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# Statistical Analysis and Employability skills Equation for Graduate Students in the Bahamas



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#### Abstract

A statistical analysis was carried out to systematically explain and evaluate how the possibilities of acquisition of entry-level positions are raised by aiding and improving different employability skills. The data was collected from final-year undergraduate (Accounting, Banking & Finance, Computer Information Systems, Management & Marketing) students by using a convenient sample technique through a questionnaire, floated on an online G Monkey survey instrument to collect primary source of information based on Likert scale. The study finds that students used a combination of traditional and student-centred learning methods and pedagogies to acquire employability skills. The students' responses data was analyzed using SPSS based techniques, 'Cronbach's Alpha' , 'backward regression', and 'ANOVA' respectively to check the reliability of data, to iteratively examine the statistical significance of the employability factors, and to check whether 'employability skills', 'academic skills', 'personal management skills', 'Teamwork skills and learning methods' are the important employability factors, for the final-year undergraduate (Accounting, Banking & Finance, Computer Information Systems, Management & Marketing) students. However, based on student's response analysis, it was investigated, the 'employability skills' (F=28.45, P<0.000,  $\alpha=0.05$ , Fc=1.39),'personal management skills'(F=3.391, P<0.000,  $\alpha=0.05$ , Fc=1.29), 'Team skills'(F=6.531, P<0.000,  $\alpha=0.05$ , Fc=1.27) have no impacts on the possibilities of acquisition of entry-level positions, but students of all disciplines agrees with the significance of employability factors in 'academic skills' (F=0.559, P=0.812,  $\alpha=0.05$ , Fc=1.32). By knowing the effect and significance of employability factors it will be very beneficial and easy for graduate students to choose and acquire employability skills. The study contributes to the literature by providing the perceptions of graduate students from specific premises and respondents of a particu

The statistical analysis of students' responses shows, the employability factors were 'numeracy skills (mathematical)', 'IT literacy skills', 'decision making skills', 'communication skills', 'critical-analysis skills', 'competence in specialized subject area', and 'ability to apply specialized knowledge from various field'. While the literature finds communication skills, problem-solving skills and interpersonal skills often appear among the highest ranked skills in terms of importance, the significance of this study is that 'learning skills' ranked as the second most important employability skill [1].

A regression model equation was developed for forecasting the probabilities of acquisition of entry-level positions based on 'numeracy skills(mathematical)', 'IT literacy skills', and 'decision making skills', 'communication skills', 'critical-analysis skills', 'competence in specialized subject area', 'ability to apply specialized knowledge from various field', skills [2].

Keywords: Employability Skills; Numeracy Skills; IT Literacy Skill; Communication Skills

## Introduction

Rapid technological change, digitization and globalization are changing the structure of today's workplace. Technologies that didn't exist barely a decade ago are increasingly changing the nature of jobs, work practices, and skills requirement [1] (World Bank, 2019). Technologies such as artificial intelligence, robotics, 3D printing, big data, the Internet of things, machine learning, drone technologies, nanotechnology, renewable energy technologies, and biotechnology are increasingly becoming mainstream in the workplace. In the process, these technologies are destroying old jobs as well as creating new ones [1,3]. New technologies have also changed the skill composition required to perform the remaining jobs, often moving them towards more skill-intensity [4,5]. Consequently, the "lifecycle of competencies needed for successful performance in the job is shortening rapidly" [1,5]. Rapid technological change and equally rapid knowledge obsolescence have meant that workers must continuously reskill and upskill to retain their employability [1,6]. In addition, the global trends towards massification of higher education have meant that more and more graduates are competing for fewer jobs, reducing the currency of a first degree, as well as, increasing the competition in graduate labor markets [7,8]. Increasingly, new graduates are entering graduate labor markets that are very competitive, congested, dynamic, precarious, turbulent, and unpredictable [9,10]. In addition, more and more new graduates are entering non-graduate and recently graduated jobs (i.e., clerical and administrative jobs in banks (tellers), customer services, marketing, etc.), which are linked to wide-spread underemployment and problematic long term career development trajectories [1,11,12].

There is now a growing realization that having a degree with good grades and technical knowledge (discipline-specific knowledge) is not enough for new graduates to succeed in today's dynamic labor markets [7,8,13]. For example, a graduate who has excellent academic grades but have poor interpersonal, teamwork, critical thinking, and communication skills is unlikely to be successful in his/her first graduate-level job. Graduates need to develop additional soft/generic/employability skills needed to stand out and navigate inevitable challenges associated with transiting from school into the world of work, and to progress in their chosen careers [14]. Graduate employability broadly comprises of knowledge, skills, behaviors, and attributes that enables a graduate to get a job, stay on a job, do well on a job, find another job if necessary, and progress in their chosen career [1,15-17].

Developing graduate employability is a multi-pronged endeavor involving multiple stakeholders, such as students, higher education institutions (HEIs), academics, career services, employers, employers' associations, government agencies, NGOs, parents, etc. [1,18,19]. Despite this diffused responsibility, however, the literature generally seems to assign responsibility for employability to the individual student in the first instance, and higher education institutions (HEIs) in the second instance [1,20,21]. Hence, our exploratory research focuses on the views of students.

The views of students on their employability are crucial, as they are the main stakeholders who are directly impacted by their higher education learning experiences [1,22]. There is now significant research which suggest that students often have a blurred understanding of what graduate employability is, what skills are needed by employers for entry-level positions, and how to enhance their career prospects during their studies at university [13,23]. Students often fail to link their learning experiences at university to future careers [1,9,24]. Consequently, they may not always avail themselves of university-wide opportunities that may exist to enhance their employability profile while studying at

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the university [1]. Garcia-Aracil et al. [25] argues for the need to explore students' perceptions of their preparedness for transition to the world of work [1]. Ergun & Sesen [26] takes note of the fact that there has been limited empirical research on students' perception of their employability [1]. Andrewartha & Harvey [27] observes that students' views and perceptions have largely been ignored in the employability arena [1]. Academic researchers have not pursued research on students' views with the same vigour as they have done on employers' [1,22,28].

The overall objective of the research is to examine business students' perception about their employability skills as they approach graduation. Relative to the views of employers, the perceptions of students on graduate employability are less understood [1,22,28]. However, students' perceptions are important, as individuals' choices of action are often influenced by their perceptions, irrespective of objective realities [1,29,30].

## **Research Questions**

To achieve the above stated research objective, four research questions were developed for the study. The three research questions are:

The following four research questions were developed for this study.

i. What are the effects of Employability skills on their recruitment for entry-level positions?

ii. What are the effects of academic skills ('numeracy skills(mathematical)', 'IT literacy skills', and 'decision making skills', 'communication skills', 'critical-analysis skills', 'competence in specialized subject area', 'ability to apply specialized knowledge from various field') on their recruitment for entry-level positions?

iii. What are the effects of personal management skills on their recruitment for entry-level positions?

iv. What are the effects of teamwork skills on their recruitment for entry-level positions?

## **Research Methodology**

We adopted an exploratory descriptive research methodology. The triangular design approach was adopted from Rosenberg et al. [31] and Wickramasinghe, Perera [32]. In our study, we administered questionnaires to final year business students (as a proxy for graduates). Atfield, Purcell [33] and Kenayathula et al. [34] also used final year students' perceptions as a proxy for graduates [1]. At the time of the survey, most final year students were a semester away to completing their studies. Issues of first employment would certainly pre-occupy their thoughts at this stage of their degree program [1].

A questionnaire was developed and put in survey monkey. The questionnaire had five major sections: general employability skills, academic skills, personal management skills, teamwork skills, and teaching/learning methods [1]. The different items in the questionnaires were derived from the various literature reviews, especially from Wickramasinghe, Perera [32], Bloom, Kitagawa [35], and Mainga et al., [1]. Documentary analysis was done on various secondary sources, such as journal papers, books, and articles found in various internet databases. Data analysis was done using SPSS (V22).

Table	1:	Demographic	data
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Characteristics	F	Responses
	No	%
	Department	
Accounting, Banking & Finance	49	54.4
Computer Information Systems	10	11.1
Management & Marketing	28	31.1
Missing	3	3.3
Total	90	100
	Major in which students are studying	
Accounting	27	30
Banking & Finance	4	4.4
Computer Information System	10	11.1
Economics	3	3.3
Economics & Finance	13	14.4
Finance	2	2.2
HRM	3	3.3
Marketing	4	4.4
Management	22	24.4
Missing	2	2.2
Total	90	100
	Sex	
Male	22	24.4
Female	67	74.4
Missing	1	1.1
Total	90	100
	Employment status	
Employed	54	60
Not employed	36	40
Total	90	100
	If any parent has a first degree	
Yes	29	32.2
No	61	67.8
Total	90	100
	Age	
20-24	60	66.7
25-29	19	21.1
30-34	6	6.7
35-39	3	3.3

40+	1	1.1
Missing	1	1.1
Total	90	100

Source: Survey data.

Table 2: Internal Consistency Reliabilities for Scales.

Indicators/factors	Cronbach's Alpha	No. of items
Employability skills	0.65	14
Academic skills	0.766	9
Personal management skills	0.833	12
Teamwork skills	0.845	10
Learning methods	0.85	12

Source: Survey data.

### Table 3: Employability skills.

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Skill type	Totals			Accoun	ting, Banki Finance	Comput	ter Inforn Systems	nation	Management & Marketing			One way ANOVA		
	Mean**	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	F	Sig*
Commu- nication skills	7.3647	3.5418	1	7.6042	2.9661	1	7.2222	4.2655	3	6.88	4.4283	1	0.336	0.715
Learning skills	6.9176	3.7866	2	7.25	3.8288	2	8	2.8723	1	5.68	3.9657	5	1.877	0.16
Positive attitudes & behaviours	6.8235	3.4716	3	7.0851	3.4693	3	6.3333	4.5	4	6.4231	3.0747	2	0.393	0.676
Prob- lem-solv- ing skills	6.1395	3.7138	4	6.0426	3.575	4	7.4444	3.3582	2	5.8148	4.179	4	0.657	0.521
Interper- sonal skills	5.7738	3.1788	5	5.383	3.0967	6	5.8889	3.3333	5	6.2	3.4157	3	0.544	0.583
Time man- agement skills	5.4878	2.3054	6	5.4255	2.3933	5	5.125	1.9594	6	5.6667	2.457	6	0.176	0.839
Teamwork skills	4.7765	3.0331	7	4.5745	3.1674	8	4	2.2111	8	5.36	3.2113	7	0.859	0.428
Adaptabili- ty skills	4.6667	2.7826	8	5.1042	2.9118	7	2.75	2.1213	10	4.52	2.6789	8	2.53	0.086
Self-man- agement skills	3.5765	3.1258	9	3.0638	2.6898	11	5	3.6209	7	3.76	3.5033	11	1.755	0.18
Network- ing	3.3182	5.0527	10	3.3265	5.0555	10	2.1111	5.1828	13	4.1852	5.1294	9	0.606	0.548

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Pre-gradu- ation work experience	3.2697	4.9354	11	3.3469	5.0603	9	2.2	4.2111	12	3.963	5.1177	10	0.463	0.631
Leader- ship skills	2.5233	3.3245	12	2.4792	3.3326	12	1.3333	2.8284	14	2.7308	3.2687	12	0.623	0.539
Resilience	1.8706	3.6345	13	1.6667	3.6398	13	3.5556	3.7786	9	2	3.6515	13	1.011	0.368
Working with Diversity	1.3256	3.4315	14	1.6458	3.5996	14	2.3	4.62	11	0.4	2.5981	14	1.486	0.232
One way ANOVA	F = 28.4	45, p < 0.000	0***											

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\*The mean difference is significant at the 0.05 level.

\*\* Based on your perception as a graduating student, which of the following factors do you see as key or most important in securing an initial graduate-level job? (please rank in order of importance, i.e., 1 - 14, with 1 = most important). Scores were reversed scored out of 12, so that larger score means represent most important.

### Table 4: Academic skills.

Skill type	Totals			Accounting, Banking & Finance			Computer Informa- tion Systems			Management & Mar- keting			One way ANOVA	
	Mean**	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	F	Sig*
Critical & analytical thinking skills	4.1233	0.7984	1	4.05	0.8756	1	3.75	0.4629	4	4.3478	0.7141	1	1.979	0.146
Commu- nication skills (i.e., under- stand, speak and write effec- tively for business purposes – business communi- cation)	4.0411	0.857	2	39500	0.8756	4	4.125	0.991	2	4.1304	0.8149	4	0.371	0.692
Awareness of the im- portance of contin- uous life-long learning	4.0411	0.9195	2	4	1.0127	2	3.625	0.744	5	4.2174	0.7952	2	1.268	0.288

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Compe- tence in special- ized sub- ject area (i.e., your major)	4.0274	0.6661	3	3.975	0.6597	3	3.75	0.7071	4	4.1739	0.6503	3	1.378	0.259
Ability to apply spe- cialized knowledge from vari- ous fields (i.e., orga- nizational behaviour, marketing, manage- ment science, strategic manage- ment, etc.)	3.9726	0.7813	4	3.9	0.8412	6	3.75	0.8864	4	4.1739	0.6503	3	1.234	0.297
Academic Perfor- mance (i.e., pass- ing exams, GPA)	3.9452	0.7798	5	3.9	0.6718	6	4	0.9258	3	3.9565	0.9283	6	0.073	0.93
Decision Making skills	3.9315	0.7697	6	3.85	0.6998	7	3.625	0.9161	5	4.1739	0.7777	3	2.104	0.13
IT litera- cy skills (i.e., use Computer tech- nology, programs and infor- mation systems effective- ly)	3.9178	0.8621	7	3.75	0.8697	8	4.5	0.5345	1	4	0.8528	5	2.858	0.064

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Prob-														
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ing skills														
involving	2 0 1 7 9	0.9621	7	2 0 2 5	0 7642	5	4	1 060	2	2 0 2 6 1	0.00/1	7	0.15	0.961
mathemat-	3.9170	0.0021	/	3.923	0.7042	5	4	1.009	5	5.0201	0.9041	/	0.15	0.001
ics (i.e.,														
numeracy														
skills)														
One way	F = 0.550	n = 0.91	2											
ANOVA	r = 0.555	, p – 0.01	<i>L</i>											

Source: Survey data (N = 71)

\*The mean difference is significant at the 0.05 level.

\*\*Which of the following skills do you perceive as fully developed in you, now that you have completed your degree program? (please say whether you agree or disagree with statements given below, using the following scale: 5 = strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree).

Table 5: Personal management skills.

Skill type	Totals			Accounting, Banking & Finance			Computer I	nformation S	ystems	Manage	ment & Mark	ceting	One way ANOVA		
	Mean**	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	F	Sig*	
Self-reliant (i.e., work independently with	4.4583	0.7108	1	4.525	0.7157	1	4.2857	0.9512	2	4.3913	0.6564	2	0.47	0.627	
minimal supervi- sion)															
Honesty, integrity, and personal ethics	4.3521	0.699	2	4.3	0.7232	3	4.2857	0.7559	2	4.4091	0.6661	1	0.186	0.831	
Perseverance	4.2394	0.8696	3	4.3846	0.7819	2	3.5714	1.2724	5	4.1739	0.8341	6	2.763	0.07	
Recognition and respect for diversity and individual differ- ences	4.2222	0.6965	4	4.225	0.6597	4	3.8571	0.8997	4	4.2609	0.6887	4	0.969	0.385	
Accountability (i.e., responsible for your actions and the ac- tions of your group, etc.)	4.2222	0.8429	4	4.125	0.8825	5	4.5714	0.5345	1	4.3478	0.7141	3	1.21	0.305	

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Self-awareness (i.e., aware of strengths, weaknesses, etc.)	4.1389	0.7563	5	4.1	0.7779	6	4.2857	0.7559	2	4.1739	0.7168	6	0.208	0.812
Conscientious (i.e., task-focused, self- motivated, etc.)	4.0972	0.7901	6	4.025	0.8317	7	4.2857	0.488	2	4.087	0.7928	7	0.328	0.722
Positive attitude (i.e., 'can do' ap- proach, show initiative, etc.)	4.0417	0.8125	7	4	0.9058	9	4	0.5774	3	4.087	0.7332	7	0.085	0.918
Proactive (i.e., takes initiative)	4	0.7872	8	4.05	0.7828	8	3.5714	0.7868	5	4	0.7977	8	1.104	0.337
Self-confidence	3.9167	0.8005	9	3.85	0.893	11	4	0.5774	3	3.9565	0.7057	9	0.185	0.831
Creativity and innovative thinking skills (i.e., ability to identify and suggest new ideas)	3.8889	0.8317	10	3.925	0.8286	10	3.5714	0.7868	5	3.8696	0.8689	10	0.53	0.591
Ability to plan and manage time	3.8611	1.0113	11	3.75	1.0316	12	3.1429	1.215	6	4.2174	0.7952	5	3.649	0.031
One way ANOVA	F = 3.99	1, p < 0.000	0***											

**Source:** Survey data (N = 70)

\*The mean difference is significant at the 0.05 level.

\*\*\*The mean difference is significant at the 0.001 level.

\*\*Which of the following skills do you perceive as fully developed in you, now that you have completed your degree program? (please say whether you agree or disagree with statements given below, using the following scale: 5 = strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree).

Table 6: Teamwork skills.

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Skill type		Totals		Accounting, Banking & Finance			Computer Information Systems			Manager	nent & Mar	keting	One way	y ANOVA
	Mean**	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	F	Sig*
Respect the thoughts and opin- ions of group members	4.3973	0.6612	1	4.4	0.5905	2	4.625	0.5176	2	4.2609	0.81	4	0.935	0.398
Contribute to group prob- lem-solving	4.3836	0.6153	2	4.4	0.6718	2	4.25	0.4629	4	4.3913	0.583	1	0.197	0.822
Ability to take respon- sibility of assigned tasks by the group	4.3699	0.6771	3	4.3	0.6869	3	4.75	0.4629	1	4.3478	0.7141	3	1.488	0.233
Plan and make decisions with others and support the outcomes	4.3472	0.6089	4	4.4103	0.5486	1	4.375	0.5176	3	4.2174	0.7359	5	0.727	0.487
Leadership ability (i.e., can lead when appropri- ate)	4.25	0.7459	5	4.2	0.7232	4	4	0.7559	5	4.3636	0.7895	2	0.761	0.471
Exercise 'give and take' to achieve group results	4.1667	0.8558	6	4.15	0.8336	5	4	1.3093	5	4.1818	0.7327	6	0.132	0.876
Team building skills	4.0137	0.7545	7	4.1	0.7089	6	4.25	0.7071	4	3.7391	0.81	10	2.233	0.115
Mobilize the group for high perfor- mance	3.9306	0.7567	8	4	0.7161	7	3.875	0.8345	6	3.7727	0.8125	9	0.646	0.527
Ability to resolve and manage conflicts	3.9041	0.7847	9	3.775	0.7675	9	4.375	0.5176	3	3.913	0.8482	7	2.025	0.14

Seek a team approach where appropri- ate (i.e., as opposed to a 'go it alone' approach)	3.8356	0.8977	10	3.825	0.8439	8	3.625	1.4079	7	3.8261	0.7777	8	0.176	0.839
· FF ···· J														
One way ANOVA	$F = 6.531, p < 0.0000^{***}$													

Source: Survey data (N = 70)

\*The mean difference is significant at the 0.05 level.

\*\*\* The mean difference is significant at the 0.001 level

\*\*Which of the following skills do you perceive as fully developed in you, now that you have completed your degree program? (please say whether you agree or disagree with statements given below, using the following scale: 5 = strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree).

Fable 7: Coefficients.									
Unstandardized Coef	ficients		Standardized Coefficients						
Model	В	Std. Error	Beta	t	Sig.value.				
(Constant)	1.05	0.208	0.21	4.811	0				
Numeracy	0.145	0.054	0.203	2.643	0.02				
Communication	0.176	0.06	0.418	4.84	0.001				
IT literacy	0.158		0.156		0.0455				
Decision making	0.156	0.056	0.196	2.796	0.007				
Critical analysis	0.157	0.056	0.21	2.685	0.0076				
Competency in specialized field	0.147	0.056	0.216	2.59	0.0056				
Teamwork skills	0.148	0.056	0.218	2.436	0.0036				

## **Data Analysis and Discussion**

We start our data analysis with demographic analysis of respondents. The sample data characteristics are shown in Table 1 [1]. The data was collected from final year students in the College of Business, which has three departments: Accounting, Banking & Finance; Computer Information Systems; and Management & Marketing. The students were studying several different majors: Accounting, Banking & finance, Computer information System, Economics, Economics & Finance, Finance, HRM, Marketing, and Management. 24.4% of respondents were male, while 74.4% were female. 60% of respondents were working, while 40% were not. In terms of age, 66.7% were between 20-24 years, 21.1% were between 25-29 years old, 6.7% were between 30-34 years, 3.3% between 35-39%, and 1 student was above 40 years. 1 student did not provide his/her age. Most graduating students in our sample – more than 83% - are either millennials or Generation Z [1].

We performed some reliability tests for the six variables used in the study; Employability skills, Academic skills, Personal management skills, Teamwork skills, Learning methods, and Perceived employability. The results are shown in Table 2 [1]. Since the Cronbach's alpha coefficients are all above 0.6, all multidimensional variables used in the study presents acceptable internal consistency reliability for an exploratory study in the social sciences [1,36-38].

We proceed in our data analysis and discussion by answering the respective research questions.

# i. What are the effects of Employability skills on their recruitment for entry-level positions?

The student's response analysis (F=28.45, P<0.000,  $\alpha=0.05$ , Fc=1.39) in Table-3, answers the research question-1 and summarizes the employability skills perceived by graduating students, as being not important when employers are recruiting fresh graduates for entry-level positions, consequently, there is room for continuous improvement. For all the employability skills studied here, there was alignment in perceptions of their relative importance between the three groups of students in the three departments: Accounting, banking & finance; Computer information systems; and Management & marketing.

# ii. What are the effects of academic skills on their recruitment for entry-level positions?

The student's response analysis in Table-4, answers the research question-2 and but students of all disciplines agrees with the significance of employability factors in 'academic skills'( F=0.559, P=0.812,  $\alpha$ =0.05, Fc=1.32). There is indication that students were satisfied with the level of academic skills ('numeracy skills(mathematical)', 'IT literacy skills', and 'decision making skills', 'communication skills', 'critical-analysis skills', 'competence in specialized subject area', 'ability to apply specialized knowledge from various field') on their recruitment for entry-level positions. These skills are foundational, a base on which to acquire further skills, knowledge, and attributes as they progress in their initial employment. The mean scores given to all the academic skills by students could be rounded to 'agree' (4 = agree), with regard to how fully developed these skills were in them at the time of graduation. The results may suggest that students were, on average, happy with the level of academic skills that may have a more direct link with technical/discipline-specific knowledge. The result seems to be in line with some past findings that suggest that employers may sometimes be satisfied with graduates' discipline-specific knowledge, but still observe that the level of soft skills are below what the labour market expects [1,39,40]. However, a degree with good grades in discipline-specific knowledge is no longer sufficient for career success in today's labour markets [1,8,41,42].

We performed some reliability tests for the six variables used in the study; Employability skills, Academic skills, Personal management skills, Teamwork skills, Learning methods, and Perceived employability. The results are shown in Table 2 [1]. Since the Cronbach's alpha coefficients are all above 0.6, all multidimensional variables used in the study presents acceptable internal consistency reliability for an exploratory study in the social sciences [1,36-38].

IT literacy skills & problem-solving skills involving mathematics (numerical skills) were the least developed of all the academic skills presented in Table 4. It may be possible to be concerned with the students' perceptions on these two skills, as they are very central to 21<sup>st</sup> Century careers [1]. The fact that students perceived IT literacy as one of the least developed academic skills among graduating business students may be surprising, being the millennial generation. Several reviews of literature on digital competence of university students have revealed that though millennials are assumed to be 'digital natives', they actually do not have high digital competencies. Most of their digital competencies are associated with informal leisure and socialization activities (i.e., use of Facebook, emails, WhatsApp, etc.) and are not automatically transferable to academic and career contexts [1,43].

With regard to relative low rating of capabilities in 'problemsolving involving mathematics' (numerical skills), several studies have shown that most business students often find mathsbased courses (i.e., introductory statistics, management science, decision science, operations research, quantitative methods, etc.) among the most difficult [1, 44]. Most business students see mathematical courses more of a barrier than a "language for precise communication" [1,45].

## Personal management skills

The student's response analysis (F=3.391, P<0.000,  $\alpha=0.05$ , Fc=1.29) in Table-5, answers the research question-3 and summarizes the employability skills perceived by graduating students, as being not important when employers are recruiting fresh graduates for entry-level positions, consequently, there is room for continuous improvement. As personal characteristics, attitudes, attributes, behaviours, and dispositions are becoming important in 21<sup>st</sup> century careers [1,46]. For all the employability skills studied here, there was alignment in perceptions of their relative importance between the three groups of students in the three departments: Accounting, banking & finance; Computer information systems; and Management & marketing.

#### **Teamwork skills**

answers the research question-1 and summarizes the employability skills perceived by graduating students, as being not important when employers are recruiting fresh graduates for entry-level positions, consequently, there is room for continuous improvement. The student's response examination in Table-6, teamwork skills'(F=6.531, P<0.000, α=0.05, Fc=1.75), answers the research question-4 and the students of all disciplines agrees that the employability skills perceived by graduating students in this section are not important when employers are recruiting fresh graduates for entry-level positions, consequently, there is room for continuous improvement. All the three groups of students 'agreed' that the various teamwork skills were fully developed to some extent in graduating students. According to students, the 'ability to resolve & manage conflicts' and seeking a team approach where appropriate (i.e., as opposed to a 'go it alone' approach), were the least two developed teamwork skills among graduating students. Most employees today spend an increasing amount of time working in work groups, teams, and projects. About 95% of U.S workers are said to work in more than one team [1,47]. The below Coefficient, the Table 7 shows the significance of each independent variable in predicting the dependent variable. The positive value shows that there is a positive effect of independent variables on the dependent variable. 5) ', 'IT literacy skills', and 'decision making skills', ', 'critical-analysis skills', 'competence in specialized subject area', 'ability to apply specialized knowledge from various field') on their recruitment for entry-level positions?

This table also facilitates in formulating the econometric model which is:

Forecasting the probability of acquisition of entry level positions= $\beta$ 0+ $\beta$ 1Numerical skills+ $\beta$ 2Communication skills+ $\beta$ 3IT literacy skills+ $\beta$ 4Competence in specialized subject area+ $\beta$ 5Decision making skills+ $\beta$ 6Critical analysisskills+ $\beta$ 7Team work skills+u

Where,

Y= Forecasting the probability of acquisition of entry-level positions

X1= Numeracy skills (mathematical)

X2= Communication skills

X3= IT literacy skills

X4= Competence in specialized subject area

X5= Decision making skills

X6= Critical Analysis skills

X7=Team-Work Skills

u= error term

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By substituting the values in the above equation from table 4 for our study becomes:

Y = 1.050 + 0.145X1 + 0.176X2 + 0.158X3 + 0.156X4 + 0.157X5 + 0.147X6 + 0.148X7 + u

## **Implications and Conclusions**

The research emphasizes the significance of taking students' point of view about their employability at the time of graduation [1]. The regression model has been developed for predicting the probability of acquisition of entry-level positions, by capturing student's view and adding a bit in it from literature. The statistical analysis of students' responses shows, the employability factors were 'numeracy skills (mathematical)', 'IT literacy skills', and 'decision making skills', 'communication skills', 'critical-analysis skills', 'competence in specialized subject area', 'ability to apply specialized knowledge from various field'.

Graduating business students tended to have a high view of their competences on various dimensions of academic skills. However, there is concern with their relative competencies in IT literacy skills and numerical skills (problem-solving skills using mathematics). While business students were satisfied with the level of personal management and teamwork skills they had developed by the time of graduation, there seems to be some room for improving their level of 'creativity and innovative skills' and 'ability to resolve and manage conflicts' in teams. However, the development of such skills is complex, and requires much more than business students' exposure to creativity and innovation techniques or formulaic approaches [1,48].

A combination of traditional teaching methods (i.e., lectures, class discussion, reading and working alone, etc.) and studentcentred learning methods and innovative pedagogies are needed to develop a wide range of employability skills needed by graduates to succeed in the workplace [49-55]. However, studies in Australia, Europe, Canada and the US suggests that significant staff training is needed to achieve optimal effectiveness, and to develop the 'right' portfolio of learning methods more tailored to different disciplines (Hora et al., 2015; Lorange & Thomas, 2016) [1, 56-68].

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