

## Digital Solutions for Enrolment Enhancement in Home Science and Agriculture Education

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### ABSTRACT

**Introduction:** In this science driven world, digital advancement is playing a critical role. However, there is still no substitute for traditional sciences like Agriculture and its allied fields like Home Science. With the advancing technology, opportunities for using mobile technologies have been improved in last few years with the growing population of smart phones and tablet users in our country. Technology has the power to construct and disrupt the future of young generation. So, this paper discusses digitalization from the viewpoint of various high school and college students' preferences regarding available digital solutions with the underlining objective to utilize the preferred digital mode for enrolment enhancement in Home Science.

**Methodology:** The present research is focused on identification of the preferences of students regarding digital solutions for gaining information on higher education in Agriculture and allied fields. A multi stage sampling technique was used to select the students. Top 10 schools in terms of highest student strength were contacted for participation in the study. On the basis of consent, top 5 schools were selected for data collection. Students were allocated proportionally to schools at stage two by systematic random sampling method. Thus, making the total 100 sample size of students.

**Results and Conclusion:** The results pertaining to the utilization pattern showed that in digital solution, majority (74%) of students used the mobile apps followed by videos (51%) and websites (37%). Further, the study evaluated the desirable characteristics, where majority of the students desired a digital solution i.e. easy to use (86%) and regularly updated (83%). It was noteworthy that majority of the students prefer mobile apps (78%) followed by videos (43%) and websites (37%) for attaining information about a particular subject that is being considered for higher education. Majority of the students suggested that to increase the enrolment, digital solution should be providing more information regarding the admission criteria and the form availability (74%), followed by job awareness in different departments (71%) and harnessing student motivation through success stories (67%). Thus, it can be concluded that students found mobile apps convenient to use as compared to other digital solutions.

**Keywords:** Home Science Education, Enrolment enhancement, Digital Solution, Mobile Application

### INTRODUCTION

One of the major trends in today's society for a long term future is digitalization. As digital advancement is playing a critical role in this science driven world, need for proficient agricultural scientists is still there, it is not necessarily translated into higher enrolments of

students in these areas, posing a risk to the longevity and quality of agricultural sciences. This paper considers digitization as a more fundamental alteration, rather than just digitizing existing information or data. Digitization can be defined as, “the action or process of digitizing; the conversion of analogue data (esp. in later use images, video, and text) into digital form”. It also refers to “the changes associated with the application of digital technology in all aspects of human society”. It encompasses the “ability to turn existing products or services into digital variants, and thus offer advantages over tangible product”.

With a booming education sector in the country, India has the largest student population in the world; over 350 million students. To ensure that this young upcoming generation gets itself involved in fields requiring most consideration, efforts will have to be put to provide that direction, right from schools. As per the All India Survey on Higher Education (2015-16) conducted by Ministry of Human Resource Development, Department of Higher Education (New Delhi), there are only 9970 students enrolled in higher education under home science, only 98876 students are enrolled in B.Sc. (Agriculture) as compared to 5,09,031 students in Bachelor of Sciences and 13,80,583 in Bachelor of Arts. The Gross Enrolment Ratio in higher education of Rajasthan is only 18.50 percent for females; which is sadly very low than Chandigarh (70.40%), Delhi (48.20%), Tamil Nadu (42.40%) and Himachal Pradesh (35.50%) along with other states of India. Home Science is a vast and varied field and agriculture is the backbone of India. For any individual, two of the most important goals in life are family and career. Home Science empowers the person to handle both efficiently. Home Science is the only subject which prepares young learners for the two most important goals in their lives - looking after their home and family and preparing for a career or vocation in life. But for any subject to thrive and prosper, it requires constant inflow of talented students. However, with the lack of awareness regarding home science and agriculture as a profession, rigorous marketing practices of educational institutes concerning non-agricultural education and numerous other reasons, there is a constant decline in students opting for home science and agricultural sciences in higher education (NEP, 2019).

Study conducted on cognizance about Home Science in Kerala (Fatima, 2015) found a monumental difference between the awareness level of students in the basis of rural and urban backgrounds and also State and Central Board of Secondary Education (CBSE) syllabus. Analysis study of the perception of students on agriculture concluded that about one-third of the respondents have a negative perception that farming occupation is meant for the less privileged in the society.

In terms of current involvement of women in agriculture in India, according to Banerjee et al. (2016), “women in India are major producers of food in terms of value, volume and number of hours worked. Almost 63 percent of all economically active men are occupied in agriculture as compared to 78 per cent of women. Almost 50 percent of rural female workers are classified as agricultural labourers and 37% as cultivators. About 70 percent of farm work was performed by women”. A recent article by the Indian Express (June, 2017) confirms an undeniable risk of

survival of Indian agriculture without the participation of women; with 80-100 million of them employed in this field. Activities ranging from pre and post harvest, women work harder and longer than male farmers. So, when it has been established that women have a pivotal role to play in India's agriculture and hence nutritional security, it becomes exceedingly crucial to enrol as many girls in agricultural education as possible if we want our future agriculturists to be well learnt and well equipped in this science.

With advancing technology, digital marketing methods such as social media marketing, Search Engine Optimization (SEO), e-commerce marketing, Search Engine Marketing (SEM), social media optimization, content marketing, campaign marketing, display advertising, e-books, etc. are becoming quite common. Non-Internet channels such as mobile phones (SMS and MMS), customized informatory ring tones etc. are also gaining popularity as digital media.

Opportunities for using mobile technologies have been improved in last few years with the growing population of smart phones and tablet users in our country. Technology has the power to construct and disrupt the future of young generation. So, this paper discusses digitalization from the viewpoint of various high school and college students' preferences regarding available digital solutions (traditional and supporting technologies) like text, images, banners, website, blogs, videos, mobile apps, webinars, podcasts and ads.

Keeping above factors in mind, the present study was designed to develop "digital solutions for enrolment enhancement in agriculture and allied sciences" with the following objectives:

1. To assess the digital solutions frequently used by the students and its desirable characteristics
2. To find out the preferences of digital solutions for enrolment enhancement

## **METHODOLOGY**

The present research is focused on identification of the preferences of students regarding digital solutions for gaining information on higher education in agriculture and allied fields. The study was carried out purposively in Jaipur city of Rajasthan state. Jaipur has 17 blocks with 9581 registered schools and more than 100 schools near the proximity region. A multi stage sampling technique was used to select the students. Top 10 schools in terms of highest student strength were contacted for participation in the study. On the basis of consent, top 5 schools were selected for data collection. Students were allocated proportionally to schools at stage two by systematic random sampling method. Thus, making the total 100 sample size of students. Information pertaining to preference of high school and college students about various available digital solutions (traditional and supporting technologies) like text, images, banners, website, blogs, videos, mobile apps, webinars, podcasts and ads was gathered through a structured interview schedule. taken from random selection of schools and the statistical methods applied for data analysis were frequency and percentage method.

## RESULTS AND DISCUSSION

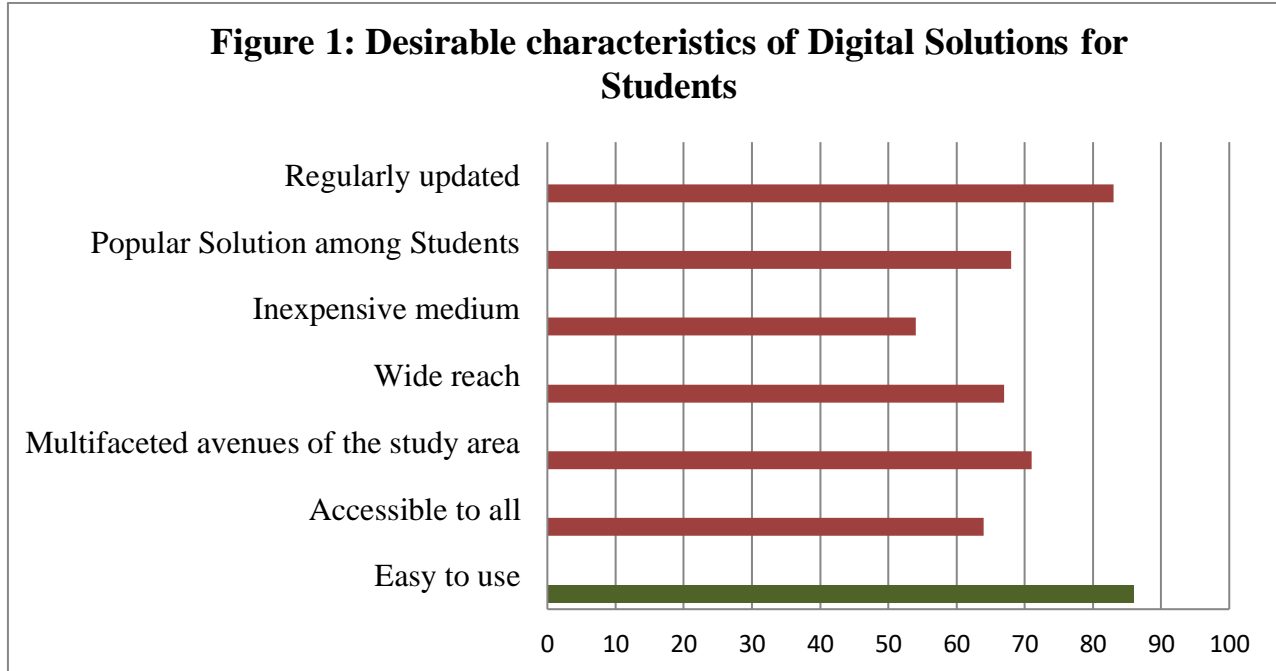
A total of 100 responses were collected in the survey where the information regarding the digital solution was gathered, in order to identify the tool that should be developed to enhance our enrolment rate in Home Science and Agriculture Education.

**Table 1: List of digital solutions frequently used by the students**

S.No.	Digital Solutions	f(%) N=100
1.	Texts, Images, Banners, etc.	18 (18.00)
2.	Websites	37 (37.00)
3.	Blogs/Vlogs	5 (5.00)
4.	Videos (Educational and Documentary)	51 (51.00)
5.	Mobile apps	74 (74.00)
6.	Webinars	2 (2.00)
7.	Podcasts	1 (1.00)
8.	Social Media	21 (21.00)
9.	Advertisements	19 (19.00)

*\*Multiple responses table*

Regarding the utilization pattern of digital solutions (table 1), it was found that majority (74%) of the students use the mobile apps followed by videos (51%) and websites (37%). Some of the students also listed social media (21%), followed by advertisements (19%) and text, images, banners etc. (18%) which they were using frequently for gaining information. Podcasts seems to be very popular amongst the students, but most of them were unaware regarding its use academically. Same was seen with the Blogs/Vlogs, as it is more used in the urban as compared to rural areas.



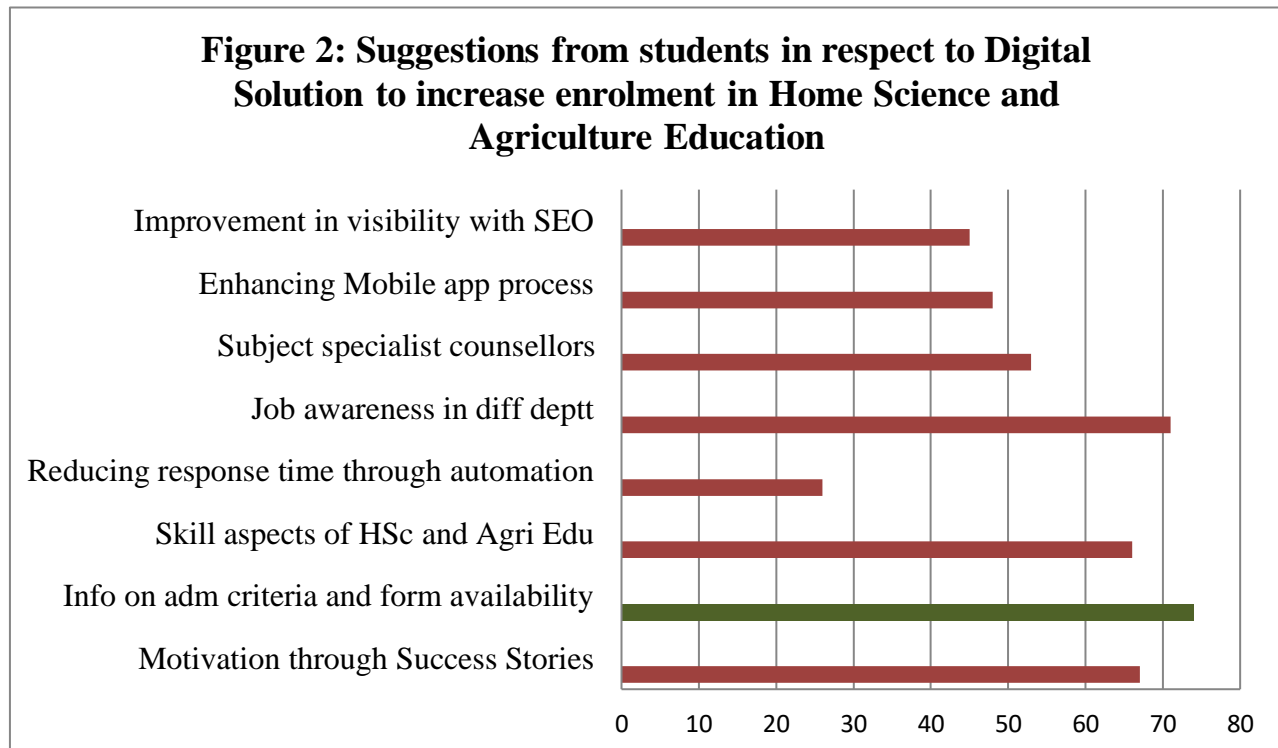
The results of desirable characteristics of digital solutions for students (figure 1) showed that students being the younger generation know much about the technology and are well aware of the pros and cons. So, the study evaluated the desirable characteristics, where majority of the students desired a digital solution that is easy to use (86%), regularly updated (83%), followed by multifaceted avenues of the study area (71%) and already known and popular among students (68%). Some of them also wanted the digital solution to be of wide reach (67%), accessible to all (64%) and an inexpensive medium (54%). Students want to be offered by every kind of information pertaining to a single topic on one platform. Students disliked the idea of having to use different tools for attaining information about a single issue.

**Table 2: Digital solution for enrolment enhancement as preferred by students**

S.No.	Digital solutions	f(%) N=100
1.	Texts, Images, Banners, etc.	12 (12.00)
2.	Websites	37 (37.00)
3.	Blogs/ Vlogs	26 (26.00)
4.	Videos (Educational and Documentary)	43 (43.00)
5.	Mobile apps	78 (78.00)
6.	Webinars	2 (2.00)
7.	Podcasts	1 (1.00)
8.	Social Media	21 (21.00)
9.	Advertisements	29 (29.00)

*\*Multiple responses table*

Table 2 highlighted the digital solution that the students would prefer for attaining information about a particular subject that is being considered for higher education. It was noteworthy that majority of the students prefer mobile apps (78%) followed by videos (43%) and websites (37%) for enrolment enhancement as they use these solutions frequently and are aware about it. Some of the students also showed interest in advertisements (29%), followed by Blogs/ Vlogs (26%) and social media (21%) for enrolment enhancement in Home Science and agriculture education.



Detailed information regarding the suggestions given by students in respect to the kind of information that they would want the digital solution to provide while searching for a subject for higher education is given in figure 2. Majority of the students suggested that to increase the enrolment, digital solution should be providing more information regarding the admission criteria and the form availability (74%), followed by job awareness in different departments (71%) and harnessing student motivation through success stories (67%). Results further revealed the suggestions like skill aspects of the subject (66%) to be covered in the digital solution, followed by availability of subject specialist counsellors (53%), enhancing mobile application process (48%) and improvement in subject's visibility with Search Engine Optimization (45%). Thus, these suggestions will be used further in making a digital solution and incorporating enough information for the students.

## CONCLUSION

It can be concluded that students found mobile apps convenient to use as compared to other digital solutions. During these past years, there is a rise in mobile device usage, especially

amongst the youth. A well-designed Mobile Application can perform actions much quicker and can store the data on mobile devices itself making it user-friendly. Further, mobile Apps require on-going care both as regard to fresh content and technological updates. Considering students' preferences and ease of use, having a mobile phone based application will harmonize well with the students and provide relevant information at the right time and right place.

So, to enhance enrolment rate in Home Science and Agriculture Education, we need to develop a digital solution for the students so that they can easily gain all the multifaceted information about the study area and its scope. Digital solution (mobile app) should be covering all the information regarding admission criteria, form availability, job opportunities and success stories.

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### REFERENCES

- Anonymous a. "Definition of digital marketing". Financial Times. Archived from the original on 29 November 2017 at 4.30 pm.
- Baneerjee. T., Mishra. A., Singh. P. and Tahiliani, G. (2016) A study on the role played by women in agriculture sector in India. *International Journal of Recent Trends in Engineering & Research (IJRTER)*, 2(11): 380-386.
- Fatima, R. (2015). Perception of school students of Kerala on Agriculture and its implications. Master's thesis. Department of agricultural extension, College of horticulture, Vellanikkara, thrissur-680656, Kerala, India. Retrieved on 24 October 2019 at 1.00 Pm.
- [https://mhrd.gov.in/sites/upload\\_files/mhrd/files/Draft\\_NEP\\_2019\\_EN\\_Revised.pdf](https://mhrd.gov.in/sites/upload_files/mhrd/files/Draft_NEP_2019_EN_Revised.pdf). Retrieved on 25 October 2019 at 5.00 pm.
- [https://mhrd.gov.in/sites/upload\\_files/mhrd/files/statistics-new/AISHE2015-16.pdf](https://mhrd.gov.in/sites/upload_files/mhrd/files/statistics-new/AISHE2015-16.pdf). Retrieved on 25 October 2019 at 4.00 pm
- Retrieved from [https://en.wikipedia.org/wiki/Digital\\_marketing](https://en.wikipedia.org/wiki/Digital_marketing). 25 October 2019 at 5.30 pm.
- Retrieved from <https://indianexpress.com/article/opinion/columns/the-invisible-women-farmers-agriculture-labourer-4714072/>. 21 January 2019 at 1.00 Pm.
- Retrieved from [www.leadssquared.com/how-to-increase-student-enrollment/](http://www.leadssquared.com/how-to-increase-student-enrollment/). Retrieved on 25 October 2019 at 7.00 pm