International Journal of Tropical Agriculture
Volume 44, Numbers (3-4) • 2026 : pp. 241-246
ISSN: 0254-8755
https://DOI:10.47509/IJTA.2026.v44i3-4.08

Psychological Characteristics and Management Orientation of Waigaon Turmeric Growers

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Abstract: Agriculture remains a major livelihood activity in rural Maharashtra, Psychological variables plays an important role in shaping farmers' decision-making and management practices in agriculture. Variables such as scientific orientation, risk orientation, economic motivation, attitude towards quality turmeric production and knowledge of turmeric cultivation and processing may influence growers' willingness to adopt improved technologies, make informed farm decisions and manage production and marketing activities effectively. Understanding these psychological characteristics is therefore essential for assessing the management orientation of Waigaon Turmeric growers and developing extension programmes that strengthen their motivation, decision-making abilities and adoption of scientific farming practices. The present study examined the psychological characteristics of Waigaon Turmeric growers in Eastern Vidarbha of Maharashtra and considered management orientation as the dependent variable. The investigation covered 273 turmeric growers selected through a multistage sampling procedure under an exploratory research design. Five psychological characteristics were considered: scientific orientation, risk orientation, economic motivation, attitude towards quality production of turmeric, and knowledge about turmeric cultivation and processing. Data were collected through a structured interview schedule and analysed using frequency, percentage, mean, standard deviation and correlation coefficients. Most respondents had medium scientific orientation (72.16%), medium risk orientation (90.84%), medium economic motivation (55.68%) and medium knowledge (73.99%). An overwhelmingly high proportion (99.27%) expressed a highly favourable attitude towards quality production. Correlation results showed positive and statistically significant relationships of overall management orientation with risk orientation ($r = 0.1152$, significant at 10%), economic motivation ($r = 0.3294$, significant at 1%) and knowledge ($r = 0.2889$, significant at 1%). Relationships with scientific orientation ($r = 0.0580$) and attitude towards quality production ($r = 0.0927$) were positive but non-significant. The findings highlight the importance of strengthening farmers' technical knowledge and economic decision-making through practical training, demonstrations, quality-linked marketing support and need-based extension services.

Keywords: Waigaon Turmeric, psychological characteristics, scientific orientation, risk orientation, economic motivation, quality attitude, knowledge, management orientation.

1. INTRODUCTION

Turmeric (Curcuma longa L.) is an important commercial spice crop valued for its culinary, medicinal and economic uses. In Eastern Vidarbha of Maharashtra, Waigaon Turmeric

Article History: Received: 12 March 2026; Revised: 15 May 2026; Accepted: 15 June 2026; Published: 03 October 2026

represents a regionally important crop whose returns depend not only on agro-climatic and market conditions but also on growers' decisions regarding planning, production, quality management, processing and marketing. Commercial cultivation requires farmers to interpret technical information, judge uncertainty, evaluate costs and returns, and respond to changing production and market conditions.

Psychological characteristics provide insight into these decision-making processes. Scientific orientation reflects receptiveness to improved methods and evidence-based farming; risk orientation reflects willingness to take calculated risks; economic motivation indicates the importance attached to productivity and profitability; attitude towards quality production reflects the value growers place on quality attributes and knowledge provides a technical basis for implementing recommended cultivation and processing practices. These characteristics may be associated with management orientation, which in the present study is treated as the dependent variable and is assessed through planning, production and marketing dimensions.Understanding the distribution of these characteristics and their relationships with management orientation can help extension agencies to identify areas of strength and gaps in farmers' decision-making. It can also support the design of interventions that combine technical knowledge, practical demonstrations, risk-management support and market-oriented guidance.

2. OBJECTIVES

- To assess the psychological characteristics of Waigaon Turmeric growers in Eastern Vidarbha of Maharashtra.
- To examine the relationship between selected psychological characteristics and management orientation, the dependent variable.
- To derive extension and research implications from the findings.

3. METHODOLOGY

The study was conducted in the Waigaon Turmeric-growing areas of Eastern Vidarbha, Maharashtra, covering selected areas of Chandrapur, Wardha and Nagpur districts. An exploratory research design was adopted. A total of 273 turmeric growers were selected using a multistage sampling procedure that combined purposive selection of turmeric-growing locations with proportionate random selection of respondents.

Data were collected through a structured interview schedule. The psychological variables included scientific orientation, risk orientation, economic motivation, attitude towards quality production of turmeric and knowledge about turmeric cultivation and processing. Management orientation was treated as the dependent variable and comprised planning, production and marketing orientation. Responses were compiled and analysed using frequency and percentage distributions, mean and standard deviation, correlation coefficients as reported in the study.

4. RESULTS AND DISCUSSION

4.1. Distribution of respondents according to extent of psychological variable.

The distribution of respondents across the five psychological characteristics is presented in Table 1. The findings show that medium categories predominated for scientific orientation, risk orientation, economic motivation and knowledge. Attitude towards quality production was highly favourable for nearly all respondents.

Table 1 reveals that most respondents had medium scientific orientation (72.16%), while 14.29 per cent fell in the low category and 13.55 per cent in the high category. The mean score was 24 (SD = 2.02). At the statement level, 84.60

Table 1: Distribution of respondents according to extent of psychological variable.

Psychological variable	*Category*	*Frequency (n=273)*	*Percentage*
Scientific orientation	Low (up to 22)	39	14.29
	Medium (23–26)	197	72.16
	High (above 26)	37	13.55
Risk orientation	Low (up to 23)	16	5.86
	Medium (24–27)	248	90.84
	High (above 27)	9	3.30
Economic motivation	Low (up to 16)	103	37.73
	Medium (17–20)	152	55.68
	High (above 20)	18	6.59
Attitude towards quality production	Unfavourable	0	0.00
	Less favourable	0	0.00
	Moderately favourable	2	0.73
	Highly favourable	271	99.27
Knowledge of cultivation and processing	Low (up to 68)	61	22.34
	Medium (68–73)	202	73.99
	High (above 73)	10	3.66

per cent agreed or strongly agreed that new farming methods provide better results; 93.39 per cent supported the use of new methods even by experienced farmers; and 91.93 per cent considered the effort required to learn new methods worthwhile. In addition, 90.84 per cent agreed or strongly agreed that good farmers experiment with new ideas. Regarding Risk orientation a large majority of respondents (90.84%) had medium risk orientation, while 5.86 per cent had low and 3.30 per cent had high risk orientation. The mean score was 25 (SD = 1.54). All respondents agreed or strongly agreed that a farmer may pursue a higher profit opportunity rather than always choosing a smaller, less risky profit. Further, 96.69 per cent agreed or strongly agreed that risks are worth taking when the chance of success is reasonably high, and 92.30 per cent supported trying new farming methods despite the risks involved. The study of economic motivation observed that more than half of the respondents (55.68%) had medium economic motivation, 37.73 per cent had low motivation and 6.59 per cent had high motivation. The mean score was 18 (SD = 2.02). A total of 87.17 per cent agreed or strongly agreed that farmers should work towards larger yields and economic profits.

Regarding Attitude towards quality production of turmeric the distribution was notably concentrated. Out of 273 respondents 271 respondents (99.27%) had a highly favourable attitude towards quality production and only two (0.73%) had a moderately favourable attitude. The reported mean score was 84.51. At the statement level, 96.96 per cent agreed or strongly agreed that improved processing techniques lead to better quality, 96.33 per cent were willing to adopt improved cultivation practices, and 97.80 per cent agreed or strongly agreed that good finger length contributes to quality. Similarly, 94.50 per cent indicated that customer satisfaction motivates quality production. The knowledge about turmeric cultivation and processing it is revealed that the majority of respondents (73.99%) possessed medium knowledge, followed by 22.34 per cent with low knowledge and 3.66 per cent with high knowledge. The mean score was 69 (SD = 2.55). All respondents reportedly knew about selecting well-aerated and well-drained land, selecting disease- and pest-free rhizomes and recommended varieties, planting time, first irrigation, first weeding, earthing up, rhizome-rot management, harvesting stage and several post-harvest practices. In contrast,

comparatively fewer respondents reported knowledge of intercropping options (13.55%), splitting nitrogen application (43.22%), neem-cake application (37.72%) and the recommended fertilizer dose (51.28%).

Study of Dependent Variable

Management orientation refers to the individual's tendency and ability to plan, organize, implement, coordinate and control available resources and activities efficiently to achieve predetermined objectives. The table below showed distribution of respondents according to management orientation.

Table 2: Distribution of respondents according to management orientation

Management-orientation category	*Frequency*	*Percentage (%)*
Poor management orientation (up to 111)	30	10.99
Fairly good management orientation (112–131)	218	79.85
Good management orientation (above 131)	25	9.16
Total	273	100.00

Mean management-orientation score = 121; SD = 10.00.

Table 2 revealed that overall management orientation was fairly good among 218 respondents (79.85%). Thirty growers (10.99%) were in the poor category and 25 (9.16%) in the good category. The reported mean score was 121 (SD=10.00). Although most respondents were in the fairly good category, the relatively small good-orientation group suggests scope to strengthen systematic planning, production management, record keeping, quality control, post-harvest handling and marketing decisions.

4.2. Relationship of psychological variable and management orientation

Management orientation was the dependent variable and included planning, production and marketing orientation. In the present study Spearman correlation coefficient analysis was used as a statistical tool to examine the degree and direction of relationship between management orientation and psychological variable. Table 3 below shows relationship of personal, socio-economic, situational and communication variables with planning, production, marketing and overall management orientation.

Table 3: Relationship of psychological variables with planning, production, marketing and overall management orientation

Psychological variable	*Planning (r)*	*Production (r)*	*Marketing (r)*	*Overall management orientation (r)*
Scientific orientation	0.1174*	0.0635 NS	0.0528 NS	0.0580 NS
Risk orientation	0.0289 NS	0.119**	0.1143*	0.1152*
Economic motivation	0.0922 NS	0.3483***	0.1842***	0.3294***
Attitude towards quality production	0.0471 NS	0.088 NS	0.0534 NS	0.0927 NS
Knowledge of turmeric cultivation and processing	0.1508**	0.3095***	0.1955***	0.2889***

NS = non-significant; * = significant at 10% level; ** = significant at 5% level; *** = significant at 1% level, as reported in the source material.

Table 3 reported that scientific orientation had a positive, significant relationship with planning orientation (r = 0.1174, reported significant at the 10% level), whereas its relationships with production and marketing orientation were non-significant. Its correlation with overall management orientation was positive but non-significant (r = 0.0580). Risk orientation was positively associated with production orientation (r = 0.119, reported significant at the 5% level) and marketing orientation (r = 0.1143, reported significant at the 10% level), but not with planning orientation. The overall correlation was positive and reported significant at the 10 per cent level (r = 0.1152). Economic motivation showed a positive and highly significant relationship with production orientation (r = 0.3483) and marketing orientation (r = 0.1842), while its relationship with planning orientation was

non-significant. The overall correlation with management orientation was positive and highly significant ($r = 0.3294$, $p < 0.01$).

Regarding attitude towards quality production, it had positive but non-significant relationships with planning ($r = 0.0471$), production ($r = 0.088$), marketing ($r = 0.0534$) and overall management orientation ($r = 0.0927$). Knowledge about turmeric cultivation and processing had positive and significant relationships with planning ($r = 0.1508$), production ($r = 0.3095$) and marketing orientation ($r = 0.1955$). The overall correlation was positive and highly significant ($r = 0.2889$, $p < 0.01$).

5. CONCLUSION

The findings revealed that medium levels of scientific orientation, risk orientation, economic motivation and knowledge predominated among Waigaon Turmeric growers, whereas almost all respondents demonstrated a highly favourable attitude towards quality turmeric production. Correlation analysis further highlighted economic motivation and knowledge as important positive correlates of overall management orientation, indicating the relevance of farmers' economic aspirations and technical understanding in shaping farm management practices. In contrast, risk orientation exhibited only a weak positive relationship with management orientation. These findings suggest that favourable attitudes towards quality production, although essential, may not independently ensure effective farm management. Strengthening management orientation requires an integrated approach that combines scientific knowledge, economic decision-making skills, risk-management strategies and access to reliable production and market services. Accordingly, extension programmes should move beyond awareness generation towards practical, knowledge-based and economically oriented interventions that enable growers to make informed decisions across the planning, production and marketing stages of Waigaon Turmeric cultivation.

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