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RESEARCH PAPER

Agriculture students' career aspiration and awareness of opportunities in emerging rural market: A collaborative framework for enhancing employability

Vineel Bhurke* and Rachana Patil

Department of Rural Management, Prin. L. N. Welingkar Institute of Management Development and Research (Weschool), L. N. Road, Matunga (C. Rly.), Mumbai (M.S.) India (Email: vineel.bhurke@welingkar.org; rachana.patil@welingkar.org)

Abstract : Purpose : Majority of agriculture students in India aspire for government jobs whereas they are not adequately aware about new career opportunities in 'emerging rural markets' in diverse industry sectors. The purpose of this study is to address the issues of rising risk of unemployment among agriculture graduates and of fulfilling their career aspirations. **Design / methodology / approach:** The study is based on primary research covering 157 students from four Agriculture colleges in the Indian state of Maharashtra. We have examined the gaps in career aspirations and career opportunity awareness of agriculture students and proposed a framework for collaborative action involving agriculture universities, private sector and management education institutions. **Findings:** Majority (55.41%) of total respondents aspired for government job with higher proportions of girl students (62.79%) compared to boys (52.63%). Awareness of all respondents was limited to career opportunities in 'banking and finance' and 'agriculture input' sectors only. Clear gender-wise difference was seen in terms of their career aspirations, and in their perception of constraints in joining management education. **Practical implications** : The proposed collaborative framework would help in addressing the need for 'Integrating agricultural education with job creation' which is a major need identified by Education Division of Indian Council of Agricultural Research (ICAR) in their National Agricultural Education Project (NAEP). **Originality / value :** Our study considerscareer aspirations, career opportunity awareness and constraints in management education in a holistic manner, giving due attention to gender aspects, while addressing the larger problem of employment and employability of agriculture graduates.

Key Words : Agriculture education, Career aspiration, Emerging rural market, Rural management, Employability, ICAR, NAEP

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INTRODUCTION

Agriculture education in India is at a cross-road, as

the gap between the aspirations and reality of career pathway of agriculture graduates widens. Majority of

* Author for correspondence:

the agriculture graduates still aspire for a government job but in reality, the number of such jobs is decreasing due to stiff competition and changing government policies in the era of globalization and privatization. While emphasizing the need for integrating Agricultural Education with job creation, the draft report (ICAR, 2012) of the National Agricultural Education Project (NAEP) states that almost every graduate looks for a white-collar job preferably in public sector. With government resolve to phase out non-performing assets, job opportunities in government sector are shrinking faster than the number of graduates coming out of SAUs and other institutions. According to an estimate (IAMR, 2001), 43% of the graduates and 23% of postgraduates (M.Sc.) find difficulty in accessing gainful employment. Only 2,000 agriculture graduates are able to find job in public and private sector, out of over 11,900 agriculture graduates passing out every year from all agriculture universities in India (Arpana and Jantwal, 2014). Hence, in order to avoid the rising risk of unemployment among the agriculture graduates, it is imperative to look at the new opportunities in the emerging sectors of the industry, which are suitable for agriculture graduates. While enumerating the issues and challenges involved in the agricultural education system in India, Makwana (2013) stated that Agricultural education needs to be harmonized with existing and emerging issues related to WTO and free market economies. Tamboli and Nene (2013) specifically observed that the lack of adequate private sector involvement in the agriculture education in India is a major limitation. They further elaborated that most of the graduates possess academic intensive skills but do lack the skill required for jobs in private sector. Imparting such skills to the students has not been emphasized by the Deans Committees in the curriculum of agriculture courses at graduate level.

Emerging career opportunities for agriculture graduates :

In recent times, rural markets in India have been steadily growing and corporate business houses have been very actively seeking to enter the rural markets to tap this growth. Monthly per capita spending of Indian rural consumers has increased by 17% between FY 2010 and 2012 and the rural consumers are increasing their expenditure on non-food items including education, healthcare, automobile, consumer durables, packaged food and financial services (Accenture, 2015). Most businesses have responded to this trend by strengthening their rural presence and further expansion into emerging markets. As a result, the demand for trained rural managers is also growing. This has led to an unprecedented surge in the career opportunities both in terms of numbers and the diversity of industry sectors, which are now opening up for graduates and postgraduates who are willing to explore the rural markets. Quite contrary to the traditional understanding, agribusiness is no longer the only major area for career opportunity in rural India. Industry sectors / verticals such as banking and finance, automotive, insurance, FMCG and FMCD, IT and IT enabled services, telecom, retail, infrastructure and healthcare are some of the prominent ones which are now actively exploring the rural market for their business growth and hence are interested in recruiting rural managers who have been trained in tackling these markets.

We have observed this emerging trend during our interactions with the senior industry professionals from a wide range of industry sectors including most of the above mentioned ones. However, it has also been seen that, while recruiting rural managers, corporate recruiters prefer candidates who have an understanding of the agricultural income cycle of the rural people because this understanding is pivotal to knowing the rural people as consumers of their products and services. This applies to varied range of products and services apart from agriculture related ones. Agriculture graduates have a definite advantage here, as their curriculum covers not only the subjects such as agriculture economics and agriculture finance but also the courses such as 'Rural Agricultural Work Experience' (RAWE) which render a practical exposure to rural agricultural realities. The objective of our study here is to find out whether agriculture students themselves are aware about this as their strength which can lead them to get hired by various private sector companies. If they are aware about it, how do they wish to equip themselves to tap this potential job market, and what are the constraints they perceive in doing that. More specifically, we intend to study if there are any gender-wise differences in these aspects of aspirations, awareness and constraints.

Objectives :

- To study the career aspirations of agriculture graduates.

- To study the level of awareness about career

opportunities for agriculture graduates in rural sector.

- To identify the constraints faced by agriculture graduates in opting for management education.

- To compare the trends in career aspirations, career opportunity awareness and constraints across genders.

MATERIAL AND METHODS

The study covers 157 students undergoing agriculture education at graduate and post-graduate level in four agriculture colleges located at Nashik (district Nashik), Nagpur (district Nagpur), Amaravati (district Amaravati) and Akola (district Akola) representing two Agriculture Universities viz., Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth and Dr. Panjabrao Deshmukh Krishi Vidyapeeth, both located in the Indian state of Maharashtra. The methodology adopted was collection of data through structured questionnaires and personal interaction with agriculture students in the selected colleges, by conducting career awareness seminars in their college campus. A structured questionnaire was formed including the areas of career aspirations, awareness about the emerging career opportunities in rural sector and the constraints faced by the respondents in opting for management education as compared to higher education in agriculture or other related fields. This was administered to agriculture graduates of the four colleges covering four different selected locations and also the qualitative aspects were observed through personal meetings and discussion with them at their campus. The collected data were analysed using statistical tools and the results are presented here.

The number of graduates and post-graduates passing out from agricultural universities across India has been increasing exponentially (12,792 in 2010-11 to 61,105 in 2014) as per the data published by Indiastat database (http://www.indiastat.com/). Out of these, the absorption into agricultural scientist cadre at entry level is around 0.6%. However, precise data on the details of employment of these graduates across the industry sectors is not readily available. In an estimate (IAMR, 2011) the demand-supply gap of agriculture graduates by 2020 was put at 30,000 per year. Recent forecasting studies by Ramarao et al. (2014) show that despite the increasing numbers of agriculture graduates the cumulative demand-supply gap in agricultural professionals would be about 200,000 by year 2020, which will need additional annual supply of 10,000 each of diploma holders and graduates. From an employment point of view, this appears as a positive scenario, meaning that each andevery agriculture graduate passing out would be readily absorbed into gainful employment opportunities. However, according to the numbers of agriculture graduates and their employment given by Arpana and Jantwal (2014) the employment percentage of agriculture graduates in India comes to merely 16%. This necessitates a closer look at the qualitative aspect of the present status of agriculture education and employment. More specifically there is a need to look into the 'employability' issue, especially pertaining to the private sector jobs. In this regard, two recommendations of Ramarao et al. (2014) have prime importance viz., 'Agricultural education needs to meet the changing occupational structure' and 'Responsibility of meeting agriculture education to be shared with the private sector'. This resonates with the recommendations of the National Academy of Agricultural Sciences (NAAS, 2005). Two recommendations therein which particularly relate to the present study are: 'Distinguish agricultural education from training for public service, thereby fostering training aimed at meeting the needs of the private sector and preparing students for entrepreneurship' and 'Facilitate, promote and support agreements, cooperation and coordination at interinstitutional and international levels'.

Some recent studies have established the correlations between the educational aspirations, economic aspirations and the various aspects of the family background of the agriculture graduates. Shireesha and Srikala (2014) while studying aspirations of agriculture students in Mahatma Phule Krishi Vidyapeeth (MPKV) at Rahuri and College of Agriculture at Pune in Maharashtra state observed that majority (58.33%) of respondents aspired for career in the Maharashtra State's Public Service Commission (MPSC).

Das and Chowdhury (2014) studied the trends in occupational aspirations of the agriculture graduates in Bidhan Chandra Krishi Viswa Vidyalaya (BCKV) in the Indian state of West Bengal, showing that high percentage (30%) of the respondents aspired to join the Agriculture Research Service (ARS) after agriculture graduation.

Mishra *et al.* (2014) reported their observations on level of occupational aspiration and preference for placement of undergraduate students of agriculture in Indian state of Gujarat. This study concluded that majorityof the students had medium to high level of occupational aspiration. Job security, attractive salary, power, better promotional chances, lack of risk and good status among the society were the factors responsible to attract maximum number of the respondents towards government job.

Yomgam and Tekale (2014) reported the gender related aspects in the career aspirations of agriculture graduates while studying the aspirations of girl students of College of Agriculture at Nagpur in Maharashtra. They found that in case of the educational aspiration of undergraduate and postgraduate girl students, majority (56.00%) of the respondents were mostly interested to do post graduation and doctoral degree, respectively. In case of their agricultural aspiration, 39.00 per cent respondents were mostly interested to become an innovative and progressive farmer followed by promoting Agro Service Centre (32.00%) and starting nursery farming as business (30.00%), respectively. In case of career aspiration of girl students equal percentage of respondents (45.00%) were most interested in getting job at nationalized bank and administrative position in public sector. The variable CGPA, caste, category, father's education, mother's education, father's occupation and achievement motivation were reported to show positive and significant relationship with aspiration level of girl students.

However, our study has considered the aspects of career aspirations, career opportunity awareness and constraints in management education in a holistic manner, giving due attention to the gender related aspects of the career related issues of agriculture graduates.

RESULTS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized

under following heads :

Career aspirations of agriculture graduates :

The first major observation was that the career aspirations of agriculture students were found to be diverse, covering government jobs, agriculture related jobs in government, private sector jobs, banking, R&D, rural development sector as well as entrepreneurship. However, majority of the students aspired to join government jobs followed by government jobs in agriculture (Table 1).

Further, gender-wise analysis of the data on career aspiration showed that girl students and boys differed in their aspirations (Table 2). Maximum (31.58%) of the boys aspired for government jobs followed by government agricultural jobs while private sector jobs were on third rank in terms of percentage for boys. However, in case of girl students, majority (41.86%) aspired for government agricultural jobs followed by Government jobs (20.93%) and banking sector jobs were on third rank with 18.60 % girl students aspiring for it. Entrepreneurship was preferred by 7.89 % boys over R&D (3.51%) while an opposite trend was seen in case of girl students with only 2.33 % aspiring for entrepreneurship but 9.30% aspiring for R&D jobs.

Awareness among agriculture students about career opportunities :

The career aspiration spectrum of the agriculture graduates across the colleges under the present study showed a wide range of career options. However, the aspirations and the so called 'dream jobs' predominantly centred around few options such as government sector jobs (both agri and non-agri), the banking sector and private sector jobs. In order to study the level of awareness within the private sector career opportunities,

Table 1 : Career aspirations of agriculture graduates						
Sr. No. Sectors		Number of students who aspired to join this sector	Percentage			
1.	Government jobs - Other than agriculture	45	28.66			
2.	Government jobs - Agriculture	42	26.75			
3.	Private sector jobs (Other than banking)	19	12.10			
4.	Banking	19	12.10			
5.	Entrepreneurship	10	6.37			
6.	Research and development	8	5.10			
7.	Rural development	2	1.27			
8.	Not yet decided	12	7.64			
	Total	157	100.00			

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the students were asked specifically asked about various industry sectors or verticals which are now recruiting managers for the expanding rural markets. This revealed that majority of the students lacked in the awareness about these emerging sector opportunities. The observations are summarized in Table 3. This clearly shows that the awareness about the emerging career opportunities is lacking. Students were only aware about opportunities in banking and finance sector and agriculture input sector.

Constraints faced by agriculture graduates in opting for management education :

After understanding the aspirations and the awareness about the emerging career opportunities, the next logical step is, to find out, why majority of agriculture graduates do not join management education in general despite having some awareness about its benefits. For this, they were asked to identify the constraints faced by them while opting for management education. Their responses were collected and are presented in Table 4.

It is seen that there are four major constraints viz., Entrance examination which is a pre-requisite for any management education, fees are much higher than that of any typical post-graduate course in agriculture, language barrier as faced by high majority of agriculture graduates and simply lack of interest in management education. Gender-wise break-up of the responses brought out another interesting aspect. That is, girl students were more concerned about the financial aspects (high fees) as 46.51% girl students reported that as their major constraint while only 20.18% of boys reported high fees as their constraint. However, an opposite trend was seen in case language barrier as a constraint wherein the percentage of boys reporting it was almost double (31.58) that of the girl students (16.28). This shows that girl students are more concerned about and constrained by whether their parents will be able to afford the fees

Sr. No.	Sectors	Boys			Girls		
		Numbers	%age	Rank	Numbers	%age	Rank
1.	Government jobs - Other than agriculture	36	31.58	1	9	20.93	2
2.	Government jobs - Agriculture	24	21.05	2	18	41.86	1
3.	Private sector jobs (other than banking)	17	14.91	3	2	4.65	5
4.	Banking	11	9.65	4	8	18.60	3
5.	Entrepreneurship	9	7.89	5	1	2.33	6
6.	Research and development	4	3.51	6	4	9.30	4
7.	Rural development	2	1.75	7	0	0.00	-
8.	Not yet decided	11	9.65	4	1	2.33	6
	Total	114	100.00	-	43	100.00	-

Table 3 : Awareness of agriculture students about career opportunities in various industry sectors

Industry sectors	Govern	nment	Corporate (P	rivate sector)	Development sector (NGO)		
	Opportunity availability	Awareness	Opportunity availability	Awareness	Opportunity availability	Awareness	
Agriculture input	Yes	Yes	Yes	Yes	Yes	No	
Automotive	-	-	Yes	No	-	-	
Banking	Yes	Yes	Yes	Yes	-	-	
Education	Yes	No	Yes	No	Yes	No	
Energy sector	Yes	No	Yes	No	Yes	No	
Finance	Yes	No	Yes	Yes	Yes	No	
FMCG	-	-	Yes	No	-	-	
Healthcare	Yes	No	Yes	No	Yes	No	
Infrastructure	Yes	No	Yes	No	-	-	
IT	-	-	Yes	No	-	-	
Retail	-	-	Yes	No	-	-	
Telecom	-	-	Yes	No	-	-	

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or not, or whether they will not prefer to spend high amount of money for girl's education. The low percentage of girl students reporting language barrier as a constraint rather than high fees, also indicates that girls are more ready to face the fact that language skill can be acquired by working hard, than getting constrained by it. However, the constraint of the difficult entrance examination was reported by almost similar number of boys and girl students. Lack of interest in management education also trended similarly in case of both boys and girl students.

Summing up the observations, we can conclude that there is a gap between the aspirations and awareness of agriculture students. In order to address the issue of fulfilling the aspirations of agriculture graduates, it is very important to firstly spread the awareness about the career opportunities available for them in the emerging rural markets. Secondly, it is imperative to make them equipped to opt for management education through career counselling, coaching and support systems. For this, we have proposed a collaborative framework which is based on joint efforts from Agriculture universities, management education institutions and private sector industry. Implementation of it would help in addressing the need for 'Integrating agricultural education with job creation' which is identified by the ICAR Education Division in their National Agricultural Education Project (NAEP) document (ICAR, 2012).

Proposed model for a tri-partite collaboration :

The need for orienting the agriculture education towards the commercial applications has been well emphasized by various experts and committees. Though there have been some efforts in this line, those are mostly limited to sending the fourth year students of agriculture graduate programmes to undertake short duration projects in industry. Even the trends in the recruitment of agriculture graduates show that private sector jobs offered to them are mostly in the domain of sales and marketing of agricultural inputs and in the banking sector. However, there has to be a comprehensive planning and execution on how to equip agriculture graduates to benefit from the opportunities that are now becoming increasingly available in the emerging rural markets, apart from these conventional avenues for employment.

For this, we propose a collaborative model based on mutual understanding among the three main stakeholders *viz.*, Agriculture Universities, private sector industry and the management education institutes (Fig. 1). Each one of these has their role to play in this model, as their strengths and limitations are mutually complementing. The aim is to devise and undertake structured steps to fulfil the career aspirations of young agriculture graduates.

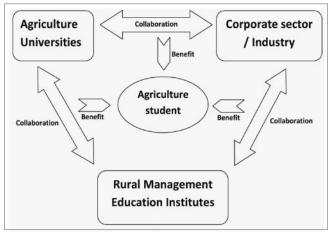


Fig. 1: Diagrammatic representation of the proposed tripartite collaborative model (Source: Proposed by authors)

Role of agriculture universities :

- Integration of agriculture curriculum with adequate emphasis on communication skills and languages, especially verbal communication and presentation in English.

 Sensitizing agriculture students about career opportunities in rural sector, especially the private sector, covering not just the agribusiness industries but all emerging areas such as banking and finance, IT & ITES,

Table 4 : Constraints faced by agriculture graduates in opting for management education								
Sr. No.	Constraints reported	Respondent boys			Respondent girls			
		Numbers	%age	Rank	Numbers	%age	Rank	
1.	Difficult entrance examination	37	32.46	1	12	27.91	2	
2.	Language barrier	36	31.58	2	7	16.28	3	
3.	High fees	23	20.18	3	20	46.51	1	
4.	No inclination for management education	18	15.79	4	4	9.30	4	
	Total	114	100.00	-	43	100.00	-	

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Insurance and others.

- Emphasizing the importance of business management aspects in career progression.

- Tie up with Rural management education institutes for joint efforts on encouraging students to opt for management education for better career prospects.

 Conducting faculty development programmes in coordination with industry and management education institutes, so as to update them about recent trends in industry and business management.

Role of rural management education institutes:

 Creating awareness and encouraging agriculture graduates to opt for rural management education by conducting seminars / awareness workshops about the career scope in these emerging areas.

- Conducting guidance workshops for management entrance examination for agriculture graduates.

- Extending the facilities of career counselling for agriculture graduates to guide them on their way towards taking up a career in Rural management.

- Encouraging agriculture graduates to join rural management education by offering scholarships.

- Broadening the vision and knowledge of agriculture graduates about career opportunities in rural sector by way of exposure to corporate projects.

 Imparting business communication skills and corporate grooming / mentoring with special focus on developing the agriculture graduates.

- Creating opportunities for students to work upon industry sponsored research projects in rural domain.

Role of corporate sector / industry :

- Tie up with rural management education institutes to fulfil the requirement of agriculture graduates as rural managers.

 Offering support in terms of industry internships, scholarships for the budding rural managers who are ready to take up research problems relevant to the industry.

- Offering project specific recruitment of trainee managers in collaboration with agriculture universities and rural management education institutes.

Expected outcomes and benefits :

- Agriculture graduates will get good quality management education which will be relevant to the

industry.

- This will open up many new types of career opportunities for agriculture graduates. They will get direct recruitment at managerial positions.

- Agriculture specific knowledge of agriculture graduates will be utilized not just in agriculture sector but also for other industry sectors, thus broadening their utility.

- Industry will get well trained rural managers having in-depth knowledge about both agriculture and rural aspects such that industry will be able to achieve their future plans of growing their business in the rural markets. This will also avoid their cost burden on forcefitting of non-rural MBAs to work into rural markets.

- Agriculture universities will be able to contribute to achieving gainful employment to their students.

- Rural Management education institutes can contribute to fulfilling the specific need of the industry.

Our experience so far :

Creating awareness :

Since past two years, we have been conducting seminars on career opportunities in Rural management for agriculture graduates, by visiting various agriculture colleges across Maharashtra state. These seminars were conducted free of cost in their college campus. These were well attended by the students studying in third year and final year of the various faculties like agriculture, horticulture and others. We found that majority of the agriculture graduates lack the awareness about the opportunities in emerging markets. Their aspirations are mostly concentrated on getting a government job or to work in agriculture input companies.

The way forward :

After our intervention, many students did show interest in the new opportunities but they were either not well informed or equipped to take up the management education. The agriculture graduates who joined our rural management programme performed well in the academic as well as extracurricular activities which included industry oriented projects, and finally got placed in private sector. We believe that proper mentoring; grooming and personal guidance can transform the seemingly shy agriculture graduates into a confident, well performing rural manager. However, at present the number of such examples is limited. In order to scale up the success of such agriculture graduates, it is necessary for all the three stakeholders *viz.*, agriculture universities, rural management education institutes and the private sector industry to come together. Our proposed model indicates how this can be done together.

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