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Entrepreneurship education and entrepreneurial intent: a comparative study of the private and government university students

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Abstract

Purpose – The purpose of this study is to explore the relationship between educational qualification and entrepreneurial intent (EI) of the students of private and government universities located in the state of Odisha, India.

Design/methodology/approach – The study is based on the responses of 485 students of selected private and government universities in Odisha, India. A multistage random sampling approach has been adopted to collect the data and was tested for the role of different elements relating to education in explaining EI.

Findings – The findings suggest that the private universities are superior to the government universities in their Quality of Entrepreneurship Education (QEE), students' Exposure to Entrepreneurship Education (EEE) and their EI. Business Management and Commerce students have more inclination toward entrepreneurship compared to the students of professional streams like Law, Pharmacy, Engineering etc. Self-employed parents, EEE and Extra-Curricular Activities (ECA) are the significant determinants of EI among the university students; whereas, Academic Achievement (AA) and Socio-economic Status (SES) do not significantly explain their EI. Finally, gender also plays a vital role where male students show higher EI compared to their female counterparts.

Practical implications – The research provides an understanding of the significance of entrepreneurship education along with ECA in developing EI among government and private university students.

Originality/value – The paper not only empirically presents the major differences between private and government-owned universities while dealing with entrepreneurship development at the university level but also highlights the impact of demographic and socio-economic characteristics of the students on their EI.

Keywords Education, Entrepreneurial intent, University student, Odisha, Comparative study

Paper type Research paper

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1. Introduction

Entrepreneurship has received wide consideration essentially from the Indian Government along with academicians in recent times. In India, we have a whopping population with sluggish economic development entails entrepreneurship as the key element to solving the unemployment problem plaguing the economy (Mehrotra and Parida, 2019). The majority of the existing schemes and vocational training prioritises the rural, meagrely educated, unemployed young masses for their self-employment. But these are not favourable any way to augment skills or dexterity among the moderately or highly educated young people living in the urban cities (Makkar, 2017). Most importantly, there is an enormous disparity in the needs and preferences of rural and urban young masses relating to their career choices. A recent report by the India Today claims that around 33% of trained employable youth are jobless and expresses concern about the present system of formal education and training which is creating a huge gap between what the employers want and what skills the educated youth need to be offered (India Today, 2019). Therefore, it is high time to recast and revolutionise the education system so that the educated youth should not be craving for a job, rather being a creator of jobs. In this backdrop, the present study tries to focus on the entrepreneurial intentions of university graduates to find out how education is helpful in the development of entrepreneurial intent (EI) among the students and what improvements are required in this respect.

2. Literature review

According to Thompson (2009) Entrepreneurial intention is defined as a "self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so in the future". EI (Engle *et al.*, 2010) is the intention of starting a new business. Henley (2007) claims that EI and the resulting behaviour are not instantaneous but a planned procedure that takes at least a year. This supports the theory of planned behaviour which gives evidence about the relationship between belief and behaviour (Ajzen, 1991). The theory of social learning says that human behaviour is learned and learning is influenced by the environment where the individual lives (Bandura, 1997). Learning from observations, education and experiences develops the attitude of an individual. It has been observed that people develop their attitudes by observing their role models (Laviolette *et al.*, 2012). At an early stage, if the students are exposed to such an entrepreneurial environment could develop an entrepreneurial mind set quite effortlessly (Collins *et al.*, 2004). In India, the lack of such kind of environment makes the youth employable rather than an employer (Maharana, 2019). In this respect, education and educational institutions play an important role by providing opportunities for career development in entrepreneurship to their students (Burdakova *et al.*, 2019). According to Liñán *et al.* (2011), education plays an important role in developing attitudes and intentions towards entrepreneurship. Besides, the development of an EI is also linked with various personal factors (Córcoles-Muñoz *et al.*, 2019; Liñán *et al.*, 2011; Ponmani and Annapoorani, 2018) while the importance of education in influencing and altering some of those characteristics like subject specialization (SS), academic achievement (AA), ECA etc. are indispensable.

2.1 Subject specialization (SS)

Subject domain or specialization in intermediate and graduation levels determines the career options available for a student. Mostly, core science and technology domain students have entirely different career options compared to those in the humanities and social science subjects. Studies also revealed that most educational institutions provide entrepreneurship education to the science, engineering and management students (Souitaris *et al.*, 2007);

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whereas, the students from social sciences, humanities and literature backgrounds are mostly ignored. According to Wu and Wu (2008), the educational background of the students significantly influences their entrepreneurial attitude. Moreover, they demonstrated that engineering students expressed higher EI compared to students from other backgrounds. Similarly, Hassan and Wafa (2012) examined the role of different degree programmes on EI among the students and reported that science students demonstrated higher EI compared to the management students. However, some studies also provide contradictory findings indicating that there is no such significant difference in EI found among the students from management and non-management backgrounds (Levenburg *et al.*, 2006). When the SS are being decided much before entering into university-level education, it is essential to examine how the students from different SS develop EI, particularly in the Indian context. Therefore, the following hypothesis has been formulated.

H1. The SS is a significant determinant of EI among university students.

2.2 Exposure to entrepreneurship education (EEE)

Entrepreneurship education in India has been introduced into the university curriculum very recently as an optional or Choice-Based Credit System (CBCS) subject. Most of the institutions provide entrepreneurship education to management and commerce students only. The empirical evidence on entrepreneurial education claims a positive impact on the entrepreneurial intentions of the university students (Byabashaija and Katono, 2011; Chaudhary, 2017; Farhangmehr *et al.*, 2016; Liñán *et al.*, 2011). Therefore, the inclusion of entrepreneurship education along with other regular subjects is highly indispensable for developing EI (Kuratko, 2003). Some studies also claim that entrepreneurship education not only provides the necessary skill and abilities to start a business but also helps in running the business successfully (Peterman and Kennedy, 2003; Phillips *et al.*, 2002). Thus, the following proposition can be made in this regard.

H2. EEE at the undergraduate and/or post-graduate level has a significant impact on the entrepreneurial intentions of university students.

2.3 Type of institution or university type (UT)

Quality of education depends on different aspects like the types of institutions (Zhang *et al.*, 2014), the autonomy of the educational institutions, the quality of teachers or instructors and the availability of infrastructural resources (Akalu, 2014). As such, the subjects offered by the universities have a strong impact on the career choice of the students (Mahendra *et al.*, 2017). The courses offered by the Universities are less diversified which restricts the career choices of students (Maringe, 2006). Even when a student shows eagerness toward entrepreneurship, the lack of necessary infrastructure and only learning entrepreneurship within the classrooms discourages them. Therefore, it is imperative to invest sufficiently in educational infrastructure development for qualitative improvement (Williamson, 2018). In this context, the following propositions can be made.

H3. There exists a significant difference in the EI of private and government university students.

H4. There exists a significant difference between the quality of entrepreneurship education (QEE) in Government and Private Universities.

2.4 ECA

ECA refer to those activities that are generally outside the regular educational curriculum in colleges or universities (Feldman and Matjasko, 2005). The usefulness of academic activities

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on the EI of the students has been studied by different scholars. The study of Sánchez (2011) also gave importance to the development of educational programmes that certainly affect the entrepreneurial competency of the students. Studies, examining the role of various ECA like sports, music and drama claim that these activities help students in developing new skills, confidence and encourage them to face competitions and challenges in life (Fejgin, 1994; McNeal Jr, 1995). Similarly, Broh (2002) also substantiated the fact that sports activities greatly help students in improving self-confidence and academic achievements. Therefore, it is worth analysing whether the ECA help students in developing an entrepreneurial mind set.

H5. The extra-curricular activity level of the students has a significant impact on their EI.

2.5 Academic achievement (AA)

AA refers to the excellence in the academic qualification or content-area achievement (Singh, 2011). Studies reveal that majority of the highly educated and qualified students do not choose self-employment (Räty *et al.*, 2019; Satyalakshmi, 2017). There are two fundamental reasons for such behaviour, firstly, a highly qualified student can earn well by joining a reputed multinational company or from a decent government assignment and secondly, the earnings from self-employment is indeed less secure and irregular due to the uncertainty associated with a business (Kangasharju and Pekkala, 2002). Researchers also posit that educationally low ranked students or dropouts mostly choose self-employment as they do not have any alternatives (Buenstorf *et al.*, 2017). Higher education is reported to be negatively related to self-employment or entrepreneurship (Kim, 2007). If we consider this as true, then how entrepreneurship education affects the EI of academically sound students. Moreover, it is highly important to offer entrepreneurial education to academically poor students or dropouts, so that, it would help them in their future endeavours. These inquiries lead to the formulation of the following hypothesis.

H6. The AA of university students has a significant role in developing EI.

2.6 Gender

Many previous studies have closely observed the gender effect on EI and revealed that it is a male-dominated behaviour. Many studies also reported that male students show higher entrepreneurial desires than their female counterparts (Kourilsky and Walstad, 1998; Mesch and Czamanski, 1997). Moreover, the study of Matthews and Moser (1996) suggests that the EI in male students is quite consistent but in females, it fizzles out with time. As such, studies also revealed a significant difference in EI among male and female students with non-professional backgrounds. Again, there is no gender effect on EI has been observed among professional degree holders in engineering, management, law and health care sectors (Ghazali *et al.*, 1995). From the above discussion, the following propositions can be made.

H7. The EI of male students is significantly higher than that of female students.

H8. The male students with higher educational achievements are more likely to show higher EI.

H9. The male students with higher extra-curricular achievements exhibit higher EI.

2.7 Parents occupation (PO)

Parents' occupations have a strong impact on their children's career choices. Self-employed parents influence the EI of their children positively (Achchuthan and Kandaiya, 2013; Tanveer *et al.*, 2013). Several studies also conveyed that the preference for self-employment or entrepreneurship as a career choice is high among those students whose parents are self-

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employed (Bosma *et al.*, 2012; Chlosta *et al.*, 2012; Cieślik and Van Stel, 2017; Farooq *et al.*, 2016; Fatoki, 2014). Students having a business family background get practical exposure to business which helps them develop an optimistic attitude towards business ownership. On the other hand, self-employed parents not only inspire their children but also provide moral and financial support for starting a new venture (Bagheri and Pihie, 2010). The following hypothesis is formulated to test the relevance of these findings in the Indian context.

H10. Parents' occupation plays a significant role in developing the EI of university students.

2.8 Socio-economic status (SES)

Education and social status are strongly related to the EI of students (Begley *et al.*, 1997). Most researchers have overlooked the socio-economic factors while examining the role of personal characteristics on entrepreneurial behaviour. De Wit and Van Winden (1989) demonstrated that the social status of self-employed parents is not a significant determinant of the entrepreneurial behaviour of their children. Some studies mentioned that people with ownership of assets like houses, land etc. are more likely to choose self-employment (Light and Munk, 2016). People who live in rented houses are generally perceived as a lower or middle class though exceptions also exist. Ownership of such assets determines the social status and such individuals seem to have adequate capital for investing in a new business. Alternatively, the effect of lower- and middle-class families with self-employed parents on the entrepreneurial behaviour of their children is still unclear.

H11. There exists a significant difference between the EI of university students with different SES.

H12. There exists a significant difference in EI of students of different social classes with self-employed parents.

3. Methodology

3.1 Sample

Primary data for the study have been collected from university students using a semi-structured questionnaire. The selection of the university students is done using the multistage random sampling technique first by randomly selecting the universities and then students of the selected universities. We have selected only state-owned government universities and private universities that are located within the province of the state of Odisha. Only the Post-graduate second-year students have been selected for the survey irrespective of their SS. A total of 485 responses were collected using an online questionnaire in Google form from three government and three private universities with a response rate of 96.50%.

3.2 Measure

3.2.1 Dependent variable. EI is the dependent variable in this research (*Cronbach's* $\alpha = 0.989$). The study has administered the Entrepreneurial Intention Questionnaire (EIQ) developed by Liñán and Chen (2009). We used selected questions from EIQ and minor modifications made to match the Indian context (Refer to the questionnaire).

3.2.2 Independent variables. The independent variables included in this paper are the SS of the students, their AA, access to or availability of Entrepreneurship Education, Type of Institution or University and ECA. The detailed scaling of these variables can have been provided in the questionnaire (Ref. Questionnaire in Appendix).

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Demographic or biographic variables include *Gender, Parents' Occupation and SES* of the students. *Parents' Occupation* categorized as Self-employed, Government employees and Private jobholders. *SES* is measured by using four questions such as; "Do you have your own house?", "Which class does your family belong to (lower/middle/upper-middle/higher class)", "Does your family own a car?", "What is the approximate annual income of your parents (1–2 L/2–4 L/4–6 L/more than 6L)". The *type of educational institution or university* is divided into private and government-owned institutions.

3.2.3 Data analysis. The analysis has been done using SPSS (Statistical Package for Social Sciences), Version-25. The descriptive analysis includes the frequency, percentage, mean, and standard deviation of the responses. The hypotheses were tested by using independent samples *t*-test, analysis of variance (ANOVA) and regression analysis.

4. Results

4.1 Profile of the university students

The study surveyed a total of 485 students from different private and government universities using a semi-structured questionnaire. 55.1% male and 44.9% female students participated in the survey. 54.4% of the students are from government universities whereas, 45.6% are from private universities. Their SS profile indicates that the majority of the students are from social science and literature (30.7%) followed by commerce and management (29.7%). The least number of respondents are from the professional category (16.5%) (see Table 1).

The intercorrelation matrix given in Table 2 demonstrates the dependent variable EI significantly correlated with all other variables except the AA of the students. Further, a negative correlation can be observed between Gender, Parental Occupation and UT with EI.

4.2 Testing of hypotheses

From Table 3 it can be inferred that there is a significant difference in EI among the students with different SS, PO, EEE and ECA. This allows us to accept the hypotheses H1 ($F = 43.472$, $p = 0.000 < 0.01$), H2 ($F = 58.775$, $p = 0.000 < 0.01$), H5 ($F = 6.762$, $p = 0.001 < 0.01$) and H10 ($F = 39.818$, $p = 0.000 < 0.01$). However, no significant difference is found in EI of the students grouped according to their AA and SES leading to the rejection of hypotheses H6 ($F = 0.481$, $p = 0.791 > 0.05$) and H11 ($F = 0.904$, $p = 0.513 > 0.05$). Moreover, the mean difference EI of male and female students grouped according to their AA has also been found insignificant leading to the rejection of hypothesis H8 ($F = 0.608$, $p = 0.694 > 0.05$). In other words, it can be stated that AA is not a significant determinant of EI of male and female students.

As per the post-hoc analysis students who have commerce and management SS are showing a high degree of EI compared to the students in the professional subject category. On the contrary, students in core science, social science and literature specialisation show the least interest in entrepreneurship. PO is also found to have a significant role in determining the EI of university students. The students whose parents are in business are more curious to be an entrepreneur compared to those students whose parents are employees. Students show the least EI where the parents are in the government job. Again, when the role of PO is particularly verified for a significant difference in the EI of students belonging to different SES, no significant difference has been observed. This allows us to reject H12 ($F = 1.129$, $p = 0.347 > 0.05$) and conclude that the SES has no impact on the EI of students grouped according to their PO.

EEE is different for every student. Many students show higher EEE, whereas, some students have no exposure at all. An increase in the EEE through different sources increases the EI. It can be observed from Table 4 that EEE is having a direct impact on EI. Further,

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Table 1. University students profile ($N = 485$)

Variables	Categories	Frequency	Percent	Min.	Max.	Mean	SD	Skewness	Kurtosis
Gender (GEN)	Male	267	55.1	1	2				
	Female	218	44.9						
Type of university (UT)	Govt./public university	264	54.4	1	2				
	Private university	221	45.6						
Subject specialization (SS)	Core science	112	23.1	1	4				
	Social science and literature	149	30.7						
	Commerce and management	144	29.7						
	Professional (law/pharmacy/ engineering etc.)	80	16.5						
Parents occupation (PO)	Self-employed	172	35.5	1	3				
	Private sector employee	194	40.0						
	Govt. employee	119	24.5						
Socio-economic status (SES)				2	10	6.10	1.739	−0.067	−0.509
Entrepreneurial intent (EI)				1.17	5.00	3.091	1.307	−0.078	−1.382
Academic achievement (AA)	Very poor	17	3.5	0	5	2.53	1.160	0.037	−0.375
	Poor	74	15.3						
	Fair	149	30.7						
	Good	149	30.7						
	Very good	74	15.3						
	Excellent	22	4.5						
Exposure to entrepreneurship education (EEE)	No exposure	85	17.5	0	3	1.42	0.923	0.040	−0.842
	Very little	171	35.3						
	Moderate	167	34.4						
	High	62	12.8						
Quality of entp. education (QEE)				0	11	6.09	2.671	−0.076	−0.879
Extra-curricular achievement (ECA)	Low	130	26.8	0	2	1.11	0.797	−0.198	−1.398
	Average	172	35.5						
	High	183	37.7						

Source(s): Authors Own Creation

Table 2.
Correlation matrix of the variables used in the analysis

	GEN	UT	SS	PO	SES	EEE	AA	QEE	ECA	EI
GEN	1									
UT	0.128**	1								
SS	−0.148**	−0.067	1							
PO	0.134**	0.107*	−0.135**	1						
SES	−0.042	−0.039	0.020	0.016	1					
EEE	−0.138**	−0.104*	0.232**	−0.296**	0.082	1				
AA	−0.017	−0.074	−0.110*	−0.014	0.054	−0.039	1			
QEE	−0.234**	−0.616**	0.216**	−0.212**	0.008	0.290**	0.089	1		
ECA	−0.077	−0.041	0.015	−0.062	0.052	0.035	0.014	0.112*	1	
EI	−0.397**	−0.297**	0.361**	−0.373**	0.090*	0.516**	−0.017	0.534**	0.163**	1

Note(s): **Significant at $p < 0.01$ level (2-tailed), *Significant at $p < 0.05$ level (2-tailed)
Source(s): Authors Own Creation

Table 3.
Test of ANOVA for mean difference of entrepreneurial intent across different categories of university students

Independent variables	*F*	Sig.
Subject specialization[a]	43.472	0.000
Parents occupation[b]	39.818	0.000
Academic achievement	0.481	0.791
Exposure to entrepreneurship education[c]	58.775	0.000
Extra-curricular achievement[d]	6.762	0.001
Socio-economic status	0.904	0.513
Self-employed * socio-economic status	1.129	0.347
Private sector employee * socio-economic status	0.890	0.526
Govt. employee * socio-economic status	0.700	0.691
Male * extra-curricular achievement[e]	5.204	0.006
Female * extra-curricular achievement	0.827	0.439
Male * academic achievement	0.608	0.694
Female * academic achievement	0.555	0.734

Note(s): Dependent variable: entrepreneurial intent, a, b, c, d and e indicates the respective ad-hoc analysis given in Table 4
Source(s): Authors Own Creation

students with higher ECA show significantly higher EI compared to those with low ECA, but no significant difference is observed in EI of the students having a high and average level of ECA. When the EI and its dependency on ECA of male and female students were compared, male students with high ECA exhibited higher EI thus we accept hypothesis H9 ($F = 5.204$, $p = 0.006 < 0.01$). ECA, on the other hand, has no significant role in influencing the EI of female students.

It can be observed from Table 5 that there is a significant difference exists in the EI of male and female students and we accept the corresponding hypothesis H7 ($t = 9.493$, $p = 0.000 < 0.01$). Since EI significantly differs among the students of government and private universities therefore we also accept hypothesis H3 ($t = 6.950$, $p = 0.000 < 0.01$) to infer that the EI of private university students is significantly high compared to the government university students with a mean difference of 0.779. QEE and EEE are also found to be significantly different among government and private university students. QEE is significantly higher in private universities compared to government universities with a mean difference of 3.299 ($t = 17.784$, $p < 0.001$). This observation supports H4 which says that there exists a significant difference in the QEE provided by the government and private universities. Likewise, the exposure level to entrepreneurship education among private

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Subject specialization (*I*)	(*J*)	Mean difference (*I*–*J*)	Std. error	Sig.
a. *SS*: commerce and management	Core science	1.356	0.146	0.000
	Social science and literature	1.316	0.135	0.000
	Professional (law/pharmacy/medical/ engineering etc.)	0.449	0.162	0.006
b. *PO*: self-employed	Private sector employee	0.501	0.127	0.000
	Govt. employee	1.290	0.144	0.000
c. *EEE*: high	No exposure	2.264	0.187	0.000
	Very little	1.375	0.166	0.000
	Moderate	0.757	0.166	0.000
d. *ECA*: high	Low	0.543	0.148	0.000
	Average	0.192	0.137	0.161
e. *ECA of male students*: high	Low	0.610	0.189	0.001
	Average	0.267	0.166	0.109

Source(s): Authors Own Creation

Table 4. Post-hoc analysis for significant difference in entrepreneurial intent of university students

Dependent variable	Grouping variable	Levene's test for equality of variances	*F*	Sig.	*t*-test for equality of means	df	Sig. (2-tailed)	Mean difference
EI	GEN	Assumed	0.279	0.597	9.493	483	0.000	1.041
		Not assumed			9.503	465.574	0.000	1.041
EI	UT	Assumed	27.247	0.000	6.842	483	0.000	0.779
		Not assumed			6.950	483.000	0.000	0.779
QEE	UT	Assumed	27.467	0.000	17.178	483	0.000	3.299
		Not assumed			17.784	459.811	0.000	3.299
EEE	UT	Assumed	3.982	0.047	2.295	483	0.022	0.192
		Not assumed			2.318	481.037	0.021	0.192

Source(s): Authors Own Creation

Table 5. Independent samples test for mean difference in entrepreneurial intent, quality of entrepreneurship education and exposure to entrepreneurship education

university students is significantly higher than that of government university students with a mean difference of 0.192 ($t = 2.295$, $p = 0.022 < 0.05$).

Table 6 provides the regression outcome for the dependency of EI on the QEE and SES. However, it has been evinced from the test of ANOVA regarding the association between EI and SES. Surprisingly it is observed that even though, there is no significant difference exists in the EI of students of different SES, yet, EI increases with the increase in SES ($\beta = 0.086$, $t = 2.242$, $p = 0.025 < 0.05$). Besides, the QEE is also observed to significantly predict EI of university students.

5. Discussion

At the university level, SS play an important role in persuading the career objective of the students. Many students pursue a subject based on their interest subject to availability. The findings here suggest that is a significant determinant of the EI of university students. Many

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students from commerce and management show more interest in entrepreneurship, since, it has been taught as a common and compulsory subject. This fact has also been highlighted by some authors (e.g. Fukuda, 2014; Tkachev and Kolvereid, 1999) claiming specialization in business and management studies significantly influences EI. However, the same is not true in the case of female students (Langowitz and Minniti, 2007). Surprisingly, students pursuing law, pharmacy, engineering, etc. do not show much interest in entrepreneurship. Moreover, students from core science, humanities and literature background are not at all interested in entrepreneurship. This may be reasoned to the lack of proper entrepreneurship education or inquisitiveness of the students in business. Hence, it can be suggested here that each curriculum needs to include entrepreneurship education compulsorily irrespective of SS.

Likewise, the findings also highlight that EEE by the students also significantly drives their EI. This EEE should not just be limited to the university level but need to be made accessible at every stage of the academic career of a student. This observation is slightly different from earlier studies that mostly discussed the favourable impact of entrepreneurship education at the university level (Khalifa and Dhiaf, 2016; Küttim *et al.*, 2014; Mahendra *et al.*, 2017), however, some studies also argued against this observation (Guerrero and Urbano, 2019; Souitaris *et al.*, 2007). Yet, Ierapetritis (2017) emphasised the necessity of entrepreneurial education at the intermediate level in Greece, but in a country like India, it is undoubtedly a challenging task. Many students get familiar with the concept of entrepreneurship through different workshops and seminars. There is no education as such available at the intermediate or graduation level, especially in Odisha. Probably this could be the primary reason that makes many students lose interest in entrepreneurship at the university level. So, it can be recommended to include entrepreneurship as a subject at an early stage of education.

Further, it has been observed that AA has no impact on the EI of university students. While students with extra-curricular achievement, are more inclined toward entrepreneurship. Many researchers observed that level of education is a strong determinant of EI (Wu and Wu, 2008). Contrarily, some studies also argued that AA has nothing to do with EI as many renowned entrepreneurs are school or college dropouts. Further, student participation in ECA helps develop risk-taking abilities and handle challenges in life, which eventually help them confront obstructions in the way of entrepreneurship (Arranz *et al.*, 2017). ECA like; industrial visits, business simulator games, entrepreneurial projects, conferences, workshops, internship programmes etc. help students develop entrepreneurial skills (De Faoite *et al.*, 2003; Rasmussen and Sørheim, 2006). In this study, we have not used the above aspects to measure extra-curricular activity since most of these facilities are not available to many university students in Odisha. Mostly, management and engineering students are getting facilities like industrial visits, business projects and business simulation games etc. Therefore, we measured ECA considering the student's participation in games, sports, event management, elections etc. where all the students are

Table 6.
Regression analysis verifying the dependence of entrepreneurial intent

Dependent variable: entrepreneurial intent	Unstandardized coeff. beta	Std. error	Standardized coeff. beta	*t*	Sig.
(Constant)	1.109	0.215		5.162	0.000
QEE	0.261	0.019	0.533	13.902	0.000
SES	0.065	0.029	0.086	2.242	0.025
F- statistics	99.404 (0.000)				
R	0.540[a]	*R*-square	0.292		

Source(s): Authors Own Creation

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free to participate. This particular finding relating to the association of EI and extra-curricular achievement is true for male students only, which is an interesting observation and every university should promote such ECA.

Universities play an important role in developing EI among the students. It is evident from the study that government universities are not competent enough like their private counterparts. There may be many such disparities, but when entrepreneurship education at the university level is concerned the QEE should not be significantly different in government and private universities. Similarly, the exposure level of the students towards entrepreneurship is significantly lower in the case of government universities. A recent study in the State of Rio Grande do Sul, Brazil by Barral *et al.* (2018) claimed that the type of university has no impact as such on the EI, except for the students' perceived desire to learn entrepreneurship. Some studies also reported that students from private universities are more dedicated to entrepreneurship education compared to government universities because private universities have more dedicated and skilled faculties with the required infrastructure which allows students in getting practical exposure (Perim, 2015). In this respect, our findings are quite similar to prior studies to claim that private universities are better at imparting EI to their students. Moreover, our study also argues that the government universities have failed not only to develop EI but also in providing quality education on entrepreneurship. The poor QEE could be due to poor infrastructure, faculty crunch, less or nil industrial exposure, and lack of conferences and workshops to stimulate such behaviour. Further, the students in the government universities are showing low EEE and thus lack interest in entrepreneurship at the university level. Finally, the government universities are suggested to develop a centralised and dedicated cell or department, especially for entrepreneurship development so that students from all the streams could benefit from it.

The gender of the university students was found to be a significant determinant of EI. Many prior studies across various countries and universities found similar results (Arora and Jain, 2019; Feder and Nițu-Antonie, 2017; Nowiński *et al.*, 2019; Smith *et al.*, 2016). This is again confirmed in the Indian context that entrepreneurship is a typical masculine job (Gupta *et al.*, 2009; Shinnar *et al.*, 2014). It was also argued that male students are interested in entrepreneurship education to increase their qualifications as it could help in career building but female students, on the other hand, are learning it just for the sake of knowledge (Severiens and Ten Dam, 1994). Therefore, female students are less likely to show EI than their male counterparts. Moreover, the present study also confirms that neither male nor female students with higher academic achievements displayed higher EI compared to those with lower AA.

Finally, self-employed parents as role models create interest in their children towards business. Students belonging to such families usually observe their parents doing business and eventually learn a lot of things that help in developing an entrepreneurial mind set (Bosma *et al.*, 2012; Chlosta *et al.*, 2012; Cieślik and Van Stel, 2017; Farooq *et al.*, 2016; Fatoki, 2014; Laspita *et al.*, 2012; Pablo-Lerchundi *et al.*, 2015) except some contradictions (Boissin *et al.*, 2011). On the other hand, SES does not influence the EI of either the government or private university students. Further, the SES blended with parental education has no significant impact on the EI of the university student which is quite an exceptional observation in the Indian context. Therefore, it can be inferred that irrespective of SES the parents with business backgrounds influence their children for entrepreneurship.

6. Conclusion and implication

The study analysed the role and impact of exposure to entrepreneurial education, QEE, academic and ECA on the EI of private and government university students. Moreover, it also highlighted the differences in EI caused by individual characteristics like gender, parental

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occupation, SS and SES. The results suggested that there is a significant difference between the government and private universities in the quality of entrepreneurial education, EEE and EI of the students. Besides, it has also been confirmed that business and commerce students are more interested in entrepreneurship compared to the students of professional streams like Law, pharmacy, engineering, etc. Similarly, self-employed parents, exposure to entrepreneurial education, and ECA are significant determinants of EI among the students whereas, academic achievements and SES do not significantly explain the EI. Finally, gender also plays a vital role in manifesting the EI among university students.

The study has important implications from both research and academic perspectives. First of all, it is not only useful to the universities to revise their strategy in providing quality entrepreneurial education but also proposes to incorporate entrepreneurship development activities along with ECA so that students could develop risk-taking ability and handle entrepreneurial challenges. Secondly, entrepreneurship education should not be a subject taught only to the business and commerce students but also to all students essentially at the intermediate and graduation level where it can add more value to the students' academic and professional careers. Finally, it also provides enough scope for future research by extending the study dimensions by taking all women's universities or post-graduate colleges and can be compared with those of other universities to explore the factors responsible for the low EI among the female students. Moreover, further research is necessary to explore whether these findings are identical for university students of other states in India.

7. Limitations

The first limitation of the study lies in its coverage of universities. It merely incorporated the government and private universities in the state of Odisha. Further, many students are studying in these universities belonging to different parts of India, and the present study did not consider the residential status or state of origin or ethnicity of the students which can be a strong determinant of EI. Further, the study has only incorporated the state-owned government universities by ignoring the open universities and central universities. Additionally, students belonging to rural and urban areas may also have some impact on their EI which paves the scope for future investigations.

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Appendix
Questionnaire

Entrepreneurial intent (① = Strongly Disagree to ⑤ = Strongly Agree)

a. I am ready to do anything to be an entrepreneur	①②③④⑤
b. My professional goal is to become an entrepreneur	①②③④⑤
c. I am determined to create a business venture in the future	①②③④⑤
d. I am seriously thinking about starting a business in the coming years	①②③④⑤
e. I have got the intention to start a firm one day	①②③④⑤
f. I intend to start a firm within 5 years of current Education	①②③④⑤

A. Gender
☐ Male ☐ Female

B. Subject Specialization (SS)
☐ Science c Social Science ☐ Humanities ☐ Professional

C. Type of Institution/University Type (UT)
☐ Private ☐ Government

D. Parents Occupation (PO)
☐ Self-Employed ☐ Government Servant ☐ Private Job Holder

E. Socio-Economic Status (SES)
a. Do you have your own house? (☐ Yes/☐ No)
b. According to you, which class does your family belongs to (☐lower/☐ middle/☐ upper-middle/☐ higher-class)?
c. Does your family own a car? (☐ Yes/☐ No)
d. What is the approximate annual income of your parents _____in Lakhs?

F. Academic Achievement (AA)
a. Do you ever receive any monetary reward for your academic Excellency? (☐ Yes/☐ No)
b. Do you have any achievement/appreciable rank for any exams? (☐ Yes/☐ No)
c. Have you selected for any reward like foreign visits or award from renounced person? (☐ Yes/☐ No)
d. Do your career is of first class throughout? (☐ Yes/☐ No)
e. Have you qualified for any national level entrance examination? (☐ Yes/☐ No)

G. Exposure to Entrepreneurship Education (EEE)
a. Is your college where you are studding right now provides education on entrepreneurship (☐ Yes/☐ No)
b. Do you ever received/studied entrepreneurship as a subject in your career? (☐ Yes/☐ No)
c. Do you ever attended or participated seminar/conferences on Entrepreneurship development? (☐ Yes/☐ No)

H. Quality of Entrepreneurship Education (QEE)
a. How do you rate the QEE in a 10-point scale? (0-no such education to 9-extremely high quality) ☐
b. Does your university provide industrial visits in order to improve entrepreneurial exposure? (☐ Yes/☐ No)

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c. Does your university organize seminars/conference on entrepreneurship development? (☐ Yes/☐ No)

I. Extra-curricular Activities (ECA)

a. Does your institution provide opportunities to participate in ECA like sports/drama etc.? (☐Yes/☐ No)
b. Do you like to participate in such ECA? (☐ Yes/☐ No)
c. Do you ever participate in ECA like sports/drama etc.? (☐ Yes/☐ No)
d. Have you ever received any prize for your achievements in ECA? (☐ Yes/☐ No)

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