

# PROFILE CHARACTERISTICS OF FERTILIZER DEALERS IN KERALA

## ABSTRACT

In India, about 75 per cent of the population is dependent directly or indirectly on the agricultural and allied sectors (Latha *et al.*, 2022). Around 70 per cent of the population depends on agriculture for their livelihood (FAO, 2024). Agriculture development not only involves crop production but also, the development of its stakeholders viz., farmers, fertilizer dealers, extension workers, NGOs, etc. Effective transfer of technology from research to farmers through appropriate stakeholders is crucial for achieving desired results. Fertilizer dealers, as key stakeholders, play an essential role in ensuring farmers have access to essential agricultural inputs needed to enhance productivity on their farms. Several programs have been launched to enhance the capabilities of these agricultural advisors. One such initiative is the 'Certificate Course on Integrated Nutrient Management for Fertilizer Dealers.' Consequently, this study was focused to study the profile characteristics of fertilizer dealers. Ex-post facto research design was adopted for the study with a sample of 300 respondents covering 7 districts of Kerala. From the analysis, it was found that majority of respondents were under medium profile characteristics.

**Keywords:** Profile characteristics, fertilizer dealers, certificate course and Integrated Nutrient Management.

## 1. INTRODUCTION

The agriculture sector is the lifeline of the Indian economy. Agriculture provides the essential support for food, livelihood security and support for the economic growth and social transformation of the country. Hence, agricultural development holds a prominent position in the sector among input dealers. An input dealer serves as a crucial link between manufacturers and farmers. Fertilizer dealers are individuals or business organizations and sometimes cooperative societies that engage in the purchase and sale of agricultural input. Fertilizer dealers play a major role in delivering agricultural information and advisory services to farmers. The fertilizer dealer either be a wholesaler or a retailer. The wholesaler buys directly from the manufacturer or sometimes an importer or supplier. They buy in large volumes of fertilizers and sell to retailers. The retailer is the one who buys from the wholesaler and is usually in direct contact with the farmers and other consumers. Fertilizer dealers are suppliers of agricultural essentials, encompassing seeds, fertilizers, farm machinery, etc.

Farmers are encountering of inputs difficulties in farming due to inadequate knowledge of fertilizer dealers or delays in their supply. Therefore, it's crucial to empower these dealers by enhancing their agricultural knowledge through various extension programs. In response to this need, the National Institute of Agricultural Extension Management (MANAGE) has developed a 15-day certificate course titled 'Certificate Course on Integrated Nutrient Management for Fertilizer Dealers.' This course provides relevant, location-specific agricultural training to empower dealers with the essential knowledge required to tackle the daily challenges encountered by farmers in their fields effectively. By doing so, they can better serve the farming community. The present study aims to understand the attributes of fertilizer dealers and explore how they can become effective para-extension workers, bridging the gap between agricultural knowledge and practical application for the benefit of farmers.

### 1.1. Objective

To know the socio-personal profile of fertilizer dealers who have undergone certificate course on Integrated Nutrient Management conducted by Kerala Agricultural University.

## 2. METHODOLOGY

**Comment [U1]:** Reference are not expected in the Abstract except if this is recommended by the AJAEEES

**Comment [U2]:** This is also not allowed

**Comment [U3]:** This sentence at the end of Section 1.0 is too complex, break the sentences to simple sentences to state the broad and specific objectives of your study. In addition, you need to review more relevant studies to bring out the problem statement, the present one is too sketchy. You have let us know the present situation of the dealers, but what has been done by the existing studies on how to address the subject matter, what gaps are you trying to fill that the existing relevant studies have not done?

**Comment [U4]:** This objective looks too simple, with what you have at the end of Section 1.0, you can have up to three objectives

**Comment [U5]:**

The study was conducted in the districts of Kannur, Kozhikode, Malappuram, Thrissur, Palakkad, Alappuzha, and Kollam in Kerala, purposively selected due to the significant participation of fertilizer dealers in the certificate course on INM. The sample size comprised a total of 300 respondents (150 from each online and offline course) who had completed the certificate program were selected using proportionate random sampling technique. An interview schedule was developed in consultation with experts, considering the objectives of the study. This schedule was pre-tested in a non-study area, and necessary adjustments were made based on the results. The finalized schedule was then utilized for data collection through personal interviews. The collected data from respondents were scored, tabulated, and analyzed using Statistical Package for Social Sciences (SPSS 27).

**Comment [U6]:** You need more clarifications on this for transparency. You need to let us know the total number of the dealers Kerala, how many of them participated in INM, and why did you decide for 150 each in online and offline? How many dealers participated online and offline?

### 3. RESULTS AND DISCUSSION

**Table 1. Distribution of the respondents according to their socio-personal characteristics**

Sl. No	Category	Online trained fertilizer dealers(n <sub>1</sub> =150)		Offline trained fertilizer dealers(n <sub>2</sub> =150)		Total (n=300)	
		f	%	f	%	f	%
<b>(1)</b>	<b>Age</b>						
1	Young age (< 35 years)	31	20.67	54	36.00	85	28.33
2	Middle age (36 to 50 years)	69	46.00	51	34.00	120	40.00
3	Old age (>50 years)	50	33.33	45	30.00	95	31.67
<b>(2)</b>	<b>Gender</b>						
1	Male	111	74.00	109	72.67	220	73.33
2	Female	39	26.00	41	27.33	80	26.67
<b>(3)</b>	<b>Education</b>						
1	Primary education (Upto 8 <sup>th</sup> Standard)	00	00.00	00	00.00	00	00.00
2	Secondary education (9 <sup>th</sup> to 10 <sup>th</sup> Standard)	34	22.67	20	13.34	54	18.00
3	Higher secondary education (11 <sup>th</sup> to 12 <sup>th</sup> Standard)	35	23.33	43	28.66	78	26.00
4	Graduate and above	81	54.00	87	58.00	168	56.00
<b>(4)</b>	<b>Business experience</b>						
1	Very short experience (<5 years)	95	63.33	107	71.33	202	67.33
2	Short experience (6-10 years)	19	12.67	19	12.67	38	12.67
3	Medium experience (11-15 years)	14	09.33	11	07.33	25	08.33
4	Long experience (16-20 years)	9	06.00	05	03.33	14	04.67
5	Very long experience (>20 years)	13	08.67	08	05.34	21	07.00
<b>(5)</b>	<b>Annual income</b>						
1	Up to Rs.50,000	37	24.67	27	18.00	64	21.33
2	Rs.50,001 to Rs.1,00,000	53	35.33	30	20.00	83	27.67
3	Rs.1,00,001 to Rs.1,50,000	33	22.00	19	12.67	52	17.34
4	Rs.1,50,001 to Rs.2,00,000	15	10.00	31	20.67	46	15.33
5	Above Rs.2,00,000	12	08.00	43	28.66	55	18.33
<b>(6)</b>	<b>Extension contact</b>						
1	Low (upto 6 score)	58	38.67	66	44.00	124	41.33
2	Medium (in between 7 and 11 score)	89	59.33	79	52.67	168	56.00
3	High (above 11 score)	03	02.00	05	03.33	08	02.67
<b>(7)</b>	<b>Mass media participation</b>						
1	Low (0 to 6 score)	37	24.67	33	22.00	70	23.33
2	Medium (7 to 9 score)	63	42.00	70	46.67	133	44.33
3	High (10 to 12 score)	50	33.33	47	31.33	97	32.34
<b>(8)</b>	<b>Type of dealership</b>						
1	Retailer	135	90.00	140	93.34	275	91.67
2	Wholesaler	8	05.33	05	03.33	13	4.33

**Comment [U7]:** Justify why dealers with no formal education are not included, and why none of the participants had primary education? Remember this is business, it does not always matter if one has formal education or not, with my experience in the industry, many are even focus on business education that make them to engage in SMEs than the graduates.

3	Distributor	7	04.67	05	03.33	12	04.00
<b>(9)</b>	<b>Nature of inputs marketed</b>						
1	<b>One type of input</b> (fertilizer/ organic manure/ pesticide or fungicide/ seed or seedling/ machinery)	44	29.33	34	22.67	78	26.00
2	<b>Two types of input</b> (fertilizer+ organic manure/ fertilizer+ pesticide or fungicide/ fertilizer+ seeds or seedlings/ fertilizer+ machinery/ organic manure+ pesticide or fungicide/ organic manure+ seeds or seedlings/ organic manure+ machinery/ pesticide or fungicide+ seed or seedling/ pesticide or fungicide+ machinery/ seed or seedling+ machinery)	45	30.00	41	27.33	86	28.67
3	<b>Three types of input</b> (fertilizer+ organic manure+ pesticide or fungicide/ fertilizer+ seed or seedling+ machinery/ organic manure+ seed or seedling+ machinery/ pesticide or fungicide+ seed or seedling+ machinery)	31	20.67	41	27.33	72	24.00
4	<b>Four types of input</b> (fertilizer+ organic manure+ pesticide or fungicide+ seed or seedling/ fertilizer+ organic manure+ pesticide or fungicide+ machinery/ organic manure+ pesticide or fungicide+ seed or seedling+ machinery)	21	14.00	21	14.00	42	14.00
5	<b>Five types of input</b> (fertilizer+ organic manure+ pesticide or fungicide+ seed or seedling+ machinery/ fertilizer+ organic manure+ pesticide or fungicide+ seed or seedling+ machinery+ others)	09	06.00	13	08.67	22	07.33
<b>(10)</b>	<b>Source of motivation to join certificate course</b>						
1	Government agencies	76	50.67	89	59.33	165	55.00
2	Private agencies	32	21.33	27	18.00	59	19.67
3	Personal contacts	24	16.00	22	14.67	46	15.33
4	Mass media	18	12.00	12	08.00	30	10.00
<b>(11)</b>	<b>Computer proficiency</b>						
1	Poor (<15 score)	28	18.67	23	15.34	51	17.00
2	Average (16 to 18 score)	38	25.33	30	20.00	68	22.67
3	Good (19 to 21 score)	52	34.67	62	41.33	114	38.00
4	Excellent (> 21 score)	32	21.33	35	23.33	67	22.33
<b>(12)</b>	<b>Training received</b>						
1	Fertilizer/ Pesticide company	36	24.00	32	21.33	68	22.67
2	Researchstation/SAU	55	36.67	61	40.67	116	38.67
3	Non-governmentorganization	12	08.00	08	05.33	20	06.66
4	Department of agriculture	47	31.33	49	32.67	96	32.00
<b>(13)</b>	<b>Management orientation</b>						
1	Low level (<24 score)	35	23.33	40	26.67	75	25.00
2	Medium level (24 to 25 score)	69	46.00	67	44.66	136	45.33
3	High level (>25 score)	46	30.67	43	28.67	89	29.67
<b>(14)</b>	<b>Decision making ability</b>						
1	Low level (<8 score)	30	20.00	52	34.67	82	27.33
2	Medium level (9 to 11 score)	69	46.00	53	35.33	122	40.67
3	High level (>11 score)	51	34.00	45	30.00	96	32.00
<b>(15)</b>	<b>Information seeking behavior</b>						

1	Low level (<28 score)	36	24.00	28	18.67	64	21.33
2	Medium level (29 to 31 score)	80	53.33	92	61.33	172	57.34
3	High level (>31 score)	34	22.67	30	20.00	64	21.33
<b>(16)</b>	<b>Economic motivation</b>						
1	Low level (<20 score)	21	14.00	30	20.00	51	17.00
2	Medium level (21 to 24 score)	77	51.33	66	44.00	143	47.67
3	High level (>24 score)	52	34.67	54	36.00	106	35.33
<b>(17)</b>	<b>Risk taking ability</b>						
1	Low level (<19 score)	25	16.67	36	24.00	61	20.33
2	Medium level (20 to 23 score)	76	50.67	69	46.00	145	48.33
3	High level (>23 score)	49	32.66	45	30.00	94	31.34
<b>(18)</b>	<b>Level of aspiration</b>						
1	Low level (<9 score)	37	24.67	43	28.66	80	26.67
2	Medium level (10 to 12 score)	63	42.00	58	38.67	121	40.33
3	High level (>12 score)	50	33.33	49	32.67	99	33.00

#### f- frequency and % percentage

### 3.1. Age

The data presented in the Table 1 showed that the majority of online trained fertilizer dealers belonged to middle age (46.00%) category followed by old (33.33%) and young age (20.67%). While, 36.00 per cent of offline trained fertilizer dealers belonged to young age category followed by middle (34.00%) and old age (30.00%).

The findings indicated that the majority of respondents belonged to middle age group followed by old. The middle age group of fertilizer dealers are much involved in agri-input dealership. The reason might be work efficiency was more in the case of middle age group compared to old and young age group. This could be the fundamental reason why the majority of fertilizer dealers were under middle age group. Similar findings were also reported by (Panja *et al.*, 2021; Jaiswal *et al.*, 2022; Gunashree, 2023).

### 3.2. Gender

The data presented related to gender in the Table 1 depicted that more than half of the online trained fertilizer dealers (74.00%) enrolled in the INM certificate course were males and 26.00 per cent of the respondents were females. In the case of offline trained fertilizer dealer's majority (72.67%) enrolled in the INM certificate courses were males and 27.33 per cent of the respondents were females.

It was obvious that more than half of the respondents were males in the INM certificate course. The enrollment ratio of male and female was found to have a great difference as the number of male respondents was found to be double the number of female respondents. This may be due to a lack of awareness about the INM certificate course and commitments towards the family. The findings are in line with the findings reported by (Purnima *et al.*, 2020; Handa, 2021; Purnima and Bhagyalakshmi, 2022).

### 3.3. Education

The data presented in Table 1 indicated that nearly half of the online trained fertilizer dealers (54.00%) were having graduation and above followed by higher secondary education (23.33%), secondary education (22.67%). Whereas, in case of offline trained fertilizer dealers, 58.00 per cent of them had graduation and above followed by higher secondary education (28.66%) and secondary education (13.34%).

The probable reason was that the minimum eligibility of educational qualification 10<sup>th</sup> standard to get admission in the INM certificate course. This finding is in consistent with (Sharma, 2017; Aneesha, 2020; Jaiswal *et al.*, 2022).

### 3.4. Business experience

It is evident from the data Table 1 that more than half (63.33 per cent) of online trained fertilizer dealers had very short experience (<5 years) followed by 12.67 per cent dealers had 6 to 10 years of short experience, 09.33 per cent dealers had 11 to 15 years of medium experience, 08.67 per cent dealers had more than 20 years of very

**Comment [U8]:** What is the basis of your category of young, middle and old age?

**Comment [U9]:** This is what I was saying earlier, you are now compare your results with the relevant studies, but you did not tell the contributions of these studies.

**Comment [U10]:** This justification is not logical

**Comment [U11]:** This shows that you need to tell us more about the programme either in the introduction or methodology for us to know the criteria for selecting the participants

long experience and 06.00 per cent dealers had 16 to 20 years of long experience. Whereas, in case of offline trained fertilizer dealers 71.33 per cent had very short experience (<5 years) followed by 12.67 per cent dealers had 6 to 10 years of short experience, 07.33 per cent dealers had 11 to 15 years of medium experience, 05.34 per cent dealers had more than 20 years of very long experience and 03.33 per cent dealers had 16 to 20 years of long experience.

The above findings lead to the conclusion that the majority of the fertilizer dealers had very short experience, which might be due to the fact that a big segment of fertilizer dealers was young in age, they might have started their business before decade. Regarding experience, the data showed that irrespective of their experiences they opted for new programmes to enhance their competencies and widen their business. The findings are in line with the findings reported by (Patel *et al.*, 2020; Handa, 2021).

### 3.5. Annual income

The Table 1 showed that the annual income of majority (35.33%) online trained fertilizer dealers ranged from Rs.50,001 to Rs.1,00,000 followed by 24.67 per cent of dealers had an annual income up to Rs.50,000, 22.00 per cent of dealers had an annual income ranged from Rs.1,00,001 to Rs.1,50,000, 10.00 per cent of dealers had an annual income ranged from Rs.1,50,001 to Rs.2,00,000 and 08.00 per cent of dealers had an annual income above Rs.2,00,000 respectively. Whereas in the case of offline trained fertilizer dealers, the majority 28.66 per cent of dealers had an annual income above Rs.2,00,000 followed by 20.67 per cent of dealers had Rs.1,50,001 to Rs.2,00,000, 20.00 per cent of dealers had Rs.50,001 to Rs.1,00,000, 18.00 per cent of dealers had an annual income up to Rs.50,000 and 12.67 per cent of dealers had Rs.1,00,001 to Rs.1,50,000 respectively.

The above findings lead to the conclusion that the majority of the respondents were found dependent on input dealing business activity as a primary source of income and few respondents had their income sources both from agriculture and business activities. This result is in agreement with the findings of (Jaly, 2018; Jhansi *et al.*, 2022).

**Comment [U12]:** There is need to justify the differences in their income too

### 3.6. Extension contact

The Table 1 revealed that, 59.33 per cent of online trained fertilizer dealers had a medium level of extension contact followed by low (38.67%) and high (02.00%) extension contact. Whereas, nearly half of the offline trained fertilizer dealers (52.67%) belonged to medium level of extension contact followed by low (44.00%) and high (03.33%) categories.

The probable reason might be due to their association with the certificate programme, where they might have realised the importance of extension contact to boost up extension services as well as their own business. This might be also due to the higher educational qualification of dealers and good relations with extension personnel. The findings are in line with the findings reported by (Banerjee, 2021; Jaiswal *et al.*, 2022; Rajitha *et al.*, 2022).

**Comment [U13]:** Please expantiate more this and how is it relevant to the objectives

### 3.7. Mass media participation

It is evident from the data Table 1 that nearly one-half (42.00%) of the online trained fertilizer dealers had a medium level of mass media participation followed by 33.33 per cent of the dealers had a high level and 24.67 per cent of them had a low level of mass media participation. In the case of offline trained fertilizer dealers, 46.67 per cent had a medium level of mass media participation followed by 31.33 per cent of the dealers, who had a high level, 22.00 per cent of them had a low level of mass media participation.

**Comment [U14]:** Please let us know why this is included and how is it going to help in achieving your objectives

It is clear from the Table 1 that most of the fertilizer dealers were roofed under medium level to high level of mass media participation, the probable reason might be because all the fertilizer dealers had a high level of education and interest in updating the latest agricultural technologies from different mass media sources. A good knowledge status in the usage of Information and Communication Technology (ICT) devices could also be another reason for medium to high levels of mass media exposure. The findings are in line with the findings reported by (Panja *et al.*, 2021; Jaiswal *et al.*, 2022; Gunashree 2023).

### 3.8. Type of dealership

The data from the Table 1 indicated that majority (90.00%) of the online trained fertilizer dealers were retailers followed by 05.33 per cent were wholesalers and 04.67 per cent were distributors. Whereas in the case of offline trained fertilizer dealers, 93.34 per cent were retailers followed by 03.33 per cent were wholesalers and distributors.

The above findings lead to the conclusion that the majority of the dealers were doing retail business. This might be due to the fact that the majority of them were working in rural and semi-urban areas with limited areas of work. Hence, they might have started the retail business. The findings are in line with the findings reported by (Aneesha, 2020).

**Comment [U15]:** Is this enough, what about the like of working capital and economic status and the likes?

### 3.9. Nature of inputs marketed

The data from the Table 1 indicated that majority (30.00%) of the online trained fertilizer dealers were engaged to sell two types of inputs followed by 29.33 per cent, who sold only one type of input, 20.67 per cent of them sold three types of inputs, 14.00 per cent of them sold four types of inputs and 06.00 per cent of them sold five types of inputs. Whereas in the case of offline trained fertilizer dealers, 27.33 per cent of them sold two and three types of inputs followed by 22.67 per cent of them sold one type of input, 14.00 per cent of them sold four types of inputs and 08.67 per cent of them sold five types of inputs.

From the above result, it could be inferred that the majority of fertilizer dealers were selling a combination of two to three inputs (fertilizers, organic manures, pesticides/fungicides, seeds/ seedlings, etc.). The probable reason for this might be to get profit with less labour cost, time and medium investment. This result was in line with the findings of (Banerjee, 2021; Panja *et al.*, 2021; Gunashree, 2023).

**Comment [U16]:** What about the supply chain and the likes

### 3.10. Source of motivation to join certificate course

The data from the Table 1 indicated that the majority (50.67%) of online trained fertilizer dealers used the source of getting motivation from government agencies followed by private agencies (21.33%), personal contacts (16.00%) and mass media (12.00%). Whereas in case of offline trained fertilizer dealers majority (59.33%) of them used the source of getting motivation from government agencies followed by private agencies (18.00%), personal contacts (14.67%) and mass media (08.00%).

The above findings lead to the conclusion that the main reason for motivation to start an input dealership was due to business prospects in the area followed by self motivation, want to help farmers in the region, motivation by department of agriculture, state agricultural university, KVK, and other scientists, successful dealers, family members and relatives. Fertilizer dealers might have earned a reasonable net profit from input dealerships. As a result, their interest and desire to gain even more from selling agri inputs would have heightened. This finding is in line with the findings of (Rastogi and Hasan, 2014; Singh, 2020; Rajitha *et al.*, 2022).

**Comment [U17]:** But majority of the participants were motivated by the government agencies from the results, please let your justifications focus on this

### 3.11. Computer proficiency

Results observed from Table 1 revealed that nearly one-half (34.67%) of online trained fertilizer dealers had a good level of computer proficiency followed by 25.33 per cent dealers had an average level, 21.33 per cent had an excellent level and 18.67 per cent had a poor level of computer proficiency. In the case of offline trained fertilizer dealers, 41.33 per cent had a good level of computer proficiency followed by 23.33 per cent dealers who had an excellent level, 20.00 per cent had an average level and 15.34 per cent had a poor level of computer proficiency.

The above findings lead to the conclusion that majority of the online and offline trained fertilizer dealers had the ability to use computer resources/software. It can be interpreted from these results that fertilizer dealers were ready to learn any course through online/distance learning. The probable reason might be, that most of the dealers were graduated. The findings are in line with the findings reported by (Purnima and Bhagyalakshmi, 2022).

### 3.12. Training received

Results observed from Table 1 revealed that majority (36.67%) of the online trained fertilizer dealers had received training from research station/SAU, followed by 31.33 per cent from department of agriculture, 24.00 per cent from fertilizer/pesticide companies and 08.00 per cent dealers received training from non-government

organizations. In the case of offline trained fertilizer dealers, the majority 40.67 per cent had received training from research station/SAU, followed by 32.67 per cent from department of agriculture, 21.33 per cent from fertilizer/pesticide companies and 05.33 per cent dealers received training from non-government organizations.

The above narration indicated that the majority of the fertilizer dealers got training from research station/SAU and fertilizer/pesticide companies. This might be due to the fact that the university organized one or two days of training programme on crop protection and input producers also organized such training programmes for the promotion of their business. The findings are in line with the findings reported by (Aneesha, 2020).

### **3.13. Management orientation**

Results observed from Table 1 represented that majority (46.00%) of the online trained fertilizer dealers had medium level of management orientation followed by 30.67 per cent of them had high level and 23.33 per cent had low level of management orientation. While, 44.66 per cent of offline trained fertilizer dealers had medium level of management orientation followed by 28.67 per cent had high level and 26.67 per cent had low level of management orientation.

The probable reason might be due to the implementation of updated business rules and the latest marketing techniques to gain profits and they were aware of the importance of proper management of their enterprises as majority of them were highly educated. The findings are in line with the findings reported by (Mamatha, 2018; Handa, 2021; Gunashree, 2023).

### **3.14. Decision making ability**

Results observed from Table 1 indicated that the majority (46.00%) of online trained fertilizer dealers had medium level of decision making ability followed by high level (34.00%) and low level (20.00%) of decision making ability. Whereas in the case of offline trained fertilizer dealer's majority of them (35.33%) had medium level of decision making ability followed by low level (34.67%) and high level (30.00%) of decision making ability.

It is clear from Table 1 that most of the fertilizer dealers were roofed under medium level to high level of decision making ability. The possible reason might be that the fertilizer dealers had gone through a better educational background, a clear-cut vision and were very much sure about their decisions. These findings were consistent with (Sharma, 2017; Mamatha, 2018; Banerjee, 2021).

### **3.15. Information seeking behavior**

Results obtained from Table 1 represented that the majority (53.33%) of online trained fertilizer dealers had medium level of information seeking behavior followed by 24.00 per cent had low level and 22.67 per cent had high level of information seeking behavior. While, 61.33 per cent of offline trained fertilizer dealers had medium level of information seeking behavior followed by 20.00 per cent of them had high level and 18.67 per cent had low level of information seeking behavior.

It is clear from Table 1 that the majority of farm fertilizer dealers had medium level of information seeking behavior. This could be due to the fact that a good educational background and to provide appropriate input and agro-advisory services to the farmers they might have used various formal and non-formal sources for collecting the required information. This result was in agreement with the findings of (Mamatha, 2018; Purnima and Bhagyalakshmi, 2022).

### **3.16. Economic motivation**

Results obtained from Table 1 revealed that the majority (51.33%) of online trained fertilizer dealers had medium level followed by 34.67 per cent and 14.00 per cent of dealers had high and low level of economic motivation respectively. Similarly majority (44.00%) of the offline trained fertilizer dealers had medium level of economic motivation, followed by 36.00 per cent and 20.00 per cent of dealers had high and low level of economic motivation respectively.

It is clear from Table 1 that the majority of fertilizer dealers had medium and high level of economic motivation, this might be due to the high profit orientation of the fertilizer dealers and their desire to stabilize and improve profit further with a clear-cut understanding of agricultural information and marketing. The findings are in line with the findings reported by (Krishnaveni, 2015; Handa, 2021).

### 3.17. Risk taking ability

Results obtained from Table 1 revealed that the majority (50.67%) of the online trained fertilizer dealers had medium level of risk taking ability followed by 32.66 per cent and 16.67 per cent had high level and low level of risk taking ability respectively. Similarly, majority (46.00%) of offline trained fertilizer dealers had medium level of risk taking ability followed by 30.00 per cent and 24.00 per cent had high and low level of risk taking ability respectively.

The findings of the study clearly indicated that the majority of fertilizer dealers belonged to medium to high categories of risk taking ability. The probable reason might be, that the business itself is a challenging job, the dealers have to be always vigilant about market fluctuation and they have to face the risk only then they will be able to sustain themselves in the market. This finding was in line with the findings of (Jally, 2018; Banerjee, 2021; Jaiswal *et al.*, 2022).

### 3.18. Level of aspiration

Results obtained from Table 1 indicated that 42.00 per cent of the online trained fertilizer dealers were having a medium level of aspiration followed by high (33.33%) and low (24.67%) level of aspiration. While, 38.67 per cent of offline trained fertilizer dealers had medium level of aspiration followed by 32.67 per cent had high level and 28.66 per cent had low level of aspiration.

The findings of the study clearly indicated that the majority of fertilizer dealers had medium to high categories of aspiration. The probable reason might be that most of the dealers graduates and were of middle aged. They had more zeal to expand their business to get more profit and improve their status. This finding was in line with the findings of (Nellikoppa, 2018).

## 4. CONCLUSION

As far as socio-personal variables, the findings of the study revealed that majority of the online trained and offline trained fertilizer dealers were medium in their profile characteristics. Most of the fertilizer dealers 40.00 per cent were from middle age group, majority 73.33 per cent of the dealers were males, educated up to graduation level (56.00%) and more than half of the fertilizer dealers (67.33%) had experience up to 5 years. Regarding annual income, the data revealed that the majority of online trained dealers' annual income was Rs.50,001 to Rs.1,00,000, whereas most of offline trained dealers earned above Rs.2,00,000 of annual income. Also, data depicted that the majority (56.00%) had medium level of extension contact. It was revealed that fertilizer dealers (44.33%) had medium level of mass media participation. Regarding the type of dealership, it was concluded that the majority (91.67%) of the fertilizer dealers are retailers. Regarding the nature of inputs marketed, the data revealed that the majority of online trained dealers' (30.00%) of input dealers were dealing with 2 types of inputs, whereas most of offline trained dealers (27.33%) were dealing with 2 and 3 types of inputs. Regarding the source of motivation to join certificate course it was concluded that the majority (55.00%) of fertilizer dealers used the source of getting motivation from government agencies. Regarding computer proficiency, it was revealed for both dealers were good level (38.00%) of computer knowledge. Also, data depicted that the majority (38.67%) of dealers received training from research station and SAU. Regarding management orientation it was concluded that majority (45.33%) of the fertilizer dealers had medium level. It is evident from the finding that the majority (40.67%) of total fertilizer dealers had medium level of decision making ability. It was revealed that more than half of the respondents (57.34%) had medium level of information seeking behavior. It was revealed that the majority (47.67%) of fertilizer dealers were medium level of economic motivation. It was indicated that the majority (48.33%) of fertilizer dealers had medium level of risk taking ability. Also, the study presented that the majority (40.33%) of the fertilizer dealers had medium level of aspiration. Hence, the planners and development agencies need to give attention to medium level profile characteristics of fertilizer dealers while planning training programmes and effective integration of fertilizer dealers with the public system.

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