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Factors influencing the entrepreneurial behaviour of the contract and non-contract farmers in Haveri district

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Abstract

The present study aims to understand the personal, economical and communication factors which influences the entrepreneurial behaviour of sunflower and marigold farmers who are practicing contract and non-contract farming. The study was conducted in Haveri district in the year 2024. Two crops namely, sunflower, marigold were selected based on highest area under contract farming. Totally four villages were selected from four taluks and from each village 25 respondents, each from contract and non-contract farming using simple random sampling technique. Thus, the total sample from one taluk was 50 and total sample for one crop was 100. The total sample for the study was 200 in which 100 respondents from sunflower and 100 respondents from marigold. For sunflower Hirekerur and Shiggaon were selected and for marigold Haveri and Ranebennur were selected based on highest area under contract farming. The primary data were collected randomly from farmers from each of the villages practicing contract and non-contract farming. The findings of the study revealed that most of the farmers belonged to middle age group having education up to middle school. The farmers belonged to the medium level of market orientation, credit orientation, annual income, information seeking behaviour and extension participation. Factors like age, education, farming experience; extension participation, market orientation, and credit orientation were significantly influencing the entrepreneurial behaviour of farmers in both contract and non-contract farming in sunflower. Whereas, land holding (18.16) and information seeking behaviour (12.37) were significantly influencing entrepreneurial behaviour in contract farming but non-significant in case of non-contract farming. In case of marigold age, education, family size, extension participation market orientation and credit orientation were significantly influencing the entrepreneurial behaviour of both contract and non-contract farmers. Whereas, farming experience and land holding were non-significant with non-contract farmers but significantly influencing the entrepreneurial behaviour of contract farmers.

Keywords: Entrepreneurial behaviour, contract farming, personal, economic, communication

Introduction

Agriculture plays a crucial role in the Indian economy. In 2022-23, agriculture and allied sectors contributed 18.3% to India's GDP. It is the primary source of livelihood for about 58.00 per cent of the population and provides employment to over 50.00 per cent of the workforce (FAOSTAT, 2022) There is a strong feeling that in the era of liberalization and globalization, small farmers are being entirely neglected and marginalized from high value agribusiness activities and hence are unable to develop maximum benefits due to their fragmented and uneconomic size of holdings and inadequate access to external inputs and services. In order to support small and marginal farmers, a multipronged approach has been practiced by the government by way of market interventions (Model Act 2005 and APLM Act 2017) and other developmental policies. Consolidation of holdings is one of the ways to compete in the changing market economy. It could be by way of networking of farmers in the form of farmer producer organization (FPO), commodity interest groups, producer cooperative, etc. Among these interventions Contract farming is one of the approaches to Increase high value production, technological expertise and assured market facility. Contract farming is the contractual pre arrangement between farmers and a company, whether oral or written, specifying one or more conditions of production (Roy, 1963) [13]. The new agricultural policy of the Government is aimed at promoting private sector participation in agribusiness through contract farming, to accelerate technology transfer and capital flow and to provide ensured markets for crops. Contract farming is increasingly linked with entrepreneurial behaviour, which encompasses proactive, innovative, and risk-taking actions in business. Contract farming can significantly influence farmers' entrepreneurial behaviour by providing them with access to resources, technology, and market.

It encourages farmers to adopt new practices, manage risks better, and improve their production methods. This structured arrangement often drives them to be more business-oriented, focusing on quality and efficiency to meet contractual obligations, and can stimulate innovation and investment in their agricultural enterprises. Understanding the comparative entrepreneurial behaviour of these two groups is essential for several reasons. First, it sheds light on the factors that drive or hinder entrepreneurial success in agriculture, including risk-taking, innovation, and resource management. Second, it can inform policymakers and agricultural extension services about the needs and challenges faced by different types of farmers, enabling them to design targeted interventions that promote entrepreneurship and economic development in the region.

Methodology
The data was collected from the farmers who were growing sunflower and marigold from last 4-5 season under both contract and non-contract farming system. Totally four villages were selected from four taluks and from each village 25 respondents, each from contract and non-contract farming using simple random sampling technique. Thus, the total sample from one taluk was 50 and total sample for one crop was 100. The total sample for the study was 200 in which 100 respondents from sunflower and 100 respondents from marigold. For sunflower Hirekerur and Shiggaon and for marigold Haveri and Ranebennur were selected based on highest area under contract farming.

Table 1: Selection of the respondents for study

District	Crop	Taluk	Village	Respondents		Total
				CF	NCF	
Haveri	Sunflower	Hirekerur	Gundagatti	25	25	50
		Shiggaon	Muddinakoppa	25	25	50
	Marigold	Haveri	Basapur	25	25	50
		Ranebennur	Honnatti	25	25	50
Grand Total						200

Table 2: Variables and measurement tools used for the study

Variables	Measurement
Personal variables	
Age	Scale developed by Trivedi (1963) [21]
Education	Scale developed by Trivedi (1963) [21]
Land holding	Classification by Anonymous (1996) (Criteria prescribed by Govt. of Karnataka Land reforms act of 1996)
Faming experience	Schedule developed for the study
Family size	Scale developed by Trivedi (1963) [21]
Economic variables	
Annual income	Schedule developed for the study
Credit orientation	Scale developed by Samantha (1977) [22] with suitable modifications
Market orientation	Procedure followed by Beal and Sibley (1967) [23] with suitable modifications
Communication variables	
Extension participation	Procedure followed by Binkadakatti (2008) [24]
Information seeking behaviour	Procedure followed by Gayathri (2018) [7]
Conflict resolution	Scale developed by Sayaddin (1995) [25] with slight modification

Results and Discussion
For the study (Table 2) we have selected 11variables after reviewing literature related to the study. These variables were further classified in to three categories indicating Personal, economic and communication characteristics of the farmers practicing contract and non-contract farming.

Personal characteristics of sunflower and marigold contract and non-farmers
Age

The results revealed that revealed that, more than half of the sunflower growing farmers belonged to the middle age with 36 to 55 years, contract (50.00%) and non-contract (64.00%) followed by young age, contract (34.00%) and non-contract (20.00%). Equal number of the farmers in both contact and non-contract farming belonged to old age (16.00%).Whereas in case of marigold farmers 60.00 per cent and 74.00 per cent of the contract and non-contract farmers were belonged to middle age group followed by old age, contract (26.00%) and non-contract (18.00%). Few of the farmers growing marigold belonged to young age, contract (14.00%) and non-contract (8.00%). The probable reason could be due to the fact that, farmers of middle age group possess the needed skills and experiences and could be efficiently and actively participate in the farming activities in comparison to farmers of other age groups. younger individuals are more likely to be in contract positions, possibly due to factors such as flexibility and the nature of contract work appealing to younger professionals seeking diverse experiences. Further, rural youth were not much interested in agriculture and were in search of non-farming jobs that provide them with steady earnings. The results were in line with the findings of Sahana (2013) [14], Pramod Kumar (2018) [12].

Education

Results indicated that nearly 25.00 per cent of the sunflower contract farmers had education up to the level of primary school (26.00%) and middle school (28.00%) followed by high school (22.00%) and PUC (14.00%) level of education. Few farmers were illiterate (8.00%) and graduated (4.00%). In case of non-contract sunflower farmers majority educated up to middle school (28.00%) followed by primary school (26.00%) and high school (20.00%). Few farmers were educated up to PUC (12.00%), Illiterate farmer's accounts for 10.00 per cent only and graduation (4.00%). When we have a look at the educational status of contract marigold farmers, majority were educated from 1st to 4th standard (30.00%) followed by middle school (22.00%) and high school (18.00%). Illiterate marigold contract farmer's accounts for 14.00 per cent and only few farmers were educated up to PUC (10.00%) and graduation (6.00%). Equal numbers of marigold non-contract farmers (28.00%) were educated up to primary school and middle school, followed by high school (22.00%) and PUC (12.00%). Only few farmers were illiterate (6.00%) and graduated (4.00%) in case of marigold non-contract farmers This might be attributed to their realization of the importance of primary education and the government policy of providing free and compulsory education up to high school. The results were in accordance with the findings of Arun *et al.* (2014) [4] and Patel (2017) [11].

Land holding

The results in the Table 3 indicates that, majority of sunflower farmers were small farmers, contract (44.00%) and non-contract (66.00%) with a land holding of 2.51-5.00 acres and 34.00 per cent and 18.00 per cent were medium farmers with 5.01-10.00 acres of land. marginal farmers with land holding of less than 2.50 acres, accounts for 12.00 per cent and 8.00 per cent. Only few of them were large, contract (10.00%) and non-contract (8.00%) farmers with more than 10.00 acres of land. In case of marigold farmers more than 30.00 per cent of farmers belonged to medium category of land holding, contract (32.00%) and non-contract (34.00%). 24.00 per cent and 44.00 per cent of contract and non-contract farmers were small farmers. more number of contract farmers were large (28.00%) compared to non-contract (10.00%) few of contract and non-contract farmers growing marigold were marginal farmers (16.00%) and (12.00%). Probable reason might be that continuous fragmentation of lands among the families and land converted in to non-farming activities in rural areas was made them own small to medium land holdings. The findings were in conformity with that of Singh *et al.* (2013).

Farming experience

It was evident from the table 3 that, nearly 60.00 per cent of the sunflower contract farmers had medium (58.00%) level of farming experience followed high (26.00%) and low (16.00%) level of farming experience. Majority of the non-contract farmers had medium (66.00%) level of farming experience followed by high (20.00%) and low (14.00%) level of farming experience in sunflower. In case marigold contract farming 72.00 per cent of farmers had medium level of farming experience and followed by high level (16.00%) and low level (12.00%) of farming experience. In case of non- contract farmers 60.00 per cent of the respondents had medium level farming experience followed by high (22.00%) and low level (18.00%) of farming experience in marigold respectively. As majority of the respondents were following farming as their major occupation and all of them belong to the middle age group. The results were in harmony with the findings of Tandel *et al*. (2015) [17].

Family size

Equal number (46.00%) of the sunflower contract farmers had medium (4-5 members) and large (6-7 members) size of family followed by small (8.00%) consisting of 2-3 members. Whereas, 44.00 per cent of non- contract farmers in sunflower had large family followed by medium (32.00%) and small (24.00%) sized family in sunflower. In case of marigold cultivation, nearly equal number of contract farming respondents had medium sized (48.00%) family followed by large family (46.00%) with a few respondents had small family (6.00%) respectively. More than half of the non- contract respondents (52.00%) had medium size family followed by large (38.00%) and small (10.00%) size family respectively in marigold. This might be due to lead an independent life and the increased cost of living and problems or difficulties in maintenance of big family farmers have found it beneficial to have medium family the study was in line with the Dalvi and Pandya (2016) [5].

Economic characteristics of the sunflower and marigold contract and non-contract farmers

Annual income

Majority of the contract farmers belonged to medium level of annual income in both sunflower (76.00%) and marigold (68.00%), followed by high level (16.00%) and (26.00%) of annual income in sunflower and marigold respectively. Less number of respondents were having low level of annual income in sunflower (8.00%) and marigold (6.00%). Whereas, in case of non-contract farming majority of the respondent s belonged to medium (66.00%) and (62.00%) to low (24.00%) and (22.00%) level of annual income in sunflower and marigold non-contract farming respectively. This could be due to assured and fixed contract price by the company firms and other subsidiary occupations occupied by the farmers leads to have the better income for contract farmers. The findings are in line with the Pramod kumar (2018) [12], Spandana (2019) [16].

Market orientation

Majority of the sunflower contract and non-contract respondents had medium level (58.00%) and (40.00%) of market orientation. Whereas, 20.00 per cent and 32.00 per cent of contract and non-contract farmers belonged to high level of market orientation. More than 20.00 per cent of both contract (22.00%) and non-contract (28.00%) were has low level of market orientation. In marigold farming, majority of the farmers contract (60.00%) and non-contract (50.00%) had medium level of market orientation followed by high, contract (22.00%) and non-contract (30.00%) and low, contract (18.00%) and non-contract (24.00%) level of market orientation. The probable reason might be farmers tend to choose the marketing channels with utmost care to ensure highest price for their produce. While non-contract farmers face greater market risks and uncertainties. The findings were in line with Sahana (2013) [14], Alekya (2023) [1].

Table 3: Personal characteristics of the sunflower and marigold contract and non–contract farmers

Characteristics	Category	Criteria	Sunflower				Marigold			
			CF (n_1 =50)		NCF (n_2 =50)		CF (n_1 =50)		NCF (n_2 =50)	
			f	%	f	%	f	%	f	%
Age	Young	Up to 35 years	17	34.00	10	20.00	7	14.00	4	8.00
	Middle	36-55 years	25	50.00	32	64.00	30	60.00	37	74.00
	Old	Above 55 years	8	16.00	8	16.00	13	26.00	9	18.00
Education	Illiterate	Can't read & write	4	8.00	5	10.00	7	14.00	3	6.00
	Primary	I-IV standard	13	26.00	13	26.00	15	30.00	14	28.00
	Middle	V-VII standard	13	26.00	14	28.00	11	22.00	14	28.00
	High	VIII-X standard	11	22.00	10	20.00	9	18.00	11	22.00
	PUC	XI- XII standard	7	14.00	6	12.00	5	10.00	6	12.00
	Graduation	Degree	2	4.00	2	4.00	3	6.00	2	4.00
Land Holding	Marginal Farmers	<2.50 acres	6	12.00	4	8.00	8	16.00	6	12.00
	Small Farmers	2.51-5.00 acres	22	44.00	33	66.00	12	24.00	22	44.00
	Medium Farmers	5.01-10.00 acres	17	34.00	9	18.00	16	32.00	17	34.00
	Large Farmers	>10.00 acres	5	10.00	4	8.00	14	28.00	5	10.00
Farming Experience	Low (<$\bar{x}$-s)		8	16.00	7	14.00	6	12.00	9	18.00
	Medium ($\bar{x} \pm s$)		29	58.00	33	66.00	36	72.00	30	60.00
	High (>$\bar{x} + s$)		13	26.00	10	20.00	8	16.00	11	22.00
			$\bar{x}$ =20.68 s = 9.24		$\bar{x}$ =21.06 s = 9.49		$\bar{x}$ = 19.84 s = 8.27		$\bar{x}$ = 22.42 s = 8.46	
Family size	Small		4	8.00	12	24.00	3	6.00	5	10.00
	Medium		23	46.00	16	32.00	24	48.0.	26	52.00
	Large		23	46.00	22	44.00	23	46.00	19	38.00

CF = Contract farmers NCF= Non- contract farmer

Credit orientation

Majority of the sunflower contract farmers belonged to the medium level (68.00%) of credit orientation. More than one fifth of the respondents had high (22.00%) level of credit orientation followed by low (10.00%) level of credit orientation. While, in case of sunflower non-contract faming 44.00 per cent of the farmers had medium level of credit orientation followed by low (32.00%) and high (24.00%) level of credit orientation. In case of marigold contract farming, 70.00 per cent of the marigold contract farmers were belonged to the medium level followed by high (18.00%) and low (12.00%) level of credit orientation. Likewise, more than 50.00 per cent of the non- contract farmers had medium level (56.00%) credit orientation in marigold followed by low (28.00%) and high (16.00%) level of credit orientation. The reason may be due to the financial stability and market security provided by contracts, which make it easier for farmers to access and manage credit. In contrast, non-contract farmers face greater challenges in securing credit due to market uncertainties and perceived risks, leading to a more cautious approach towards borrowing. Nirmala (2013) [10].

Communication characteristics of sunflower and marigold contract and non -contract farmers

Extension participation

Table 5 depicts that more than half of the sunflower contract farmers had medium (56.00%) level of extension participation followed by high (26.00%) and low (18.00%). Whereas, 54.00 per cent of the non-contract farmers were belonged to the medium level of extension participation followed by low (26.00%). One fifth of the respondents belonged to high (20.00%) high level of extension participation in sunflower. Similarly, in marigold cultivation majority of the contract farmers belonged to the medium (54.00%) level of the extension participation. More than one fourth of the respondents belong to high (28.00%) level of extension participation followed by low (18.00%). In case of non-contract farming 46.00 per cent of the marigold farmers had medium level extension participation followed by low (34.00%) and low (20.00%) level of extension participation. Majority of the farmers follow the primitive cultivation practices because of small to medium land holding. Factors such as age, education level, and family size, support in contract farming and voluntary participation in non-contract farming. (Thanuja 2022) [18].

Information seeking behaviour

Informal source

When we observe the informal sources of information majority of the sunflower, contract farmers (56.00%) and non-contract farmers (44.00%) had medium level of access to informal sources followed by high (24.00%) and low (20.00%) in contract farming and in non-contract farming it was followed by low (30.00%) and high (26.00%) level of access to informal sources of information. In marigold farming more than half of the contract farmers (58.00%) and 48.00 per cent of non-contract framers had medium assess to informal sources followed by high, contract (28.00%), non-contract (30.00%) and low, contract (14.00%) and non-contract (22.00%) access to informal sources of information. in marigold. The probable reason may be due to non-contract farmers have lower level of medium- access, relying more on personal and community-based networks. The results were in line with the Jakkawad *et al.* (2017) [8] and Vasanthi (2020) [20].

Table 4: Economic characteristics of the Sunflower and Marigold contract and non- contract farmers

Characteristics	Category	Sunflower				Marigold			
		CF ($n_1 = 50$)		NCF($n_2 = 50$)		CF ($n_1 = 50$)		NCF ($n_2 = 50$)	
		F	%	f	%	f	%	f	%
Annual income	Low (<$\bar{x}$-s)	4	8.00	12	24.00	3	6.00	11	22.00
	Medium ($\bar{x} \pm s$)	38	76.00	33	66.00	34	68.00	31	62.00
	High (>$\bar{x} + s$)	8	16.00	5	10.00	13	26.00	8	16.00
		$\bar{x}$ =150990 s = 44545.63		$\bar{x}$ =99300 s =43736.9		$\bar{x}$ =98699.2 s =137854.40		$\bar{x}$ = 53686.2 s = 116065.8	
Market Orientation	Low (<$\bar{x}$-s)	11	22.00	14	28.00	9	18.000	12	24.00
	Medium ($\bar{x} \pm s$)	29	58.00	20	40.00	30	60.00	25	50.00
	High (>$\bar{x} + s$)	10	20.00	16	32.00	11	22.00	15	30.00
		$\bar{x}$ =22.02 s = 2.63		$\bar{x}$ =23.54 s = 2.43		$\bar{x}$ = 22.52 s = 2.78		$\bar{x}$ = 23.36 s = 2.62	
Credit Orientation	Low (<$\bar{x}$-s)	5	10.00	16	32.00	6	12.00	14	28.00
	Medium ($\bar{x} \pm s$)	34	68.00	22	44.00	35	70.00	28	56.00
	High (>$\bar{x} + s$)	11	22.00	12	24.00	9	18.00	8	16.00
		$\bar{x}$ =25.36 s = 2.56		$\bar{x}$ =24.10 s = 3.09		$\bar{x}$ = 25.48 s = 2.61		$\bar{x}$ =24.16 s = 3.28	

CF = Contract farmers NCF= Non- contract farmer

Formal sources: It was observed that, majority of the contract farmers had medium access (64.00%) to formal sources of information in sunflower, followed by high (24.00%) and low (12.00%) level of access to formal sources of information in sunflower. More than two fifth of the non-contract farmers had medium (44.00%) access to formal sources, followed by low (32.00%) and high (24.00%) level of access to formal sources in sunflower. In case of marigold contract farmer's majority of the respondents had medium (76.00%) access to formal sources followed by high (14.00%) and low (10.00) access to formal sources of information. Less than fifty per cent of the farmers had medium (48.00%) access followed by high (28.00%) and low (24.00%) level of access to formal source of information in case of marigold non-contract farming. The probable reason might be due to non-contract farmers might face barriers such as limited financial resources, lack of access to formal training programs, or reduced outreach from agricultural extension services, resulting in lower engagement with formal information sources. The results are in line with Thanuja (2022) [18].

Mass media

Results indicates that two third of the sunflower contract farmers had medium (66.00%) access to mass media followed by high (24.00%) and only few of them had less (10.00%) access to mass media. While in case of non-contract farmers more than half of the farmers had medium (58.00%) access to mass media sources, followed by low (24.00%) and high (18.00%) level of access to mass media source in sunflower. Similarly in marigold 64.00 per cent and 38.00 per cent of the contract and non-contract framers had medium access followed by high, contract (22.00%), non-contract (36.00%) and low, contract (14.00%) and non-contract (26.00%) access to mass media sources. non-contract farmers might have relied more on traditional methods of information dissemination, such as local networks or word of mouth, which could result in lower exposure to mass media as compared to contract farmers. The results are in conformity with the findings of Gayathri (2018) [7].

Conflict resolution

Indicates that more than sixty per cent of non-contract farmers in sunflower (66.00%) and marigold (62.00%) were belonged to the medium level of conflict resolution followed by high level of conflict resolution in sunflower (22.00%) and marigold (20.00%) and 12.00 per cent and 18.00 per cent of both non-contract farmers had low level of conflict resolution in sunflower and marigold respectively. While in case of contract farming, 58.00 per cent of the sunflower contract farmers belonged to medium category of conflict resolution followed by low (22.00%) and high (20.00%) level of conflict resolution. Half of the respondents in marigold contract farming were belonged to medium level of conflict resolution (50.00%) followed by high (30.00%) and low (20.00%) level conflict resolution. Non-contract farmers were exploited by the middlemen and they rise conflicts for securing better price for their produce. The results are in line with the Ullas (2013) [19].

Table 5: Communication characteristics of the sunflower and marigold contract and non - contract farmers

Characteristics	Category	Sunflower				Marigold			
		CF(n_1=50)		NCF(n_2=50)		CF(n_1=50)		NCF(n_2=50)	
		f	%	f	%	f	%	f	%
Extension Participation	Low (<$\bar{x}$-s)	9	18.00	13	26.00	9	18.00	17	34.00
	Medium ($\bar{x} \pm s$)	28	56.00	27	54.00	27	54.00	23	46.00
	High (>$\bar{x} + s$)	13	26.00	10	20.00	14	28.00	10	20.00
		$\bar{x}$ =18.46 s = 4.07		$\bar{x}$ = 22.34 s =2.24		$\bar{x}$ = 19.93 s = 2.87		$\bar{x}$ = 21.68 s = 2.96	
Information seeking behaviour									
Informal Sources	Low (<$\bar{x}$-s)	10	20.00	15	30.00	7	14.00	11	22.00
	Medium ($\bar{x} \pm s$)	28	56.00	22	44.00	29	58.00	24	48.00
	High (>$\bar{x} + s$)	12	24.00	13	26.00	14	28.00	15	30.00
		$\bar{x}$ =12.92 s = 1.49		$\bar{x}$ = 8.98 s = 1.91		$\bar{x}$ = 9.13 s = 1.98		$\bar{x}$ = 9.62 s = 2.10	
Formal Sources	Low (<$\bar{x}$-s)	6	12.00	16	32.00	5	10.00	12	24.00
	Medium ($\bar{x} \pm s$)	32	64.00	22	44.00	38	76.00	24	48.00
	High (>$\bar{x} + s$)	12	24.00	12	24.00	7	14.00	14	28.00
		$\bar{x}$ =24.96 s = 2.03		$\bar{x}$ = 17.76 s = 2.61		$\bar{x}$ = 22.45 s = 2.14		$\bar{x}$ = 17.86 s = 2.75	
Mass media	Low (<$\bar{x}$-s)	5	10.00	12	24.00	7	14.00	13	26.00
	Medium ($\bar{x} \pm s$)	33	66.00	29	58.00	32	64.00	19	38.00
	High (>$\bar{x} + s$)	12	24.00	9	18.00	11	22.00	18	36.00
		$\bar{x}$ =12.42 s = 1.43		$\bar{x}$ = 10.1 s = 1.57		$\bar{x}$ = 12.11 s = 1.35		$\bar{x}$ = 10.20 s = 1.79	
Conflict resolution	Low (<$\bar{x}$-s)	11	22.00	6	12.00	10	20.00	9	18.00
	Medium ($\bar{x} \pm s$)	29	58.00	33	66.00	25	50.00	31	62.00
	High (> $\bar{x} + s$)	10	20.00	11	22.00	15	30.00	10	20.00
		$\bar{x}$ =20.28 s = 2.23		$\bar{x}$ =14.08 s = 3.05		$\bar{x}$ = 19.28 s = 2.42		$\bar{x}$ = 14.88 s = 2.84	

Factors influencing entrepreneurial behaviour of sunflower contract and non-contract farmers

The research findings revealed that, factors like age, education, farming experience, extension participation, market orientation, annual income and credit orientation were significantly influencing the entrepreneurial behaviour of farmers in both contract and non-contract farming in sunflower (Figure 1). Whereas, land holding (18.17) and information seeking behaviour (12.37) were significantly influencing entrepreneurial behaviour in contract farming but non-significant in case of non-contract farming and family size was non-significantly influencing the entrepreneurial behaviour in both contract and non-contract farming. Conflict resolution significantly influencing entrepreneurial behaviour of sunflower non-contract farmers but it was non- significant with the entrepreneurial behaviour of sunflower contract farmers. The size of land holding directly impacts a farmer's ability to engage in entrepreneurial activities. Farmers who are oriented towards utilizing credit are better positioned to invest in new technologies, expand their operations, and manage cash flows effectively. Alemu *et al.* (2021) [2] and Deepika (2023) [6].

Factors influencing entrepreneurial behaviour of marigold contract and non-contract farmers

Factors influencing entrepreneurial behaviour of farmers in marigold contract farming shows that education, family size and credit orientation were influencing entrepreneurial behaviour at 5.00 per cent level of significance. Whereas, age, farming experience, land holding, extension participation, information seeking behaviour, annual income and market orientation were highly influencing entrepreneurial behaviour of farmers growing marigold under contract farming. Only one factor that was conflict resolution showed statistically non-significant influence on entrepreneurial behaviour of contract farmers in marigold farming. The results in the Figure 2 show the factors influencing entrepreneurial behaviour of marigold non-contract farmers. It was astonishing to know that, farming experience, land holding and information seeking behaviour factors were non-significantly influencing the entrepreneurial behaviour of farmers growing marigold under non-contract farming. However, age, education, family size, extension participation, market orientation and conflict resolution factors were influencing entrepreneurial behaviour of farmers at 5.00 per cent level of significance and credit orientation and annual income were highly significantly influencing the entrepreneurial behaviour of non-contract marigold farmers at 1.00 level of significance. Experienced farmers might adhere to traditional practices that they are comfortable with, rather than exploring new entrepreneurial opportunities. Due to their inherent limitations in fostering innovation and risk-taking. Khalil *et al*. (2024) [9].

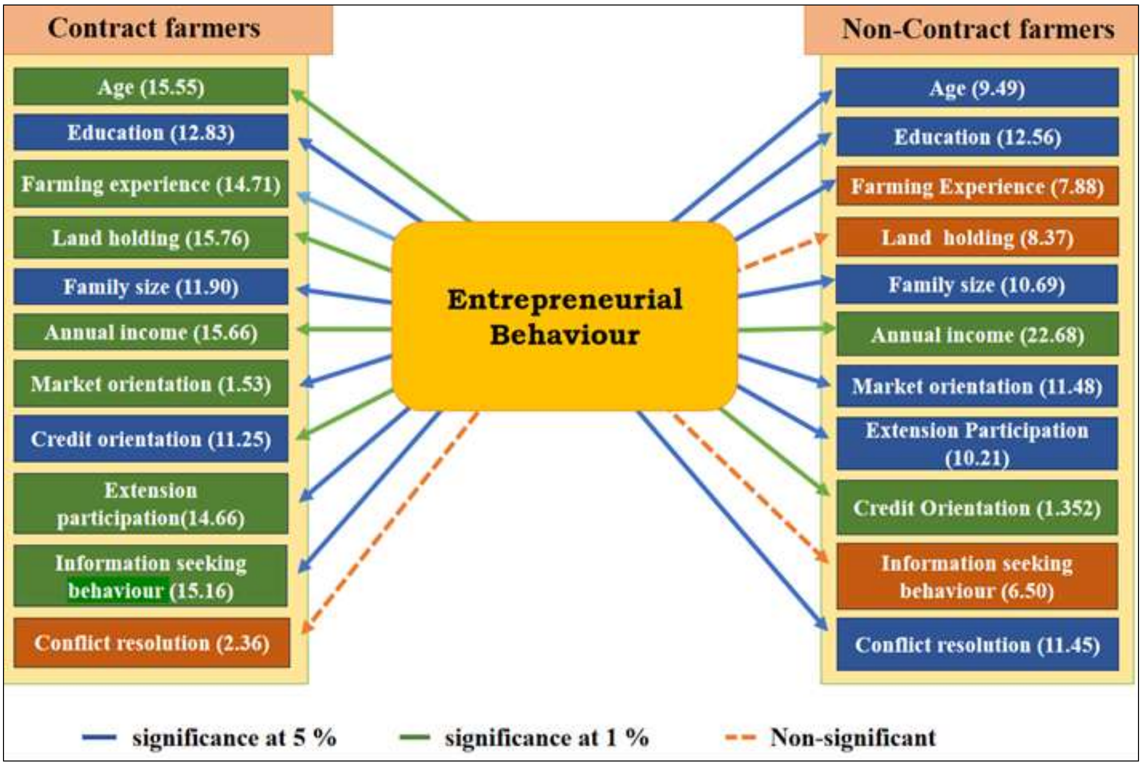

Fig 1: Conceptual model showing factors influencing Entrepreneurial behaviour of contract and non-contract farmers in sunflower

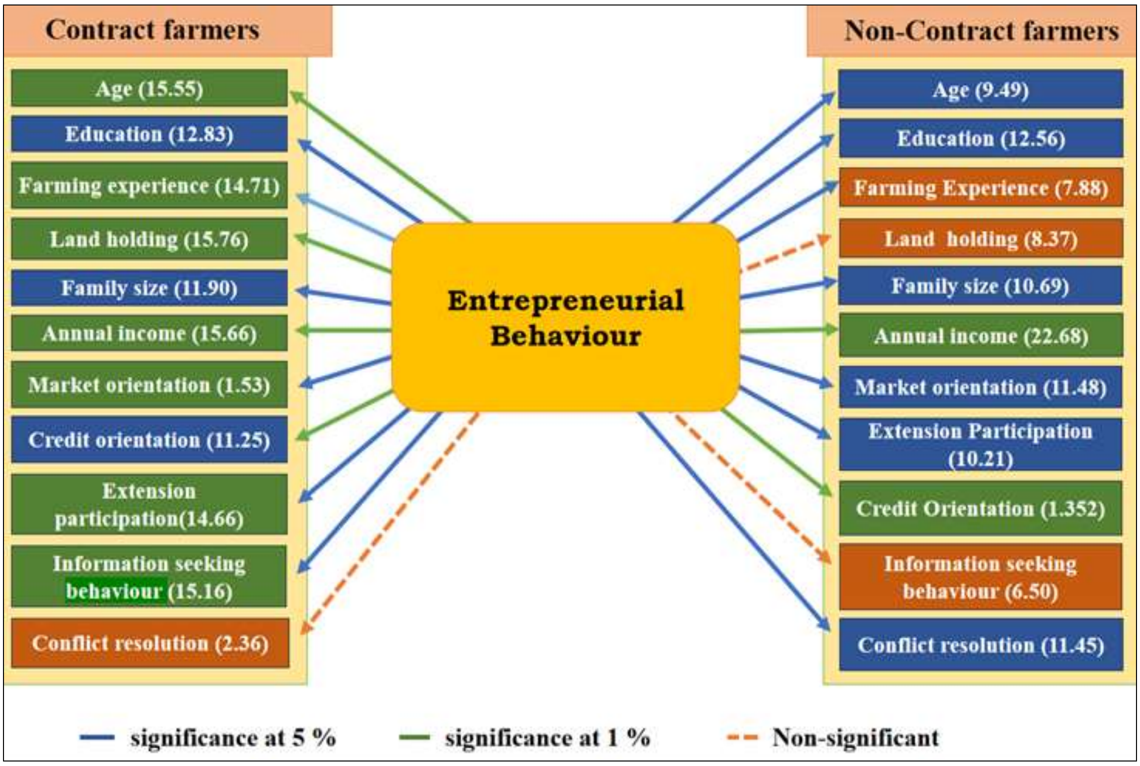

Fig 2: Conceptual model showing factors influencing Entrepreneurial behaviour of contract and non-contract farmers in marigold

Conclusion

The present study was analysed the personal, economical and communication characteristics of farmers following contract and non-contract farming in sunflower and marigold. From the study it has been come to know that majority of the farmers were belonged to middle age having education up to middle school. Market orientation, credit orientation, annual income, information seeking behaviour and extension participation characteristics were comparatively more influencing on contract farmers than non-contract farmers. Whereas conflict resolution plays significant role with non-contract farmers compare to contract farmers. Entrepreneurial behaviour among farmers significantly impacts agricultural productivity and rural development. These findings provide insights into the factors that shape entrepreneurial behaviour in contract and non-contract farming, offering implications for policy makers and stakeholders aiming to support and enhance entrepreneurial initiatives among farming community.

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