

Оригинальные статьи / Original articles

<https://doi.org/10.18619/2072-9146-2021-6-10-15>

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Conflicts of Interest: The authors declare
no conflict of interest.

Author Contributions: Being research advisor,
conceptualization of the experiment was done
by Dr. K. P. Singh. Mr. Manoj Singh conducted
the research, analysed recorded data and tabu-
lated the results to draw the conclusion. The
research finding and final draft was prepared by
Dr. R. S. Singh on the basis of analysed data.
All authors revised manuscript critically many
times to make it intellectual content. All authors
are equally accountable regarding any
issue/integrity of the investigation.

Data Availability Statement: The datasets
presented in this study are available upon
request to the corresponding author.

For citations: Singh M., Singh R.S.,
Singh K.P. Study of saving and investment
pattern on sample farms households. *Vegetable
crops of Russia*. 2021;(6):10-15.
<https://doi.org/10.18619/2072-9146-2021-6-10-15>

Received: 25.10.2021
Accepted for publication: 12.11.2021
Published: 25.11.2021

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Конфликт интересов. Авторы заявляют
об отсутствии конфликта интересов.

Вклад авторов. Все авторы участвовали в напи-
сании статьи, прочитали и согласились с опу-
бликованной версией рукописи.

Для цитирования: Singh M., Singh R.S., Singh
K.P. Study of saving and investment pattern on
sample farms households. *Vegetable crops of
Russia*. 2021;(6):10-15.
<https://doi.org/10.18619/2072-9146-2021-6-10-15>

Поступила в редакцию: 25.10.2021
Принята к печати: 12.11.2021
Опубликована: 25.11.2021

Study of saving and investment pattern on sample farms households



Abstract

The saving and investment pattern of different forms sample group was studied during 2014-16 and it was observed that large farm holders were able to save higher income than small farmers while lowest income group had negative savings. In respect of investment on different fixed assets, irrigation was on first priority, followed by purchase of milch animals, farms buildings and investment in land and its improvement. Investment on working capital amongst different cash inputs, hired human labourer accounted highest share (29.44 per cent), followed by manure & fertilizers (22.33 per cent), hired power tractor (16.96 per cent), irrigation (13.61 per cent) and seeds (13.50 per cent) to total cash inputs. Marginal farmers could not invest for non-farm physical capital because of no savings with them. Small and large farmers groups invest- ed in all the items in which it was highest in working capital (61.28 to 61.84 per cent), followed by investment in fixed capital (14.41 to 16.84 per cent), financial capital (12-14 per cent) and non-farm capital (7-12 per cent). The highest investment was made on working capital (69.02 per cent) by sample farmers. Current income was found to be the main source of finance in all income groups which accounted for 49.70 to 94.79 per cent share of the total investment fol- lowed by savings which shared for 40.10 to 49.12 per cent in total investment.

Keywords: Saving, investment, income, sample forms.

Изучение структуры сбережений и инвестиций на примере выборочных фермерских хозяйств

Резюме

Структура сбережений и инвестиций в различных группах выборки изучали в течение 2014-2016 годов. Было замечено, что крупные фермерские хозяйства смогли сэкономить более высокий доход, чем мелкие фермеры, в то время как группа с самым низким доходом имела отрицательные сбережения. Что касается инвестиций в различные основные фонды, первоочередной задачей было орошение, за которым последовали покупка дойного скота, хозяйственных построек и инвестиции в землю и ее улучшение. Инвестиции в оборотный капитал среди различных денежных затрат, наемный рабочий составлял наибольшую долю (29,44%), за ним следовали навоз и удобрения (22,33 процента), наемный трактор (16,96%), ирригация (13,61%) и семена (13,50%) к общему количеству денежных вло- жений. Маргинальные фермеры не могли вкладывать средства в физический капитал, не связанный с сельским хозяйством, из-за отсутствия у них сбережений. Группы мелких и крупных фермеров инве- стировали во все статьи, по которым они были самыми высокими, в оборотный капитал (от 61,28 до 61,84%), за которыми следовали инвестиции в основной капитал (от 14,41 до 16,84%), финансовый капитал (12-14%) и несельскохозяйственный капитал (7-12%). Наибольшие инвестиции в оборотный капитал (69,02%) были вложены фермерами из выборки. Текущий доход оказался основным источни- ком финансирования во всех доходных группах, на долю которых приходилось от 49,70 до 94,79% от общего объема инвестиций, за которыми следовали сбережения, на которые приходилось от 40,10 до 49,12% от общего объема инвестиций.

Ключевые слова: сбережения, инвестиции, доход, типовые формы.

Introduction

Agriculture contributes about 17 per cent of the national income in the Indian economy and more than 70 per cent rural households depend on agriculture. In this respect income, saving and investment have been regarded as main variables of economic development. Increase in capital stock along with its efficiency directly influences the productive capacity of economy for increasing total income. However, this growth in capital is in turn directly dependent on the part of additional output which is not immediately consumed but is saved and is available for investment in capital. This important role of saving is a determinant factor of growth in income and economic development. Even the Keynesian consumption function which brought a revolution in the theory of employment is intimately linked to what he called, 'propensity to save'.

From the neo-classical economists, **"saving is an excess of income over necessary expenditure"**. According to J. S. Mill, **"saving enriches and spending impoverishes the community along with the individual"**. Alfred Marshall said, "The power to save depends on an excess of income over necessary expenditure and that a rise in the rate of interest offered for capital. Thus income, saving and investment constituted the three strategic determinants of economic development in the classical, neo-classical and Keynesian system.

Progressiveness of agriculture will, however, depend upon what farmers do with the additional income generated from their savings. Growth rate in the farm economy largely depends on the stock of capital built and plans of saving for further improvement. If increase in farm income, it is mostly utilized for increasing capital investment in farm organization, the growth rate in agriculture sector would be higher. If the increasing capital investments are spent on house hold expenditure without building up the necessary infrastructure, the economic development of agriculture might be hampered. Thus saving and investment in agriculture has assumed great significance in view of the Government's policy wherein it is clearly stated that investment in agriculture would receive highest priority in the economic development of the country side by side farmers would be motivated to increase production and make such adjustment in their investment pattern as to meet fully consumer's demand.

District Azamgarh of Eastern Uttar Pradesh, India has an important place in terms of fertility and agricultural advancement (Figure 1). Out of total cultivated area of the district, 74.20 per cent is under irrigation having 157.94 per cent cropping intensity. Thus, keeping in view the importance of saving and investment pattern in agricultural economy of the country, state and study area, present study was planned. The findings of the study would be of great significance to the policymakers, administrators, economists and extension workers for making development plans for the improvement of agricultural sector in the study area.

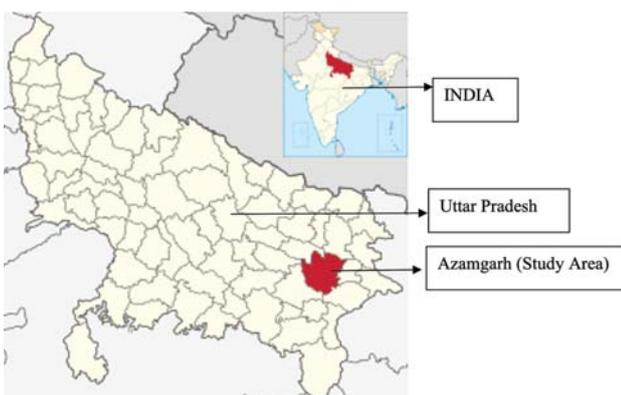


Figure 1. Study area highlighted.

Materials and Methods:

1. Sampling Technique:

A multistage stratified random sampling technique was used to select the blocks, villages and sample farms. Out of 22 Blocks, 02 namely Koelsa and Mohamadpur were selected randomly. The list of all villages of the selected blocks was obtained from Lekhpal and Village Development Officer. Respondents were grouped under four categories namely, below 1 hectare (marginal), 1-2 hectare (medium), and more than 2 hectare (large). Sample of 100 farmers were drawn from the 10 villages (50 farmers from each block).

2. Method of Enquiry and Collection of Data:

Primary data were collected from sample farmers during 2014-15 & 2015-16 through direct/personal interview with the help of already prepared and pre-tested questionnaires and schedules. During the period of enquiry, several visits were made for collection of data keeping in view of the convenience of the respondents. All possible care was taken in the collection of correct and reliable information through cross checking. Secondary data were collected from published materials i.e. Journals, Books, Bulletins, Technical Reports etc. and records of the blocks, District headquarters, Tehsil headquarters, District Information Office, District Statistical Office, Lead Bank Office, records of Lekhpals etc.

Results and Discussion

It is evident from Table 1 that marginal farm households groups were having no savings with them because of higher family consumption expenditure than total income. The main constraints to the small holder farmers' inability to save are inadequacy of income and fear of loss of their income [1; 2]. In case of small and large farm households, the savings level was of ₹ 21219.79 (318.81 US \$) and ₹ 117047.89 (1758.53 US \$) per household respectively. Thus, it is observed that farmers of large farm holdings were able to save higher income in comparison to small farmers. This trend was due to the fact that marginal propensity to consume goes on decreasing with increase in incomes of farm families. Therefore, percentage of total income consumed decreases with the increase in farm size, resulting in comparatively higher savings on large farms.

Table 2 reveals that sample households of lowest income group had negative savings ₹ -2193.80 per farm household (32.96 US \$)]. However, savings gave an increasing trend with increase in size of income groups. It was ₹ 25239.47 (379.20 US \$) on medium and ₹ 141980.15 (2133.12 US \$) per household on large income groups.

Investment Pattern of Sample Farms

Investment Pattern of Sample Farms was worked out and observed that majority of farmers were invested their money in form of (i) farm capital consisting of working capital and fixed capital (ii) non-farm capital and (iii) financial capital. The term 'fixed capital' (durable capital) employed here is composed of capital invested on major farm equipments, irrigation structure, livestock and farm building etc. The working capital (non-durable capital) consists of capital spent on seeds, fertilizers, irrigation, insecticides, hired human labour, feed & concentrate, expenses on milch animals etc. The gross value of items of durable capital has been considered whereas investment in non-durable capital represents the purchase price of inputs. The level and pattern of investment on above mentioned forms of capital has been presented as follows:

Investment on Fixed Capital

It is evident from Table 3 that marginal farmers could not invest in fixed capital due to lack of savings with them. These farmers consid-

Table 1. Level of saving on sample farm households in ₹ per household

| Particulars | Size Group (in hectare) | | | Average |
|--|-------------------------|-------------|-------------------|----------|
| | Below 1 Hectare | 1-2 Hectare | 2 hectare & above | |
| 1. Total Income | | | | |
| Average (₹) | 31750.42 | 63865.30 | 173551.31 | 57249.80 |
| (In US \$) | 477.02 | 959.52 | 2607.44 | 860.12 |
| 2. Total family consumption expenditure | | | | |
| Average (₹) | 31827.75 | 42645.51 | 56503.42 | 37415.42 |
| (In US \$) | 478.18 | 640.71 | 848.91 | 562.13 |
| 3. Savings | | | | |
| Average (₹) | (-) 77.33 | 21219.79 | 117047.89 | 19834.39 |
| (In US \$) | 1.16 | 318.81 | 1758.53 | 297.99 |
| 4. Percentage of savings to income | | | | |
| | - 0.24 | 33.22 | 67.44 | 34.64 |

(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

Table 2. Level of savings according to income groups ₹ Per household

| Particulars | Income Group (in ₹) | | | Average |
|--|---------------------------------|--|-----------------------------------|----------|
| | Below ₹ 25,000 (375.6 US \$) | ₹ 25000- 50000 (375.6 – 751.20 US \$) | ₹ 50000 & above (751.20 US \$) | |
| 1. Total income per household | | | | |
| Average (₹) | 31534.05 | 66179.44 | 192833.02 | 63350.89 |
| (In US \$) | 473.77 | 994.28 | 2897.13 | 951.79 |
| 2. Total family consumption expenditure | | | | |
| Average (₹) | 33727.85 | 40939.97 | 50852.86 | 38189.81 |
| (In US \$) | 506.73 | 615.08 | 764.02 | 573.77 |
| 3. Savings per household | | | | |
| Average (₹) | (-) 2193.80 | 25239.47 | 141980.15 | 25161.08 |
| (In US \$) | 32.96 | 379.20 | 2133.12 | 378.02 |
| 4. Percentage of saving to income | | | | |
| | (-) 6.96 | 38.14 | 73.62 | 42.39 |

(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

ered it as unnecessary investment (machinery & other fixed assets) because of their tiny holdings. While as per Saini and Kumar [3], livestock was the major contributor of total investment on marginal farms. In small farms, the emphasis was on purchase of milch animals with 43.80 per cent of total investment followed by irrigation works and farm buildings with 25.10 per cent and 13.68 per cent of the investment, respectively. While in case of large farms, investment on irrigation works was given first priority with 35.92 per cent investment followed by farm equipments and machineries 17.96 per cent, farm building 17.77 per cent milch cattle 15.50 per cent & land and its improvement 12.85 per cent. From the above analysis, it may be concluded that there was a great variation in the pattern and level of investment on fixed capital of different size group of farms holders. On an overall basis, it was found that amongst different fixed assets, investment on irrigation was given first priority, followed by purchase of milch animals, farms buildings and investment in land and its improvement. As per Ruedas and Guico (2021) women farmers save money in non-cash forms more than in n-cash forms. Cash forms include savings through banks, microfinance institutions, and money lending firms. Non-cash forms include agricultural pieces of machinery and equipment, livestock, land, children's education [4].

Investment in Working Capital

The investment in working capital here included investment in cash inputs i.e. hired human labourer, tractor power, seeds, manure & fertilizers, irrigation, insecticides & pesticides etc.

As per Table 4 it is obvious that investment on working capital amongst different cash inputs, hired human labourer accounted for highest share (29.44 per cent), followed by manure & fertilizers (22.33 per cent), hired power tractor (16.96 per cent), irrigation (13.61 per cent) and seeds (13.50 per cent) to total cash inputs. Nwibo and Mbam [5] have also found that farming households save

and invest mainly for the purchase of improved varieties and breeds, agrochemicals and feeds. In another study, the institutional credit used on costly investments like drip irrigation, farm buildings and farm machineries in borrower farms, while the non-borrowers made lesser investments on these assets as compared to the borrowers [6]. As regards different size groups, almost a similar trend was observed in all respondents with high values on large farms, but for hired tractor power where it was lower on large farms as compared to small farms. The investment on different cash inputs in general gave an increasing trend with increase in farm size due to increase in size of farm business.

Investment in Non-farm capital

It is evident from the Table 5 that marginal farmers could not invest for non-farm physical capital because of no savings with them. Maximum investment by small farmers and large farmers group was made on vehicle items, followed by television radio etc. because these farmers were able to spend their surplus savings.

Financial Investment

Financial investment made by sample farmers consisted of investment in National Saving Certificate (NSC), Kisan Vikas Patra, Life Insurance Corporation Policies, deposits in commercial banks and post offices, etc. and in the form of ornaments, besides repayment of loans. Personal sources of information plays greater role as compared to official sources in bringing awareness regarding institutional investments [7].

Table 6 reveals that on overall basis, the sample farmers made a financial investment of ₹ 5149.00 (77.36 US \$) in different schemes. They also kept some cash money with them to meet out day to day expenses. The marginal farmers group could not make investment in financial capital because of having no savings. However, they

Table 3. Pattern of Investment as fixed capital ₹ per household

| Particulars of Investment | Size group in hectare | | | Average (1.17 hectare) |
|--|---------------------------|-----------------------|-----------------------------|---------------------------|
| | Below 1 Hectare (0.52) | 1-2 Hectare (1.35) | 2 hectare & above (4.14) | |
| 1. Lands and its improvement | | | | |
| Average (₹) | - | 1377.50 | 3570.00 | 767.15 |
| (In US \$) | - | 20.70 (13.22) | 53.64 (12.85) | 11.53 (13.00) |
| 2. Live stock (Milch cattle) | | | | |
| Average (₹) | - | 4560.00 | 4305.00 | 1562.85 |
| (In US \$) | - | 68.51 (43.80) | 64.68 (15.50) | 23.48 (26.48) |
| 3. Farm equipment and machinery | | | | |
| Average (₹) | - | 437.00 | 4987.50 | 744.51 |
| (In US \$) | - | 6.57 (4.20) | 74.93 (17.96) | 11.19 (12.62) |
| 4. Irrigation works | | | | |
| Average (₹) | - | 2612.50 | 9975.00 | 1871.50 |
| (In US \$) | - | 39.25 (25.10) | 149.86 (35.92) | 28.12 (31.72) |
| 5. Farm buildings | | | | |
| Average (₹) | - | 1425.00 | 4935.00 | 955.05 |
| (In US \$) | - | 21.41 (13.68) | 74.14 (17.77) | 14.35 (16.18) |
| Total investment | | | | |
| Average (₹) | - | 10412.00 | 27772.50 | 5901.06 |
| (In US \$) | - | 156.43 (100.00) | 417.26 (100.00) | 88.66 (100.00) |

Note: Figures in parenthesis are per cent to total.
(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

managed to repay some part of their loans by managing current incomes. The small farmers invested a higher share in post office deposits, followed by LIC policies while large farmers preferred to invest in purchase of NSC and Kisan Vikash Patra, followed by deposits in post office, Banks and purchase of ornaments etc. While in Nigeria around 64 per cent respondent saved their money at home/in cooperative societies, only 5% population saved it with

microfinance institutions and 0% population saved their money with commercial banks [8].

Total Investment and source of finance according to income groups

An examination of the total investment made by sample farmers distributed according to different income groups showed that

Table 4. Investment pattern of working capital ₹ per household

| Variable input | Size group in hectare | | | Average |
|------------------------------------|-----------------------|--------------------|---------------------|--------------------|
| | Below 1 hectare | 1-2 Hectare | 2 hectare & above | |
| 1. Hired labourer | | | | |
| Average (₹) | 1913.56 | 6709.28 | 41555.61 | 8122.08 |
| (In US \$) | 28.75 (17.32) | 100.80 (22.13) | 624.33 (39.31) | 122.03 (29.44) |
| 2. Hired Tractor Power | | | | |
| Average (₹) | 2709.00 | 6725.55 | 11075.74 | 4680.31 |
| (In US \$) | 40.70 (24.53) | 101.04 (22.18) | 166.40 (10.48) | 70.32 (16.96) |
| 3. Seeds | | | | |
| Average (₹) | 1511.26 | 4175.31 | 14008.64 | 3722.01 |
| (In US \$) | 22.71 (13.68) | 62.73 (13.77) | 210.47 (13.25) | 55.92 (13.50) |
| 4. Manure & Fertilizers | | | | |
| Average (₹) | 2725.74 | 7142.84 | 21678.10 | 6161.31 |
| (In US \$) | 40.95 (24.68) | 107.31 (23.56) | 325.69 (20.51) | 92.57 (22.33) |
| 5. Irrigation | | | | |
| Average (₹) | 1662.64 | 4320.61 | 13271.52 | 3756.55 |
| (In US \$) | 24.98 (15.05) | 64.91 (14.25) | 199.39 (12.55) | 56.44 (13.61) |
| 6. Insecticides/ Pesticides | | | | |
| Average (₹) | 523.32 | 1247.71 | 4119.65 | 1150.20 |
| (In US \$) | 7.86 (4.74) | 18.75 (4.11) | 61.89 (4.00) | 17.28 (4.16) |
| Total Variable cost | | | | |
| Average (₹) | 11045.52 | 30321.30 | 105709.28 | 27592.47 |
| (In US \$) | 165.95 (100.00) | 455.55 (100.00) | 1588.18 (100.00) | 414.55 (100.00) |

Note: Figures in parenthesis are per cent to total.
(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

Table 5. Investment in non-farm capital ₹ per household

| Particulars | Size group in hectare | | | Average |
|---|-----------------------|--------------------------------|----------------------------------|--------------------------------|
| | Below 1 hectare | 1-2 Hectare | 2 hectare & above | |
| 1. Residential plots house etc. | | | | |
| Average (₹) (In US \$) | - | - | - | - |
| 2. Furniture | | | | |
| Average (₹) (In US \$) | - | 472.50 7.10 | 1222.50 18.37 | 262.87 3.95 |
| 3. Vehicle (Car, Motor cycle, Scooter, Bicycle etc.) | | | | |
| Average (₹) (In US \$) | - | 2172.00 32.64 | 11825.00 177.66 | 2015.20 30.28 |
| 4. Television, Radio etc. | | | | |
| Average (₹) (In US \$) | - | 1627.50 24.45 | 8662.50 130.15 | 1484.17 22.30 |
| 5. Other items | | | | |
| Average (₹) (In US \$) | - | 266.50 4.00 | 892.50 13.41 | 174.65 19.15 |
| Total Non- Farm expenditure | | | | |
| Average (₹) (In US \$) | - | 4539.00 68.19 | 22602.50 339.58 | 3936.90 59.15 |

(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

highest investment of ₹ 48368.65 (726.69 US \$) was made on working capital being 69.02 per cent. Our results are also in conformity of the Odoemenem et al [9]. A similar trend was observed in all income groups. However, it stood highest being 98.48 per cent in lowest income groups because of no savings for investment in other items. Small and large farmers groups invested in all the items in which it was highest in working capital (61.28 to 61.84 per cent), fol-

lowed by investment in fixed capital (14.41 to 16.84 per cent), financial capital (12-14 per cent) and non-farm capital (7-12 per cent).

In case of sources of finance for investment, current income was found to be the main source of finance in all income groups which accounted for 49.70 to 94.79 per cent share of the total investment followed by savings which shared for 40.10 to 49.12 per cent in total investment.

Table 6. Financial investment made by sample farmers ₹ per household

| Particulars of investment | Size group in hectare | | | Average |
|--|---|--|---|---|
| | Below 1 hectare | 1-2 Hectare | 2 hectare & above | |
| 1. Kisan Vikas Patra & National Saving certificate etc. | | | | |
| Average (₹) (In US \$) | - | - | 5250.00 78.88 (22.65) | 682.50 9.44 (13.25) |
| 2. Life Insurance Policies | | | | |
| Average (₹) (In US \$) | - | 2257.50 33.92 (24.98) | 3024.00 45.43 (13.04) | 889.77 13.37 (17.28) |
| 3. Deposits in banks | | | | |
| Average (₹) (In US \$) | - | 1930.95 29.01 (21.38) | 5534.34 83.15 (23.87) | 1144.27 17.19 (22.22) |
| 4. Deposits in post office | | | | |
| Average (₹) (In US \$) | - | 2649.57 39.81 (29.33) | 4567.50 68.62 (19.70) | 1176.67 17.68 (22.85) |
| 5. Gold & Silver Ornaments | | | | |
| Average (₹) (In US \$) | - | 1942.50 29.18 (21.50) | 4357.50 65.47 (18.80) | 993.82 14.93 (19.30) |
| 6. Repayment of Loans | | | | |
| Average (₹) (In US \$) | 227.00 3.41 (100.00) | 254.10 3.82 (2.81) | 450.00 6.76 (1.94) | 261.95 3.94 (5.10) |
| Total investment | | | | |
| Average (₹) (In US \$) | 227.00 3.41 (100.00) | 9034.62 135.74 (100.00) | 23183.34 348.31 (100.00) | 5149.00 77.36 (100.00) |

Note: Figures in parenthesis are per cent to total
(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

Table 7. Total Investment and source of finance according to income groups ₹ per household

| Particulars | Size group in hectare | | | Average |
|-----------------------------|---|---|---|---|
| | Below 1 hectare | 1-2 Hectare | 2 hectare & above | |
| A. Farm Capital | | | | |
| (i) Working Capital | | | | |
| Average (₹) (In US \$) | 17074.12 256.52 (98.48) | 26860.07 403.55 (61.28) | 119181.15 1790.58 (61.84) | 33381.68 501.53 (69.02) |
| (ii) Fixed Capital | | | | |
| Average (₹) (In US \$) | - | 7389.16 111.02 (16.84) | 27772.50 417.26 (14.41) | 5901.06 88.66 (12.20) |
| B. Non-farm capital | | | | |
| Average (₹) (In US \$) | - | 3221.22 48.40 (7.34) | 22602.50 339.58 (11.73) | 3936.16 59.14 (8.14) |
| C. Financial Capital | | | | |
| Average (₹) (In US \$) | 263.48 3.96 (1.52) | 6411.66 96.33 (14.61) | 23183.34 348.31 (12.02) | 5149.00 77.36 (10.64) |
| Total Investment | | | | |
| Average (₹) (In US \$) | 17337.60 260.48 (100.00) | 43882.11 659.29 (100.00) | 192739.50 2895.73 (100.00) | 48368.65 726.69 (100.00) |
| Sources of finance | | | | |
| 1. Savings | | | | |
| Average (₹) (In US \$) | - | 17596.73 264.36 (40.10) | 94673.64 1422.38 (49.12) | 17762.56 266.87 (36.73) |
| 2. Current Income | | | | |
| Average (₹) (In US \$) | 16434.32 246.91 (94.79) | 25785.13 387.40 (58.76) | 95791.53 1439.18 (49.70) | 29649.51 445.46 (61.30) |
| 3. Borrowing | | | | |
| Average (₹) (In US \$) | 903.28 13.57 (5.21) | 500.26 7.52 (1.14) | 2274.33 34.17 (1.18) | 956.58 14.37 (1.97) |

(US \$ as on April 14, 2016; 1 US \$ = 66.56 ₹)

Conclusion

As per findings of the investigation, it is concluded that large farm holders were able to save higher income in comparison to small farmers while lowest income group have negative savings. In respect of investment, it was found that amongst different fixed assets, investment on irrigation was given first priority, followed by purchase of milch animals, farms buildings and investment in land and its improvement. Investment on working capital amongst different cash inputs, hired human labourer accounted highest share

(29.44 per cent), followed by manure & fertilizers (22.33 per cent), hired power tractor (16.96 per cent), irrigation (13.61 per cent) and seeds (13.50 per cent) to total cash inputs. Marginal farmers could not invest for non-farm physical capital because of no savings with them. The highest investment was made on working capital (69.02 per cent) by sample farmers. Current income was found to be the main source of finance in all income groups which accounted for 49.70 to 94.79 per cent share of the total investment followed by savings which shared for 40.10 to 49.12 per cent in total investment.

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References

- Osondu C.K., Obike K.C., and Ogbonna S.I. Savings, Income and Investment patterns and its determinants among small holder arable crop farmers in Umuahia Capital Territory, Abia State Nigeria. *European Journal of Business and Innovation Research*. 2015;3(1):51-70.
- Radha Priya C., Gayathri, R. Demographics Persuade the Savings and Investment Pattern of Farmers - An Empirical Study. *International Journal of Current Research and Modern Education*. 2018;3(1):111-125.
- Saini R., Kumar R. Determining the Factors Affecting Investment in Punjab Agriculture. *Economic Affairs*. 2020;65(4):511-520.
- Ruedas M. Y.A.D.R., Guico M.J. Saving Pattern of Small-Scale Women Rice Farmers in San Jose, Occidental Mindoro. *Journal of Asian Rural Studies*. 2021;5(1):48-55. <http://pasca.unhas.ac.id/ojs/index.php/jars/article/view/2707>
- Nwibo S.U., Mbam B.N. Determinants of Savings and Investment

- Capacities of Farming Households in Udi Local Government Area of Enugu State, Nigeria. *Research Journal of Finance and Accounting*. 2013;4(15):59-65.
- Kavitha B. Study on Investment Pattern in Farm Firms. *Acta Scientifica Agriculture*. 2019;3(4):287-293.
- Gasti A.K. Savings and Investment Behaviour of Rural Household: an analytical Study of Households of Dharwad District of Karnataka State. *Imperial Journal of Interdisciplinary Research*. 2017;3(4):548-553.
- Iheoma C.C., Chidiebere A.C. Savings Level and Investment Behaviour of Cooperative Farmers (Analysis and Prospects) in Jos East Local Government Area; Plateau State. *Asian Journal of Economics, Business and Accounting*. 2020;17(3):20-26. <https://journalajeba.com/index.php/AJEB/article/view/30262>
- Odoemenem I.U., Ezihe J.A.C., Akerele S.O. Saving and Investment Pattern of Small-Scale Farmers of Benue State, Nigeria. *Global Journal of Human Social Science Sociology and Culture*. 2013;13(1):7-11.