

Assessing Entrepreneurial Skills and Awareness among Learners of Open Universities in India - A Study of BRAOU and UOU

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Abstract: This paper attempts to study the role of the ODL institutions in harnessing entrepreneurial skills as these institutions are presently set for an educational paradigm shift backed by ICT, Online Learning, MOOCs and Platforms Similar.

For every economy, entrepreneurship has been a critical component of growth and development. It has been instrumental in wealth creation, employment generation and social transformation. The entrepreneurial spirit is assessed as the driving force for the market as it brings creativity and creates a plethora of opportunities for start-ups. These ventures foster socio-economic change in the country and help in achieving rapid, balanced and sustained rate of economic growth and global competitiveness.

Nowadays, harnessing skills and competencies for entrepreneurial pursuits is the key concern for educators, institutions and curriculum developers across the states in India. Thus, Higher Education Institutions need to nurture entrepreneurial talents and pursuits for making education relevant to the learners that might empower them as well. As distance education is characterized by adult learners their experience, vast skills and commitment may amplify the efforts in producing greater number of entrepreneurs in the country.

In this context, it is imperative to assess the entrepreneurial skills and awareness possessed by the distance learners enrolled in the Open Universities in India. With this research objective, the study is carried at Dr. Bhimrao Ramji Ambedkar Open University (BRAOU), Hyderabad and Uttarakhand Open University (UOU), Haldwani. Thus, the paper aims to nurture entrepreneurial skills of the distance learners that are required to achieve self-reliance and suggest measures for embracing entrepreneurship as a means for combating existing challenge of employability.

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The study adopted descriptive research method and data was collected using a self-designed questionnaire to examine learners' entrepreneurship awareness and skills. Accordingly, appropriate descriptive and inferential statistics is used for statistical analysis in-keeping with the objectives of the study.

Keywords: Entrepreneurship, Skills awareness, Open universities

Introduction

For every economy, entrepreneurship has been a critical component of growth and development. It has been instrumental in wealth creation, employment generation and social transformation. The entrepreneurial spirit is considered as the driving force for the market as it brings creativity and creates a plethora of opportunities for start-ups. Nowadays, harnessing skills and competencies of learners for entrepreneurial pursuits is the key concern for educators, institutions and curriculum developers across the states in India.. It has been reported in several studies that there is a vast skills gap in India (Mishra & Alya 2014). Several surveys also reported that more than fifty percent of graduates in India are lacking in employable skills based on industry standards. Furthermore, the majority of the graduates in India are generalists with broad socio-economic knowledge but no specific technical skills. (British Council Report, 2014).

As distance education caters to adult learners, ODL institutions might develop curricula for fostering entrepreneurial skills in them which might amplify the efforts in producing greater number of entrepreneurs in the country. However, the relationship between learners' entrepreneurial skills in HIEs, especially open universities and local economic development is severely under-researched area. Open Universities make important contributions to local human capital development at the undergraduate, masters, and mid-career and executive education levels. Hence, a study on learners' entrepreneurial skills and their awareness levels in state open universities in India might provide some insight to the policy makers to create a system that will best meet the skills needs of the Indian economy.

Review of Literature

There are several studies in the world over, on entrepreneurial skills, out of which selected relevant works have been reviewed in this paper. These studies highlighted the role and importance of entrepreneurship education in shaping the economic development of the country.

Deshpande (2014) in her article stated that there is a need to reorient the education system so that it fosters entrepreneurial skills among the learners.

Ugwu and Ezeani (2012), in the study on entrepreneurship awareness and skills among students of Library and Information Science in two Nigerian Universities, found out that these students are yet to develop the culture and mindset toward entrepreneurship. The study report that the majority of students were not aware of entrepreneurship and the study admitted that it is relevant to develop the entrepreneurial culture among students. The study suggested for incorporating training part in the entrepreneurship curriculum.

Bellotti et al., (2012) found that it is important to promote entrepreneurship education in the present era. The study suggested that the value addition can be achieved by applying serious games as a tool for promoting entrepreneurship education among students. The study suggested that these games shall complement in teaching entrepreneurial concepts to the students.

The OECD (2008) report explores the policy measures and considers regional engagement of higher education in several dimensions, notably knowledge creation and transfer through education and human resources development which can, among other things, create the conditions in which innovation thrives.

Olokundun (2017) found that entrepreneurship curriculum contents have a high significant effect on students. The study found that the design of the curriculum of an entrepreneurship programme develops a critical thinking ability that magnifies student's receptiveness to novel and creative business ideas.

Chirume and Thondhlana (2018) study on 'Towards an Entrepreneurship Curriculum in a Developing Country Tertiary Institution: The Case of Zimbabwe Open University found that entrepreneurship should be an integral part of course curriculum across all disciplines and it is important for including business management courses, vocationalisation of learning and monitoring and evaluation of business operations. The study used open-ended questionnaire (Quester-view) for identifying the need for entrepreneurship education across the disciplines.

Bell, Callaghan, Demick and Scharf (2004) highlighted the importance of globally recognized entrepreneurial firms that can take the advantages for moving globally using Information and Communication technologies. Further, the study outlines the approaches by which international entrepreneurship dimensions can be deep rooted in undergraduate and postgraduate business programmes in Ireland. The researchers contend that such measures can be implemented in other educational programmes in other locations.

Weber (2012) suggested that entrepreneurship education plays an important role in honing the attitudes, skills and culture right from the primary level. Further,

they emphasized that entrepreneurial skills, attitudes and behaviors can be inculcated among the learners in lifelong learning trajectory starting from youth and continuing through adulthood into higher education.

Vanevenhoven and Liguori (2013) examined the impact of entrepreneurial education on the students' motivation and the process of their identity transformation to an entrepreneur. The study states that there is a significant positive correlation to intentions, self-efficacy and outcome expectations among students. the study also found that there was no significant correlation of subjective norm with self-efficacy in South America, Western Europe, and the Middle East or with outcome expectations in the Middle East.

Thus, various studies substantiated the importance of entrepreneurship education for the learners for both conventional and distance education. It is quite evident from the studies that entrepreneurship is quite important for the welfare of the society, innovation, economic growth

Operational Definition of the Terms

For the purpose of the study, Entrepreneurial skills are described a set of behavior such as, taking initiatives to get things done; solving problems creatively; managing things autonomously; taking responsibility and ownership of things; effective networking; proper judgment to take calculated risks and the like. It also implies certain entrepreneurial attributes such as achievement-orientation, self-confidence, action-orientation, hardworking, determination and above all, creativity.

Entrepreneurship awareness: For the purpose of the study, entrepreneurship awareness may be defined as the ability to understand the need and importance of entrepreneurship and its relevance for the society and for the self.

Objectives of the Study

This study was set to assess the entrepreneurship awareness and skills possessed by the learners of the State Open Universities i.e. UOU and BRAOU with a purpose of motivating them in utilizing and acquiring skills and competencies necessary for undertaking self-employment.

In view of the above fact, this study was proposed to be undertaken with the following objectives-

1. To assess the level of awareness of entrepreneurship among the learners of the two geographically distantly located State open universities of India, namely, BRAOU and UOU.

2. To assess the skills possessed by the learners of the State open universities of India, namely, BRAOU and UOU which are necessary for entrepreneurship.

Delimitations

1. The study is delimited for assessing entrepreneurial skills from the six dimensions or subscales/ construct only.
2. The study is delimited to state open universities, particularly two (BRAOU and UOU) for assessing entrepreneurial skills and awareness.

Methods

Research Design

This is a descriptive type of research in which qualitative and quantitative techniques of data analysis is used. Purposive sampling was employed to collect data for assessing entrepreneurship skills and awareness.

Scales Used

A self-developed Questionnaire has been formulated specifically for this study. Accordingly, using this questionnaire, data for the study was collected to examine the entrepreneurial skills and awareness of the learners enrolled in two State Open Universities in India, namely, Dr. BRAOU, Hyderabad and UOU, Haldwani.

Likert Scale was used in the study to rate sub-scale ranging from '1' 'Strongly Disagree' to '5' Strongly Agree. The Entrepreneurship Skills were divided into six variables. There were 5 items in Personal Entrepreneurship Skills, 5 items in Leadership Skills, 5 items in Managerial Skills, 4 items in Innovative and Creative Skill, 3 items in Communication Skills and 2 items in Information and Communication Technology Skills.

The questionnaire included positively-keyed and negatively-keyed items, and then the negatively-keyed items were "reverse-scored" in SPSS using 'Recode Function' before computing individual's total scores and before conducting all other analyses including reliability analysis. The entire data was uploaded in MS Excel and later exported in SPSS for further analysis.

Reliability and Validity of the Tool

The face or content validity of the scale used in the study has been established on the basis of critical reviews of the peers and other subject experts who evaluated

its clarity, appropriateness and integrity in terms of assessing students' skills and awareness. The validity of the questionnaire was established on the basis of Pearson Product Moment correlations. Based on the significant values obtained for each dimension (namely, Entrepreneurial Skills, Entrepreneurial Awareness and Entrepreneurship Willingness) it was found that for almost all the items significant values were less than 0.05. Hence, it was assessed that items were valid for the assessment. (Table 1)

Table 1: Pearson Product Moment correlations using SPSS for checking Validity

Correlations		Entrepreneurial Awareness	Inclination towards Entrepreneurship	Entrepreneurial Skills
Entrepreneurial Awareness	Pearson Correlation	1	.517**	.281**
	Sig. (2-tailed)		.000	.000
	N	200	200	200
Inclination towards Entrepreneurship	Pearson Correlation	.517**	1	.343**
	Sig. (2-tailed)	.000		.000
	N	200	200	200
Entrepreneurial Skills	Pearson Correlation	.281**	.343**	1
	Sig. (2-tailed)	.000	.000	
	N	200	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

Further, to establish reliability, Cronbach's alpha was used for checking the internal consistency of an instrument constructed using multiple item score. Further, it was also used to determine whether the subscales measure the same attribute or dimension. Since the value of the alpha so calculated (.887) was found higher than the accepted (.70), therefore, it was inferred that the instrument satisfies the criteria of reliability. (Table 2)

Table 2: Reliability Analysis

Reliability Statistics

Cronbach's Alpha	N of Items
.877	36

Analysis and Results

Profile of the Respondents

Data was gathered from 200 respondents. Out of these, 98 were female respondents and 102 were male respondents. Further, out of 102 male respondents, 53% were from UOU and 49 % were from BRAOU. Moreover, 47% female respondents were from UOU and 51% respondents were from BRAOU. Thus, it may be inferred that with very less variation, male and female respondents represented equally in the sample size. (Table 3)

Table 3: Percentage of Male and Female Respondents

University			Frequency	Percent	Valid Percent	Cumulative Percent
UOU	Valid	Male	53	53.0	53.0	53.0
		Female	47	47.0	47.0	100.0
		Total	100	100.0	100.0	
BRAOU	Valid	Male	49	49.0	49.0	49.0
		Female	51	51.0	51.0	100.0
		Total	100	100.0	100.0	

The minimum age of the respondents were 18 years and maximum age of the respondents were 65 years so all the age group learners represented in the sample size. The average age of the respondents was 28 years. In case of annual family income, the minimum family income was Rs. 24000 and the maximum annual family income was Rs. 22, 00, 00. The average annual family income was found to be Rs. 24, 3416 of the sample collected for the purpose of the study. (Table 4)

Table 4: Descriptive Statistics: Age and Annual Family Income

	N	Minimum	Maximum	Mean	Std. Deviation
Age	200	18.00	65.00	28.4868	8.01987
Annual Family Income	200	24000.00	2200000.00	243416.1850	245971.25741
Valid N (list wise)	200				

Further, the majority of respondents have opted for the programme under study for advancing career opportunities and for pursuing advanced studies.

Out of the total respondents, 62% were from the age group of 18 to 28 years, 24.5% respondents were between 28 to 38 years; 11.5% were between 38 to 48 years; 1% respondents were from the 48-58 years age-group and 1% aged between 58-68 years.

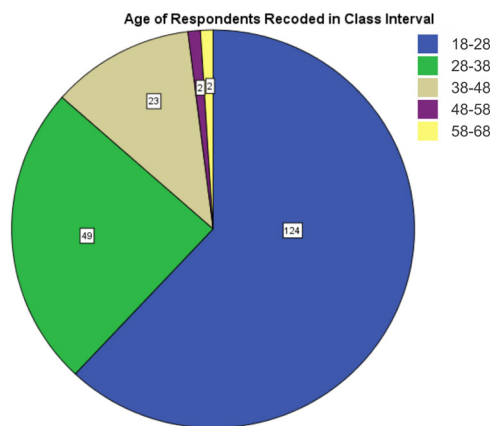


Figure 1. Age of respondents

The results of the data gathered from questionnaire are analyzed as under.

To assess the normality of the data, the null and alternative hypothesis for both Kolmogorov-Smirnov and Shapiro-Wilk Test was used for the variables. Since for all the variables, the significance level were less than 0.005 as derived from Kolmogorov-Smirnov as well as Shapiro-Wilk Test, therefore null hypotheses for all the variables were rejected and sampling distribution was not found to be normal. The same results were also derived from Stem-and-leaf Plot, Q-Q Plot and Detrended Q-Q Plot by using Explore Command in SPSS.

Entrepreneurial Awareness

Six items were used to measure Entrepreneurial Awareness on Likert scale. Majority of respondents supported that Entrepreneurship is important for providing greater employment opportunities to unemployed youth (N=146, 73%). However, half of the respondents agreed that they are not well versed about the entrepreneurship programmes and schemes. They also believed that they know little about how to seek financial assistance from the various financial institutions. Further,

many respondents agreed that they do not know about the Acts and Legislations regarding establishing and operating business enterprise or ventures including the respondents who were neutral to the statement. (N=135, 67.5%)

(Average= 20.57, Minimum Score=9, Maximum Score=30 =4.09)

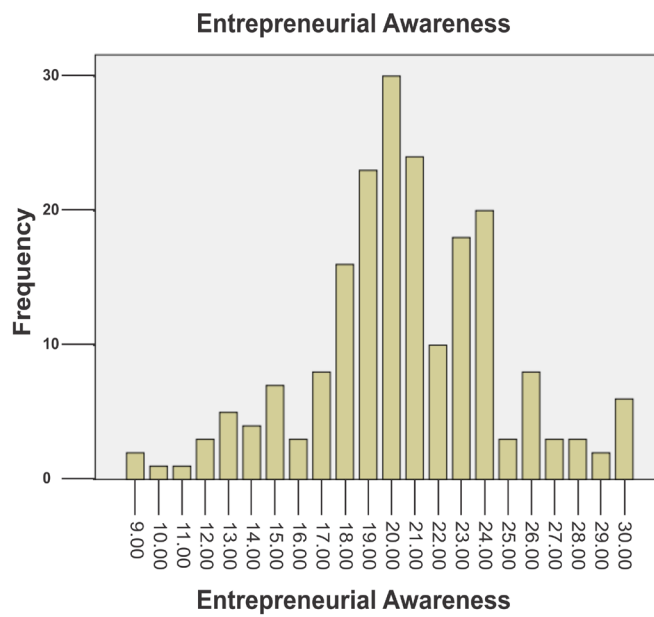


Figure 2. Entrepreneurial awareness

For finding out the existence of any difference between the level of awareness of entrepreneurship in UOU and BRAOU the following hypotheses were tested;

H₀1: There is no significant difference in the Entrepreneurial Awareness of the learners enrolled in UOU and the learners enrolled in BRAOU.

H₁: There is a significant difference in the Entrepreneurial Awareness of the learners enrolled in UOU and the learners enrolled in BRAOU.

Further, in order to assess whether the level of awareness differs between male and female learners, the following hypotheses were also tested;

H₀2: There is no significant difference in the Entrepreneurial Awareness among male and female respondents.

H₁₂: There is a significant difference in the Entrepreneurial Awareness among male and female respondents.

Mann Whitney U Test was employed to test the above hypotheses and it was found that there is a significant difference in the entrepreneurial awareness in the learners enrolled in UOU and BRAOU. Thus, the null hypothesis was rejected. Learners enrolled in UOU are slightly more aware than the learners of BRAOU in terms of entrepreneurial awareness. It was also found that entrepreneurial awareness among the male and female respondents are not significantly different. Thus, the null hypothesis was accepted.

(Hypothesis Test Summary- Independent-Samples Mann-Whitney U Test: Test Statistics: University Wise: 3930.000, Sig. 009 & Gender Wise Test Statistic: 4293.500, Sig. 084)

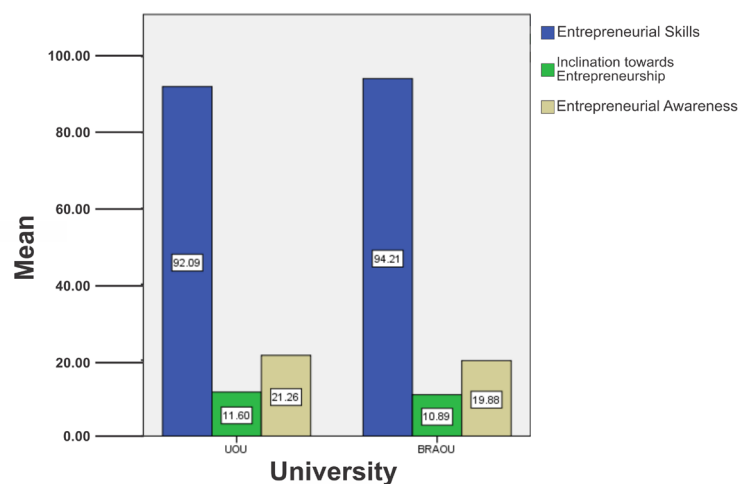


Figure 3. University wise entrepreneurship awareness, inclination and skills inclination/ interest towards entrepreneurship

Majority of respondents are interested in learning more about entrepreneurship, as overall the score of agreement to total score is above the standard score. Around 63% respondents agreed to the statement that they want to study entrepreneurship as a course from their University. Overall, it was found that the young and middle aged respondents from age group 18 to 38 Years have greater interest in entrepreneurship, particularly respondents from the age group 18 -28 are highly motivated to learn about the concept of entrepreneurship, especially about the importance of the entrepreneurship process.

(Average= 11.24, Minimum Score=3, Maximum Score=15 =2.29)

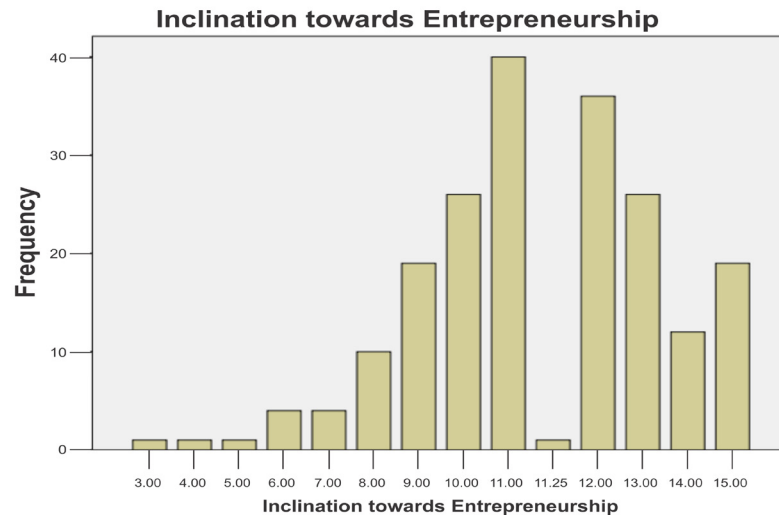


Figure 4. Inclination towards Entrepreneurship

For finding out the existence of any difference between the level of inclination/ interest towards entrepreneurship in UOU and BRAOU the following hypotheses were tested;

H_0 1: There is no significant difference in the inclination/interest towards entrepreneurship among the learners enrolled in UOU and the learners enrolled in BRAOU.

H_0 1: There is a significant difference in the inclination/interest towards entrepreneurship among the enrolled in UOU and the learners enrolled in BRAOU.

To assess whether interest for entrepreneurship and learning about it differs between male and female learners, the following null and alternative hypotheses were tested;

H_0 2: There is no significant difference in the inclinatio/interest towards entrepreneurship among the male and female respondents.

H_1 2: There is a significant difference in the inclination/interest towards entrepreneurship among the male and female respondents.

To test the above hypotheses, Mann Whitney U Test was employed and it was found that there is a significant difference in the inclination and interest for

entrepreneurship among the learners enrolled in UOU and BRAOU. Thus the null hypothesis was rejected. Learners enrolled in UOU are slightly more interested than the learners of BRAOU in terms of entrepreneurial inclination and interest. It was also found that interest and inclination towards entrepreneurship among the male and female respondents are significantly different. Thus, the null hypothesis was rejected. It was found that male respondents are more interested and keen for entrepreneurship and learning for better understanding of entrepreneurship process than female learners.

(Hypothesis Test Summary- Independent-Samples Mann-Whitney U Test: Test Statistics: University Wise: 4138.000, Sig 0.33 & Gender Wise Test Statistic: 3939.000, Sig 0.09)

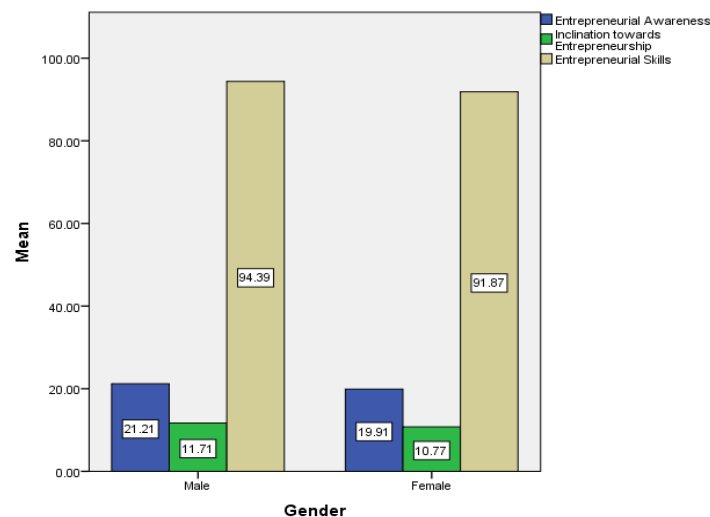


Figure 5. Gender-wise entrepreneurship awareness, inclination and skills entrepreneurship skills

Entrepreneurship skills were assessed using 24 items measured on Likert scale. It was found that the overall score of agreement to total score is above the standard score, hence it can be inferred that the majority of respondents possess basic skills required for establishing entrepreneurial ventures. It was found that the majority of respondents encourages initiative, involvement, and innovation and has a tendency to take moderate risk. Further around 88 % respondents agreed to the statement that they have faith in their abilities and they can make their own destiny.

(Mean= 93.15, Minimum Score=68, Maximum Score=142 =8.43)

For finding out whether any differences exist regarding the entrepreneurial skills or trait possessed by the learners of BRAOU and UOU, the following null hypothesis and alternative hypothesis were tested;

H₀1: There is no significant difference in the Entrepreneurial Skills of learners enrolled in UOU and the learners enrolled in BRAOU.

H₁1: There is a significant difference in the Entrepreneurial Skills of learners enrolled in UOU and the learners enrolled in BRAOU.

Moreover, to assess whether there are some differences in the skills possessed by male and female learners of UOU and BRAOU, the following Null hypothesis and Alternative hypothesis

H₀2: There is no significant difference in the Skills among male and female respondents.

H₁2: There is a significant difference in the Skills among male and female respondents.

Mann Whitney U Test was employed to test the above hypotheses and it was found that entrepreneurial skills among the learners enrolled in UOU and BRAOU are not significantly different. The null hypothesis was accepted that entrepreneurial skills is the same across categories of university. It was also found that Entrepreneurial skills among the male and female respondents are significantly different. Thus, the null hypothesis was rejected as the distribution of entrepreneurial skills is not the same across categories of gender.

(Hypothesis Test Summary- Independent-Samples Mann-Whitney U Test: Test Statistics: University Wise: 5670.000, Sig 0.101 & Gender Wise Test Statistic: 4066.000, Sig. 023)

Personal Entrepreneurship Skills, Leadership Skills, Managerial Skills, Innovative and Creative Skills, Communication Skills, Information Technology and Technical Skills

It was found that learners possess high personal entrepreneurial skills and sound managerial skills. Further, learners also possess modest leadership skills. However, learners scored low on Communication skills and lack of expertise in Information and Communication Technology Skills.

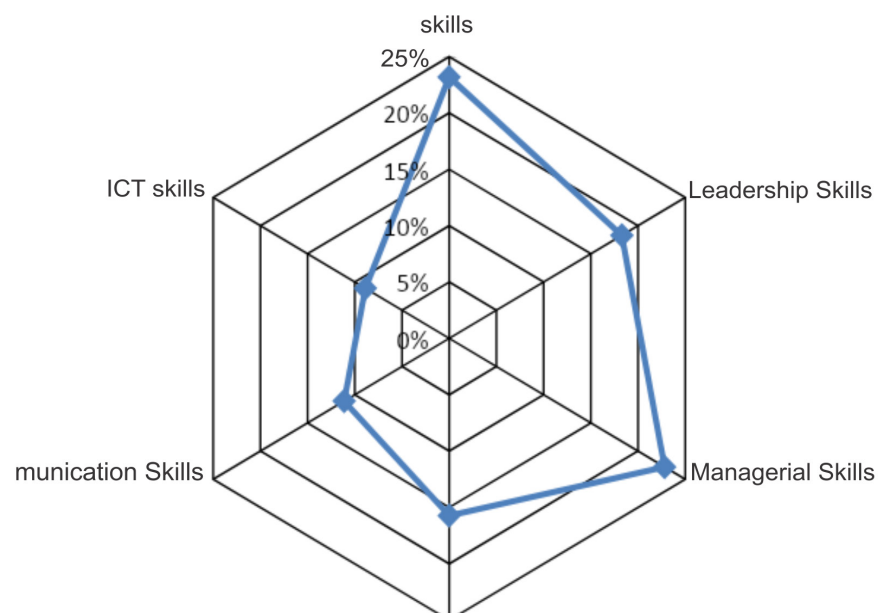


Figure 6. Scores attained on the sub-skills of entrepreneurship skills

Mann Whitney U Test was employed for the sub items of variable 'Entrepreneurship Skills' for assessing significance in differences in the distribution and it was found that Personal skills, Managerial Skills, Innovative and Creative Skills, Communication Skills and Information Technology and Technical Skills are the same for both the University that means learners of these university does not differ in terms of such skills possessed. However, the distribution of leadership skills is not the same across categories of University. Thus it can be safely inferred that the learners of BRAOU scored slightly higher side on leadership orientation.

It was also found that the of Leadership Skills, Communication Skills and Information Technology and Technical Skills are same in Male and female respondents, however they differ in terms of Personal entrepreneurial skills, Managerial Skills and Innovative and Creative Skills.

Further, the majority of respondents agreed that they are interested in studying entrepreneurship as a course from their respective universities and want to participate more in seminars, workshops, etc. for knowing about entrepreneurial schemes and funding assistance. Further, respondents in the age group from 18 to 28 and 28 to 38 years are keenly interested to study entrepreneurship as a course and are interested in participating more in seminars and workshops on entrepreneurship.

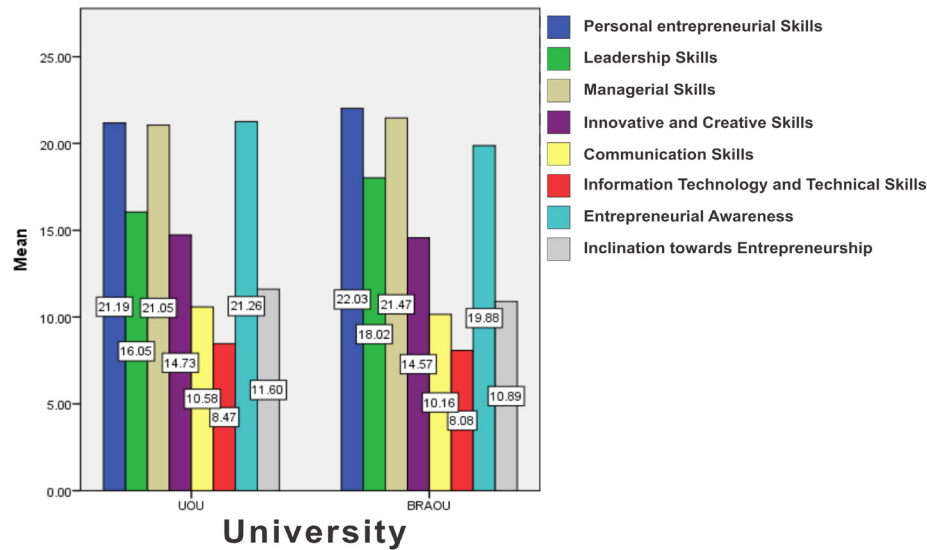


Figure 7. Overall score attained university wise

Suggestions

In the light of the responses received from the learners enrolled in BRAOU and UOU, it is suggested that curriculum of State Open Universities in India should cater for entrepreneurship education and a course should be taught across all the faculties to develop entrepreneurship consciousness among the learners. Further, it is suggested that State Open University may establish a Centre for Entrepreneurship development for honing the entrepreneurial skills and fostering entrepreneurial spirit and technological innovation.

For women entrepreneurs special training facilities should be provided online and at the regional centres so that female learners also explore new paths of economic involvement and contribution. Further, mobile centres should also be promoted for providing training and awareness.

Since, Open Universities possess edge in technology, pedagogy and social inclusion and therefore they may also collaborate with Deen Dayal Upadhyay Kaushal Kendras, Entrepreneurship Motivation Training centres, Start-ups Incubation Centres and the likes for stimulating entrepreneurial behavior and promoting entrepreneurship education in the country.

Conclusion

In sum, at the higher educational level in India, particularly in ODL system, the policy needs to be restructured to help build a skilled labour force that is able to meet the ever changing demand in both local and global markets. This means three things: (i) curricula in higher education courses include the knowledge and skills required for the new economic situation (ii) online programmes should complement face-to-face teaching; and (iii) more open policies towards open universities so that they might live up to the challenge. The new educational paradigm shift in terms of inclusion of entrepreneurship promotion courses and skill-based courses in the curricula is a step in the right direction that might augur well for India in the coming decades.

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