migration social-economic status of the migrant in the study area.

**Methodology of the study**

The study is based on primary data.

The sample of the study is selected by using the combination of the stratified and purposive random survey in Tumkur District. At the first level of strata, three taluks of Tumkur district is selected based on the human development index(HDI) and taluk level development index (2014) and distance, (Pavagada – (low developed), Sira – (moderately developed), Tumkur – (highly developed). At the second level of strata, three villages from each taluk is selected on the basis of village level human development index (2014), and at the third level of strata, the household from each village are selected by using purposive sampling method by identifying the migration condition of the family that whether the family migrated or not. The sample size of 360 households is used for the primary investigation for the research. The sample size of household of 360 is comprised by three Taluk of each of the size of 120. The information from the households is collected by using the pre-designed questionnaire, which is tested through a pilot study.

**Impact of Migration on Savings**

The impact of migration on savings of the migrants are compared and analyzed by using various parameters. These parameters are tabulate from Table 1 to 15. All these tables are considered various savings related parameters which are affected due to migration, and helps in analyzing the effect of migration on status of savings of the migrants'. The empirical data on savings is obtained directly from the questionnaire through field investigation. Operationally the concept of savings can be defined as difference between income and expenditure. The savings data is expressed as monthly and measured in Rupees.

**Table 1: Annual Savings of the Migrants - Before Migration**

| Taluk and Village | Annual Total Savings (In Rs.): Before Migration | | |
|---|---|---|---|
| | 0 - 6000 | 6001 - 12000 | Grand Total |
| **Pavagada** | | | |
| Kotagudda | 20 | 20 | 40 |
| Pallavalli | 20 | 20 | 40 |
| Venktapura | 21 | 19 | 40 |
| **Total** | **61** | **59** | **120** |
| **Sira** | | | |
| Changavara | 21 | 19 | 40 |
| Magodu | 21 | 19 | 40 |
| Nadur | 17 | 23 | 40 |
| **Total** | **59** | **61** | **120** |
| **Tumkur** | | | |
| Chikkanarvangala | 20 | 20 | 40 |
| Chinniga | 18 | 22 | 40 |
| Nagavalli | 17 | 23 | 40 |
| **Total** | **55** | **65** | **120** |
| **Grand Total** | **175** | **185** | **360** |

Table 1. indicates the monthly total savings of the household in the range of Rs. 0 – 6000, and Rs. 6001 – 12,000. From the last row of the table it can be state that out of 360 respondents, 175 households

(48.61%) saves 0 – 6000 per month, and 185 households (51.39%) saves between 6001 – 12000 per month prior to migration.

**Table 2: Monthly Savings of the migrants - After Migration**

| Taluk and Village | Annual Total Savings (In Rs.): After Migration | | | | |
|---|---|---|---|---|---|
| | 0-6000 | 6001-12000 | 12001-50000 | 50001-100000 | Grand Total |
| **Pavagada** | | | | | |
| Kotagudda | 5 | 13 | 20 | 2 | 40 |
| Pallavalli | 4 | 14 | 21 | 1 | 40 |
| Venktapura | 5 | 16 | 19 | 0 | 40 |
| **Total** | **14** | **43** | **60** | **3** | **120** |
| **Sira** | | | | | |
| Changavara | 1 | 18 | 20 | 1 | 40 |
| Magodu | 3 | 16 | 18 | 3 | 40 |
| Nadur | 1 | 19 | 18 | 2 | 40 |
| **Total** | **5** | **53** | **56** | **6** | **120** |
| **Tumkur** | | | | | |
| Chikkanarvangala | 0 | 19 | 19 | 2 | 40 |
| Chinniga | 0 | 15 | 20 | 5 | 40 |
| Nagavalli | 0 | 19 | 21 | 0 | 40 |
| **Total** | **0** | **53** | **60** | **7** | **120** |
| **Grand Total** | **19** | **149** | **176** | **16** | **360** |

Table 2. indicates monthly total savings of the household in the range of Rs. 0 – 6000, Rs. 6001 - 12000, Rs. 12001 – 50,000, and Rs. 50001 - 100000. From the last row of the table it can be state that out of 360 respondents, 19 households (5.28%) saves Rs. 0 – 6000 per month, 149 households (41.39%) saves Rs. 6001 – 12000 per month, 176 households (48.89%) saves Rs. 120001 – 50,000, and 16 households (4.44%) saves Rs. 50001 – 100000 per month after migration. By comparing Table A. and Table. B, the range of savings of the household is changed after the migration. There is no change in the lower limit of savings of the household, however, the upper limit of the range of savings of the household is increased due to migration. Prior to migration 48.61% of the respondents are saving in the range of Rs. 0 – 6000, and after the migration the percentage of household saving in the range of Rs. 0 – 6000 is reduced to 5.28%. The households saving in the bracket of more than Rs. 12000 is caused due to migration. Thus, migration has shifted the savings brackets of the household, and it can be state that migration has improved the savings of the household.

The total savings of the migrants before migration in Pavagada, Sira and Tumkur of the present study area reveals the existence of variation in the savings of the migrants before and after the migration. Table 3 displays the descriptive statistics of the total savings of the three Taluks, villages of the Taluks and overall savings of the study areabefore and after the migration.

**Table 3. Descriptive Statistics of Savings: Before and after Migration**

| Villages and Taluk | Savings Before Migration | | | Savings: After Migration | | |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error | Mean | Std. Dev. | Std. Error |
| **Pavagada** | | | | | | |
| Venktapura | 4736.75 | 2685.96 | 424.69 | 9051.25 | 3577.54 | 565.66 |
| Pallavalli | 5261.25 | 2249.80 | 355.72 | 10695.00 | 7274.53 | 1150.20 |
| Kotagudda | 4626.88 | 2699.36 | 426.81 | 11425.00 | 9864.50 | 1559.71 |
| **PAVAGADA** | **4874.96** | **2547.25** | **232.53** | **10390.42** | **7377.16** | **673.44** |
| **Sira** | | | | | | |
| Nadur | 4897.50 | 2225.55 | 351.89 | 11220.00 | 9799.36 | 1549.42 |
| Magodu | 4286.75 | 2467.66 | 390.17 | 12240.00 | 11466.48 | 1813.01 |
| Changavara | 4051.00 | 3079.84 | 486.97 | 10676.25 | 7040.59 | 1113.21 |
| **SIRA** | **4411.75** | **2618.38** | **239.02** | **11378.75** | **9551.47** | **871.93** |
| **Tumkur** | | | | | | |
| Chikkanarvangala | 4493.00 | 2510.30 | 396.91 | 11457.50 | 9499.23 | 1501.96 |
| Nagavalli | 4978.25 | 2822.93 | 446.34 | 10303.00 | 3060.03 | 483.83 |
| Chinniga | 4634.25 | 2775.03 | 438.77 | 14833.75 | 14233.69 | 2250.39 |
| **TUMKUR** | **4701.67** | **2691.21** | **245.67** | **12198.08** | **10136.89** | **925.37** |
| **OVERALL** | **4662.79** | **2619.30** | **138.05** | **11322.42** | **9104.38** | **479.84** |

The table 3. Reveals that the average savings of the migrants in Pavagada before migration is Rs. 4874.96 and it is increased to Rs. 10390.42 after the migration. Similarly, the average savings of the migrants in Sira before migration is Rs. 4411.75 and after the migration the average savings increased to Rs. 11378.75. The average savings of the migrants in Tumkur before the migration is Rs. 4701. 75 and it is increased to Rs. 12198.08 after the migration. The average savings of all the migrants' in the study area is Rs. 4662.79 before migration and it is increased to Rs. 11322.42 after the migration. To find out whether there is any significant difference in the savings of all the migrants of the study area before and after the migration the paired sample t test is conducted and results are presented in Table 4. and Table 5.

**Table No.4: Paired Sample Statistics of Savings of the Study Area: Before and After Migration**

| Total Savings | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Before Migration | 4662.79 | 360 | 2619.299 | 138.049 |
| After Migration | 11322.42 | 360 | 9104.375 | 479.843 |

Table No.4. Represents the descriptive statistics of savings of the migrants of study area including all the migrants of Pavagada, Sira and Tumkur taluk before and after migration. The average total savings of the 360 migrants before migration and after migration is Rs. 4662.79 with the standard deviation of 2619.299 and Rs. 11322.42 with the standard deviation of 9104.375 respectively.

**Table No. 5. Paired Sample Test of Savings of the Study Area: Before and After Migration**

| Total Income | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error Mean | | | |
| After Migration–Before Migration | 6659.625 | 9330.189 | 491.744 | 13.543 | 359 | .000 |

Table No. 5. represents the paired sample test of savings of all the migrants of the study area. The t statistics value of 13.543 with 359 degree of freedom is statistically significant at 5% since the p value is 0.000. Therefore, there is a statistically significant difference in the average savings of all the migrants before and after the migration at the study area.

**Table .6. Summary of Impact of Migration on Status of Savings of the Migrants'**

| Sl. No | Indicators of Savings Status | Condition of Migration | | Description | Conclusion |
|---|---|---|---|---|---|
| | | Before | After | | |
| 1 | The levels of Saving | Lower limit = 0 - 6000<br>Upper limit = 6001 - 12000 | Lower limit = 0 - 6000<br>Upper limit = 50001 - 100000 | The lower limit of the savings before and after migration is remaining same of Rs. 0 – 6000.<br>The upper limit of the income before and after migration is shifted from Rs. 6001 – 12000 to Rs.50001 – 100000. | Migration has shifted positively the upper limit of savings of the migrants'household; however, it doesn't shift the lower limit of the savings of the migrants' household. |
| 2 | Average savings | Rs. 4662.79 | Rs. 11322.42 | The average savings of the migrants after the migration is relatively higher the average income of the migrants' before the migration | Migration has increased the average savings of the migrants' household. |
| 3 | Mean difference in the savings | After – Before = 11322.42 - 4662.79 = 6659.625 | | The t value of the mean difference in the savings of the migrants' household is significant at 1%. | Migration has significantly increased the savings of the migrants' household. |

From Table 6. it can be concluding that all the chosen saving related indicators have changed after the migration, thus, the migration has positive effect on saving status of the migrants' in the study area.

**Impact of Migration on Savings**

The total savings of the migrants before migration in Pavagada, Sira and Tumkur of the present study area reveal the existence of difference in the savings of the migrants before and after the migration. To evaluate this objective, the Table 5.3.2.11 shows the descriptive statistics of the total savings of the three Taluks and villages of the Taluks before and after the migration. The impact of migration on savings of the migrants is analysed Taluk wise and for the study area by using two analytical methods i.e., the paired sample t test and ANOVA model or Dummy Variable regression model.

**Table. 7: Descriptive Statistics of Savings: Before and After Migration**

| Villages and Taluk | Savings Before Migration | | | Savings: After Migration | | |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error | Mean | Std. Dev. | Std. Error |
| **Pavagada** | | | | | | |
| Venktapura | 4736.75 | 2685.96 | 424.69 | 9051.25 | 3577.54 | 565.66 |
| Pallavalli | 5261.25 | 2249.80 | 355.72 | 10695.00 | 7274.53 | 1150.20 |
| Kotagudda | 4626.88 | 2699.36 | 426.81 | 11425.00 | 9864.50 | 1559.71 |
| **PAVAGADA** | **4874.96** | **2547.25** | **232.53** | **10390.42** | **7377.16** | **673.44** |
| **Sira** | | | | | | |
| Nadur | 4897.50 | 2225.55 | 351.89 | 11220.00 | 9799.36 | 1549.42 |
| Magodu | 4286.75 | 2467.66 | 390.17 | 12240.00 | 11466.48 | 1813.01 |
| Changavara | 4051.00 | 3079.84 | 486.97 | 10676.25 | 7040.59 | 1113.21 |
| **SIRA** | **4411.75** | **2618.38** | **239.02** | **11378.75** | **9551.47** | **871.93** |
| **Tumkur** | | | | | | |
| Chikkanarvangala | 4493.00 | 2510.30 | 396.91 | 11457.50 | 9499.23 | 1501.96 |
| Nagavalli | 4978.25 | 2822.93 | 446.34 | 10303.00 | 3060.03 | 483.83 |
| Chinniga | 4634.25 | 2775.03 | 438.77 | 14833.75 | 14233.69 | 2250.39 |
| **TUMKUR** | **4701.67** | **2691.21** | **245.67** | **12198.08** | **10136.89** | **925.37** |
| **OVERALL** | **4662.79** | **2619.30** | **138.05** | **11322.42** | **9104.38** | **479.84** |

The Table 7. reveals that the average total savings of the migrants in Pavagada before migration is Rs. 4874.96 and it is increased to Rs. 10390.42 after the migration. Similarly, the average total savings of the migrants in Sira before migration is Rs. 4411.75 and after the migration the average savings increased to Rs. 11378.75. The average total savings of the migrants in Tumkur before the migration is Rs. 4701.67 and it is increased to Rs. 12198.08 after the migration.

**Impact of Migration on Savings: Pavagada Taluk**

The impact of migration on savings of the migrants of Pavagada taluk is examined by using two set of analysis tools. At first the paired sample t test is conducted to compare the savings of the migrants before migration and after migration to assess whether there is any significant difference in the savings of the migrants. After examining the significant difference, at the second level ANOVA model is constructed to evaluate whether the increase in the savings after the migration is significantly different from savings before the migration.

**Table 8: Paired Sample Statistics of Total Savings of Pavagada: Before and After Migration**

| Total Savings | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Before Migration | 4874.96 | 120 | 2547.255 | 232.531 |
| After Migration | 10390.42 | 120 | 7377.157 | 673.439 |

Table 8. Represents the descriptive statistics of total savings of the migrants of Pavagada Taluk before and after migration. The average total savings of the 120 migrants of Pavagada taluk before migration and after migration is Rs. 4874.96 with the standard deviation of 2547.255 and Rs. 10390.42 with the standard deviation of 7377.157 respectively.

**Table 9: Paired Sample Test of Total Savings of Pavagada: Before and After Migration**

| Total Savings | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error Mean | | | |
| After Migration– Before Migration | 5515.458 | 7755.764 | 708.001 | 7.790 | 119 | .000 |

Table 9, represents the paired sample test of total savings of Pavagada Taluk. The t statistics value of 7.790 with 119 degree of freedom is statistically significant at 5% since the p value is 0.000. Therefore, there is a statistically significant difference in the average total savings of the migrants before and after the migration at Pavagada Taluk.

**ANOVA Model of Total Savings of the Migrants in Pavagada:**
**Before and After Migration**

To find out if the average value of total savings before the migration and after the migrations differs among the three Taluks in the study area, the following ANOVA model has been constructed.

$$Y_i = \beta_1 + \beta_2 D_{2i} + u_i$$

Where $Y_i$ = Total savings of $i^{th}$ observation of the given Taluk
$D_{2i}$ = 1 if the savings of the observation is after the migration
= Otherwise (i.e., savings of the observation is before migration)

Here the bench mark category is before migration, hence, the intercept $\beta_1$ provides the mean total savings of the migrants before migration. $\beta_2$ Provides by how much the mean value of total savings of the migrants after the migration differ from the before the migration. In other words the mean value of total savings of the migrants can be obtained by summing the value of $\beta_1$ and $\beta_2$ $(\beta_1 + \beta_2)$. Using the data, the obtained model result:

$\widehat{Y_i} = 4874.958 + 5515.458 D_{2i}$
SE = (503.781) (712.454)
t = (9.677) (7.741)
P = (0.000) * (0.000) *
where * indicates significant p value at 1%.

From the regression model, the mean total savings of the migrants before the migration in Pavagada is about Rs. 4874.958. Compared with this, the mean total savings of the migrants after the migration in

Pavagada is higher by about Rs. 5515.458, for an actual mean total savings of Rs. 10390.416 (4874.958 + 5515.458). From the regression model $\beta_2$ is statistically significant at 1% since the p value is less than 0.01. Therefore, the average of total savings of the migrants after the migration in Pavagada Taluk is increased significantly, thus, the migration causing positive impact on savings at Pavagada Taluk.

**Impact of Migration on Savings: Sira Taluk**

The impact of migration on savings of the migrants of Sira taluk is examined by using two set of analysis tools. At first the paired sample t test is conducted to compare the savings of the migrants before migration and after migration to assess whether there is any significant difference in the of the migrants. After examining the significant difference, at the second level ANOVA model is constructed to evaluate whether the increase in the savings after the migration is significantly different from savings before the migration.

**Table 10: Paired Sample Statistics of Total Savings of Sira: Before and After Migration**

| Total Savings | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Before Migration | 4411.75 | 120 | 2618.381 | 239.024 |
| After Migration | 11378.75 | 120 | 9551.472 | 871.926 |

Table 10. represents the descriptive statistics of total savings of the migrants of Sira Taluk before and after migration. The average total savings of the 120 migrants of Sira taluk before migration and after migration is Rs. 4411.75 with the standard deviation of 2618.381 and Rs. 11378.75 with the standard deviation of 9551.472 respectively.

**Table 11: Paired Sample Test of Total Savings of Sira: Before and After Migration**

| Total Savings | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error Mean | | | |
| After Migration– Before Migration | 6967.000 | 9453.793 | 863.009 | 8.073 | 119 | .000 |

Table 11. Represents the paired sample test of total savings of Sira Taluk. The t statistics value of 8.073 with 119 degree of freedom is statistically significant at 5% since the p value is 0.000. Therefore, there is a statistically significant difference in the average total savings of the migrants before and after the migration at Sira Taluk.

**ANOVA Model of Total Savings of the Migrants in Sira:**
**Before and After Migration**

To find out if the average value of total savings before the migration and after the migrations differs among the three Taluks in the study area, the following ANOVA model has been constructed.

$$Y_i = \beta_1 + \beta_2 D_{2i} + u_i$$

Where $Y_i$ = Total savings of $i^{th}$ observation of the given Taluk
$D_{2i}$ = 1 if the savings of the observation is after the migration
= Otherwise (i.e., savings of the observation is before migration)

Here the bench mark category is before migration, hence, the intercept $\beta_1$ provides the mean total savings of the migrants before migration. $\beta_2$ Provides by how much the mean value of total savings of the migrants after the migration differ from the before the migration. In other words the mean value of total savings of the migrants can be obtained by summing the value of $\beta_1$ and $\beta_2$ $(\beta_1 + \beta_2)$. Using the data, the obtained model result

$\widehat{Y}_i = 4411.750 + 6967.000D_{2i}$

SE = (639.292) (904.095)

t = (6.901) (7.706)

P = (0.000) * (0.000) *

where * indicates significant p value at 1%.

From the regression model, the mean total savings of the migrants before the migration in Sira is about Rs. 4411.750. Compared with this, the mean total savings of the migrants after the migration in Sira is higher by about Rs. 6967.000, for an actual mean total savings of Rs. 11378.45 (4411.750 + 6967.000). From the regression model $\beta_2$ is statistically significant at 1% since the p value is less than 0.01. Therefore, the average of total savings of the migrants after the migration in Sira Taluk is increased significantly, thus, the migration causing positive impact on savings at Sira Taluk.

**Impact of Migration on Savings: Tumkur Taluk**

The impact of migration on savings of the migrants of Tumkur taluk is examined by using two set of analysis tools. At first the paired sample t test is conducted to compare the savings of the migrants before migration and after migration to assess whether there is any significant difference in the of the migrants. After examining the significant difference, at the second level ANOVA model is constructed to evaluate whether the increase in the savings after the migration is significantly different from savings before the migration.

**Table 12: Paired Sample Statistics of Total Savings of Tumkur: Before and After Migration**

| Total Savings | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Before Migration | 4701.67 | 120 | 2691.207 | 245.672 |
| After Migration | 12198.08 | 120 | 10136.894 | 925.368 |

Table 12: represents the descriptive statistics of total savings of the migrants of Tumkur Taluk before and after migration. The average total savings of the 120 migrants of Tumkur taluk before migration and after migration is Rs. 4701.67 with the standard deviation of 2691.207 and Rs. 12198.08 with the standard deviation of 10136.894 respectively.

**Table 13: Paired Sample Test of Total Savings of Tumkur: Before and After Migration**

| Total Savings | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error Mean | | | |
| After Migration–Before Migration | 7496.417 | 10534.362 | 961.651 | 7.795 | 119 | .000 |

Table 13 represents the paired sample test of total savings of Tumkur Taluk. The t statistics value of 7.795 with 119 degree of freedom is statistically significant at 5% since the p value is 0.000. Therefore, there is a statistically significant difference in the average total savings of the migrants before and after the migration at Tumkur Taluk.

**ANOVA Model of Total Savings of the Migrants in Tumkur:**
**Before and After Migration**

To find out if the average value of total savings before the migration and after the migrations differs among the three Taluks in the study area, the following ANOVA model has been constructed.

$$Y_i = \beta_1 + \beta_2 D_{2i} + u_i$$

Where $Y_i$ = Total savings of i$^{th}$ observation of the given Taluk
$D_{2i}$ = 1 if the savings of the observation is after the migration
= Otherwise (i.e., savings of the observation is before migration)

Here the bench mark category is before migration, hence, the intercept $\beta_1$ provides the mean total savings of the migrants before migration. $\beta_2$ provides by how much the mean value of total savings of the migrants after the migration differ from the before the migration. In other words the mean value of total savings of the migrants can be obtained by summing the value of $\beta_1$ and $\beta_2$ $(\beta_1 + \beta_2)$. Using the data, the obtained model result:

$\widehat{Y}_i = 4701.667 + 7496.417 D_{2i}$
SE = (677.001) (957.424)
t = (6.945) (7.830)
P = (0.000) * (0.000) *
where * indicates significant p value at 1%.

From the regression model, the mean total savings of the migrants before the migration in Tumkur is about Rs. 4701.667. Compared with this, the mean total savings of the migrants after the migration in Tumkur is higher by about Rs. 7496.417, for an actual mean total savings of Rs. 12198..084 (4701.667 + 7496.417). From the regression model $\beta_2$ is statistically significant at 1% since the p value is less than 0.01. Therefore, the average of total savings of the migrants after the migration in Tumkur Taluk is increased significantly, thus, the migration causing positive impact on savings at Tumkur Taluk.

**Impact of Migration on Savings: Study Area**

The impact of migration on savings of the migrants in the study area is examined by using two set of analysis tools. At first the paired sample t test is conducted to compare the income of the migrants before migration and after migration to assess whether there is any significant difference in the savings of the migrants. After examining the significant difference, at the second level ANOVA model is constructed to evaluate whether the increase in the savings after the migration is significantly different from savings before the migration.

**Table 14: Paired Sample Statistics of Total Savings of the Study Area: Before and After Migration**

| Total Income | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Before Migration | 4662.79 | 360 | 2619.299 | 138.049 |
| After Migration | 11322.42 | 360 | 9104.375 | 479.843 |

Table 14 represents the descriptive statistics of total savings of the migrants of study area including all the migrants of Pavagada, Sira and Tumkur taluk before and after migration. The average total savings of the 360 migrants before migration and after migration is Rs. 4662.79 with the standard deviation of 2619.299 and Rs. 11322.42 with the standard deviation of 9104.375 respectively.

**Table 15: Paired Sample Test of Total Savings of the Study Area: Before and After Migration**

| Total Income | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Std. Error Mean | | | |
| After Migration–Before Migration | 6659.625 | 9330.189 | 491.744 | 13.543 | 359 | .000 |

Table 15 represents the paired sample test of total savings of all the migrants of the study area. The t statistics value of 13.543 with 359 degree of freedom is statistically significant at 5% since the p value is 0.000. Therefore, there is a statistically significant difference in the average total savings of all the migrants before and after the migration at the study area.

**ANOVA Model of Total Savings of the Migrants of the Study Area: Before and After Migration**

To find out if the average value of total savings before the migration and after the migrations differs among the three Taluks together in the study area, the following ANOVA model has been constructed.

$$Y_i = \beta_1 + \beta_2 D_{2i} + u_i$$

Where $Y_i$ = Total savings of $i^{th}$ observation in the study area

$D_{2i}$ = 1 if the savings of the observation is after the migration

= Otherwise (i.e., savings of the observation is before migration)

Here the bench mark category is before migration, hence, the intercept $\beta_1$ provides the mean total savings of the migrants before migration. $\beta_2$ provides by how much the mean value of total savings of the migrants after the migration differ from the before the migration. In other words the mean value of total savings of the migrants can be obtained by summing the value of $\beta_1$ and $\beta_2$ $(\beta_1 + \beta_2)$. Using the data, the obtained model result:

$\widehat{Y_i} = 4662.792 + 6659.625 D_{2i}$

SE = (353.063) (499.306)

t = (13.207) (13.338)

P = (0.000) * (0.000)

where * indicates significant p value at 1%.

From the regression model, the mean total savings of the migrants before the migration in the study area is about Rs. 4662.792. Compared with this, the mean total savings of the migrants after the migration in the study area is higher by about Rs. 6659.625, for an actual mean total savings of Rs. 11322.417 (4662.792 + 6659.625). From the regression model $\beta_2$ is statistically significant at 1% since the p value is less than 0.01. Therefore, the average of total savings of the migrants after the migration in the study area is increased significantly, thus, the migration causing positive impact on savings in the study area.

**Table 16: Summary of the Analysis of Impact of Migration on Savings: Before and After Migration**

| Sl. No | Null Hypothesis | Test and Model | Test Value and Result | Decision | Conclusion |
|---|---|---|---|---|---|
| 1 | There is no significant difference in the average total savings of the migrants due to migration in Pavagada Taluk. | Paired Sample t test | t = 7.790, df = 119 and p = 0.000 | Reject Null Hypothesis | There is a positive impact of migration on savings generation at Pavagada Taluk. |
| | | ANOVA (Dummy Variable Model) | $\widehat{Y}_i = 4874.958 + 5515.458D_{2i}$ t statistics of $\beta_2$= 7.741, p = 0.00 | | |
| 2 | There is no significant change in the average total savings of the migrants due to migrationin Sira Taluk. | Paired Sample t test | t = 8.073, df = 119 and p = 0.000 | Reject Null Hypothesis | There is a positive of impact of migration on savings generation at Sira Taluk. |
| | | ANOVA (Dummy Variable Model) | $\widehat{Y}_i = 4411.750 + 6967.000D_{2i}$ t statistics of $\beta_2$= 7.706, p = 0.00 | | |
| 3 | There is no significant difference in the average total savings of the migrants due to migrationin Tumkur Taluk | Paired Sample t test | t = 7.795, df = 119 and p = 0.000 | Reject Null Hypothesis | There is a positive of impact of migration on savings generation at Tumkur Taluk. |
| | | ANOVA (Dummy Variable Model) | $\widehat{Y}_i = 4701.667 + 7496.417D_{2i}$ t statistics of $\beta_2$= 7.830, p = 0.00 | | |
| 4 | There is no significant variation in the average total savings of the migrants due to migrationin the study area. | Paired Sample t test | t = 13.543, df = 359 and p = 0.000 | Reject Null Hypothesis | There is a positive of impact of migration on savings generation in the study area. |
| | | ANOVA (Dummy Variable Model) | $\widehat{Y}_i = 4662.792 + 6659.625D_{2i}$ t statistics of $\beta_2$= 13.207, p = 0.00 | | |

Table 16: reveals that the there is a positive impact of migration on savings of the migrants, thus, migration causing a positive effect in mobilizing savings, and improving the social-economic status of the migrant in the study area

**Findings Related to Status of Savings of Migrants**

The effect of migration on savings of the migrants are compared and analyzed by using empirical data of monthly savings of the migrants' before and after the migration in the study. The major finding related to this is given below

The study explored that average savings of the migrants in Pavagada before migration is Rs. 4874.96 and it is increased to Rs. 10390.42 after the migration. Similarly, the average savings of the migrants in Sira before migration is Rs. 4411.75and after the migration the average savings increased to Rs. 11378.75. The average savings of the migrants in Tumkur before the migration is Rs. 4701. 75 and it is increased to Rs. 12198.08 after the migration. The average savings of all the migrants' in the study area is Rs. 4662.79 before migration and it is increased to Rs. 11322.42 after the migration.

**Conclusion**

Rural migration is a selective process effecting individual people or families with some certain economic, social, educational and demographic features. The human development as well as migration go side by side in transforming human capabilities. An economic prosperity of the nation lies with the services of migrants. The potentiality of human capital to be assessed in terms of market value through the performance of migrant labour. The present research paper ends up with conclusion that in the study area the effect of migration on income as well as saving is more significant and which results increase in social-economic status of the migrant in the study area.

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