



Dimensions and Correlates of Agripreneurial Competency

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HIGHLIGHTS

- Majority of the respondents were having medium level of competency.
- Independent variables like, age, education, annual income, agripreneurial experience were having positive correlation with competency.
- Age and education together contributed 70.4 per cent variation in competency of the respondents.

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ABSTRACT

Competency implies that a person with competency possesses the skills and abilities necessary to compete effectively with others. In the present study competency of the agripreneurs measured using the suitable scale in KBK (Kalahandi, Balangir, Koraput, Malkanagiri, Nuapada, Balangir, Sonepur and Raygada) districts of Odisha. State and districts were selected purposively, whereas, respondents were selected randomly. Descriptive research design was followed. Data were collected from the respondents in 2024. A total 17 statements were included under five different dimensions i.e. opportunistic competency, organising competency, strategic competency, commitment competency and personal competency. It was observed that majority of the respondents (63.60%) possessed medium level of competency. It was identified that age, education, annual income and agripreneurial experience were positively associated with their competency level. Further it was noted that, two independent variables age and experience together contributed 70.4 per cent of variance in respondent's competency level.

INTRODUCTION

Agriculture plays a pivotal role in global economies, serving as a cornerstone for food security, employment, and rural development. However, traditional agricultural practices face significant challenges, including climate change, resource depletion, and fluctuating market demands. In this context, agripreneurship emerges as a promising paradigm, merging innovative entrepreneurial strategies with sustainable agricultural practices. Agripreneurship is characterized by its emphasis on creativity and resourcefulness, encouraging individuals to leverage modern technologies and sustainable practices to optimize agricultural production. This integration of entrepreneurship into agriculture presents new opportunities for growth and resilience, particularly in rural areas

where economic diversification is essential. Competency encompasses a combination of knowledge, skills, and attitudes that are essential for effective performance in any field. This definition emphasizes that competencies are dynamic; they can be developed and refined through experiences, training, and coaching (Man et al., 2002; Wagener et al., 2010; Volery et al., 2015; Modak et al., 2018). For entrepreneurs, particularly those leading small businesses, understanding and cultivating these competencies can significantly enhance their ability to navigate challenges and drive growth. Research has shown that a clear grasp of the competencies required for successful entrepreneurship not only supports individual development but also has a direct impact on the overall success of the business (Churchill & Lewis, 1983; Low & MacMillan, 1988; Gupta et al., 2023).

Agripreneurial competency, specifically, refers to the unique set of characteristics-including knowledge, motives, traits, and skills-that facilitate the establishment, sustainability, and expansion of agricultural ventures (Bird, 1995). This competency encompasses a broad spectrum of abilities that allow agripreneurs to effectively respond to market demands, manage resources, and innovate within their fields. Additionally, it can be understood as the total capacity of an entrepreneur to fulfil various roles successfully, which is crucial in a rapidly evolving agricultural landscape (Man et al., 2002). The importance of agripreneurial competencies cannot be overstated, as they directly influence an agripreneur's ability to achieve sustainable growth and success. For instance, a strong understanding of market dynamics allows agripreneurs to identify profitable opportunities and tailor their offerings to meet consumer demands. Furthermore, effective problem-solving and decision-making skills enable them to respond proactively to obstacles, whether they arise from production issues or market competition. By cultivating these competencies, agripreneurs are better positioned to innovate, create value, and contribute positively to the agricultural ecosystem, ensuring not only their own success but also the sustainability of the industry as a whole. Referring to the above-mentioned findings, a humble attempt was made in the study to measure competency level of agripreneurs prevailing in the study area, and association of socio-economic factors with competency was identified and described.

METHODOLOGY

To obtain a thorough understanding of the topic, descriptive research method was adopted. Descriptive research is a type of study that explores the relationships between existing, non-manipulated variables. The research was conducted in specially privileged districts of Odisha, in India, which all together known as KBK districts of Odisha, which includes eight districts as Kalahandi, Nuapada, Koraput, Nawarangpur, Sonepur, Balangir, Raygada & Malkangiri. The scale developed by Maan (2002) was further used for reliability and validity test. The value was 0.87, which was further crosschecked using Spearman's Brown formula and the reliability coefficient was 0.93. The Cronbach alpha value yielded 0.86, which was calculated using SPSS 26, the value indicating high reliability of the instrument. The scale's validity is confirmed through content validity testing. This is achieved when each item, or all items collectively, accurately reflects the intended content to be measured. Since the scale's content is thoroughly supported by relevant literature and expert opinions on agripreneur performance, it is assumed that the scale to measure competency meets the criteria for content validity. Krejci Morgan formula was used to select sample from the population.

$$n = X^2 NP(1-P) / e^2(N-1) + X^2 P(1-P)$$

After selection of sample size proportionate random sampling was used to select sample from various districts for proper representation. A multistage sampling method was employed, incorporating both purposive and random sampling techniques for the study. The final data was collected from 283 agripreneurs (Kalahandi = 49, Balangir = 49, Koraput = 25, Malkangiri = 28, Nuapada = 46, Balangir = 49, Sonepur = 47 and Raygada = 14) in May 2014, by using structured and semi structured interview

schedule. The data were collected, classified, coded, tabulated, analysed and interpreted. Various statistical tools like frequency, percentage, Cumulative Square Root Frequency, correlation coefficient, step-wise regression and chi-square method was used for data analysis.

RESULTS

To measure the competency level of agripreneurs in the study area, the respondents were asked to rate the statements in five-point scale as strongly agree (5), Agree (4), Undecided (3), Disagree (2) and strongly disagree (1). The responses were collected, calculated and tabulated in the Table 1, which pertains the competency level of respondents in the study area.

In the Table 1 first dimension viz. opportunistic competency explained that, more than half of the respondents (55.48% & 76.68%) agreed to the statement that they identify goods and services that customers want. Similarly, 36.40 per cent respondents agreed to the statement that they seize high quality business opportunities, however 35.34 per cent of respondents were undecided about the aforesaid statement.

Organising competency was further explained in the Table 1 that majority of the respondents (44.17%) agreed to the statement organising people is an important aspect in organizational competency. Similarly, 48.76 per cent respondents agreed that organising different resources inside & outside the firm develop organising competency. While, 44.17 per cent respondents strongly agreed that keeping organisation to run smoothly is important for agripreneurs. Whereas 49.82 percentage of respondents agreed to the statements to take remedial actions to solve problem.

It was reported from Table 1 about strategic competency that more than half of the respondents (51.94%) agreed to prioritizing work in alignment with business goals. Likewise, majority of the respondents (49.12%, 37.10% & 49.47%) agreed to the statements aware of project directions and how changes impact the firm, determining strategic actions by weighing costs & benefits and align current actions with strategic goals respectively. Commitment competency was enlisted in Table 1 reflects that 48.76 per cent of respondents agreed to commit long term business goals followed by 29.68 per cent of respondents strongly agreed to that statement. However, 48.06 per cent of respondents agreed to possess an extremely strong internal drive followed by 47 percent of respondents strongly agreed to that statement.

An overview from Table 1 related to personal competency reflects that 50.18 per cent of respondents agreed to maintain a high energy level followed by 32.51 per cent of respondents who were not sure and made a response of undecided about that statement. Majority of the respondents (31.10%) were undecided to maintain positive attitude followed by 25.80 per cent of respondents who agreed to the above-mentioned statement. Furthermore 49.82 per cent & 35.69 per cent of respondents marked agree and strongly agree to the statement able to work independently. Discussing about the last statement, recognise & work on my own shortcomings 46.29 per cent of respondents agreed, 28.98 per cent of respondent were undecided, followed by 24.38 per cent of respondents, who were strongly agreed to the above-mentioned statement.

Table 1. Categorization of the respondents based on their level of competency about agripreneurship

S.No.	Statements	Response (%)				
		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
I	Opportunistic Competency					
1	Identify goods & services customers want	36.04	55.48	6.01	2.47	0
2	Perceive unmet customer needs	17.67	76.68	5.30	0.35	0
3	Seize high quality business opportunities	10.95	36.40	35.34	17.31	0
II	Organising Competency					
4	Organise people	41.70	44.17	3.89	8.83	1.41
5	Organise different resources inside & outside the firm	42.40	48.76	6.01	2.83	0
6	Keep organisation running smoothly	44.17	41.70	11.66	2.47	0
7	Take remedial actions to solve problem	40.64	49.82	6.01	3.53	0
III	Strategic Competency					
8	Prioritizing work in alignment with business goals	47	51.94	0.71	0.35	0
9	Aware of project directions and how changes impact the firm	44.88	49.12	4.59	1.41	0
10	Determining strategic actions by weighing costs & benefits	18.37	37.10	29.68	14.84	0
11	Align current actions with strategic goals	31.45	49.47	18.37	0.71	0
IV	Commitment Competency					
12	Commit to long term business goals	29.68	48.76	19.08	2.47	0
13	Possess an extremely strong internal drive	47	48.06	3.18	1.77	0
V	Personal Competency					
14	Maintain a high energy level	15.19	50.18	32.51	2.12	0
15	Maintain a positive attitude	14.49	25.80	31.10	23.67	4.95
16	Able to work independently	35.69	49.82	9.54	4.95	0
17	Recognise & work on my own shortcomings	24.38	46.29	28.98	0.35	0

Data collected from informants was classified into low, medium and high category as per the Cumulative Square Root Frequency method. It was revealed that, most of the respondents from the study area (63.60%) belonged to medium level of competency about agripreneurial activities, followed by 20.85 per cent of respondents were in low and 15.55 per cent of respondent were in high competency level.

Analysis of association of competency with independent variables

To find out the association between dependent and independent attributes, Pearson correlation, regression analysis, and chi-square method was applied by using SPSS 26 package. Association among the variables with continuous data type (Interval & Ratio level of measurement) was computed using correlation coefficient and regression while association of variables with categorical type of data (Nominal & Ordinal level of measurement) chi-square analysis was attempted.

Correlation analysis

Independent variables namely age, education, landholding, income, agripreneurial experience, achievement motivation, leadership ability, risk orientation and technical orientation were picked for correlation analysis. results of correlation analysis were portrayed in the below mentioned table.

It is evident from Table 2 that age, education, annual income and agripreneurial experience were positively correlated with competency at 1% level of significance. Likewise, the independent

Table 2. Correlation analysis of selected independent variables with Competency

S.No.	Independent Variable (Interval & Ratio level of measurement)	Pearson Correlation Value	P Value
1	Age	0.826**	0.000
2	Education	0.166**	0.005
3	Operational land holding	-0.210	0.723
4	Annual Income	0.166**	0.005
5	Agripreneurial Experience	0.752**	0.000
6	Achievement motivation	0.028	0.638
7	Leadership ability	0.030	0.615
8	Risk Orientation	0.100	0.094
9	Technical Orientation	-0.037	0.537

** Correlation is significant at the 0.01 level

variables like operational land holding, achievement motivation, leadership ability, risk orientation and technical orientation were having no significant association with competency.

Stepwise regression analysis was conducted to determine the impact of independent variables on competency and to identify the most influential factor in the regression model. This involved initially loading all independent variables into the model and then systematically removing each variable to assess its relative impact on the overall contribution to the dependent variable. As depicted in Table 3 with the R² value of 0.704, it can be inferred that variables such as age and experience significantly influenced the dependent variable. Consequently, they account for 70.4 per cent of the observed variation in the dependent variable.

Table 3. Contribution of independent variables towards competency

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.826 ^a	.683	.682	1.58555	.683	605.020	1	281	.000	
2	.839 ^b	.704	.702	1.53469	.021	19.937	1	280	.000	.924

^aPredictors: (Constant), Age; ^bPredictors: (Constant), Age, Experience; ^cDependent Variable: Competency

Table 4. Chi-square analysis of selected independent variables with competency

S.No.	Independent variable (Nominal and ordinal level of measurement)	Pearson chi-square value	df	P-values
1	Gender	2.920	2	0.232
2	Community attitude	6.082	2	0.048*
3	Information seeking behaviour	44.645	14	0.000**
4	Mass media exposure	19.888	14	0.134
5	ICT utility	12.652	12	0.395

*Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level

Table 4 revealed that community attitude and information seeking behaviour exhibited positive relation with competency, whereas gender, mass media exposure and ICT utility found to had negative relation with competency.

DISCUSSION

The result highlighted that most of the agripreneuers were having medium level of competency, which could be upgraded and enhanced by providing exposure and by developing need-based capacity development programmes. Respondents having low level of competency needs to stressed upon. Tailormade workshops and training programmes can uplift their knowledge, skill and attitude for developing various competencies. Respondents with high competency could act as a key factor for encouraging other agripreneuers by describing their way to success and the successful agripreneuers can work as guiding path for others. Table 1 further discuss that, majority of the respondent agripreneuers were well aware about the agripreneurial competency traits, which were required for their successful performance, the result aligns with Gerli et al., (2011).

Since age was having positive correlation with competency, it can be understood that as the agripreneuers grow older they become more competent in their field. The finding was supported by Pawitan et al., (2018), whereas the finding was in contrast with Venkatesan (2022) and Gnanasaranya & Pranmalai (2018), who reported that age was negatively associated with competency in his study on Socioeconomic effect on Competency. Education provides individuals with knowledge and skills that are essential in their field of study. For example, advanced education in a particular subject area equips individuals with deeper understanding and specialized skills, leading to greater competency in that area. The finding was in line with Umar et al., (2018) & Imo et al., (2024). The variable annual income was found to have positive correlation with competency, Higher income can provide individuals with access to resources, external exposure and enhances the propensity to try various innovations, which ultimately enhances competency. The finding was in line with Vijayalakshmi (2019). Agripreneurial

experience provides practical, hands-on learning opportunities that build skills and expertise. Working directly with agricultural practices, business management, and market strategies helps individuals develop a deep understanding of the field. The finding was supported by Gnanasaranya & Pranmalai (2018). The positive and significant relation between community attitude and competency indicates that a supportive and encouraging community environment can lead to higher levels of competency among its members. This relationship highlights the importance of community values and resources in fostering individual and collective development. The finding was in agreement with Zubair et al., (2021). Individuals who actively engage in seeking and utilizing information tend to achieve higher levels of competency. This relationship highlights the importance of being proactive in acquiring knowledge, staying updated with new developments, and effectively applying information to enhance skills and performance. It can also be highlighted that other variable like operational land holding, achievement orientation, leadership ability risk orientation, technical orientation, gender, mass media exposure and ICT utility were found to have no significant relation with competency. The findings were analogous to Somia et al., (2024); Malebana & Vhukeya (2023), whereas opposed by Akowedaho et al., (2022); Hidayat et al., (2022); Abdullah Alshammari et al., (2023).

The R² value highlights the contribution of important independent and crucial factors, that are contributing the variance of dependent variable. Over time, individuals often advance in their careers, taking on more complex and challenging roles. This progression can lead to the development of higher competency levels. Likewise, experience of the respondents strengthens the capability as respondents became competent with increase of their experience, which ultimately strengthens competency of the agripreneuers. The result as in accordance with Zali et al. (2018).

CONCLUSION

Majority of the respondents were found to have medium level of competency, which needs to be upscaled with need-based capacity building programmes, which provides further scope of

improvement in competency level. Independent variables like age, education, annual income, agripreneurial experience, community attitude and information seeking behaviour were found to have positive association with competency of respondents. Among all independent variables, age and agripreneurial experience were contributing major variation on the dependent variable i.e. competency. These findings would be insightful for developing action plan to upscale the competency of agripreneuers, which could be helpful to all the agripreneuers and extension fraternity. There is a scope for further research by increasing sample size, expanding area of study and including related variables to gain comprehensive understanding competency and it's importance for agripreneuers.

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