Journal of Entrepreneurship and Management
12 (1) 2023, 12-23
http://publishingindia.com/jem/

Role of Academic Performance as an Antecedent of Employability for Business Students in India

Anubha Singh*, Vivek Anand, Mihir Dash*****

Abstract

The employability of professional students has been a source of concern in recent years. Several reports have highlighted this gap. The India Skills Report (2021) observes that only about 47% of engineering and management graduates are employable. The concept of employability has significance not only at a macro-level for an economy, but also at a micro-level for an individual, as it is related to a person's sense of life satisfaction, self-esteem, and general well-being. At the individual level, employability refers to the propensity of students to obtain a job (Harvey, 2001) and hence represents a form of work-specific adaptability (Fugate, Kinicki & Ashforth, 2004) leading to career success. Success in a career, in turn, is also influenced by the broader external factors, such as social, economic, and so on, which may influence a person's ability to get a job. Keeping the above factors in mind, employability is defined as an individual's perception of his or her possibilities of getting employment (Bernston & Marklund, 2007). Some of the determinants of employability that have been examined by researchers include perceived skills, experience, network, personal traits, and knowledge of the labour market (Guilbert et al., 2016). A more empirical approach to employability considers the individual, demographic, and psycho-social attributes related to success in securing a job (Boswell et al., 2006; McArdle et al., 2007). McArdle et al. (2007) showed that 42% of the variation in the intensity of job-seeking behaviour is explained by employability. The objective of the study is to examine the antecedents of employability at different levels. The data for the study were randomly drawn from the placement records of postgraduate management students in Bengaluru, India. The study uses the negative binomial model to develop an index for employability, applicable at the individual level, as well as at different levels of grouping. The study contributes to the literature by examining the role of academic performance as an antecedent of employability for business students in India at different levels.

Keywords: Employability, Intensity of Job Search, Negative Binomial Model, Management Students

Introduction

The employability of professional students has primarily been a source of concern in recent years. Several reports have highlighted this gap. The India Skills Report 2021 by Wheebox observes that though employability shows an upwards trend from 37.2% in 2015, reaching 45.9% in 2021, the gap is still very evident and requires attention by various stakeholders. For management graduates, employability has marginally gone up from 44.0% in 2015 to 46.6% in 2021. This, coupled with India's demographic bulge of young people on top of a huge population, leading to an ever-growing student population, does not augur well for the country's economic health. Therefore, a focus on employability is essential, especially for institutions that cater to vocational studies. Students in such institutes invest time and money with the expectation that it would offer them access to better careers.

Given this state of employability of graduates in the Indian labour market, this study examines some of the

* Vice Chancellor, Alliance University, Bengaluru, Karnataka, India. Email: anubha@alliance.edu.in
** Director of Doctoral Programme, School of Business, Alliance University, Bengaluru, Karnataka, India. Email: vivekanand.g@alliance.edu.in
*** Interim Associate Dean, School of Applied Mathematics, Alliance University, Bengaluru, Karnataka, India. Email: mihirda@rediffmail.com

antecedents of employability. It uses a negative binomial model to develop an index for employability, applicable at the individual level and at different levels of grouping that may guide management-programme-related policy development at higher education institutions. This paper first explores the concept of employability in general, and then goes on to define employability from a psycho-social perspective. Finally, it discusses the nature of employability in higher education institutions. The paper then moves on to outline the development of the multi-level model of employability. In the end, the implications, scope, and limitations of the proposed model are discussed.

Evolving Concept of Employability

The concept of employability was originally discussed in the context of differentiating individuals who were seen as 'employable', that is, capable and willing to work versus those who were considered 'unemployable', that is, unable to work and those who need help to become employable (Gazier, 1998). Based on this, the concept of employability was studied and researched from an economic perspective. One of the objectives of many countries became to achieve higher levels of employability through various government and non-governmental measures. In the 1950s and 60s, the concept of employability assumed a softer dimension, and attitude towards work became the focus of research, whereas in the 1970s, it shifted to knowledge and abilities. With the emergence of the concept of human capital, the focus in the 1980s was on transferable skills, which later in the 1990s transitioned into "interactive employability" (Gazier, 1998), which focuses on individual adaptation. These changes over time have resulted in multiple definitions of employability, with some of these definitions still being contested (William et al., 2015). However, there has been some consensus that employability as a concept is distinct from employment, because it is possible to be employable and still be unemployed.

Employability as a Psycho-Social Construct

From a psycho-social perspective, employability is conceptualised as "a form of work-specific active adaptability that enables workers to identify and realise career opportunities" (Fugate, Kinicki & Ashforth, 2004, p. 16). It enhances an individual's likelihood of gaining employment rather than assuring actual employment (Fugate, Kinicki & Ashforth, 2004). The three dimensions that form the construct of employability from a psycho-social perspective are career identity, personal adaptability, and social and human capital (Fugate, Kinicki & Ashforth, 2004). Career identity answers the question 'who I am or who I want to be' in the work domain, and it is often articulated in the form of narratives that provide "meaning and continuity to past, present, and future career-related experiences" (Fugate, Kinicki & Ashforth, 2004, p. 20).

Personal adaptability, the second dimension of employability, contributes to career success (Pulakos, Arad, Donovan & Plamondon, 2000) as it enables people to remain productive even in a dynamic and continually changing work domain (Chan, 2000). This is so because adaptable people are willing and able to change their knowledge, skills, and behaviours to meet the demands of the situation (Ashford & Taylor, 1990). Moreover, continuous learning is generally acknowledged as a key determinant of career success (London & Smither, 1999). Thus, a positive attitude towards learning contributes to an individual's adaptability and employability (Fugate, Kinicki & Ashforth, 2004).

Individuals and organisations make investments in social and human capital in the hope of positive returns in the future (Jackson & Schuler, 1995). Social and human capital thus become the third dimension of employability as "one's ability to identify and realise career opportunities (that is, employability) is greatly influenced by such capital" (Fugate, Kinicki & Ashforth, 2004, p. 23). The benefits of social capital materialise in an individuals' job search behaviours as people with social capital often rely on informal networks for job search. On the other hand, people's ability to realise opportunities in the marketplace is greatly influenced by their human capital (Fugate, Kinicki & Ashforth, 2004). Human capital refers to factors such as age, education, work experience and training, job performance and organisational tenure, emotional intelligence, and cognitive ability (Fugate, Kinicki & Ashforth, 2004).

Employability and Higher Education Institutions (HEIs)

Students at higher education institutions (HEIs) are generally engaged in building a life beyond their degrees.

Thus, the focus of HEIs should be to prepare students to make this transition. Ideally, students should emerge from the portals of academic institutions ready for the labour market. In this regard, HEIs generally cater to all the three dimensions of employability discussed in the previous section. The implicit assumption is that HEIs provide employability-development opportunities that enable individuals to get employment. They provide a range of employability-development opportunities for students, such as developing human and social capital in the form of domain-specific knowledge acquisition and self-presentation skills.

Given the significance of employability, HEIs have adopted different approaches to employability. Some may embed employability in the curriculum itself and ensure that students are able to make a connection between employability outcomes and what they study. This is the focus of outcome-based education as adopted by many institutes. On the other hand, some HEIs may choose to provide a range of co-curricular and extra-curricular opportunities for students, which encourage them to reflect and increase their capacity to articulate and communicate better. For fostering a global perspective, some HEIs may encourage students' mobility through tie-ups with institutions abroad and facilitate semester exchange programmes. Along with these, some HEIs may even focus on building links with the labour market and encourage students to do the same. The HEIs may do all or some of these; the challenge is that students may focus on developing all or some of these, leading to disparities in the acquisition of employability skills. Besides these, factors such as quality and type of earlier education also result in differential employability quotients across groups and individuals.

In a marketised higher education system, employability is likely to be a key motivator for student choice-making. Hence, HEIs need to understand the factors that determine employability, which this study is aimed at analysing.

Literature Review

Employability and its determinants are very widely studied issues. Stoica (2010) developed a comprehensive employability skill framework to identify the most important skills required for the employability of MBA graduates. Rahmat et al. (2012) found a close relationship between IT graduates' perceptions of their skills and their level of employment and work performance. Pandey (2012) found that life skills and critical thinking skills are among the important factors affecting employability of management graduates, both in increasing the chances of getting a job and in sustaining it. Shah and Srivastava (2014) found that analytical skills, self-understanding, general management understanding, adaptation with work culture, leadership skills, problem solving ability, and communication skills were some of the most important factors of employability for management students, based on market expectations. Chadha and Mishra (2014) found that management students need to gain practical skills (e.g. proficiency in using MS Excel) and some industrial exposure to improve their employability. Asirvatham and Priya (2017) found that basic skills such as computer skills and communication skills are essential for employability from the employers' point of view.

Some studies have analysed student academic performance, employability, and their relationship. Minaei-Bidgolim (2003) used generic algorithms to predict students' final grades in an education Web-based system. Al-Radaideh et al. (2006) used feature selection to discover those attributes which have highest impact on student performance and found that the two most important attributes were attendance and academic performance (GPA). Kabra and Bichkar (2011) used decision-tree techniques to predict students' academic performance for engineering students. Kostopoulos et al. (2015) used semi-supervised techniques to predict student drop-out behaviour. Saini et al (2021) found that the most important variables for employability of engineering graduates were technical skills, aptitude, and academic performance.

Thus, though employability is a well-studied issue, the role of academic performance in employability is not clearly established. The current study contributes to the literature by examining the role of academic performance as an antecedent of employability for business students in India at different levels.

Methodology

The primary objective of the study was to analyse the impact of demographics, specialisation, academic background, academic performance, and work experience

on the employability of postgraduate MBA students. The data for the study consisted of a sample of 306 randomly-drawn placement records of postgraduate management students from business schools in Bengaluru, India.

The analysis was performed using dummy variable regression. The model was formulated as follows:

$$y = a + b_1x_1 + \cdots + b_kx_k + c_1D_1 + \cdots + c_lD_l + \epsilon$$

Where, y represents the employability measure (the dependent variable), x_1, … x_k represent academic performance variables, and D_1, … D_l represent dummy variables for demographics, specialisation, academic background, and work experience, as appropriate. The analysis was performed overall as well as for specific sub-groups.

A Probabilistic Model for the Placement Process

The placement process may be modelled as a sequence of independent Bernoulli trials, with fixed probability of success p in each trial. Thus, the placement of an individual student would follow a geometric distribution (assuming that the student stops sitting for placement after securing a job offer).

The parameter p of the Bernoulli process can be used as a metric for the 'employability' of the students. Thus, the probability that n attempts would be required to get placed is given by the expression: $p(N = n) = p(1 - p)^{n-1}$, $n \geq 1$. Thus, maximum likelihood estimator for the parameter p is given by the reciprocal of the total number of attempts for placement.

Profile of the Candidates

The profile of the students is summarised as follows. In terms of gender, 58.5% of the students were male and 40.5% female. In terms of age, 96.1% of the students were in the age range of 20-26 years. Specialisation-wise, 51.0% of the students were from marketing, 39.2% from finance, 4.9% from OB/HR, 3.6% from operations, and 1.3% from international business streams. Further, 45.8% of the students were from an engineering background, 27.5% from a commerce background, 19.9% from a management background, 3.9% from science, and 2.9% from arts/law. In terms of work experience, only 25.8% had prior work experience, while 74.2% had none. For the former, the mean months of work experience was 18.98 months, with a standard deviation of 12.43 months. Though the data pertained to postgraduate management students from business schools in Bengaluru, India, the students were from all over India, and therefore the sample is not restricted geographically.

Academic Performance of the Candidates

The academic performance of the candidates was measured through their performance in Class X examination, performance in Class XII examination, performance in graduation examination, performance in MBA (measured by their CGPA and WPM), and the number of backlog examinations.

The descriptive statistics of the academic performance variables are summarised in the table below:

Table 1

		Percentage – Class X	*Percentage – Class XII*	*Graduation Percentage*	*CGPA*	*WPM*	*Backlogs*
N		306	306	306	303	303	82
Mean		75.1602	72.402	67.138	2.989	68.868	1.975
Std. Dev.		10.4446	11.853	8.417	0.406	7.2394	1.379
Skewness		−0.385	−0.049	0.279	−0.717	−0.459	1.407
Kurtosis		−0.307	−0.653	−0.244	0.968	0.694	1.044
Minimum		43.00	41.5	50.0	1.5	43.3	1
Maximum		96.64	98.3	92.3	3.8	86.2	6
Percentiles	25	67.950	64.510	60.850	64.6	2.8	1
	50	76.385	72.000	67.015	69.4	3.0	1
	75	83.000	80.873	72.940	73.2	3.3	3

The performance in Class X examination ranged between 43.0 and 96.6, with a mean of 75.16 and a standard deviation of 10.44. The performance in Class XII examination ranged between 41.5 and 98.3, with a mean of 72.40 and a standard deviation of 11.85. The performance in graduation examination ranged between 50.0 and 92.3, with a mean of 67.14 and a standard deviation of 8.42. In terms of the performance in MBA, the CGPA ranged between 1.5 and 3.8, with a mean of 2.99 and a standard deviation of 0.41, while the WPM ranged between 43.3 and 86.2, with a mean of 68.67 and a standard deviation of 7.24. In terms of backlog examinations, 73.0% of the students had no backlog examinations, while 27.0% of the students had at least one backlog examination; for the latter, the number of backlog examinations ranged between one and six, with a mean of 1.98 and a standard deviation of 1.38.

The correlations between the academic performance variables are summarised in the table below:

Table 2

		Percentage – Class X	*Percentage – Class XII*	*Graduation Percentage*	*CGPA*	*WPM*
Percentage – Class XII	Correlation	0.527				
	p-value	0.000				
Graduation Percentage	Correlation	0.265	0.386			
	p-value	0.000	0.000			
CGPA	Correlation	0.402	0.333	0.413		
	p-value	0.000	0.000	0.000		
WPM	Correlation	0.415	0.350	0.414	0.978	
	p-value	0.000	0.000	0.000	0.000	
Backlogs	Correlation	−0.215	−0.216	−0.245	−0.783	−0.709
	p-value	0.000	0.000	0.000	0.000	0.000

The academic performance variables were all found to be highly significantly inter-correlated at 1% level of significance. To avoid multicollinearity, factor analysis was performed to summarise the academic performance variables. The results of the factor analysis are presented in the table below:

Table 3

		Rotated Component Matrix		*Component Score Coefficient Matrix*	
	Communalities	*Component*		*Component*	
	Extraction	*1*	*2*	*1*	*2*
CGPA	0.961	0.933		0.374	−0.041
WPM	0.914	0.897		0.349	−0.011
Backlogs	0.806	−0.896		−0.419	0.193
Percentage – Class XII	0.645		0.863	−0.121	0.480
Percentage – Class X	0.753		0.785	−0.179	0.552
Graduation Percentage	0.416		0.572	−0.003	0.304
Percentage of variance extracted		43.41%	31.51%		

Extraction method: Principal Components Analysis with Varimax rotation.

KMO measure of sampling adequacy = 0.667.

Two factors were identified; the first, comprising CGPA, WPM, and backlogs (the latter being negatively related to both), which may be interpreted as an MBA performance factor, and the second, comprising percentage in Class X examination, percentage in Class XII examination, and percentage in graduation examination, which may be interpreted as a pre-MBA performance factor. Together, both factors explained 74.9% of the total variance. The KMO measure indicated adequacy of the data. The two factors' scores were computed using the component score coefficients in the table.

There were some differences in academic performance between groups of students, particularly gender, age, graduation stream, work experience, and specialisation.

The differences for pre-MBA academic performance are summarised in the table below:

Table 4

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	97.860	2.238		43.731	0.000		
Gender	5.068	1.268	0.223	3.997	0.000	0.963	1.039
Marketing	−3.968	2.283	−0.177	−1.738	0.083	0.288	3.474
Finance	−1.891	2.415	−0.083	−0.783	0.434	0.270	3.706
BBA/BBM	−5.321	1.623	−0.189	−3.278	0.001	0.906	1.104
BCOM	−0.962	1.561	−0.038	−0.616	0.538	0.772	1.295

F Stat = 7.281, p = 0.000, R^2 = 10.9%.

It was found that female students had significantly better pre-MBA academic performance than male students. Further, students from the BBA/BBM stream had significantly worse pre-MBA academic performance than students from other graduation streams, particularly engineering stream. In addition, students who selected marketing specialisation had significantly worse pre-MBA academic performance than students in other specialisations, particularly operations and OB/HR.

The differences for MBA academic performance are summarised in the table below:

Table 5

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	−10.283	2.742		−3.749	0.000		
Gender	0.280	0.369	0.042	0.759	0.449	0.985	1.016
Work Experience	−0.003	0.467	0.000	−0.006	0.995	0.768	1.301
Age	0.550	0.119	0.294	4.622	0.000	0.759	1.318

F Stat = 9.233, p = 0.000, R^2 = 8.5%.

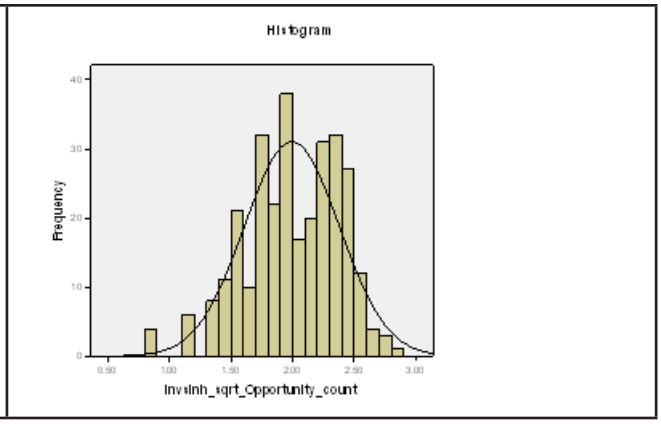
It was found that the only significant factor affecting MBA academic performance was age, i.e., MBA academic performance improves with maturity. Though students with prior work experience had significantly better MBA academic performance than students without prior work experience, this difference becomes insignificant when controlling for age/maturity. Similarly, the difference in academic performance between female and male students was insignificant when controlling for age/maturity.

Employability of the Candidates

The employability of the students was measured in terms of the total number of opportunities provided to them. Unfortunately, this measure has several limitations, the most serious being that while candidates may apply for opportunities based on their eligibility, they may drop some of the opportunities if they are disinterested in them, for example, if the job profile is unappealing, or if the salary offered is lower than expected. On the other hand, some candidates may be eligible for several opportunities, but may not apply for them due to disinterest. Thus, the number of opportunities provided to the candidates neither accurately measure the number of attempts required for the candidate to get a job nor the number of opportunities for which the candidate is eligible.

There was very high variability in the number of opportunities provided, with many extremely high values. To reduce the variation, the appropriate variance stabilisation transformation was given by: $y = sinh^{-1}(\sqrt{x})$, where x is a geometric count (Guan, 2009). The descriptive statistics of the transformed opportunity counts is presented below:

N		299
Mean		1.9933
Std. Dev.		0.3848
Skewness		−0.434
Kurtosis		−0.224
Minimum		0.88
Maximum		2.83
Percentiles	25	1.700
	50	1.994
	75	2.312



The transformed opportunity counts were taken as the focus variable for the study.

Determinants of Employability

The results for the overall model are presented in the table below:

Table 6

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	2.648	0.236		11.233	0.000		
Pre-MBA performance	−0.010	0.002	−0.283	−4.357	0.000	0.624	1.604
MBA performance	−0.017	0.008	−0.140	−2.220	0.027	0.662	1.511
Gender	−0.143	0.043	−0.182	−3.334	0.001	0.881	1.135
Work experience	0.017	0.048	0.019	0.346	0.730	0.879	1.138
Marketing	0.379	0.074	0.493	5.101	0.000	0.282	3.549
Finance	0.318	0.076	0.405	4.184	0.000	0.281	3.556
BSc/B.E.	0.107	0.043	0.138	2.453	0.015	0.826	1.210

F Stat = 13.116, p = 0.000, R^2 = 24.2%.

The results of the overall model indicate a significant negative impact of pre-MBA academic performance and MBA academic performance on the opportunity count, suggesting that academic performance has a significant positive impact on employability. Of course, academic performance is also related to eligibility for opportunities, as many companies would set cut-off marks for eligibility and may require that students have no backlogs.

The results of the overall model indicate that female candidates had significantly lower opportunity counts than male candidates, controlling for academic performance. This suggests that female students are more employable than male students. However, it could reflect greater social pressure on male students to get jobs. There is also the possibility of gender profiling in the recruitment process – under similar conditions, female candidates may be more likely to be recruited than male candidates.

The results of the overall model also indicate that marketing and finance candidates had significantly higher opportunity counts than other specialisations. This perhaps reflects a greater number of opportunities available for these specialisations. Another possibility may be that a greater proportion of entry-level jobs in these specialisations may be sales-based profiles, not matching a managerial profile, thus leading to greater drop-out rates. Further, students in these specialisations often tend to develop unrealistic expectations, tending to be disinterested in such sales-based profiles.

The results of the overall model indicate that students with science and engineering backgrounds had significantly higher opportunity counts than other backgrounds. This may be because IT companies prefer candidates with science and engineering backgrounds, resulting in greater opportunities available.

Work experience was found not to have a significant impact on the opportunity count. Though students with work experience would be expected to be more employable than students without work experience, the former may have greater expectations, as discussed above.

The results for the model for marketing specialisation students are presented in the table below:

Table 7

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	3.137	0.329		9.548	0.000		
Pre-MBA performance	−0.011	0.003	−0.294	−3.112	0.002	0.687	1.455
MBA performance	−0.015	0.011	−0.123	−1.380	0.170	0.767	1.304
Gender	−0.128	0.067	−0.160	−1.922	0.057	0.887	1.127
Work experience	0.049	0.069	0.059	0.718	0.474	0.922	1.085
BSc/B.E.	0.086	0.065	0.111	1.338	0.183	0.884	1.131

F Stat = 4.098, p = 0.002, R^2 = 12.5%.

The results of the model for marketing specialisation students indicate a significant negative impact of pre-MBA academic performance, but no significant impact of MBA academic performance, on the opportunity count, suggesting the importance of pre-MBA academic performance in employability in marketing profiles. This may suggest that marketing profiles place more emphasis on soft skills and general awareness, and less emphasis on academic performance.

The results of the model for marketing specialisation students indicate that female candidates had significantly lower opportunity counts than male candidates, controlling for academic performance. The possibility of gender profiling in the recruitment process discussed earlier may be more pronounced for marketing profiles, for example, in service industries such as hospitality and entertainment.

The results for the model for finance specialisation students are presented in the table below:

Table 8

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	3.192	0.336		9.512	0.000		
Pre-MBA performance	−0.012	0.003	−0.412	−3.549	0.001	0.527	1.898
MBA performance	−0.028	0.011	−0.281	−2.466	0.015	0.546	1.832
Gender	−0.131	0.060	−0.195	−2.179	0.031	0.888	1.126
Work experience	0.007	0.076	0.008	0.092	0.927	0.901	1.110
BSc/B.E.	0.144	0.062	0.206	2.300	0.023	0.887	1.128

F Stat = 5.974, p = 0.000, R^2 = 21.2%.

The results of the model for finance specialisation students indicate a significant negative impact of pre-MBA academic performance and MBA academic performance on the opportunity count, suggesting that academic performance has a significant positive impact on employability for finance profiles.

The results of the model for finance specialisation students indicate that female candidates had significantly lower opportunity counts than male candidates, controlling for academic performance. This suggests that female students are more employable than male students for finance profiles, though there may be a possibility of gender profiling in the recruitment process, as discussed before.

The results of the model for finance specialisation students indicate that students with science and engineering backgrounds had significantly higher opportunity counts than other backgrounds. This suggests that students with science and engineering backgrounds are less employable than other backgrounds for finance profiles, perhaps

because of greater exposure to finance among commerce and management background students. There is also a possibility of greater opportunities available in finance in IT companies, as discussed earlier.

The results for the model for management background students are presented in the table below:

Table 9

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	1.693	0.481		3.519	0.001		
Pre-MBA performance	−0.003	0.005	−0.071	−0.533	0.596	0.716	1.396
MBA performance	−0.002	0.013	−0.024	−0.183	0.856	0.751	1.332
Gender	−0.058	0.105	−0.072	−0.554	0.582	0.741	1.349
Work experience	−0.171	0.122	−0.162	−1.402	0.167	0.940	1.063
Marketing	0.727	0.174	0.922	4.188	0.000	0.259	3.856
Finance	0.644	0.185	0.766	3.493	0.001	0.261	3.834

F Stat = 4.773, p = 0.001, R^2 = 36.0%.

The results of the model for candidates with a management background indicate that marketing and finance candidates had significantly higher opportunity counts than other specialisations. This again perhaps reflects the greater number of opportunities available for these specialisations.

Academic performance and work experience were found not to have a significant impact on the opportunity count for candidates with a management background. In addition, there was no significant difference in the opportunity count between male and female candidates with a management background.

The results for the model for commerce background students are presented in the table below:

Table 10

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	2.540	0.742		3.425	0.001		
Pre-MBA performance	−0.009	0.005	−0.272	−1.766	0.082	0.507	1.972
MBA performance	−0.017	0.021	−0.112	−0.783	0.436	0.593	1.687
Gender	−0.070	0.099	−0.085	−0.704	0.484	0.820	1.220
Work experience	−0.280	0.151	−0.206	−1.861	0.067	0.980	1.021
Marketing	0.422	0.425	0.462	0.994	0.324	0.056	17.943
Finance	0.363	0.415	0.403	0.875	0.384	0.057	17.598

F Stat = 1.842, p = 0.103, R^2 = 13.3%.

The results of the model for commerce background students indicate a significant negative impact of pre-MBA academic performance, but no significant impact of MBA academic performance, on the opportunity count, suggesting the importance of pre-MBA academic performance in employability of commerce background students.

Work experience was found to have a significant negative impact on the opportunity count for commerce background students, suggesting that commerce background students with work experience are more employable than commerce background students without work experience.

In addition, there was no significant difference in the opportunity count between male and female candidates with a commerce background. Further, there was no significant difference in the opportunity count across specialisations for candidates with a commerce background.

The results for the model for engineering background students are presented in the table below:

The results of the model for engineering background students indicate a significant negative impact of pre-MBA academic performance and MBA academic performance on the opportunity count, suggesting that academic performance has a significant positive impact on employability for engineering background students.

Table 11

	Coeff.	*Std. Err.*	*Beta Coeff.*	*t Stat*	*p-value*	*Tolerance*	*VIF*
(Constant)	3.200	0.316		10.127	0.000		
Pre-MBA performance	−0.014	0.003	−0.406	−4.674	0.000	0.622	1.608
MBA performance	−0.027	0.010	−0.230	−2.742	0.007	0.670	1.493
Gender	−0.213	0.057	−0.270	−3.767	0.000	0.915	1.092
Work experience	0.106	0.054	0.139	1.949	0.053	0.926	1.079
Marketing	0.327	0.079	0.433	4.138	0.000	0.428	2.337
Finance	0.293	0.085	0.351	3.439	0.001	0.450	2.223

F Stat = 13.692, p = 0.000, R^2 = 38.5%.

The results of the model for engineering background students indicate that female candidates had significantly lower opportunity counts than male candidates, controlling for academic performance. This suggests that female students with engineering background are more employable than male students with engineering background.

The results of the model for engineering background students indicate that marketing and finance candidates had significantly higher opportunity counts than other specialisations, again perhaps due to the greater number of opportunities available for these specialisations.

Work experience was found to have a significant positive impact on the opportunity count for engineering background students, as engineering background students with work experience may have greater expectations, as discussed earlier.

Discussion

The results of the study suggest that academic performance plays an important role in employability of postgraduate management students. In particular, pre-MBA academic performance was found to have a significant positive impact on employability at almost all levels. This may reflect the importance of foundational education, and it may be related to general awareness and soft skills. It would be interesting to investigate the impact of pre-MBA academic performance in different skill areas in future studies.

The results of the study also suggest that female MBA students are more employable than male MBA students, particularly for marketing and finance profiles, despite the possibility of gender profiling in the recruitment process of industries such as hospitality and entertainment. This result is reinforced by the finding that female students had significantly better pre-MBA academic performance than male students. This implies that female students with good pre-graduate academic performance should be encouraged to enter management education to improve overall employability. On the other hand, there is gender bias favouring males in some industries, particularly the STEM industries, such as the IT industry. This needs to be analysed in greater detail.

The results of the study suggest that marketing and finance students have lower employability compared to operations and OB/HR students. However, the greater opportunity count in these specialisations could be a consequence of a greater number of opportunities available for these specialisations. Another possibility may be that a greater proportion of entry-level jobs in these specialisations may be sales-based profiles, not matching a managerial profile, thus leading to greater drop-out rates. Further, students in these specialisations often tend to develop unrealistic expectations, tending to be disinterested in such sales-based profiles.

There are some limitations inherent in the study. The sample size considered for the study is relatively small and may not be very representative, so it is not clear if the results of the study are generalisable. In addition,

the dependent variable considered (opportunity count) may not purely reflect employability of the candidates, as discussed earlier. Other measures may be analysed to validate the results of the study. Further, the relatively low R^2 of the models considered in the study suggest that other determinant factors should be considered in future studies.

References

Al-Radaideh, Q. A., Al-Shawakfa, E. M., & Al-Najjar, M. I. (2006). *Mining student data using decision trees*. International Arab Conference on Information Technology. Jordan.

Ashford, S. J., & Taylor, M. S. (1990). Adaptation to work transitions: An integrative approach. In G. R. Ferris, & K. M. Rowland, *Research in Personnel and Human Resource Management*. Greenwich, CT: JAI Press.

Asirvatham, I. A. S., & Priya, M. L. (2017). Employers' expectations on employability skills of fresh graduates – An overview. *International Journal of Innovative Research in Management Studies*, *1*(12), 15-18.

Bernston, E., & Marklund, S. (2007). The relationship between perceived employability and subsequent health. *Work and Stress*, *21,* 279-292.

Boswell, W. R., Roehling, M. V., & Bourdreau, J. W. (2006). The role of personality, situational, and demographic variables in predicting job search among European managers. *Personality and Individual Differences, 40,* 783-794.

Chadha, R., & Mishra, A. (2014). Industry's requirement for employability of management students in the present scenario. *International Journal of Business Quantitative Economics and Applied Management Research*, *1*(3), 61-69.

Chan, D. (2000). Understanding adaptation to changes in the work environment: Integrating individual differences and learning perspectives. In G. R. Ferris, *Research in Personnel and Human Resources Management*. Stamford, CT: JAI Press.

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behaviour*, *65,* 14-38.

Gazier, B. (1998). *Employability: Concepts and policies*. Berlin: European Employment Observatory.

Guan, Y. (2009). Variance stabilizing transformations of Poisson, binomial and negative binomial distributions. *Statistics and Probability Letters, 79,* 1621-1629.

Guilbert, L., Bernaud, J.-L., Gouvernet, B., & Rossier, J. (2016). Employability: Review and research prospects. *International Journal of Educational and Vocational Guidance, 16,* 69-89.

Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, *7*(2), 97-109.

Jackson, S. E., & Schuler, R. S. (1995). Understanding human resource management in the context of organizations and their environments. In J. T. Spence, J. M. Darley, & D. J. Foss, *Annual Review of Psychology*. Stanford, CA: Annual Reviews Inc.

Kabra, R. R., & Bichkar, R. S. (2011). Performance prediction of engineering students using decision trees. *International Journal of Computer Applications*, *36*(11), 8-12.

Kostopoulos, G., Kotsiantis, S., & Pintelas, P. (2015). Estimating student dropout in distance higher education using semi-supervised techniques. *Proceedings of the 19th Panhellenic Conference on Informatics*, Athens, Greece.

London, M., & Smither, J. W. (1999). Career-related continuous learning: Defining the construct and mapping the process. In G. R. Ferris, *Research in Human Resources Management*. Stamford, CT: JAI Press.

McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. (2007). Employability during unemployment: Adaptability, career identity, and human and social capital. *Journal of Vocational Behaviour, 71,* 247-264.

Minaei-Bidgoli, B., & Punch, W. F. (2003). Using genetic algorithms for data mining optimization in an educational web-based system. *Genetic and Evolutionary Computation Conference*. Berlin, Heidelberg: Springer.

Pandey, N. (2012). Awareness of life skills for job sustainability amongst management students. *Tripude's National Journal of Business Research, 4*(1), 149-155.

Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K. E. (2000). Adaptability in the workplace: Development of a taxonomy of adaptive performance. *Journal of Applied Psychology, 85,* 612-624.

Rahmat, M., Ahmad, K., Idris, S., & Zainal, N. F. A. (2012). Relationship between employability and graduates' skill. *Procedia - Social and Behavioural Sciences*, *59,* 591-597.

Saini, B., Mahajan, G., Sharma, H., & Ziniya. (2021). An analytical approach to predict employability status of students. *IOP Conference Series: Materials Science and Engineering*, *1099,* 1-8.

Shah, R. J., & Srivastava, N. (2014). A study on factors affecting employability skills of management students. *International Journal of Management and Development Studies*, *3*(2), 17-24.

Stoica, A. E. (2010). *Development and testing of a comprehensive skill framework for the successful employability of MBA graduates* (Departmental Bulletin Paper, Waseda University Graduate School of Commerce).

William, S., Dodd, L. J., Steele, C., & Randall, R. (2015). A systematic review of current understanding of employability. *Journal of Education and Work*, *29*(8), 877-901.