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Relationship between profile characteristics of undergraduate students with effectiveness in entrepreneurship development

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Abstract
The study was undertaken during 2021-2022 at state agricultural institutions in Karnataka, Telangana, Tamil Nadu, and Kerala states to analyze the relationship of profile characteristics of undergraduate agricultural students who are yet to complete the student READY program with effectiveness in entrepreneurship development. The components provided by the selected universities include rural agricultural work experience (RAWE), agro-industrial attachment (AIA), experiential learning/hands-on training, and project reports. Using simple random sampling, a total of 160 respondents (40 per university) were chosen. Data was collected via mailed questionnaires, and the data was analyzed using Spearman's correlation. The results showed that entrepreneurship development of undergraduate agricultural students across all the four universities had positive significant correlation with parental occupation, annual income of the family, academic performance, peer pressure at 5 per cent significant level. Relatives owning business and career aspiration were highly positive and significantly correlated at 1 per cent significance level. Entrepreneurship development had non-significant relationship with gender, social stratification, rural/urban background, family type, parental education, participation in extracurricular activities and social participation.

Keywords: Entrepreneurship development, Student ready programme, agricultural students, relationship, spearman's correlation, students

Introduction
The Indian Council of Agricultural Research (ICAR) launched the Student READY (Rural Entrepreneurship Awareness Development Yojana) in 2016 with the objective of equipping undergraduate students with awareness and practical experience in rural entrepreneurship. The program aims to expose students to real-life agricultural situations in rural areas, enhance their knowledge in agriculture and allied sciences, and empower them with practical skills and Indigenous Technical Knowledge (ITK) from local communities to encourage self-employment.
Student READY was introduced as a mandatory program across all Agricultural Universities (AUs) to reorient agricultural graduates toward employability and entrepreneurship in the evolving, knowledge-intensive agricultural sector. By engaging students in practical experiences, the program seeks to instil confidence, develop skills, and foster an entrepreneurial mindset essential for agricultural transformation and rural livelihood enrichment.

The Student READY program is implemented over a full academic year during the final (fourth) year of undergraduate education, after students have completed foundational knowledge in the first three years. It consists of five key components:-

1. Experiential Learning on Business Models / Hands-on Training
2. Experiential Learning on Skill Development
3. Rural Agricultural Work Experience (RAWE)
4. Internship / In-Plant Training / Industrial Attachment
5. Student Projects

Students are required to participate in any three out of these five components, depending on the academic requirements of their specific discipline.

Comprehensive details of the program, including its structure and implementation across various agricultural and allied disciplines, are provided in the booklet titled *Student READY*, published by ICAR's Agricultural Division. This booklet served as the primary source for this study. The curriculum was revised by the Fifth Deans' Committee to align with the program's objectives. The goal was to equip graduates with the necessary skills for self-employment, promote food security, ensure agricultural sustainability, and catalyse transformation in the sector.

This study was conducted to analyze the relationship of profile characteristics of undergraduate agricultural students who are yet to complete the student READY program with effectiveness in entrepreneurship development.

Methodology

The present study was conducted during the academic year 2021-2022 across four major agricultural universities in South India: the University of Agricultural Sciences (UAS), Bangalore, Kerala Agricultural University (KAU), Thrissur, Tamil Nadu Agricultural University (TNAU), Coimbatore and Professor Jayashankar Telangana State Agricultural University (PJTSAU), Rajendranagar, Hyderabad. The sample comprised undergraduate agricultural students currently in their 8th semester, who were yet to complete the Student READY programme. A simple random sampling technique was used to select respondents. Data were collected from 40 students per university, resulting in a total sample size of 160 students. The study adopted an Ex-Post-Facto research design. The data was collected using both offline and online methods. The questionnaire was handed over to the agricultural students at UAS, Bangalore, while the questionnaire was emailed in the form of a Google form to the other universities. Entrepreneurship Development was selected as dependent variable. The variable was further divided into 13 dimensions *viz.*, Commitment and determination which had three statements, leadership which had five statements, opportunity obsession which had four statements, tolerance of risk which had five statements, tolerance of uncertainity which had four statements, creativity and innovativeness which had five statements, self-reliance which had six statements, adaptability which had two statements, achievement motivation which had four statements, decision making ability which had four statements, management orientation which had four statements, courage which had three statements and goal setting which had four statements all together totaling to 53 statements were asked to the respondents to assess the entrepreneurship development through Student READY Programme. Out of 53 statements, 17 statements were negative.

The dependent variable was quantified by assigning score according to the entrepreneurship development through Student READY Programme by the respondents on a five-point continuum namely strongly agree, agree, undecided, disagree, strongly disagree with a weightage of 5, 4,3,2 and 1 respectively for positive statements and reverse scoring for negative statements. So, maximum and minimum scores of an individual were 265 and 53. Higher score reveals the respondent is having higher entrepreneurship development through Student READY Programme. The procedure as followed by Kozlinska *et al.* (2020) [3] and Borchers *et al.* (2010) [2] was used with slight modifications.

Thirteen independent variables are selected for the study are gender, social stratification, rural/urban background, family type, parental education, parental occupation, annual income of the family, relatives owning business, academic performance, participation in extracurricular activities, peer pressure, career aspiration and social participation. The spearman's rank correlation was applied to find out the relationship between independent (profile characteristics) and dependent variable (entrepreneurship development of students undergone student READY programme). It is measure of correlation based on ranks.

$$\rho = 1 - \frac{6\sum d_i^2}{n(n^2-1)}$$

Where,

ρ = spearman's rank correlation coefficient

di = difference between the two ranks of each observation

n = number of observations

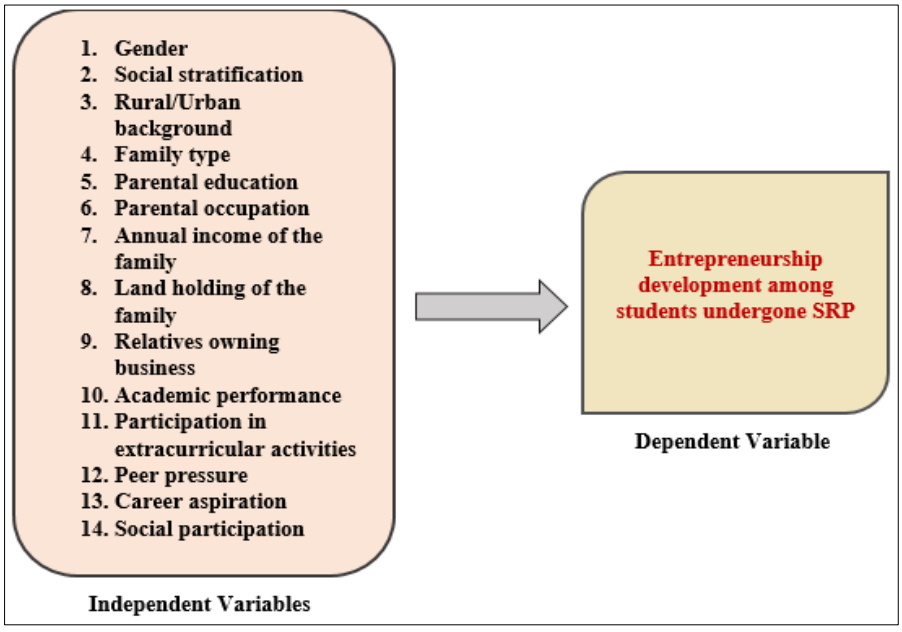

Fig 1: Conceptual framework of the study

Results and Discussion

Spearman's rank correlation was applied to find out the relationship between profile characteristics of undergraduate agricultural students undergone student READY programme with effectiveness in entrepreneurship development. It is apparent from the Table 1, entrepreneurship development of undergraduate agricultural students across all the four universities had positive significant correlation with parental occupation, annual income of the family, academic performance, peer pressure at 5 per cent significant level. Relatives owning business and career aspiration were highly positive and significantly correlated at 1 per cent significance level.

With respect to UASB, entrepreneurship development of undergraduate agricultural students had highly positive significant correlation with relatives owning business and peer pressure at 1 per cent significant level and positive significant correlation with career aspiration at 5 per cent significant level. Considering PJTSAU, entrepreneurship development of undergraduate agricultural students had highly positive significant correlation with gender at 1 per cent significant level and positive significant correlation with relatives owning business at 5 per cent significant level. Similarly, TNAU, entrepreneurship development of undergraduate agricultural students had highly positive significant correlation with annual income of the family at 1 per cent significant level and positive significant correlation with relatives owning business at 5 per cent significant level. With respect to KAU, entrepreneurship development of undergraduate agricultural students had highly positive significant correlation with annual income of the family and relatives owning business at 1 per cent significant level.

Similarly, considering TNAU, entrepreneurship development of undergraduate agricultural students had non-significant relationship with gender, social stratification, rural/urban background, family type, parental education, parental occupation and academic performance, participation in extracurricular activities, peer pressure, career aspiration and social participation. With respect to KAU, entrepreneurship development of undergraduate agricultural students had non-significant relationship with gender, social stratification, rural/urban background, family type, parental education, parental occupation, academic performance, participation in extracurricular activities, peer pressure, career aspiration and social participation.

Finally, entrepreneurship development of undergraduate agricultural students across all the four universities had non-significant relationship with gender, social stratification, rural/urban background, family type, parental education, participation in extracurricular activities and social participation. Reza (2011) [6] found similar findings. With respect to UASB, entrepreneurship development of undergraduate agricultural students had non-significant relationship with gender, social stratification, rural/urban background, family type, parental education, parental occupation, annual income of the family, academic performance, participation in extracurricular activities and social participation. Considering PJTAU, entrepreneurship development of undergraduate agricultural students had non-significant relationship with social stratification, rural/urban background, family type, parental education, parental occupation, annual income of the family, academic performance, participation in extracurricular activities, peer pressure, career aspiration and social participation.

Table 1: Relationship between profile characteristics of agricultural students with effectiveness in entrepreneurship development of students undergone student READY programme, (N=160)

Sl. No.	Independent variables	Agricultural students				
		UASB (n_1=40)	PJTSAU (n_2=40)	TNAU (n_3=40)	KAU (n_4=40)	Overall (N=160)
		ρ value	ρ value	ρ value	ρ value	ρ value
1.	Gender	-0.170 NS	0.428**	-0.170 NS	0.140 NS	-0.074 NS
2.	Social stratification	-0.160 NS	-0.122 NS	0.100 NS	-0.114 NS	-0.132 NS
3.	Rural/Urban background	-0.030 NS	-0.055 NS	0.004 NS	-0.027 NS	-0.090 NS
4.	Family type	-0.030 NS	-0.020 NS	0.151 NS	0.021 NS	0.071 NS
5.	Parental education	0.293 NS	-0.072 NS	0.150 NS	0.099 NS	0.077 NS
6.	Parental occupation	-0.231 NS	0.101 NS	-0.055 NS	0.123 NS	0.182*
7.	Annual income of the family	0.206 NS	-0.010 NS	0.456**	0.410**	0.171*
8.	Relatives owning business	0.508**	0.382*	0.323*	0.413**	0.389**
9.	Academic performance	-0.212 NS	0.201 NS	-0.167 NS	0.069 NS	0.190*
10.	Participation in extracurricular activities	0.286 NS	-0.136 NS	0.254 NS	0.014 NS	-0.060 NS
11.	Peer pressure	0.419**	0.035 NS	0.217 NS	0.188 NS	0.184*
12.	Career aspiration	0.392*	0.211 NS	0.249 NS	0.287 NS	0.211**
13.	Social participation	-0.150 NS	-0.301 NS	0.096 NS	0.114 NS	-0.100 NS

NS-Non-Significant, *-significant at 5% level, **-significant at 1% level

Conclusion

The Student READY (Rural Entrepreneurship Awareness Development Yojana) programme, launched by the Indian Council of Agricultural Research (ICAR) in 2016, is a mandatory one-year experiential learning initiative designed for undergraduate students in agriculture and allied disciplines. The programme comprises five core components and aims to foster practical exposure, entrepreneurial skills, and self-reliance among students before graduation. This study was undertaken to examine the relationship of profile characteristics of agricultural students pursing 8th semester of their under graduation and yet to complete student READY programme with effectiveness in entrepreneurship development. The analysis revealed that Parental Occupation, Annual Family Income, Academic Performance, and Peer Pressure had a positive and statistically significant correlation with entrepreneurship development at the 5% level of significance. Relatives Owning a Business and Career Aspiration were found to have a highly positive and significant correlation at the 1% level of significance. No significant relationship was observed between entrepreneurship development and the variables Gender, Social Stratification, Rural/Urban Background, Family Type, Parental Education, Participation in Extracurricular Activities, and Social Participation. To enhance the effectiveness of the Student READY programme, Modules should be designed to

serve as a platform for exploring diverse career paths within the agricultural sector. An entrepreneurial mindset should be cultivated from the first year of undergraduate education by engaging students in industry-linked projects, hands-on training, and field-based problem-solving activities.

References

1. Anonymous. Student READY. Agricultural Education Division, ICAR, New Delhi, 2016. Accessed 2022. Available: https://icar.org.in/files/StudentReadyBooklet_for%20web-1-25102016.pdf
2. Borchers A, Park SH, Riffe W, Harris M, Tavakoli M. Measuring the impact of entrepreneurship across the curriculum. In: Proceedings of the Annual Conference & Exposition, 2010 Jun.
3. Kozlinska I, Mets T, Rõigas K. Measuring learning outcomes of entrepreneurship education using structural equation modeling. Adm Sci. 2020;10(3):58.
4. Ajit CM. Determination of attitude, occupational aspiration and preference for placement of B.Sc. Agriculture students of Gujarat state. M.Sc. (Agric.) thesis. Anand: Gujarat Agricultural University, 2004.
5. Dhakre HR. Attitude and aspiration of postgraduate students towards agriculture and allied entrepreneurship, Gujarat state. M.Sc. (Agric.) thesis. S. K. Nagar: Gujarat Agricultural University, 2009.
6. Reza M. Assessing attitudes of female freshman agriculture undergraduates towards entering agricultural majors. Indian J Soc Res. 2011;54:626-635.