**HARNESSING COCONUT FARMING: ENTREPRENEURIAL BEHAVIOUR OF GROWERS IN HASSAN DISTRICT, KARNATAKA**

**ABSTRACT**

Entrepreneurial behavior is defined as identifying possibilities and putting good ideas into action. The coconut palm, often called ‘Kalpavriksha’ or the ‘tree of heaven,’ is revered for its versatility. The present study adopted an ex-post-facto research design. Hassan district was purposively selected for the study and within the district, three taluks viz. Arsikere, Channarayapatna, and Arkalgud were purposively chosen and from each taluk, three villages were randomly selected. The study included a total of 90 coconut growers, with five small and five big farmers chosen from each village using a simple random sampling method. The results pertaining to the entrepreneurial behaviour of coconut growers showed that 33.33 per cent of the respondents exhibited low entrepreneurial behavior, while more than one-third (34.44 %) fell into the medium category with Mean = 144.49 and SD = 11.47. The results in comparative analysis of entrepreneurial behaviour dimensions among small and large coconut growers showed that, key dimensions such as innovativeness, risk orientation, leadership ability and entrepreneurial skill showed that, the significant differences at the 1per cent level. Dimensions such as decision-making ability and market perception are significant at the 5 per cent level.

*Keywords:**Coconut growers, Dimensions, Entrepreneurial behaviour.*

1. **INTRODUCTION**

An entrepreneur is an innovator who invariably links up the innovation with the market to earn a profit. The entrepreneur may adopt an innovation developed by others, re-invent or modify it, or develop an innovation not known earlier, to suit his / her particular purpose. Entrepreneurial behavior is defined as identifying possibilities and putting good ideas into action. An individual or a group of people may carry out the succession of activities that conduct necessitates, which normally demand ingenuity, determination and personal initiative. A very small percentage of farmers engage in value addition activities, such as coconut oil extraction, desiccated coconut production or making coconut based products. The primary reasons include lack of financial support, limited technical knowledge and inadequateprocessing infrastructure. Without value addition, farmers remain dependent on fluctuating raw coconut prices, reducing their overall profitability. Though studies on the entrepreneurial behavior of coconut are limited, further research is necessary to better understand the unique characteristics of coconut farmers and their role in driving economic growth.

The coconut palm, often called ‘Kalpavriksha’ or the ‘tree of heaven,’ is revered for its versatility, as every part of the tree is useful in some or the other way. In India, around fifteen million people rely on coconut farming for their livelihood, either directly or indirectly. Globally, coconut is cultivated in 93 countries, including India, with the crop covering 12.26 million hectares and producing 65,671 million nuts with an average productivity of 5,357 nuts per hectare. About 89.00 per cent of the area and 90.00 per cent of the production of coconut falls in the south peninsular region which covers four states *viz.*, Kerala, Karnataka, Tamil Nadu and Andhra Pradesh. Among the four major coconut-growing states in the country, Karnataka ranks second in area (6.34 lakh hectares), production (5,838 million nuts) and productivity (9,205 nuts per hectare) (Anon., 2023). Among the major coconut-growing districts in Karnataka, Tumakuru stands first in area and production with 1.79 lakh hectares and 1,312 million nuts with a productivity of 8,569 nuts per hectare. Followed by Hassan district with an area of 9,799 hectares, production of 601 million nuts and productivity of 8,955 nuts per hectare. (Anon., 2022).

**Objective of the study:**

To measure an entrepreneurial behaviour among coconut growers.

1. **METHODOLOGY**

**2.1 Research design**

The present study adopted an ex-post-facto research design, as it involves a systematic empirical inquiry into a phenomenon that has already occurred and continues to exist. Since the independent variables have already manifested or are inherent and cannot be manipulated, the researcher has no control over them. Consequently, inferences about the relationships between variables were drawn without direct intervention, relying on the natural variation between independent and dependent variables. This design is useful for developing theories, understanding behavioral patterns, and exploring the conditions under which these phenomena take place.

**2.2 Selection of Respondents**

**Table 1: Sampling procedure used for selection of respondents**

|  |  |  |  |
| --- | --- | --- | --- |
| **District** | **Taluks** | **Villages** | **Sample size (n = 90)** |
|  |  |  | Small farmers(n1 = 45) | Big farmers(n2= 45) |
| Hassan | Arsikere  | N. Gollarahatti | 5 | 5 |
| Motihalli | 5 | 5 |
| Halebeedu | 5 | 5 |
| Channarayapatna | Gowdgere | 5 | 5 |
| Hombale Koplu | 5 | 5 |
| Ragibommanahalli | 5 | 5 |
| Arkalgud | Kabaligere | 5 | 5 |
| Attimarkoplu | 5 | 5 |
| Ramanathapura | 5 | 5 |
| **Total** | **3 taluks** | **9 villages** | **45** | **45** |

Hassan district was purposively selected for the study as it ranks second in coconut cultivation area among Karnataka's districts. It also has the state's second-largest coconut products market, following Tumakuru, making it a key region for analyzing agricultural practices and trends in coconut farming. Within the district, three taluks viz. Arsikere, Channarayapatna, and Arkalgud were purposively chosen due to their significant contributions to coconut cultivation in terms of area and production. From each taluk, three villages were randomly selected. The study included a total of 90 coconut growers, with five small and five big farmers chosen from each village using a simple random sampling method.

**2.3 Measurement of Entrepreneurial Behaviour**

A standardized scale was developed to measure entrepreneurial behavior among coconut growers, comprising a final set of 43 statements. Respondents rated their agreement with these statements on a five-point continuum: “Strongly Agree,” “Agree,” “Undecided,” “Disagree” and “Strongly Disagree,” assigned weights of 5, 4, 3, 2, and 1, respectively. For negative statements, the scoring pattern was reversed. The total score obtained by each respondent represented their entrepreneurial behavior level, with possible scores ranging from 43 to 215.

Based on the total cumulated score obtained, the coconut growers were classified into three categories *viz*., high, medium and low entrepreneurial behaviour level based on the mean and standard deviation as a measure of check. (Likert, 1932).

**2.4 Analytical tools and techniques employed**

1. **Frequency:** Frequency is the number of occurrences. In statistics the frequency (fi) of an event, ‘i’ is the number ‘ni’ of times the event occurred in the experiment or the study.
2. **Percentages:** Percentages were used in the descriptive analysis for making comparisons.

$$Percentage=\frac{Number of respondents}{Total number of respondents}\*100$$

1. **Mann whitney U test**

It is a non-parametric test used to test the significant difference between dimensions of entrepreneurial behaviour among coconut growers

1. **Paired ‘t’ test**

It was used to determine whether the mean difference exists between two sets of observations, this test was used to analyze the significant difference among the selected indicators.

1. **Chi – square test**

It is the non-parametric test used to know the association between the small and big coconut growers in case of entrepreneurial behaviour and difference performance level dimensions in Tumakuru and Hassan districts of Karnataka.

Chi-square formula:

$$χ^{2 }= \sum\_{}^{}\frac{(O\_{i}- E\_{i})^{2}}{E\_{i}}$$

Where, χ² = Chi Square

Oi = Observed value

Ei = Expected value

1. **RESULTS AND DISCUSSION**

The results in table 2 represents the analysis of the responses from small and big coconut growers of Hassan districts across various dimensions are indicated below. In Innovativeness, the statement " I am cautious about trying a new practice in coconut production " achieved the highest rank with a mean score of 3.41, the probable reason might be that the farmers displayed a balanced approach, carefully evaluating new practices before adopting them to minimize potential risks. Followed by "I prefer to adopt any new technology in coconut production before others in the society" ranked second with a mean score of 2.96. For Achievement Motivation, “I always prefer to be actively focused in coconut cultivation for achieving optimal yields and quality in the coconut farming industry rather than taking rest” ranked first with a mean score of 4.28 which shows they prioritized active focus on optimal yields, followed by “I always strive to be the best coconut producer/entrepreneur” ranked second (mean score = 3.78). In Decision-Making Ability, “I myself decide the suitable technologies for coconut cultivation in my farm land for getting higher returns” ranked the highest (mean score 4.27), this reflects the farmer’s confidence in making autonomous decisions about technology adoption to enhance profitability. Whereas, In Risk Orientation, the highest-ranked statement was “I financially invest in advanced coconut cultivation technologies, that can bring me advantages in the future” (mean score = 3.81) shows positive attitude of farmers toward taking calculated financial risks for future benefits. Management Orientation emphasized the importance of a production plan as the statement "Consulting a horticulture expert is essential for effective coconut cultivation" achieved the highest rank (mean score = 3.38). For Leadership Ability, “I always try to participate and take lead in discussion on new technologies of coconut cultivation in group meetings, trainings, demonstrations *etc*., ranked the highest (mean score = 3.94) which indicates that farmer’s regardless of scale, value active participation and leadership roles in knowledge-sharing activities.

**Table 2: Statement wise distribution of coconut growers with respect to entrepreneurial behaviour**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Statements** | **Small****(n1=45)** | **Big****(n2=45)** | **Overall****(n=90)** |
| **Mean score** | **Rank** | **Mean score** | **Rank** | **Mean score** | **Rank** |
| **A** | **Innovativeness** |
| 1 | I prefer to adopt any new technology in coconut production before others in the society  | 2.87 | II | 3.04 | IV | 2.96 | II |
| 2 | I am cautious about trying a new practice in coconut production | 2.93 | I | 3.89 | I | 3.41 | I |
| 3 | I like to keep up to date information about new farming practices of coconut production  | 2.51 | III | 3.13 | II | 2.82 | III |
| 4 | I prefer adhering to traditional approaches in coconut production rather than embracing newer methods | 2.33 | IV | 3.11 | III | 2.72 | IV |
| 5 | I try to adopt mechanization in coconut cultivation that enhances efficiency and reduce labour costs | 2.04 | V | 1.98 | V | 2.01 | V |
| **B** | **Achievement motivation** |
| 1 | I always prefer to be actively focused in coconut cultivation for achieving optimal yields and quality in the coconut farming industry rather than taking rest | 4.24 | I | 4.31 | I | 4.28 | I |
| 2 | I always strive to be the best coconut producer/entrepreneur | 3.83 | II | 3.73 | II | 3.78 | II |
| 3 | I would like to give up at something that prove to be excessively challenging or unattainable  | 3.67 | IV | 3.51 | V | 3.59 | IV |
| 4 | Current circumstances are discouraging me to work hard for achieving potentiality in coconut production  | 3.44 | V | 3.61 | III | 3.52 | V |
| 5 | Awards, government policies and recognition motivates me to get better yield in coconut farming | 3.82 | III | 3.60 | IV | 3.71 | III |
| **C** | **Decision making ability** |
| 1 | I myself decide the suitable technologies for coconut cultivation in my farm land for getting higher returns | 4.07 | I | 4.47 | I | 4.27 | I |
| 2 | I abide by the decisions taken by my fellow farmers / family members / parents / development department / research stations / KVKs | 2.84 | III | 3.31 | III | 3.08 | III |
| 3 | I collect information from various sources about innovative methods and carefully evaluate the pros and cons before making decision  | 3.22 | II | 3.96 | II | 3.59 | II |
| **D** | **Risk orientation** |
| 1 | It is necessary to take some risk, if a farmer wants to become successful | 3.07 | II | 3.91 | II | 3.49 | II |
| 2 | I financially invest in advanced coconut cultivation technologies, that can bring me advantages in the future | 3.58 | I | 4.04 | I | 3.81 | I |
| 3 | I am ready to take risk in coconut cultivation even though the rate of success is unknown | 2.09 | III | 3.16 | III | 2.62 | III |
| **E** | **Management orientation** |
| 1 | Increasing the yield in coconut cultivation will be easier with the implementation of a farm production plan | 2.96 | III | 3.36 | II | 3.16 | III |
| 2 | Hiring skilled labour who undergone FoCT (Friends of Coconut Tree) programme is beneficial for me during coconut harvesting | 2.29 | IV | 2.58 | IV | 2.43 | IV |
| 3 | I plant and get income from other farm enterprises such as cultivating crops like banana and pulse crops during the juvenile phase of coconut cultivation | 3.11 | II | 3.22 | III | 3.17 | II |
| 4 | Consulting a horticulture expert is essential for effective coconut cultivation | 3.22 | I | 3.53 | I | 3.38 | I |
| **F** | **Leadership ability** |
| 1 | I assign the work to my labour and family members by recognizing their diverse skills in coconut cultivation and its value addition | 3.09 | II | 3.49 | III | 3.29 | II |
| 2 | I share the ideas of new technologies to my village people who consult me for the information regarding coconut cultivation | 2.29 | III | 3.67 | II | 2.98 | III |
| 3 | I always try to participate and take lead in discussion on new technologies of coconut cultivation in group meetings, trainings, demonstrations etc. | 3.71 | I | 4.18 | I | 3.94 | I |
| **G** | **Economic motivation** |
| 1 | I work towards maximizing yield and net profit with minimal / optimal inputs | 4.49 | I | 4.44 | II | 4.47 | II |
| 2 | I take up value addition in coconut to maximize monetary profits, instead of focusing solely on selling of coconut nuts | 4.31 | III | 4.13 | III | 4.22 | III |
| 3 | I will consider adopting new methods of coconut cultivation and processing only when I am convinced that they result in higher profit/returns | 4.40 | II | 4.58 | I | 4.49 | I |
| 4 | It is essential to me, to earn a living out of coconut farming but the most significant aspects of life cannot be solely defined in economic terms | 4.22 | IV | 4.00 | IV | 4.11 | IV |
| **H** | **Scientific orientation** |
| 1 | I believe that application of science in coconut cultivation means saving of financial and natural resources | 3.29 | I | 3.22 | II | 3.26 | II |
| 2 | I believe that staying informed about emerging scientific technologies is not beneficial in the context of coconut cultivation | 2.87 | III | 3.04 | III | 2.96 | III |
| 3 | Having good rapport with scientists and officers helps me to acquire scientific knowledge on coconut cultivation | 3.04 | II | 3.71 | I | 3.38 | I |
| **I** | **Market perception** |
| 1 | I believe that market news is not so useful to a coconut farmer | 3.40 | III | 3.44 | II | 3.42 | III |
| 2 | I can secure a favorable price for my coconut products in the market by incorporating value addition  | 3.24 | IV | 3.20 | V | 3.22 | IV |
| 3 | I always sell my coconut products to the nearest market irrespective of price  | 2.51 | VI | 3.44 | II | 2.98 | V |
| 4 | I always purchase the inputs for coconut farming from the shop where my neighbors/relatives purchase | 4.00 | I | 3.71 | I | 3.86 | I |
| 5 | I sell the coconut produce directly in the market without involving middle man to get better price | 3.53 | II | 3.33 | IV | 3.43 | II |
| 6 | I always keep track of what my competitors are doing in the market and accordingly I decide my marketing strategy for selling coconut products | 2.84 | V | 3.04 | VI | 2.94 | VI |
| **J** | **Entrepreneurial orientation**  |
| 1 | I possess all the capabilities required to become a successful entrepreneur in coconut farming | 2.73 | III | 3.51 | I | 3.12 | I |
| 2 | I always try to read/listen literature/programmes related to coconut cultivation, processing and value addition | 3.20 | I | 2.91 | III | 3.06 | III |
| 4 | I never estimate the financial requirements for coconut production, value addition and marketing  | 2.53 | IV | 2.29 | IV | 2.41 | IV |
| 5 | I always recognize the consumer preference for coconut-based products in a market and try to produce, add value and sell that type of products accordingly | 2.91 | II | 3.24 | II | 3.08 | II |
| **K** | **Entrepreneurial skill** |
| 1 | I possess the skills to prepare value added products in coconut | 3.51 | I | 3.82 | II | 3.67 | I |
| 2 | It is enough to know cultivation practices of coconut, rather than knowing processing, value addition and marketing aspects  | 3.38 | II | 3.87 | I | 3.62 | II |
| 3 | I always undergone FoCT (Friends of Coconut Tree) programme which help me during harvesting and plant protection activities. | 2.51 | III | 3.09 | III | 2.80 | III |

In Economic Motivation, the statement “I will consider adopting new methods of coconut cultivation and processing only when I am convinced that they result in higher profit/returns” was the top-ranked (mean score = 4.49) which reveals that economic benefits strongly influence the adoption of new practices among coconut farmers. In Scientific Orientation, “Having good rapport with scientists and officers helps me to acquire scientific knowledge on coconut cultivation” ranked the highest (mean score = 3.38) which signifies the shared belief in the utility of scientific approaches for resource optimization. For Market Perception, “I always purchase the inputs for coconut farming from the shop where my neighbors/relatives purchase” ranked highest (mean score = 3.86). In Entrepreneurial Orientation, “I possess all the capabilities required to become a successful entrepreneur in coconut farming” ranked first (mean score = 3.12) where farmers emphasize on market-driven production strategies. Entrepreneurial Skills highlighted the capability and interest in enhancing their income through value addition as the statement “I possess the skills to prepare value added products in coconut” was top ranked with a mean score of 3.67. The results are in line with (Bushetti and Krishnamurthy, 2023)

The results in table 3 showed the entrepreneurial behavior of coconut growers in Hassan district and was categorized into three levels *viz*., low, medium and high, based on mean and standard deviation values (Mean = 144.49, SD = 11.47). A comparison of small and big coconut farmers reveals distinct differences across these categories. Coconut growers displayed that more than one-third (34.44 %) of the respondents were in the medium category, exactly one-third (33.33 %) of the growers in the low and slightly lower with only 32.33 per cent in the high category (mean = 144.49) and there is significant association between two groups at 1 per cent level (χ² = 13.45). similar findings are found with (Atram *et al.,* 2024 and Parganiha *et al.,* 2023).

**Table 3: Overall Entrepreneurial behaviour of coconut growers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **District** | **Entrepreneurial behaviour** | **Small****(n1=45)** | **Big****(n2=45)** | **Overall****(n=90)** |
| **f** | **%** | **f** | **%** | **f** | **%** |
| 1 | Hassan Mean = 144.49SD = 11.47 | Low < (138.75) | 26 | 57.78 | 4 | 8.89 | 30 | 33.33 |
| Medium (138.75 – 150.22) | 13 | 28.89 | 18 | 40.00 | 31 | 34.44 |
| High > (150.22) | 6 | 13.33 | 23 | 51.11 | 29 | 32.33 |
|  | **Chi square value** | **13.45\*\*** |  |  |

**Note:** \*\* denotes statistical significance @ 1% level

Coconut farmers, while predominantly in the medium category, present opportunities for targeted interventions to enhance their entrepreneurial behaviour. This gap could be addressed through programs that focus on skill enhancement, value addition and improving market linkages, which would foster entrepreneurial growth across both districts.

**Fig. 1: Entrepreneurial behaviour among coconut growers**

The different levels of entrepreneurial behaviour of coconut growers in Hassan district, across various dimensions are indicated in Table 4. In Innovativeness, more than two-fifths
(45.56 %) of coconut growers belong to the low category, followed by slightly more than one-third (34.44 %) in the high category and 20.00 per cent in the medium category (Mean = 13.92). For Achievement Motivation, the majority (53.33 %) belong to the medium category, while nearly one-fourth (24.44 %) and more than one-fifth (22.22 %) are in the low and high categories, respectively (Mean = 18.87). Whereas, in decision making ability, a significant proportion
(40.00 %) of growers belong to the low category, followed by slightly less than one-third
(31.11 %) in the medium category and 28.89 per cent in the high category (Mean = 10.93). In Risk Orientation, the medium category has the highest proportion (42.22 %), followed by slightly less than one-third (32.22 %) in the low category and around one-fourth (25.56 %) in the high category (Mean = 9.92). For management Orientation, more than one-third (37.78 %) of growers belong to the high category, followed by slightly less than one-third (32.22 %) in the low category and 30.00 per cent in the medium category (Mean = 12.13). Whereas, in leadership Ability, more than
one-third (37.78 %) of coconut growers belong to the medium category, while exactly one-third (33.33 %) and 28.89 per cent belong to the low and high categories, respectively (Mean = 10.21).

**Table 4: Entrepreneurial behaviour dimension wise distribution of coconut growers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Entrepreneurial behaviour dimensions** | **Categories** | **Small****(n1=45)** | **Big****(n2=45)** | **Overall****(n=90)** |
| **f** | **%** | **f** | **%** | **f** | **%** |
| 1. | InnovativenessMean = 13.92SD = 3.20 | Low < (12.32) | 29 | 64.44 | 12 | 26.67 | 41 | 45.56 |
| Medium (12.32 – 15.52) | 6 | 13.34 | 12 | 26.67 | 18 | 20.00 |
| High > (15.52) | 10 | 22.22 | 21 | 46.66 | 31 | 34.44 |
| 2. | Achievement motivationMean = 18.87SD = 2.47 | Low < (17.64) | 12 | 26.67 | 10 | 22.22 | 22 | 24.44 |
| Medium (17.64 – 20.11) | 20 | 44.44 | 28 | 62.22 | 48 | 53.33 |
| High > (20.11) | 13 | 28.89 | 7 | 15.56 | 20 | 22.22 |
| 3. | Decision making abilityMean = 10.93SD = 2.37 | Low < (9.75) | 25 | 55.56 | 11 | 24.45 | 36 | 40.00 |
| Medium (9.75 – 12.11) | 14 | 31.11 | 14 | 31.11 | 28 | 31.11 |
| High > (12.11) | 6 | 13.33 | 20 | 44.44 | 26 | 28.89 |
| 4. | Risk orientationMean = 9.92SD = 2.36 | Low < (8.74) | 23 | 51.12 | 6 | 13.33 | 29 | 32.22 |
| Medium (8.74 – 11.10) | 20 | 44.44 | 18 | 40.00 | 38 | 42.22 |
| High > (11.10) | 2 | 4.44 | 21 | 46.67 | 23 | 25.56 |
| 5. | Management orientationMean = 12.13SD = 3.30 | Low < (10.48) | 17 | 37.78 | 12 | 26.67 | 29 | 32.22 |
| Medium (10.48 – 13.78) | 13 | 28.89 | 14 | 31.11 | 27 | 30.00 |
| High > (13.78) | 15 | 33.33 | 19 | 42.22 | 34 | 37.78 |
| 6. | Leadership abilityMean = 10.21SD =2.21 | Low < (9.10) | 24 | 53.33 | 6 | 13.33 | 30 | 33.33 |
| Medium (9.10 – 11.31) | 17 | 37.78 | 17 | 37.78 | 34 | 37.78 |
| High > (11.31) | 4 | 8.89 | 22 | 48.89 | 26 | 28.89 |
| 7. | Economic motivationMean = 17.28SD = 1.63 | Low < (16.47) | 13 | 28.89 | 15 | 33.33 | 28 | 31.11 |
| Medium (16.47 – 18.10) | 20 | 44.44 | 19 | 42.22 | 39 | 43.33 |
| High > (18.10) | 12 | 26.67 | 11 | 24.44 | 23 | 25.56 |
| 8. | Scientific orientationMean = 9.58SD = 2.03 | Low < (8.57) | 17 | 37.78 | 8 | 17.78 | 25 | 25.56 |
| Medium (8.57 – 10.60) | 16 | 35.56 | 21 | 46.67 | 37 | 41.11 |
| High > (10.60) | 12 | 26.67 | 16 | 35.56 | 28 | 31.11 |
| 9. | Market perceptionMean = 19.85SD = 3.26 | Low < (18.22) | 18 | 40.00 | 19 | 42.22 | 37 | 41.11 |
| Medium (18.22 – 21.48) | 16 | 35.56 | 5 | 11.11 | 21 | 23.33 |
| High > (21.48) | 11 | 24.44 | 21 | 46.67 | 32 | 35.56 |
| 10. | Entrepreneurial orientationMean = 11.66SD = 3.17 | Low < (10.08) | 22 | 48.89 | 15 | 33.33 | 37 | 41.11 |
| Medium (10.08 – 13.25) | 11 | 24.44 | 17 | 37.78 | 28 | 31.11 |
| High > (13.25) | 12 | 26.67 | 13 | 28.89 | 25 | 27.78 |
| 11. | Entrepreneurial skillMean = 10.08SD = 2.00 | Low < (9.08) | 22 | 48.89 | 10 | 22.22 | 32 | 35.56 |
| Medium (9.08 – 11.09) | 17 | 37.78 | 19 | 42.22 | 36 | 40.00 |
| High > (11.09) | 6 | 13.33 | 16 | 35.56 | 22 | 24.44 |

In the case of economic motivation, the medium category occupied largest share
(43.33 %), followed by 31.11 per cent in the low category and around one-fourth
(25.56 %) in the high category (Mean = 17.28). For scientific orientation, the medium category has the highest proportion (41.11 %), followed by nearly one-third (31.11 %) in the high category and 27.78 per cent in the low category (Mean = 9.58). In market perception, the low category comprises the majority (41.11 %), followed by more than one-third (35.56 %) in the high category and 23.33 per cent in the medium category (Mean = 19.85). In entrepreneurial orientation, more than two-fifths (41.11 %) of coconut growers belong to the low category, followed by slightly less than one-third (31.11 %) in the medium category and 27.78 per cent in the high category (Mean = 11.66). For Entrepreneurial Skill, exactly two-fifths (40.00 %) of coconut growers belong to the medium category, followed by more than one-third (35.56 %) in the low category and 24.44 per cent in the high category (Mean = 10.08). The results are supported by (Archana, 2013).

The Table 5, highlighted the comparative analysis of entrepreneurial behaviour dimensions among coconut growers, revealing significant differences between small and big growers in several areas, underscoring the impact of farm size on entrepreneurial traits. Key dimensions such as innovativeness, risk orientation, leadership ability and entrepreneurial skill showed that, the significant differences at the 1per cent level. This indicates a very strong statistical difference between small and big coconut growers in these aspects. Dimensions such as decision-making ability and market perception are significant at the 5 per cent level. These findings indicate a moderate level of confidence in the statistical difference between the two groups. Dimensions such as achievement motivation, management orientation, economic motivation, scientific orientation and entrepreneurial orientation show no significant differences between small and big growers. This indicates that the scale of farming does not strongly affect these traits. Non-significance could imply that these dimensions are equally present in both groups or are influenced by factors unrelated to farm size, such as personal traits, education or local agricultural practices. The above findings are in the line with (Sunidhi *et al.,* 2023)

**Table 5: Comparative analysis of entrepreneurial behaviour dimensions among coconut growers**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Dimension** | **Small****(n1=45)** | **Big****(n2=45)** | **Mann-Whitney U Test** | **P - Value** |
| **Mean rank** | **Mean rank** | **Z Value** |  |
| 1 | Innovativeness  | 35.07 | 55.93 | 3.821 | 0.000\*\* |
| 2 | Achievement motivation | 45.02 | 45.98 | 0.175 | 0.861NS |
| 3 | Decision making ability | 37.54 | 53.46 | 2.924 | 0.003\* |
| 4 | Risk orientation | 33.00 | 58.00 | 4.587 | 0.000\*\* |
| 5 | Management orientation | 40.23 | 45.77 | 1.935 | 0.053NS |
| 6 | Leadership ability | 32.34 | 58.66 | 4.838 | 0.000\*\* |
| 7 | Economic motivation | 47.63 | 43.37 | 0.787 | 0.431NS |
| 8 | Scientific orientation | 40.30 | 45.70 | 1.911 | 0.056NS |
| 9 | Market perception | 38.63 | 54.29 | 2.963 | 0.027\* |
| 10 | Entrepreneurial orientation | 42.28 | 48.72 | 1.181 | 0.238NS |
| 11 | Entrepreneurial skill | 36.83 | 54.17 | 3.187 | 0.001\*\* |
|  | **Overall**  | **30.51** | **60.49** | **5.446** | **0.000\*\*** |

**Note:** \*\* and \* denote significance at 1 per cent and 5 per cent levels, respectively and
NS- Non significant

Overall, big growers exhibit significantly higher entrepreneurial behavior compared to small growers, as indicated by the Mann-Whitney U Test results at the 1 per cent level. The results highlighted the pivotal role of farm size in shaping entrepreneurial traits. However, these findings underscore the importance of supporting small growers through targeted interventions, such as training programs, better access to resources and enhanced market integration, to improve their entrepreneurial capacity and reduce the gaps observed. The similar findings were found with (Bushetti and Krishnamurthy, 2023).

**Table 6: Test of significance of coconut growers towards entrepreneurial behaviour.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Coconut growers** | **Mean score** | ***P*-value** |
| 1 | Small farmers (n1=45) | 138.16 | 0.0001\*\* |
| 2 | Big farmers (n2=45) | 150.82 |

Note: \*\* denote significance at 1 per cent

The table 6 compared the mean scores of entrepreneurial behaviour between small farmers and big farmers using a t-test of significance. Big farmers have a higher mean score (150.82) compared to small farmers (138.16). This indicates that big farmers exhibit stronger entrepreneurial behavior overall. The difference suggests that larger-scale farming operations may provide opportunities or require skills that enhance entrepreneurial traits. The *P*-value is 0.0001, which is highly significant at the 1 per cent level (*P* ≤ 0.01). This implies that the difference in entrepreneurial behavior between small and big farmers is statistically significant and not due to random chance. The significance indicates a strong relationship between the scale of farming and entrepreneurial behavior. Larger farm sizes might necessitate greater decision-making skills, risk-taking and management capabilities, leading to a higher overall entrepreneurial behavior score.

1. **CONCLUSION**

The analysis reveals that both small and big farmers demonstrate a proactive and innovative approach, particularly in adopting new technologies, making informed decisions and striving for economic and entrepreneurial success. This trend highlights a shift towards modern, efficient and market-oriented farming practices among coconut growers. The findings emphasize the need for capacity-building initiatives to further enhance entrepreneurial behavior, especially among farmers in the low category, to promote equitable growth and sustainable development in the coconut farming sector.

Overall, while medium levels of entrepreneurial behavior are predominant across most dimensions, a notable proportion of farmers excel in the high category, particularly in economic motivation, entrepreneurial skills and decision-making ability. Targeted interventions to strengthen weaker areas, such as leadership ability and scientific orientation, could help unlock the full entrepreneurial potential of coconut growers.

**Disclaimer (Artificial intelligence)**

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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