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Profile characteristics of agricultural university students in relation to internet utilization

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Abstract

Agricultural education has changed as a result of ICT integration, which has improved digital learning, research collaboration, and knowledge acquisition. Understanding the socio-personal, economic and educational characteristics of students is essential for planning effective educational ICT interventions. The present study was conducted during 2019 among the Post graduate students of Panjabrao Krishi Vidyapeeth, Akola, Maharashtra. A total of 140 postgraduate students were selected through random sampling from the Post Graduate Institute, Akola and the College of Agriculture, Nagpur. Data were collected through a structured questionnaire and analyzed using frequency and percentage and standard deviation. The findings revealed that majority of the respondents were in first class category, had rural background, and had mother-tongue as their medium of basic education, with their Mother's education up to higher secondary school / Junior college, and the respondents Father's education was up to under graduation, had low level of family income, had Agriculture as their occupation, Majority of the students possess Smart phones (98.50%) followed by laptop/desktop (61.40%) and had medium level of availability of gadgets and half (50%) of the respondents were male category and remaining half (50%) of the respondents were female category.

Keywords: Agricultural students, economic, internet, utilization, socio-personal, profile

Introduction

The introduction of Information and Communication Technologies (ICTs) has transformed the way information is created, stored, transmitted, and used throughout the world. The Internet has developed as one of the most powerful and accessible information sources, allowing communication, knowledge exchange, education, research, and innovation. The Internet has revolutionized traditional learning systems by enabling quick access to massive volumes of knowledge and educational tools. It has evolved into an essential component of higher education, allowing students to access academic databases, e-books, online journals, digital libraries, e-learning platforms, and research networks.

The fast development of internet technology has had a tremendous impact on the educational environment globally. Universities and educational institutions are progressively using digital technology into teaching and learning processes in order to improve student academic performance and learning outcomes. Internet-based educational tools allow for self-learning, collaborative learning, online communication, and access to global knowledge systems. As a result, internet access has become a must for students seeking higher education, particularly in professional subjects such as agriculture, engineering, medicine, and management (Mishra *et al.*, 2005) ^[1].

Digital technologies have been embraced by higher education institutions worldwide in recent years to facilitate academic

cooperation, teaching, and research. Online learning resources have made it possible for students to participate in collaborative learning, self-directed learning, and ongoing professional development. In order to access academic resources, prepare assignments, do research, and communicate with classmates and teachers, digital tools are now necessary. As a result, proficient internet use is now necessary to succeed academically in higher education (Smith and Storrs, 2023) ^[2].

In educational institutions, students are the most valuable human resource. Their learning habits, use of technology, academic achievement, and use of information resources are influenced by their socio-personal, economic, and educational traits. Policymakers, university administrators, and educational planners may create successful plans for student assistance and academic growth by having a thorough understanding of these traits.

Even though a lot of study has been done on internet use and digital learning in higher education, there isn't much empirical data on the features of agricultural university students' internet usage profiles, especially in Maharashtra. Thus, the current study was conducted to look at the features of agricultural university students' profiles and to shed light on the background variables related to internet usage. It is anticipated that the study's conclusions would help agricultural institutions create successful ICT-enabled curricula and digital learning projects.

Objective

To study the profile characteristics of agricultural university students in relation to internet utilization.

Materials and Methods

The present study was conducted at Post Graduate Institute, Dr. PDKV, Akola and College of Agriculture, Nagpur

(Maharashtra). For the present study “Ex-post facto” research design has been used to analyses the research, research methodology and to meet the requirements of objectives. A pre-tested, structured questionnaire was used to gather primary data. The respondents were personally interviewed in order to get pertinent data.

Table 1: Location wise students selected for the study

Sl. No.	Location wise breakup of PG Agriculture students	Total admitted PG students in agriculture	Actual number of students selected and interviewed
1	Students in Akola	341	70
2	Students in Nagpur	175	70
	Total	516	140

Results and Discussion

Profile characteristics of the students

1. Gender

The Gender wise distribution of the respondents has been summarized in the form of table 2 and diagrammatically illustrated in Figure 1.

Table 2: Distribution of the respondents according to Gender

	Category	Respondents(N=140)	
		Frequency	Percentage
1	Male	70	50.00
2	Female	70	50.00
	Total	140	100.00

The data presented in the table 2 indicates that out of 140 respondents half (50%) of the respondents were male category and remaining half (50%) of the respondents were female category.

2. Mother's education

It is said that mother is the first teacher of any child and she plays very important role in the development of her child. Thus, it is very commonly assumed that the level of education of the mother affects the degree of involvement of students in various developmental activities. The data regarding the educational status of the mothers of the respondents were collected and has been presented in the Table 3 and diagrammatically illustrated in Figure 2.

Table 3: Distribution of the respondents according to Mother's education

Sl. No	Education	Respondents(N=140)	
		Frequency	Percentage
1	Illiterate	05	03.57
2	Primary school	09	06.43
3	Middle school	11	07.85
4	Secondary school	29	20.72
5	Higher secondary school/ Junior college	35	25.00
6	Under graduation	30	21.43
7	Post graduation	21	15.00
	Total	140	100.00

The results showed that, mothers of 25.00 percent of the respondents had higher secondary school of education, followed by 21.43 percent were up to Under graduation, 20.72 percent of them were educated up to secondary school

education, 15.00 percent of them with Post graduation and 7.85 percent of them were with middle school education, 6.43 percent of them are with primary school of education respectively. Only 3.57 percent of them reported illiterate about their mothers.

3. Father's education

It is presumed in general, that fathers with high level of education will have good understanding regarding modern ways of advancement meant for their sons or daughters. Keeping this in view, an attempt was made to know the educational background of the father of the respondents. Distribution of the respondents according to their father's education has been presented in Table 4 and diagrammatically illustrated in Figure 3.

Table 4: Distribution of the respondents according to their father's education

Sl. No	Education	Respondents (N=140)	
		Frequency	Percentage
1	Illiterate	01	0.72
2	Primary school	05	03.58
3	Middle school	04	02.86
4	Secondary school	25	17.85
5	Higher secondary school/ Junior college	35	25.00
6	Under graduation	43	30.71
7	Post graduation	27	19.28
	Total	140	100.00

The results showed that, father's of 30.71 percent of the respondents had Under graduation level of education, followed by 25 percent of them were with up to Higher secondary school of education, 19.28 percent of them were with up to Post graduation education, and 17.85 percent of them with secondary school and 3.58 percent of them were with primary school education, 2.86 percent of them were with middle school of education respectively. Only 0.72 percent of them reported about their father's being illiterate.

4. Medium of basic education

The responses regarding medium of instruction during school days of respondents was also considered as an important variable. Since, most of the Internet sites of computer can be operated in English language. Distribution of the respondents according to their Medium of basic education has been diagrammatically illustrated in figure 4 and the data in this

regard were collected and presented in the Table 5.

Table 5: Distribution of the respondents according to their medium of basic education

Sl. No	Category	Respondents (N=140)	
		Frequency	Percentage
1	Mother- tongue	85	61.43
2	English	46	32.85
3	Hindi	06	04.29
4	Others	02	01.43
Total		140	100.00

The results indicated that 61.43 percent of the respondents had their Mother tongue as medium of basic education, followed by 32.85 percent had English as their medium of basic instruction and 4.29 percent of the respondents had Hindi language as their medium of instruction and only 1.43 percent of respondents had other these languages as their medium of instruction during their schooling.

5. Family background

Family background of the respondents also happens to be an important variable. The data regarding this were collected and has been presented in Table 5 and diagrammatically illustrated in Figure 5.

Table 6: Distribution of the respondents according to their family background

Sl. No	Category	Respondents(N=140)	
		Frequency	Percentage
1	Urban	53	37.86
2	Rural	87	62.14
Total		140	100.00

These findings are in From the Table 6 it could be drawn that majority (62.14%) of the respondents were belonging to rural background, followed by urban background (37.86%). This may be due to the reason that most of the students admitted in the university are from rural background.

6. Family occupation

The parents occupation of the respondents were categorized into Labourer, Agriculture+labour, Agriculture, Agriculture+Subsidiary occupation, Agriculture+ Services, Business and Others.

The data pertaining to the family occupation of the respondents have been analyzed and presented as below Table 6 and diagrammatically illustrated in Figure 6.

Table 7: Distribution of the respondents according to their family occupation

Sl. No.	Occupation	Respondents(N=140)	
		Frequency	Percentage
1	Labourer	05	03.58
2	Agriculture+ labour	13	09.28
3	Agriculture	42	30.00
4	Agriculture+ subsidiary occupation	16	11.43
5	Agriculture + services (Govt job)	37	26.43
6	Business	07	05.00
7	Others (Govt job etc.)	20	14.28
Total		140	100.00

Table 7 indicates that 30.00 percent of the parents were engaged in agriculture, followed by 26.43 percent parents were from agriculture + service sector, 14.28 percent parents were from Government jobs, 11.43 percent parents were from agriculture+subsidiary occupation, 9.28 percent of the parents were engaged in agriculture+labour activities, 5 percent of the parents were from business sector and 3.58 percent of the parents work as a labourer.

This may be due to the reason that most of the respondents are from rural background and are engaged in agriculture.

7. Family income

The income (Rupees per anum) of all the family of the respondents was assumed to be an important variable, which may have relation with respondents' accessibility to modern technological advancements like computer, Internet facilities etc. With a view to analyze it, information was collected from the respondents and the data are presented in Table 8 and diagrammatically illustrated in Figure 7.

Table 8: Distribution of the respondents according to their family income

Sl. No.	Category	Respondents(N=140)	
		Frequency	Percentage
1	Low	84	60.00
2	Low medium	25	17.86
3	Medium	15	10.71
4	Medium high	11	07.86
5	High	05	03.57
Total		140	100.00

The results from Table 8 reveals that 60 percent of the respondents were belonging to low income category followed by 17.86 percent of the respondents were belonging to low medium category, 10.71 percent of the respondents were belonging to medium category, 7.86 percent of the respondents were belonging to medium high category and only 3.57 percent of the respondents were belonging to high category respectively.

This may be due to the reason that majority of the respondents family occupation was belonging to agriculture.

8. Percentage/ CGPA

The academic achievement of the respondents is also an important variable of the present study, which may have relationship with their internet exposure. To analyze this, information was collected in terms of Overall Grade Point Average (OGPA) and results have been presented in Table 9 and diagrammatically illustrated in Figure 8.

Table 9: Distribution of respondents according their CGPA

Sl. No	Category	Respondents (N=140)	
		Frequency	Percentage
1	Distinction	26	18.57
2	First class	105	75.00
3	Second class	9	06.43
4	Fail	0	00.00
Total		140	100.00

From Table 9 it is observed that 75 percent of the respondents had passed with first class, 18.57 percent respondents had passed with distinction, followed by 6.43 percent respondents

had passed with second class and there were no students who are belonging to fail category.

9. Availability of Gadgets

It is expected that availability of gadgets is important factor to utilize internet effectively. The data pertaining to availability of gadgets with the respondents have been analyzed and presented as below Table 10.

Table 10: Distribution of respondents according to their gadgets availability

Sl. No.	Availability of Gadgets	Respondents (N=140)	
		Number	Percentage
1	Laptop/Desktop/Palmtop	76	54.28
2	Tab	02	01.42
3	Smart phone	138	98.50
4	ARIS (Agriculture Research information system)	51	36.42
5	Hostel Wi-Fi	67	47.85
6	Others	04	02.85

From table 10 it is observed that Majority of the students possess Smart phones (98.50%) followed by laptop/desktop/palmtop (54.28%). 47.85 percent, 36.42 percent, 2.85 percent students were using Hostel Wi-Fi, ARIS (Agriculture Research Information System) and Others respectively for accessing information.

Hence availability of gadgets was considered for the study and categorization was done on the basis of mean and standard deviation. Distribution of respondents according to their gadgets has been presented in Table 11 and

diagrammatically illustrated in Figure 10.

Table 11: Distribution of the respondents according to their availability of gadgets

Sl. No	Category	Respondents (N=140)	
		Number	Percentage
1	Low	20	14.29
2	Medium	93	66.43
3	High	27	19.28
Total		140	100.00
Mean = 9.31 SD = 3.82			

From the Table 11 it is observed that relatively high proportion (66.43%) of the respondents had medium level of availability of gadgets, followed by 19.28 percent of the respondents had high level of availability of gadgets and 14.29 percent of respondents had low level of availability of gadgets.

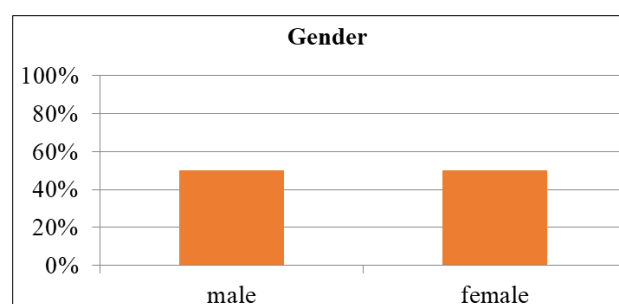


Fig 1: Gender wise distribution of the respondents

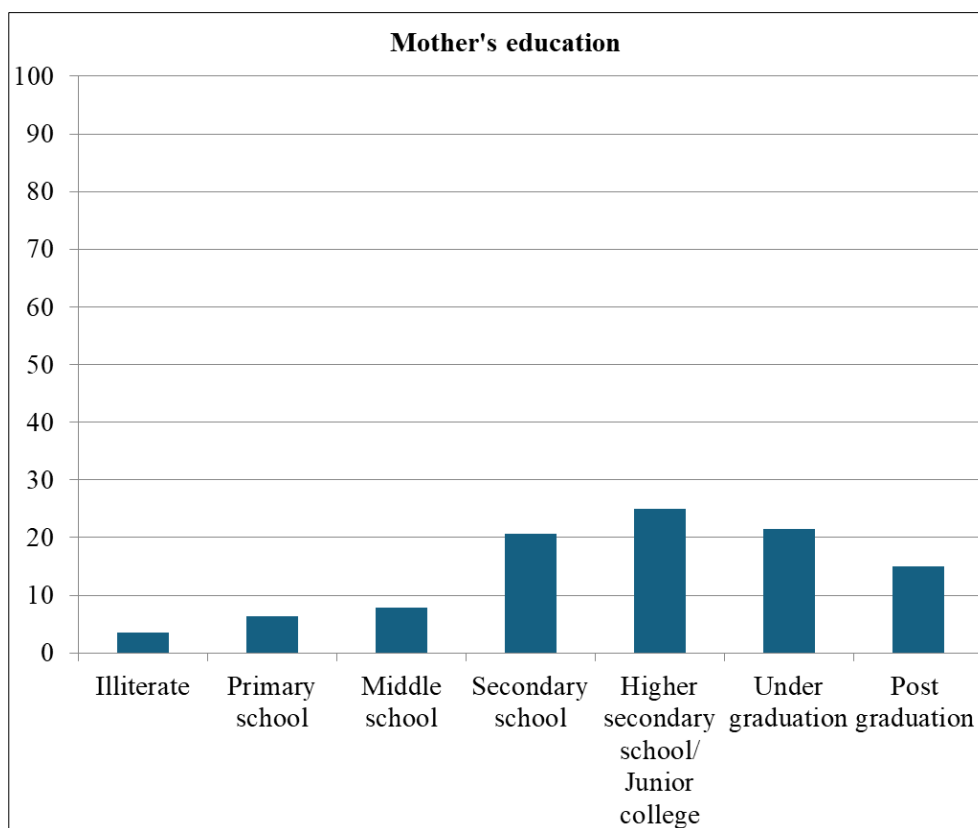


Fig 2: Distribution of respondents according to their mother's education

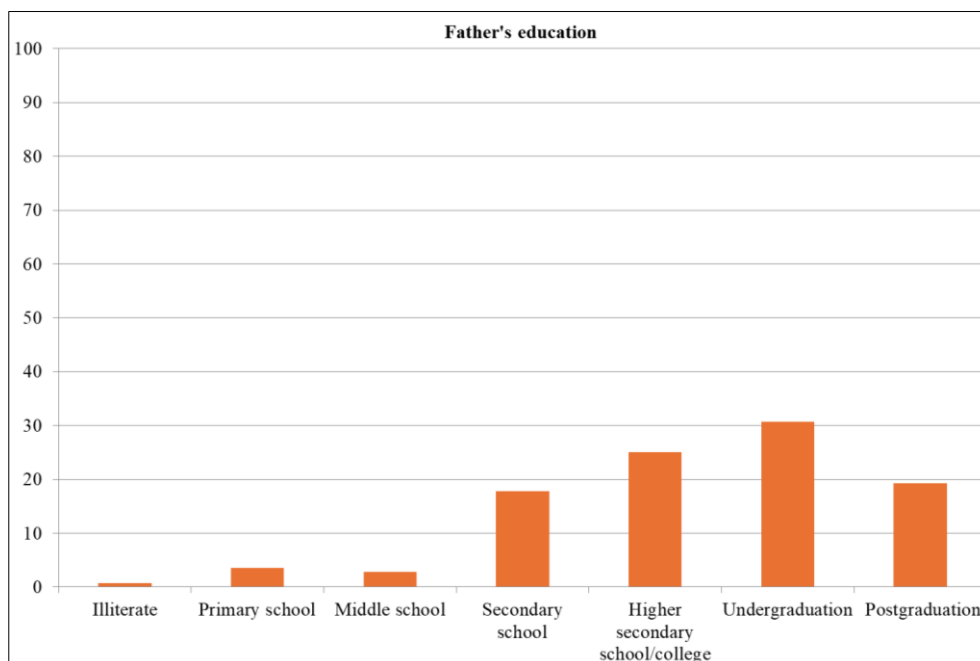


Fig 3: Distribution of respondents according to their father's education

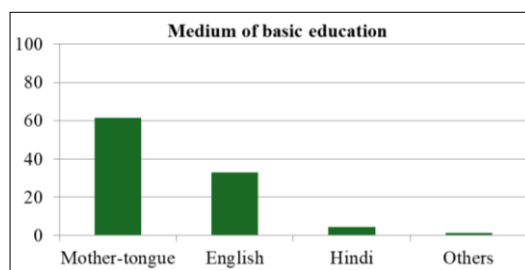


Fig 4: Distribution of the respondents according to their medium of basic Education

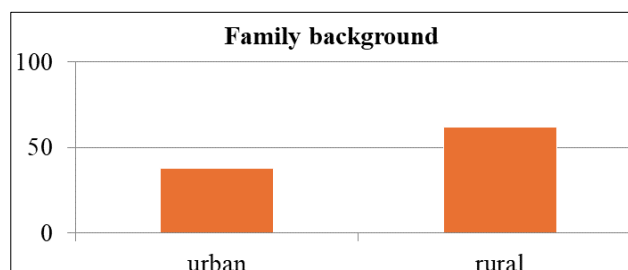


Fig 5: Distribution of the respondents according to their family background

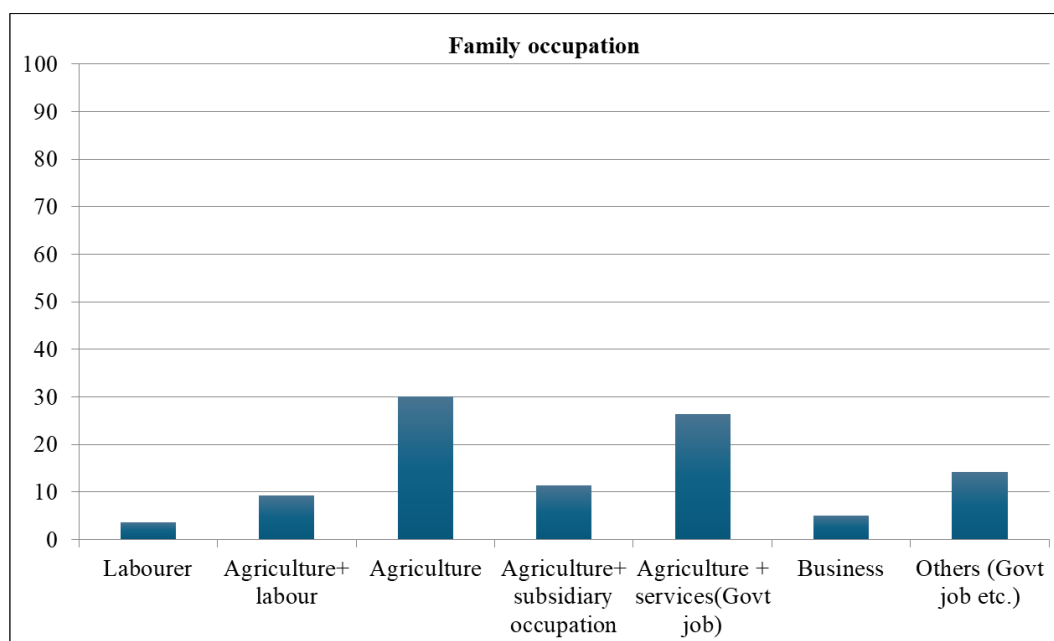


Fig 6: Distribution of the respondents according to their family occupation

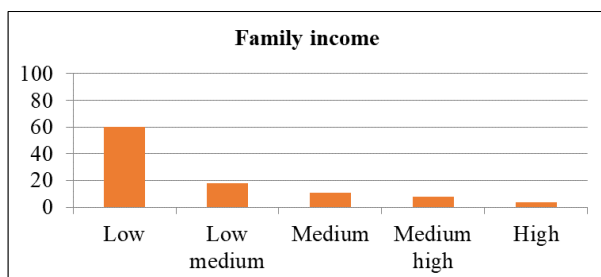


Fig 7: Distribution of the respondents according to their family income

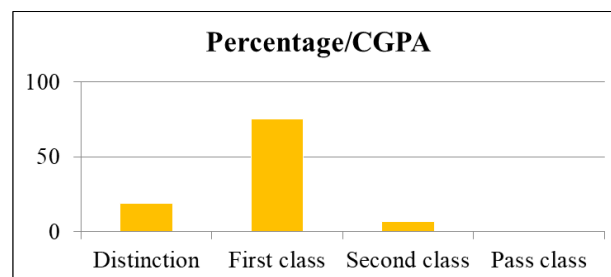


Fig 8: Distribution of respondents according to their Percentage/CGPA

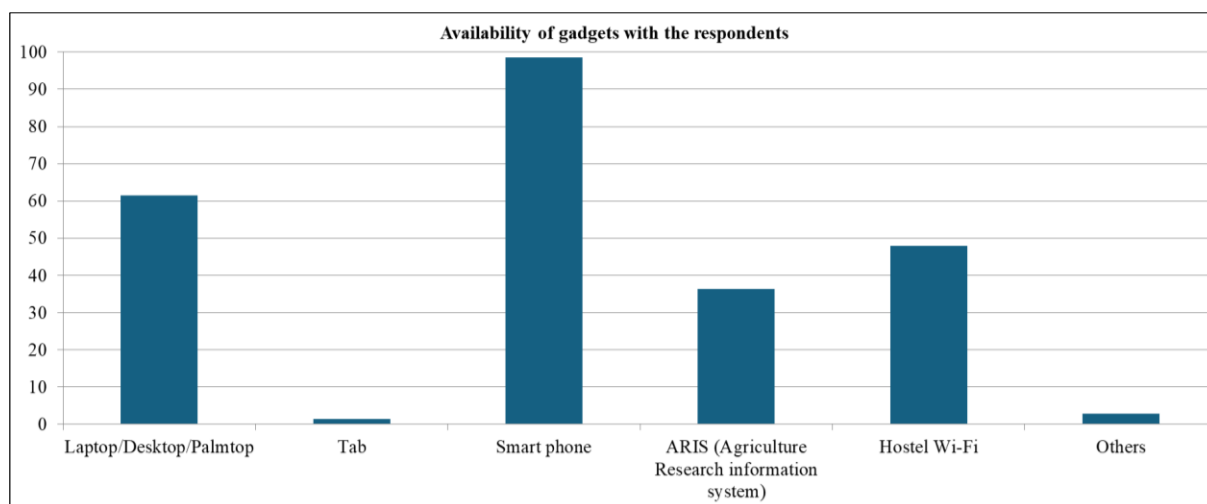


Fig 9: Distribution of respondents according to gadgets availability with them

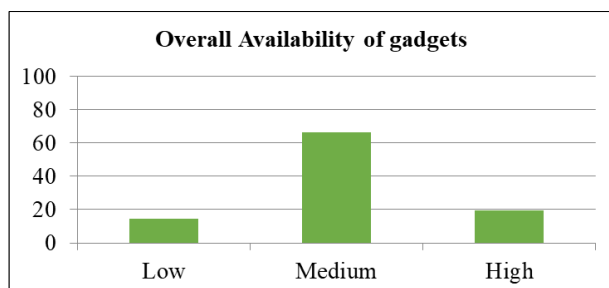


Fig 10: Distribution of respondents according to Availability of gadgets

Conclusion

According to the survey, agriculture university students had a variety of educational and socio-personal traits. Male and female students participated equally. The majority of responders were from agricultural families and rural backgrounds. A significant percentage of parents had completed secondary and higher education. Although most of the students came from low-income families, their academic achievement was good. The majority of respondents had medium levels of gadget access, which is indicative of agricultural students' growing digital penetration.

References

1. Mishra OP, Yadava N, Bhist K. Internet utilization pattern of undergraduate students. *University News*. 2005;43(13):8.
2. Smith EE, Storrs H. Digital literacies, social media, and undergraduate learning: What do students think they

need to know? *International Journal of Educational Technology in Higher Education*. 2023;20:29.

3. Thakur PR. Utilization Pattern of ICTs by the Agriculture PG students of College of Agriculture, JNKVV Jabalpur (MP). Unpublished M. Sc. Thesis, JNKVV, Jabalpur. 2017.
4. Zamani-Miandashti N, Memarbashi P, Khalighzadeh P. The prediction of Internet utilization behavior of undergraduate agricultural students: An application of the theory of planned behavior. *The International Information & Library Review*. 2013 Sep 1;45(3-4):114-26.