Extent of adoption of recommended package of practices in davanam by contract farming farmers

KS Shashank Yadav, K Shivaramu and MA Murthy

Abstract
The research study was conducted during 2019-20 in Chikkaballapur district of Karnataka, India. In total 80 Davanam farmers under contract farming constituted the sample size of the study. The data were collected by employing personal interview method using pre-tested interview schedule. Ex-post-facto research design was employed for the research study. Mean, Standard Deviation, Frequency, Percentage Grouping, t-test Correlation Coefficient and Regression statistical tools were used for analyzing the data. Majority of the Davanam contract farming farmers were educated, small farmers, having small family and had medium extension contact. The contract farming had positive and significant impact on the social variables- organizational participation and extension contact and economic -variables annual income, savings and material possession. Cent per cent of farmers fully adopted seed bed preparation, recommended seed rate, sowing of sprouted seeds and harvesting. Further, majority of Davanam contract farming farmers fully adopted land preparation, irrigation, inter cultivation and weeding, on other hand application of recommended quantity of FYM fertilizers, spraying with Gibberlic acid and plant protection measures were partially adopted by Davanam farmers. Variables such as extension participation, achievement motivation, organizational participation, management orientation and level of aspiration are highly significant with adoption at one per cent level. The independent variables such as family size, family type, mass media exposure, achievement motivation, economic motivation, level of aspiration and management orientation have significantly contributed to the adoption of recommended package of practices by the Davanam contract farming farmers and The R² specified that all the 14 independent variables have contributed to the tune of 0.8650 per cent of variation in adoption of recommended package of practices by the Davanam contract farming farmers.

Keywords: Profile characteristics, davanam contract farming, impact of contract farming, extent of adoption

1. Introduction
The scenario of agriculture in India is changing. Farmers are keen in transforming from traditional approach of farming to market-led approach. Farmers are now looking for the means and ways to shift from subsistence agriculture to market oriented production. In this context, contract farming provides a unique opportunity to diversify their production. With minimum risk, it motivates the farmers to take up a new venture. Contract Farming in Davanam is a form of vertical integration for producing Davanam leaves as per the specifications of company through a written agreement. The contracts outline conditions for the production of Davanam and its delivery to buyer’s premises. The contract farming, under new approach allows a greater degree of control over the production process and also the quality of product, without any production investment by the company. Karnataka is an emerging state as one of the leading states in contract farming in India. Davanam (Artemisia pallens) is well known for its aroma and is generally known as scent crop. It is a native of South India. India holds key position in production of Davanam oil and acquired considerable reputation in international trade. Annual production is about 2 tons/ annum and mostly grows in Kashmir valley, Simla, Nainital hills, Karnataka, Tamil Nadu, Uttar Pradesh and Andhra Pradesh. Davanam cultivation under contract farming is highly profitable, even small farmers can practice it. Risk involved due to fluctuation in market price is minimized through contract farming. Farmer is assured of better returns compared to other field crops as the companies offer remunerative price. With this background the present study is undertaken with the following specific objectives.

1. To analyse the profile characteristics of Davanam contract farming farmers.
2. To study impact of contract farming on socio-economic status of Davanam farmers
3. To analyze the Extent of Adoption of Recommended Package of Practices in Davanam by Contract Farming Farmers.
4. To know the Relationship between Personal Characteristics of Contract Farming Farmers and Adoption of recommended Davanam Package of Practices.
5. To analyze the Contribution of Personal Characteristics of Contract Farming Farmers to the Adoption of Recommended Package of Practices.

2. Methodology
The research study was conducted in Chikaballapur district of Karnataka, India. Based on the highest production two taluks viz. Gauribidanur and Chikaballapur were purposively selected. From each taluk 40 Davanam contract farming farmers were randomly selected. Thus, the total sample size for the research study was 80 respondents. The data was collected through personal interview method using pre-tested interview schedule. Ex-post-facto research design was employed for the study. Keeping in view the objectives of the study and amenability, the data were subjected to different statistical tests. These tests include mean, standard deviation, frequency, percentage grouping, t-test, correlation coefficient and regression analysis.

The data in Table-1 reveals that 35.00 per cent of the Davanam growers belonged to young age group, followed by 31.25 per cent and 33.75 per cent were belonged to middle age and old age groups respectively. About 48.75 per cent, 31.25 per cent, 13.75 per cent, 3.75 per cent and 1.25 per cent of the farmers studied up to high school, middle school, PUC, graduation and primary school respectively. The remaining 1.25 per cent of the farmers were Illiterates. Majority of the Davanam growers under contract farming were belonged to small land holding category (86.25%), 10.00 per cent were marginal farmers and 3.75per cent were belonged to big land holding category. As high as 43.75 per cent were belonged to high annual income category, 36.25 per cent and 32.50 per cent were belonged to low and medium annual income category respectively. Majority (72.50%) farm families were comes under nuclear family and 27.50 per cent of them belonged to joint family. Majority of farmers (81.25%) were belonged to Small family followed by 28.75 per cent belonged to medium family and 12.50 per cent were belonged to large family category. As high as 57.50 per cent of respondents were having medium level of extension contact followed by 28.75 were having low and 13.75 per cent were having high level of extension contact respectively. It is evident that 48.75 per cent of respondents were having high achievement motivation followed by 26.25 per cent of the respondents were having low and 25.00 per cent were having medium level achievement motivation. As high as 45.00 per cent farmers belonged to high economic motivation followed by 37.50 per cent to medium and 17.50 per cent to low level of economic motivation category respectively. About 48.75 per cent of respondents come under high organization participation followed by medium (27.50%) and low (23.75%) level of organization participation. Majority of Davanam contract farming farmers belonged to high mass media exposure (53.75%), followed by 31.25 per cent to low and 15.00 per cent to medium level mass media exposure respectively. Further, 45.00 per cent of respondents were belonged to high management orientation followed by 28.75 per cent belonged to low and 26.25 per cent belonged to medium management orientation category respectively. About 50.00 per cent of respondents come in high extension participation followed by low (28.75%) and medium (21.25%) level of extension participation. Further, as high as 47.50 per cent of respondents were belonged to high aspiration level followed by 31.25 per cent belonged to low level and 21.25 per cent belonged to medium level of aspiration respectively.

Table 1: Profile Characteristics of Davanam Contract Farming Farmers

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Characteristics</th>
<th>Category</th>
<th>No</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>Young</td>
<td>28</td>
<td>35.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Middle</td>
<td>25</td>
<td>31.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Old</td>
<td>27</td>
<td>33.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Illiterate</td>
<td>1</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>Primary school</td>
<td>1</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Middle school</td>
<td>25</td>
<td>31.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High school</td>
<td>39</td>
<td>48.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PUC</td>
<td>11</td>
<td>13.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduation and above</td>
<td>3</td>
<td>3.75</td>
</tr>
<tr>
<td></td>
<td>Land Holding</td>
<td>Marginal</td>
<td>8</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small</td>
<td>69</td>
<td>86.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Big</td>
<td>3</td>
<td>3.75</td>
</tr>
<tr>
<td></td>
<td>Annual Income</td>
<td>Low</td>
<td>29</td>
<td>36.25</td>
</tr>
<tr>
<td></td>
<td>Mean = 2.20 Lakhs</td>
<td>Medium</td>
<td>26</td>
<td>32.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>35</td>
<td>43.75</td>
</tr>
<tr>
<td></td>
<td>Family Type</td>
<td>Nuclear</td>
<td>58</td>
<td>72.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joint</td>
<td>22</td>
<td>27.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small</td>
<td>65</td>
<td>81.25</td>
</tr>
<tr>
<td></td>
<td>Family Size</td>
<td>Medium</td>
<td>10</td>
<td>12.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large</td>
<td>5</td>
<td>6.25</td>
</tr>
<tr>
<td></td>
<td>Extension Contact</td>
<td>Low</td>
<td>23</td>
<td>28.75</td>
</tr>
<tr>
<td></td>
<td>Mean = 11.56</td>
<td>Medium</td>
<td>46</td>
<td>57.50</td>
</tr>
<tr>
<td></td>
<td>SD=1.05</td>
<td>High</td>
<td>11</td>
<td>13.75</td>
</tr>
<tr>
<td></td>
<td>Achievement Motivation</td>
<td>Low</td>
<td>21</td>
<td>26.25</td>
</tr>
<tr>
<td></td>
<td>Mean = 9.22</td>
<td>Medium</td>
<td>20</td>
<td>25.00</td>
</tr>
<tr>
<td></td>
<td>SD=0.84</td>
<td>High</td>
<td>39</td>
<td>48.75</td>
</tr>
<tr>
<td></td>
<td>Economic Motivation</td>
<td>Low</td>
<td>14</td>
<td>17.50</td>
</tr>
<tr>
<td></td>
<td>Mean = 14.76</td>
<td>Medium</td>
<td>30</td>
<td>37.50</td>
</tr>
<tr>
<td></td>
<td>SD=2.06</td>
<td>High</td>
<td>36</td>
<td>45.00</td>
</tr>
</tbody>
</table>
Davanam farmers partially adopted application of recommended quantity of FYM to the main field (61.25%), interesting to know that there was a decrease in draft power (Rs. 3650) had shown mean difference decrease due to contract farming. In savings there was an increase (Rs.96,625) due to contract farming from farmer’s income which was more compared with the other variables except annual income (Rs.4,03,253). But when we saw the overall social and economic impact all the indicators were found to be significant at one per cent level, whereas extension participation, mass media exposure were non-significant. The findings are in conformity with the findings of Sahana (2013) [3].

Table 2: Impact of Contract Farming on Socio-Economic Status of Davanam Farmers

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variable</th>
<th>Mean score Before contract farming</th>
<th>Mean score After contract farming</th>
<th>Mean difference due to contract farming</th>
<th>Paired t- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Social Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Extension Contact</td>
<td>5.10</td>
<td>11.56</td>
<td>6.46</td>
<td>8.07**</td>
</tr>
<tr>
<td>b.</td>
<td>Extension participation</td>
<td>12.75</td>
<td>14.47</td>
<td>1.72</td>
<td>0.68NS</td>
</tr>
<tr>
<td>c.</td>
<td>Mass media exposure</td>
<td>5.25</td>
<td>7.13</td>
<td>1.88</td>
<td>0.71NS</td>
</tr>
<tr>
<td>d.</td>
<td>Organizational participation</td>
<td>12.75</td>
<td>22.03</td>
<td>9.28</td>
<td>8.48**</td>
</tr>
<tr>
<td>II.</td>
<td>Economic Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Annual income (Rs.)</td>
<td>165453</td>
<td>403253</td>
<td>237800</td>
<td>515**</td>
</tr>
<tr>
<td>b.</td>
<td>Savings (Rs.)</td>
<td>16700</td>
<td>96625</td>
<td>79925</td>
<td>3.71**</td>
</tr>
<tr>
<td>c.</td>
<td>Material possession</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Draft Power (Rs.)</td>
<td>6975</td>
<td>10625</td>
<td>3650</td>
<td>4.46**</td>
</tr>
<tr>
<td>ii.</td>
<td>Farm implements(Rs.)</td>
<td>9275</td>
<td>27457</td>
<td>18182</td>
<td>3.59**</td>
</tr>
<tr>
<td>iii.</td>
<td>Household materials</td>
<td>5723.75</td>
<td>45930</td>
<td>40206.25</td>
<td>5.49**</td>
</tr>
</tbody>
</table>

3: Extent of Adoption of Recommended Package of Practices in Davanam by Contract Farming Farmers

It is evident from Table-3 that in nursery raising cent per cent of Davanam farmers under contract farming fully adopted seed bed preparation, recommended seed rate and sowing of sprouted seeds. Further, 82.50 per cent of farmers fully adopted and 17.59 per cent of farmers partially adopted irrigation as per recommendation. Incorporation of recommended quantity of FYM was partially adopted by 63.73 per cent and 36.25 per cent fully adopted. Further, spraying of 2 per cent urea solution was adopted by 55 per cent of farmers in 3 weeks, 58.75 per cent in 4 weeks and 60 per cent in 5 weeks. In the main field majority of Davanam farmers fully adopted land preparation (72.50%), recommended spacing (53.75%), planting of seedlings at correct age (88.75%), Irrigation (83.75%), Inter-cultivation (83.75%) and weedling (63.75%). Further, cent per cent of the farmers fully adopted harvesting. On the contrary majority of Davanam farmers partially adopted application of recommended quantity of FYM to the main field (61.25%), basal application of phosphorus (73.75%) and potash (76.25%), top dressing with nitrogen 15 days after planting 67.50 per cent, 30 days after planting 61.25 per cent and 45 days after planting 52.50 per cent. In addition spraying with 300ppm gibberllic acid 30 days after planting 30 days 56.25 and 60 days per cent after planting, 60 days 56.25 per cent and plant protection measures (55.00%). These findings are in confirmation with the findings of Sahana (2013) [3].

Majority of the Davanam farmers fully adopted seed bed preparation, seed rate, spacing, sowing, planting of seedlings at correct age, sprouted seeds, irrigation, land preparation, inter-cultivation, weeding and harvesting, since these are age old practices and involves less skill. On the other hand majority of Davanam farmers partially adopted FYM due to its non-availability. The application of fertilizers and its solutions and gibberllic acid and recommended plant protection measures were also partially adopted since these practices involves more skill. This calls for skill oriented training and timely supply of inputs at right time to the farmers.
4. Relationship between Personal Characteristics of Contract Farming Farmers and Adoption of recommended Davanam Package of Practices.

Table 4: Relationship between Personal Characteristics of Contract Farming Farmers and Adoption of Recommended Davanam Package of Practices.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Characteristics</th>
<th>Correlation Coefficient (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>-0.094 NS</td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td>0.081 NS</td>
</tr>
<tr>
<td>3</td>
<td>Land holding</td>
<td>0.108 NS</td>
</tr>
<tr>
<td>4</td>
<td>Annual income</td>
<td>0.206*</td>
</tr>
<tr>
<td>5</td>
<td>Family type</td>
<td>0.89NS</td>
</tr>
<tr>
<td>6</td>
<td>Family size</td>
<td>0.070 NS</td>
</tr>
<tr>
<td>7</td>
<td>Extension contact</td>
<td>0.143*</td>
</tr>
<tr>
<td>8</td>
<td>Extension participation</td>
<td>0.305**</td>
</tr>
<tr>
<td>9</td>
<td>Mass media exposure</td>
<td>0.67NS</td>
</tr>
<tr>
<td>10</td>
<td>Achievement motivation</td>
<td>0.291**</td>
</tr>
<tr>
<td>11</td>
<td>Economic motivation</td>
<td>0.036NS</td>
</tr>
<tr>
<td>12</td>
<td>Organizational participation</td>
<td>0.304**</td>
</tr>
<tr>
<td>13</td>
<td>Management orientation</td>
<td>0.272**</td>
</tr>
<tr>
<td>14</td>
<td>Level of aspiration</td>
<td>0.263**</td>
</tr>
</tbody>
</table>

Table 3: Extent of Adoption of Recommended Package of Practices in Davanam by Contract Farming Farmers

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Recommended Package of Practices</th>
<th>Adoption</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Fully</td>
<td>Partially</td>
<td>No.</td>
<td>Per cent</td>
</tr>
<tr>
<td>I</td>
<td>Nursery Raising</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Seed bed preparation</td>
<td>80</td>
<td>100.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>FYM</td>
<td>29</td>
<td>36.25</td>
<td>51</td>
<td>63.75</td>
</tr>
<tr>
<td>3</td>
<td>Seed rate</td>
<td>80</td>
<td>100.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Sowing of sprouted seeds</td>
<td>80</td>
<td>100.00</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Irrigation</td>
<td>66</td>
<td>82.50</td>
<td>14</td>
<td>17.50</td>
</tr>
<tr>
<td></td>
<td>Spraying of 2% urea solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.</td>
<td>3 weeks</td>
<td>19</td>
<td>23.75</td>
<td>46</td>
<td>57.50</td>
</tr>
<tr>
<td>B.</td>
<td>4 weeks</td>
<td>17</td>
<td>21.25</td>
<td>47</td>
<td>58.75</td>
</tr>
<tr>
<td>C.</td>
<td>5 weeks</td>
<td>14</td>
<td>17.50</td>
<td>48</td>
<td>60.00</td>
</tr>
<tr>
<td>II</td>
<td>Main field</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Land preparation</td>
<td>58</td>
<td>72.50</td>
<td>22</td>
<td>27.50</td>
</tr>
<tr>
<td>2</td>
<td>FYM</td>
<td>31</td>
<td>38.75</td>
<td>49</td>
<td>61.25</td>
</tr>
<tr>
<td>A)</td>
<td>Basal dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>Phosphorus</td>
<td>21</td>
<td>26.25</td>
<td>59</td>
<td>73.75</td>
</tr>
<tr>
<td>ii)</td>
<td>Potash</td>
<td>19</td>
<td>23.75</td>
<td>61</td>
<td>76.25</td>
</tr>
<tr>
<td>B)</td>
<td>Top dressing with nitrogen after planting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>15 days</td>
<td>22</td>
<td>27.50</td>
<td>54</td>
<td>67.50</td>
</tr>
<tr>
<td>ii)</td>
<td>30 days</td>
<td>20</td>
<td>25.00</td>
<td>49</td>
<td>61.25</td>
</tr>
<tr>
<td>iii)</td>
<td>45 days</td>
<td>23</td>
<td>28.75</td>
<td>42</td>
<td>52.50</td>
</tr>
<tr>
<td>4</td>
<td>Spacing</td>
<td>43</td>
<td>53.75</td>
<td>37</td>
<td>46.25</td>
</tr>
<tr>
<td>5</td>
<td>Planting of seedlings at correct age</td>
<td>71</td>
<td>88.75</td>
<td>9</td>
<td>11.25</td>
</tr>
<tr>
<td>6</td>
<td>Irrigation</td>
<td>67</td>
<td>83.75</td>
<td>13</td>
<td>16.25</td>
</tr>
<tr>
<td>7</td>
<td>Inter cultivation</td>
<td>67</td>
<td>83.75</td>
<td>13</td>
<td>16.25</td>
</tr>
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<td>8</td>
<td>Weeding</td>
<td>51</td>
<td>63.75</td>
<td>29</td>
<td>36.25</td>
</tr>
<tr>
<td>9</td>
<td>Spraying with 300 ppm Gibberlic acid after planting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>30 days</td>
<td>23</td>
<td>28.75</td>
<td>45</td>
<td>56.25</td>
</tr>
<tr>
<td>ii)</td>
<td>60 days</td>
<td>26</td>
<td>32.50</td>
<td>45</td>
<td>56.25</td>
</tr>
<tr>
<td>10</td>
<td>Plant protection measures</td>
<td>36</td>
<td>45.00</td>
<td>44</td>
<td>55.00</td>
</tr>
<tr>
<td>11</td>
<td>Harvesting</td>
<td>80</td>
<td>100.00</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

(N=80)

The Correlation test carried to know the relationship between personal characteristics of contract farming farmers and adoption of recommended Davanam package of practice is presented in (Table-4) indicates that variables, extension participation, achievement motivation, organizational participation, management orientation and level of aspiration are highly significant at one per cent level. Whereas, annual income and extension contact were significant at 5 per cent level on the other hand age, education, land holding, family type, family size, mass media exposure and economic motivation were non-significant with adoption. It may be due to the fact that high extension participation, organizational participation, achievement motivation, management orientation and level of aspiration might have helped the farmers to enhance their knowledge on adoption of recommended package of practices. Further, motive to achieve helped them to actively involved in farmers oriented organization to gain more knowledge on agriculture and management. The findings are in confirmation with the findings of Sahana (2013) [5].

5. Contribution of Personal Characteristics of Contract Farming Farmers to the Adoption of Recommended Davanam Package of Practices.

The independent variables such as family size, family type, mass media exposure, achievement motivation, economic motivation, level of aspiration and management orientation have significantly contributed to the adoption of recommended package of practices by Davanam contract farming farmers(Table 5).The R² specified that all the 14 independent variables have contributed to the tune of 0.8650 per cent of variation in adoption of recommended package of practices by Davanam contract farming farmers. The family size, family type, mass media exposure, achievement motivation, economic motivation, level of aspiration and management orientation have contributed more in adoption of recommended package of practice may be due to the fact that
the family members involve in different activities of contract farming and motivation urge to obtain more income and watching more agricultural programmes in mass media. The findings are in line with the findings of Sahana (2013) [5]

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Characteristic</th>
<th>Regression Coefficient(b)</th>
<th>Standard Error of Regression coefficient</th>
<th>‘t’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>0.0224</td>
<td>0.1496</td>
<td>0.14NS</td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td>0.0695</td>
<td>0.1364</td>
<td>0.50NS</td>
</tr>
<tr>
<td>3</td>
<td>Land holding</td>
<td>0.0919</td>
<td>0.1501</td>
<td>0.61 NS</td>
</tr>
<tr>
<td>4</td>
<td>Annual income</td>
<td>0.3770</td>
<td>0.1611</td>
<td>2.34*</td>
</tr>
<tr>
<td>5</td>
<td>Family Type</td>
<td>0.5714</td>
<td>0.1127</td>
<td>5.07**</td>
</tr>
<tr>
<td>6</td>
<td>Family Size</td>
<td>1.0152</td>
<td>0.1894</td>
<td>5.36**</td>
</tr>
<tr>
<td>7</td>
<td>Extension Contact</td>
<td>0.3499</td>
<td>0.1643</td>
<td>2.13*</td>
</tr>
<tr>
<td>8</td>
<td>Mass media Exposure</td>
<td>0.5141</td>
<td>0.1204</td>
<td>4.27**</td>
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<td>9</td>
<td>Achievement motivation</td>
<td>0.4936</td>
<td>0.1178</td>
<td>4.19**</td>
</tr>
<tr>
<td>10</td>
<td>Economic motivation</td>
<td>0.5695</td>
<td>0.1464</td>
<td>3.89**</td>
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<tr>
<td>11</td>
<td>Organizational Participation</td>
<td>0.3814</td>
<td>0.1879</td>
<td>2.03*</td>
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<td>12</td>
<td>Management orientation</td>
<td>0.4999</td>
<td>0.1577</td>
<td>3.17**</td>
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<td>13</td>
<td>Level of aspiration</td>
<td>0.5919</td>
<td>0.1701</td>
<td>3.48**</td>
</tr>
</tbody>
</table>

(N=80), NS: Non-Significant; *: Significant at 5 per cent level; **: Significant at 1per cent level.

\[ R^2 = 0.8650 \]

**Conclusion**

Contract farming modernizes farmers by providing new technology, inputs and technical advice besides linking them to the international market. In Davanam cultivation under contract farming is highly profitable, even small farmers can practice it. Risk involved due to fluctuation in market price is minimized through contract farming. The Davanam farmers partially adopted recommended package of practices like application of FYM, fertilizers spraying with gibberlic acid and plant protection measures. This calls for imparting skill oriented training programmes to the Davanam farmers with timely supply of critical inputs to obtain more production and income.

**Reference**
