Changing Competency Requirement of Management Graduates in the 21st Century Business Environment

Ashita Bhagra,

Research Scholar,
Himachal Pradesh University Business
School, India.

Dr. Dinesh Kumar Sharma,

Professor,
Himachal Pradesh University Business
School, India.

ABSTRACT

The emerging innovative business models of the 21st century knowledge economies are creating new markets, impacting the way work is delivered, customers are engaged and the kind of talent required for succeeding in the global business world. Industry demands job-ready management graduates who are expected to become productive the day they join an organization. The purpose of the paper is to investigate the competencies in terms of skills, abilities, expertise and knowledge perceived as important by the industry from entry level employees. Employability competencies are those personal attributes, workplace skills, applied and core knowledge skills management graduates should possess for securing and retaining a job. The research adopts both qualitative and quantitative methods to measure relative importance of skills linked to employability. Competency Mapping of skills as assessed by industry and those possessed by management graduates is ascertained using Independent Sample t-test with Cohn's d effect size test. The research findings indicate that a gap exists between the employability skills expected by industry and those possessed by management graduates. The paper has recommendations from industry on key areas to be focused on by management students for enhancing employability.

Keywords: Industry Perspective, Employability Skills, Management Graduate, Competency Mapping.

INTRODUCTION:

Technology is causing disruptive innovations replacing incompetent workforce with robotics, digital and 3D technology. Organizations seek employees who create a sustainable advantage by leveraging these technological advances, competitive markets, globalization and digital media. The employers' requisite workforce competencies are continually changing. Companies are looking for agile, adaptive and job-ready management graduates who can add immediate value to the business bottom-line (Vijayalakshmi, 2016). The new recruits are expected to 'hit the road running' from the day they join (Bok, 2006), saving organization vital resources that would be spent on employee training and development (Jackson and Hancock, 2010). Organizations fear that they may be providing training only for staff to leave and join their competitors as soon as they become 'useful' (Lin et al., 2012).

The new world has ushered in the Fourth Industrial Revolution - one of ground-breaking technologies. While it is affecting productivity and economic growth, on the other hand it's impacting employment. India faces its greatest conundrum - one of opportunity as well as challenge. It has the youngest population of the world providing a huge pool of manpower ready to join the labour market. The challenge is now, in the responsibility of equipping the youth with employability training and in turn, employment. Effective association between two ends of the Talent Supply Chain - equipping talent with requisite competencies and providing employers' access to trained manpower of the country - is a mammoth task. The Government-led focus towards both skill development and job generation to reap the benefits of the "Demographic Dividend" by 2020 needs to be accelerated by making

the youth employable and encouraging entrepreneurial ventures. (CII and Wheebox, 2016)

MBA programmes are designed to prepare students holistically, completely transforming them for real time learning, creating a favourable position for all stakeholders, whether it is the industry, student, academia or government (Patil, 2012). The student is allured by the job-opportunities available on completion of a B-School Degree (Shah and Srivastava, 2014). Business graduates work in complex and chaotic environments to achieve organizational goals (Spence, 2012). Professionals equipped with management education are expected to anticipate the global challenges and assist organizations to counter them successfully (McMurray, 2016).

Employers' are looking for industry-ready employees with new competencies, attitudes, knowledge and commercial awareness (Omar et al., 2012). They willingly hire management graduates with capabilities demonstrating mastery of cross-cultural competency, data reasoning and new-media literacy (Diasio, 2015). Many times management graduates have qualifications and necessary hard skills to fit the job role but, without the requisite soft skills, employers become less inclined to hire. Employers are critical in stating that management graduates have higher qualifications but lesser workplace competencies (Li et al., 2006). The modern corporate is looking for candidates with a right mix of technical know-how and employability skills. These factors critically influence the business graduates' successful transition to the corporate world. Enhancing employability competencies will certainly be beneficial in reducing the number of overqualified graduates without a job as well as ensuring employable recruits to organizations (Finch et al., 2013).

However, the reality is that many workers in the current pool of unemployed are not equipped to fill many of today's high-skill, high-demand management and service jobs (Business Roundtable Organization, 2014). A growing concern shared by employers is that university graduates do not possess essential soft skills necessary for seamless shift into the corporate world (Washor, 2015). Today millennials, the newest entrants to the workforce have a major attitude and outlook concern. They demand instant gratification wishing to become millionaires as soon as they join the workplace. They are not accustomed to conforming behaviour to those of the organization or someone in authority (Tulgan, 2016).

LITERATURE REVIEW:

The rapidly changing world of work is impacted by multi-cultural societies and innovative technologies influencing practices (Mansour and Dean, 2016). Employers are demanding more from budding professionals, wanting recruits to manage the job effectively in terms of soft skills competency and expertise (Labi et al., 2014). Employability skills are a strategic constituent of the quality of workforce in an enterprise, not only during the recruitment process (Cimatti, 2016) but throughout the professional career of the employee (Robles, 2012).

Employability Skills itself has two perspectives; the individual's perspective considers the person's knowledge, skills and abilities as assets that contribute to the individual's success in the labour market (Hillage and Pollard, 1998). The organizational perspective is the aggregate of all employees' competencies and skills contributing to create a sustainable advantage for the organization in the globalized world (Van der Heijden et al., 2009a). They are a key to organizational agility and competitive advantage, matching supply in the job market to current business needs (CIPD, 2016).

Maxwell et al., (2009) gathered qualitative and quantitative data from past post-graduate management students who said employability skills were highly relevant for their jobs. Confidence, enterprise and business skills, life-long learning, self-development, career and self-management, planning and organizing, initiative, creativity and enterprise, leadership and teamwork, problem solving, information technology and communication skills were the complete range of employability skills utilized in their present jobs. Personal attributes like being self-directed, good in managing time and an interest in continuous learning are useful traits in gaining employment (Hinchliffe and Jolly, 2011).

Eminent employability researchers (Bridgstock, 2009; Fallows & Steven, 2000; Hind and Moss, 2011; Wesley et al., 2017) have been harping eloquently that without developing these relationship building competencies, management graduates will continue to remain irrelevant in the job market. Communication, decision making, professionalism and cross-cultural relationship were lacking skills in graduates as rated by industry (Taylor, 2016). Employers feel students are not adequately developed and uncertainty remains about who is responsible for developing the necessary employability competency. To narrow the gap between skills employers needed and those presented by postgraduate recruits, employers needed to work in partnership with universities on core and component skills they seek (Maxwell et al., 2010).

Competency training focused on communication skills, adaptability, problem solving, critical reflective ability, flexibility, digital competency and a willingness to learn would assist in unlocking the potential of management graduates (Sharma and Mehta, 2017). Strategies suggested for enhancing soft skills competency among students

were self analysis of soft skills, an interview with a manager, guest speakers from industry, videos demonstrating need for soft skills (Anthony and Garner, 2016), case studies and simulations (Tran, 2016), internships and summer projects (Ishengoma and Vaaland, 2016) problem – based learning (Bhattacharyya, 2011), work integrated learning (Brauns, 2013; Jackson, 2013).

The research study identifies key competencies demanded of management graduate to promptly meet the ever-changing needs of the corporate. Though the competencies required by industry are varied and many, the present study used skills, attributes and knowledge expertise based on a compilation by NATIONAL NETWORK OF BUSINESS AND INDUSTRY ASSOCIATIONS - USA (2014) with a special adaptation made to fit the Indian context for Management Graduates. The objectives of the study are:

1. To find important competencies that industry expects from management graduates for job employment.
2. To find employability skills that management graduates consider as important for procuring a job.
3. To evaluate the gap between employability skills assessed by industry and self assessment of skills possessed by management graduates.

Stemming from the research objective the following hypotheses were framed for the study:

H_0: There is no significant gap between the level of employability skills as assessed by industry and management graduates self-assessment of skills.

RESEARCH METHODOLOGY:

Mixed methods approach using both qualitative and quantitative research design was adopted to measure industry's and management graduate's perception on important employability competencies. The survey questionnaire used both open and closed ended questions. The instrument comprised of 33 items measured on a 7 - point Likert scale from "1=Not at all Important" to "7=Extremely Important" for the question rating importance of employability skills. The scale ranged from "1=Extremely Dissatisfied" to "7=Extremely Satisfied" to inquire the satisfaction with skills possessed by industry and management graduates. The open ended question asked for suggestion from industry on key competencies needed to be addressed by management graduates to get employment.

The questionnaires content validity was verified at two stages: At stage one: leveraging the vast experience of two Vice Presidents, Human Resources from the industry (one from a Multinational Corporation and the other from an Indian organization) the questionnaire's contextual appropriateness on skills was evaluated. After deliberations, two current skills in high demand – Learning Agility and Digital Competency were added. At the second stage, the describing characteristics of each skill were confirmed for correctness of definition by an academician associated with the training and placement department of a Private University. The skills were finally categorized as:

1. **Personal Attributes** - integrity, initiative, dependability & reliability, adaptability & flexibility, professionalism, coping with stress, respects diversity, self awareness, learning agility, emotional intelligence
2. **Workplace Skills** - planning & organizing skills, critical thinking & problem solving skills, decision making skills, conflict management skills, communication & interpersonal skills, teamwork skills, leadership skills, time management skills, negotiation skills, entrepreneurship skills, self management skills
3. **Applied Knowledge Skills** - English communication (speaking, reading & writing), numeral competency, technology skills, creativity and innovation, professional ethics and values, digital competency
4. **Core Knowledge Skills** - business fundamentals, customer focus, cross-functional learning, strategic management, globalization, current issues in business and social relevance

Random sampling was used to administer the survey questionnaire. Using triangulation methodology data was gathered through online survey Google Forms platform, face to face interviews and focus group. Over a period of 16 months, more than 600 human resource personnel of companies with membership to industry association like FICCI, FHRAI or NASSCOM were contacted via the placement department of a University, LinkedIn and personal contacts. Completed questionnaires were collected from 114 human resource experts involved in the recruitment process of management graduates. After initial screening for usability, 108 questionnaires were retained for the sample.

Printed questionnaires were given to 15-20 MBA students from B-Schools of government and private universities of North India in the states of Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana and Delhi with instructions on the purpose and method of filling the questionnaire. Permission was sought from Directors of the B-Schools before collection of data. All students were in their placement semester and took 10-15 minutes to fill the forms. Sometimes meanings of certain words needed to be explained to the students. More than 535 filled questionnaires were collected from students, but those questionnaires that showed systematic

response bias (extreme responding) are not included in the sample. Descriptive Statistics, Independent Sample *t*-test and Cohn's *d* Effect Size Test have been applied for inferential analysis using SPSS, Version 25.

RELIABILITY ANALYSIS:

The Cronbach α Coefficient was executed to assess the reliability of the all the four constructs for 33 parameters of employability. The general criterion for α Coefficient to measure internal consistency is ≤ 0.8 (Lance et al., 2006). The alpha coefficient was calculated as α = 0.893 for the scale measuring important employability skills expected by industry, α = 0.894 for the scale measuring industry assessment of skills possessed by management graduates, α = 0.877 for skill perceived as important by management graduates and α = 0.945 measuring self assessment of skills possessed by management graduates. As α coefficient is above required level it signifies a high level of consistency between various items on all the scales.

The industry sample consists of three company types – Indian Company (44.4%) and Multinational Company (34.3%) and Indian Multinational (21.3%). There are 48.1% companies engaged in manufacturing and 51.9% from the service industry. Similarly, 78.7% companies are large with > 501 employees, 17.6 % companies are medium having employees between 51- 500 and 3.7% are small in size with < 50 employees. Data was also collected from 65% male and 35% female management students.

FINDINGS AND DISCUSSION:

Employer's and management graduates perception on important employability competencies were analyzed using mean scores. Depicted in Table 1, is the perception difference for importance of employability skills between industry (M_i) and management graduates (M_s). Mean difference was observed to be large for personal attributes of Integrity (M_i=6.63, M_s=6.26), Adaptability & flexibility (M_i=6.58, M_s=6.02), Learning agility (M_i=6.65, M_s=6.14); workplace skills - Critical thinking & problem solving skills (M_i=6.63, M_s=6.11), Communication & interpersonal skills (M_i=6.55, M_s=6.28), Leadership skills (M_i=6.05, M_s=6.43), Entrepreneurship skills (M_i=6.02, M_s=6.37); applied knowledge skills - Numeral competency (M_i=6.51, M_s=6.13), Digital competency (M_i=6.46, M_s=6.01), Professional ethics & values (M_i=6.60, M_s=6.28); core knowledge skills - Customer focus (M_i=6.55, M_s=6.19).

However, for leadership skills and entrepreneurship skills the management graduates give higher importance that the industry. The industry is not looking for leaders at the entry level, although they would want to develop top-notch leaders from amongst them. Also, industry is not interested in employing graduates willing to become entrepreneurs, although they appreciate the entrepreneurial attitude.

RESEARCH HYPOTHESIS:

The research hypothesis was tested using Independent Sample *t*-test. Results indicate (Table 2) significant difference (α ≤ 0.05) between employability skills as assessed by Industry and self assessment of skills by Management Graduates for all personal attributes – integrity, initiative, dependability & reliability, adaptability & flexibility, professionalism, coping with stress, respects diversity, self awareness, learning agility, emotional intelligence; workplace skills - planning & organizing skills, critical thinking & problem solving skills, decision making skills, conflict management skills, communication & interpersonal skills, teamwork skills, leadership skills, time management skills, negotiation skills, entrepreneurship skills, self management skills; applied knowledge skills - English communication (speaking, reading & writing), numeral competency, digital competency, professional ethics & values, creativity & innovation; however no significant difference was present in any core knowledge skills. Thus, null hypothesis was rejected for personal attributes, workplace skills and applied knowledge skills except technology skills.

Comparing mean scores or simply rejecting the null hypothesis does not depict how important the difference is, the skills gap can more easily be ascertained using the effect size test with Cohn's d value (Cohen, 1988). Table 2 shows larger than typical skills gap for initiative (d = 0.826), learning agility (d = 0.974), emotional intelligence (d = 1.191), critical thinking & problem solving skills (d = 0.934), decision making skills (d = 0.857) and professional ethics & values (d = 0.906); medium skills gap for integrity (d = 0.676), dependability & reliability (d = 0.773), adaptability & flexibility (d = 0.607), coping with stress (d = 0.553), respects diversity (d = 0.564), planning & organizing skills (d = 0.782), conflict management skills (d = 0.634), communication & interpersonal skills (d = 0.524), teamwork skills (d = 0.555), leadership skills (d = 0.692), time management skills (d = 0.613), negotiation skills (d = 0.705), entrepreneurship skills (d = 0.769), self management skills (d = 0.733), numeral competency (d = 0.541), digital competency (d = 0.543) and creativity & innovation (d =

0.751); and a small skills gap for professionalism (d = 0.432), self awareness (d = 0.357), English communication (speaking, reading & writing) (d = 0.202).

Competency mapping of skills assessed by Industry against self assessment of skills by Management Graduates illustrates the employability gap graphically in Figure 1. The industry rates management graduates consistently lower on possession of skills. The analysis indicates that for most skills, management graduates assess themselves higher than the industry. The gap should not exist if talent acquisition managers have to successfully fulfill organizational requirements.

RECOMMENDATIONS FROM INDUSTRY:

The employability gap is wide-ranging but not so vast that it may not be bridged. Some recommendations of industry on key competencies that need to be addressed by management graduates to become employable are:

1. Competency in foreign language, cross-cultural sensitivity, new-learning, expertise in data science are necessary capabilities management graduates have to be adept at in current times of uncertainty and risk where business models are rapidly becoming irrelevant.
2. Skills relevant to the changing market needs are: zeal to learn and excel, social intelligence, inquisitiveness, self-reliance, collaboration, networking skills and working ability in cross disciplinary teams. Students should be present-ready and they will automatically be future prepared.
3. Corporate readily recruit professionals who pursue a passion diligently and have a positive attitude with right aptitude.
4. The millennials are native to novel technologies, applications and social media, hence, management graduates should enhance skills in online marketing to boost customer focus and engage with them.
5. Spontaneity of idea generation should be encouraged for business innovation.
6. Discussion of national issues, perspectives and challenges like agriculture, healthcare, sports etc. should be incorporated to augment opinion making and critical thinking.
7. Entrepreneurship requires skills of conviction, deep knowledge, convincing power as the quality of people behind the innovative idea are critical.
8. During their management programme, students should associate themselves with NGOs to inculcate behavioral skills of compassion, ethics, integrity, adaptability, trustworthiness, teamwork, leadership etc. so that they become inherent qualities.
9. Contemporary domain knowledge updation is mandatory through certifications in technologies such as blockchain for finance; talent management, SAP for human resources; digital marketing certification for sales and marketing specialists.

CONCLUSIONS:

Despite spending a fortune and graduating from B-Schools, students are not employable due to a lack of requisite competencies. This is a cause of great predicament for both industry and management graduates. Due to dynamic changes in the business environment employers are looking for high learning agility in management graduates with versatility and willing to unlearn and relearn promptly so that they may rapidly equip themselves for future challenges.

Graduates lack critical thinking and problem solving skills that hampers the decision making ability. This gap exists because these skills are not strengthened while the student is at the higher education institution. The academia needs to embed these skills in the curriculum dissemination process when domain knowledge is being imparted. A comment by one of the employers was to "Foster student understanding by facilitating a problem solving discussion based on a real life situation in each class. The student will start to think critically and provide numerous out of box solutions to solve problems."

As organizations digitalize, numeral competency along with technology skills is the next requirement for a dream job. Employers are keenly recruiting graduates with an ability to interpret and analyze big data from statistical information using appropriate tools, methods and technology. Also, graduates with digital competency who write content on blogs or publish online are much sought after candidates. An employer said, "I would recruit a student who has done an online marketing project or writes a blog or publishes articles online instead of a student who has topped the marketing class." Students pursuing Masters in Business Administration (MBA) should be sensitized regarding the inculcation and enhancement of employability competencies demanded by the modern corporate world.

REFERENCES:

Anthony, S. and Garner, B. (2016). Teaching Soft Skills to Business Students: An Analysis of Multiple Pedagogical Methods, *Business and Professional Communication Quarterly*, 79(3) 360–370.

Bhattacharyya, N. (2011). Management Education: An Approach towards Nurturing Students' Employability Skills – A Study on Tripura Students. *International Journal of Educational Research and Technology,* 2(2), 20-29. Available at: www.soeagra.com/ijert.htm

Bok, D. (2006). *Our Underachieving Colleges,* Princeton, NJ: Princeton University Press.

Brauns, M. (2013). Employability of Graduates through Work-Integrated Learning (WIL). Retrieved from: http://www.waceinc.org/durban2013/Refereed%20Papers/South%20Africa/ Melody%20Brauns%20DUT.pdf. Accessed on: April 15, 2017.

Bridgstock, R. (2009). The graduate attributes we've overlooked: enhancing graduate employability through career management skills, *Higher Education Research and Development*, 28 (1), 31-44

Business Roundtable Organization. (2014). Report on Common Employability Skills: Tools to Support Career Success from Day One. Retrieved from: http://nationalnetwork.org/wp-content/uploads/2015/10/Common-Employability-Skills-Two-Pager.pdf Accessed on: July 02, 2017.

Chartered Institute of Personnel and Development (2016). Attitudes to employability and talent, Research report, September 2016, UK. Retrieved from: https://www.cipd.co.uk/knowledge/strategy/.../attitudes-employability-talent-report. Accessed on: August 12, 2017.

CII and Wheebox (2015). India Skills Report. Retrieved from: https://wheebox.com/logo/IndiaSkills/Report2015.pdf Accessed on: January 10, 2016

Cimatti, B. (2016). Definition, Development, Assessment of Soft Skills and Their Role for the Quality of Organizations and Enterprises, *International Journal for Quality Research*, 10(1), 97–130.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences.* New York: Academic Press.

Diasio, S. (2015). Business Education Jam: Envisioning the Future, Reimagining Business Education - A conference at Boston University. Retrieved from: https://cdn.questromworld.bu.edu/businesseducationjam/files/2015/04/Business-Education-Jam-Envisioning-the-Future.pdf. Accessed on October 10, 2016

Fallows, S., and Steven, C. (2000). Building Employability Skills into the Higher Education Curriculum: A University-Wide Initiative, *Education + Training*, 42(2), 75 – 82.

Finch, D.J., Hamilton, L.K., Baldwin, R. and Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability, *Education + Training*, 55(7), 681-704.

Hillage, J. and Pollard, E. (1998). Employability: developing a framework for policy analysis. Research Brief 85, *Department for Education and Employment Studies.*

Hinchcliffe, G. and Jolly, A. (2011). Graduate identity and employability, *British Educational Research Journal.* 37 (4), 63-584.

Hind, D. W. G., and Moss, S. (2011). *Employability skills*, Houghton le Spring: Business Education Publish.

Ishengoma, E. and Vaaland, T.I. (2016). Can university-industry linkages stimulate student employability? *Education and Training,* 58(1), 18-44.

Jackson, D. (2013). Employability skill development in work-integrated learning: Barriers and best practice, *Studies in Higher Education*, 1-18.

Jackson, D. and Hancock, P. (2010). Non-technical Skills in Undergraduate Degree in Business: Development and Transfer, *Education Research and Perspectives*, 37(1), 52-83.

Labi, A, Richmond, R. and Kenny, M. (2014). *Closing the skills gap: companies and colleges collaborating for change,* A report from The Economist Intelligence Unit, Sponsored by Lumina Foundation, US.

Li, C., Gervais, G. and Duval, A. (2006). The dynamics of overqualification: Canada's underemployed university graduates, Analytical Paper No. 039. Retrieved from: www.statcan.gc.ca/pub/11-621-m/11-621-m2006039-eng.pdf Accessed on: October 16, 2015.

Lin, C., Tsai, Y., Joe, S. and Chiu, C. (2012). Modeling the relationship among perceived corporate citizenship, firms' attractiveness, and career success expectation, *Journal of Business Ethics*, 105(1), 83-93.

Mansour, El, B. and Dean, J.C. (2016). Employability Skills as Perceived by Employers and University Faculty in the Fields of Human Resource Development (HRD) for Entry Level Graduate Jobs, *Journal of Human Resource and Sustainability Studies*, 4, 39-49.

Maxwell, G., Scott, B., Macfarlane, D. and Williamson, E. (2010). Employers as stakeholders in postgraduate employability skills development, *International Journal of Management Education*, 8(2), 13-24.

Maxwell, G., Scott, B., Macfarlane, D., Williamson, E. (2009). Stakeholder Experiences and Expectations of

Employability Skills on Postgraduate Programmes, *Chartered Institute of Personnel and Development* (CIPD), 1–12.

McMurray, S., Dutton, M., McQuaid, R. and Richard, A. (2016). Employer demands from business graduates, *Education + Training*, 58(1), 112 – 132.

Omar, N.H., Manaf, A.A., Mohd, R.H., Kassim, A.C. and Aziz, K.A. (2012). Graduates' employability skills based on current job demand through electronic advertisement, *Asian Social Sciences*, 8(9), 103-110.

Patil, A. R. (2012). Pedagogy of Business Education for employability Interdependency of the factors determining employability of the management students, *AIMA Journal of Management and Research*, 6(4), 154-161.

Robles M. M. (2012). Executive Perception of the Top 10 Soft Skills Needed in Today's Workplace, *Business Communication Quarterly*, 75(4), 453-465.

Shah, R. J. and. Srivastava, N. (2014). A Study on Factors Affecting Employability Skills of Management Students, *International Journal of Management and Development Studies*, 3(2), 17-24.

Sharma, S. and Mehta, P. (2017). Soft Skills: Unlocking the Potential of Management Graduates, *International Journal for Innovative Research in Multidisciplinary Field*, 3(7), 481-489.

Spence, G. B. (2012). Coaching and cross disciplinary collaboration: More complexity and chaos? *International Coaching Psychology Review*, 7, 122–126.

Taylor, E. (2016). Investigating the perception of stakeholders on soft skills development of students: Evidence from South Africa, *Interdisciplinary Journal of e-Skills and Life Long Learning*, 12, 1-18.

Tran, T. T. (2016). Enhancing graduate employability and the need for university-enterprise collaboration, *Journal of Teaching and Learning for Graduate Employability,* 7 (1), 58-71.

Tulgan, B. (2016). *Bridging the Soft-Skills Gap,* Wiley Periodicals Inc: Wiley Online Library

Van der Heijden, B., Boon, J., Van der Klink, M. and Meijs, E. (2009a). Employability enhancement through formal and informal learning: an empirical study among Dutch non-academic university staff members, *International Journal of Training and Development*, 13(1), 19-37

Vijayalakshmi, V. (2016). Soft Skills-The Need of the Hour for Professional Competence: A Review on Interpersonal Skills and Intrapersonal Skills Theories, *International Journal of Applied Engineering Research*, 11(4), 2859-2864.

Washor, K. S. (2015). Bridging the Soft-Skill Gap from Education to Employment through Internships, PhD Dissertation. Retrieved from: http://digitalcommons.uri.edu/oa_diss/318

Wesley, S. C., Jackson, V. P. and Lee, M., (2017). The perceived importance of core soft skills between retailing and tourism management students, faculty and businesses, *Employee Relations*, 39(1), 79-99.

TABLES

Table 1: Employability Competency Perspective of Industry and Management Graduates

Employability Skills	Important Skills Expected by Industry		Skills Perceived Important by Management Graduates	
Personal Attributes	**Mean (M_i)**	**Std. Deviation (SD)**	**Mean (M_s)**	**Std. Deviation (SD)**
Integrity	6.63	0.522	6.26	0.699
Initiative	6.44	0.616	6.24	0.7
Dependability & reliability	6.21	0.749	6.12	0.779
Adaptability & flexibility	6.58	0.566	6.02	0.87
Professionalism	6.56	0.631	6.42	0.69
Coping with stress	6.13	0.737	5.97	1.059
Respects diversity	6.39	0.747	6.19	0.704
Self awareness	6.20	0.638	6.29	0.816
Learning agility	6.65	0.48	6.14	0.82
Emotional intelligence	6.03	0.655	6.10	0.694
Workplace Skills				
Planning & organizing skills	6.49	0.604	6.28	0.72
Critical thinking & problem solving skills	6.63	0.522	6.11	0.828
Decision making skills	6.48	0.648	6.33	0.63

Employability Skills	Important Skills Expected by Industry		Skills Perceived Important by Management Graduates	
Personal Attributes	Mean (M$_i$)	Std. Deviation (SD)	Mean (M$_s$)	Std. Deviation (SD)
Conflict management skills	6.11	0.777	6.13	0.905
Communication & interpersonal skills	6.55	0.553	6.28	0.75
Teamwork skills	6.44	0.674	6.34	0.648
Leadership skills	6.05	0.766	6.43	0.631
Time management skills	6.37	0.792	6.22	0.685
Negotiation skills	6.23	0.769	6.16	0.813
Entrepreneurship skills	6.02	0.809	6.37	0.764
Self management skills	6.42	0.685	6.30	0.676
Applied Knowledge Skills				
English communication (speaking, reading & writing)	6.45	0.702	6.31	0.731
Numeral competency	6.51	0.572	6.13	0.743
Technology skills	6.44	0.6	6.20	0.776
Digital competency	6.46	0.618	6.01	0.766
Professional ethics & values	6.60	0.64	6.28	0.735
Creativity & innovation	6.48	0.837	6.25	0.74
Core Knowledge Skills				
Business fundamentals	6.21	0.711	6.37	0.774
Customer focus	6.55	0.57	6.19	0.682
Cross functional learning	6.06	0.609	6.32	0.782
Strategic management	6.25	0.672	6.40	0.659
Globalization	6.12	0.782	6.29	0.828
Current issues in business & social relevance	6.34	0.686	6.18	0.832

Survey results

Table 2: Independent Samples *t*-test for Employability Skills as assessed by Industry and self assessment by Management Graduates

Employability Skills		Levene's Test for Equality of Variances		*t*-test for Equality of Means			Effect size
		F	**Sig.**	***t***	**df**	**Sig. (2-tailed)**	**Cohen's *d*****
Integrity	Equal variances assumed	4.950	.026*	-6.717	616	.000*	0.676
	Equal variances not assumed			-6.083	142.258	.000*	
Initiative	Equal variances assumed	1.214	.271	-7.799	616	.000*	0.826
	Equal variances not assumed			-7.899	157.702	.000*	
Dependability & Reliability	Equal variances assumed	1.716	.191	-6.739	616	.000*	0.773
	Equal variances not assumed			-7.950	191.132	.000*	
Adaptability & Flexibility	Equal variances assumed	.339	.560	-5.329	616	.000*	0.607
	Equal variances not assumed			-6.208	187.613	.000*	
Professionalism	Equal variances assumed	.044	.835	-4.015	616	.000*	0.432
	Equal variances not assumed			-4.247	165.447	.000*	

Employability Skills		Levene's Test for Equality of Variances		t-test for Equality of Means			Effect size
		F	Sig.	t	df	Sig. (2-tailed)	Cohen's d**
Coping with Stress	Equal variances assumed	3.589	.059	-4.654	616	.000*	0.553
	Equal variances not assumed			-5.949	218.391	.000*	
Respects Diversity	Equal variances assumed	.030	.862	-5.174	616	.000*	0.564
	Equal variances not assumed			-5.479	165.657	.000*	
Self Awareness	Equal variances assumed	6.994	.008*	-3.345	616	.001*	0.357
	Equal variances not assumed			-3.341	155.469	.001*	
Learning Agility	Equal variances assumed	1.881	.171	-9.430	616	.000*	0.974
	Equal variances not assumed			-8.887	147.134	.000*	
Emotional Intelligence	Equal variances assumed	2.221	.137	-10.723	616	.000*	1.191
	Equal variances not assumed			-11.994	177.302	.000*	
Planning & Organising Skills	Equal variances assumed	.013	.908	-7.041	616	.000*	0.782
	Equal variances not assumed			-7.769	174.186	.000*	
Critical Thinking & Problem Solving Skills	Equal variances assumed	2.337	.127	-8.335	616	.000*	0.934
	Equal variances not assumed			-9.209	174.464	.000*	
Decision Making Skills	Equal variances assumed	.100	.752	-7.685	616	.000*	0.857
	Equal variances not assumed			-8.506	174.859	.000*	
Conflict Management Skills	Equal variances assumed	.011	.918	-5.651	616	.000*	0.634
	Equal variances not assumed			-6.499	184.167	.000*	
Communication & Interpersonal Skills	Equal variances assumed	.718	.397	-4.646	616	.000*	0.524
	Equal variances not assumed			-5.243	179.421	.000*	
Teamwork Skills	Equal variances assumed	.906	.342	-4.768	616	.000*	0.555
	Equal variances not assumed			-5.800	200.500	.000*	
Leadership Skills	Equal variances assumed	7.083	.008*	-6.751	616	.000*	0.692
	Equal variances not assumed			-6.374	147.388	.000*	
Time Management Skills	Equal variances assumed	.121	.728	-5.428	616	.000*	0.613
	Equal variances not assumed			-6.047	176.359	.000*	
Negotiation Skills	Equal variances assumed	.152	.697	-6.433	616	.000*	0.705

Employability Skills		Levene's Test for Equality of Variances		*t*-test for Equality of Means			Effect size
		F	Sig.	*t*	df	Sig. (2-tailed)	Cohen's *d***
	Equal variances not assumed			-7.083	173.703	.000*	
Entrepreneurship Skills	Equal variances assumed	3.877	.049*	-6.657	616	.000*	0.769
	Equal variances not assumed			-8.217	205.436	.000*	
Self Management Skills	Equal variances assumed	.639	.424	-6.840	616	.000*	0.733
	Equal variances not assumed			-7.041	160.468	.000*	
English Communication Skills (Speaking Reading & Writing)	Equal variances assumed	6.115	.014*	-1.862	616	.053	0.202
	Equal variances not assumed			-2.000	168.396	.041*	
Numeral Competency	Equal variances assumed	.132	.717	-3.197	616	.001*	0.541
	Equal variances not assumed			-3.349	163.631	.001*	
Technology Skills	Equal variances assumed	5.031	.025	-.361	616	.718	0.040
	Equal variances not assumed			-.415	184.125	.678	
Digital Competency	Equal variances assumed	11.892	.001	-4.628	616	.000*	0.543
	Equal variances not assumed			-5.785	209.857	.000*	
Professional Ethics and Values	Equal variances assumed	.451	.502	-7.932	616	.000*	0.906
	Equal variances not assumed			-9.282	188.846	.000*	
Creativity and Innovation	Equal variances assumed	.985	.321	-6.707	616	.000*	0.751
	Equal variances not assumed			-7.674	182.853	.000*	
Business Fundamentals	Equal variances assumed	3.971	.047*	.783	616	.434	0.093
	Equal variances not assumed			.945	197.715	.346	
Customer Focus	Equal variances assumed	2.997	.084	.398	616	.691	0.044
	Equal variances not assumed			.479	196.723	.633	
Cross Functional Learning	Equal variances assumed	6.176	.013*	.946	616	.344	0.114
	Equal variances not assumed			1.177	207.915	.241	
Strategic Management	Equal variances assumed	1.769	.184	1.411	616	.159	0.158
	Equal variances not assumed			1.631	185.491	.104	
Globalisation	Equal variances assumed	5.125	.024*	.757	616	.450	0.094
	Equal variances not assumed			.960	215.469	.338	

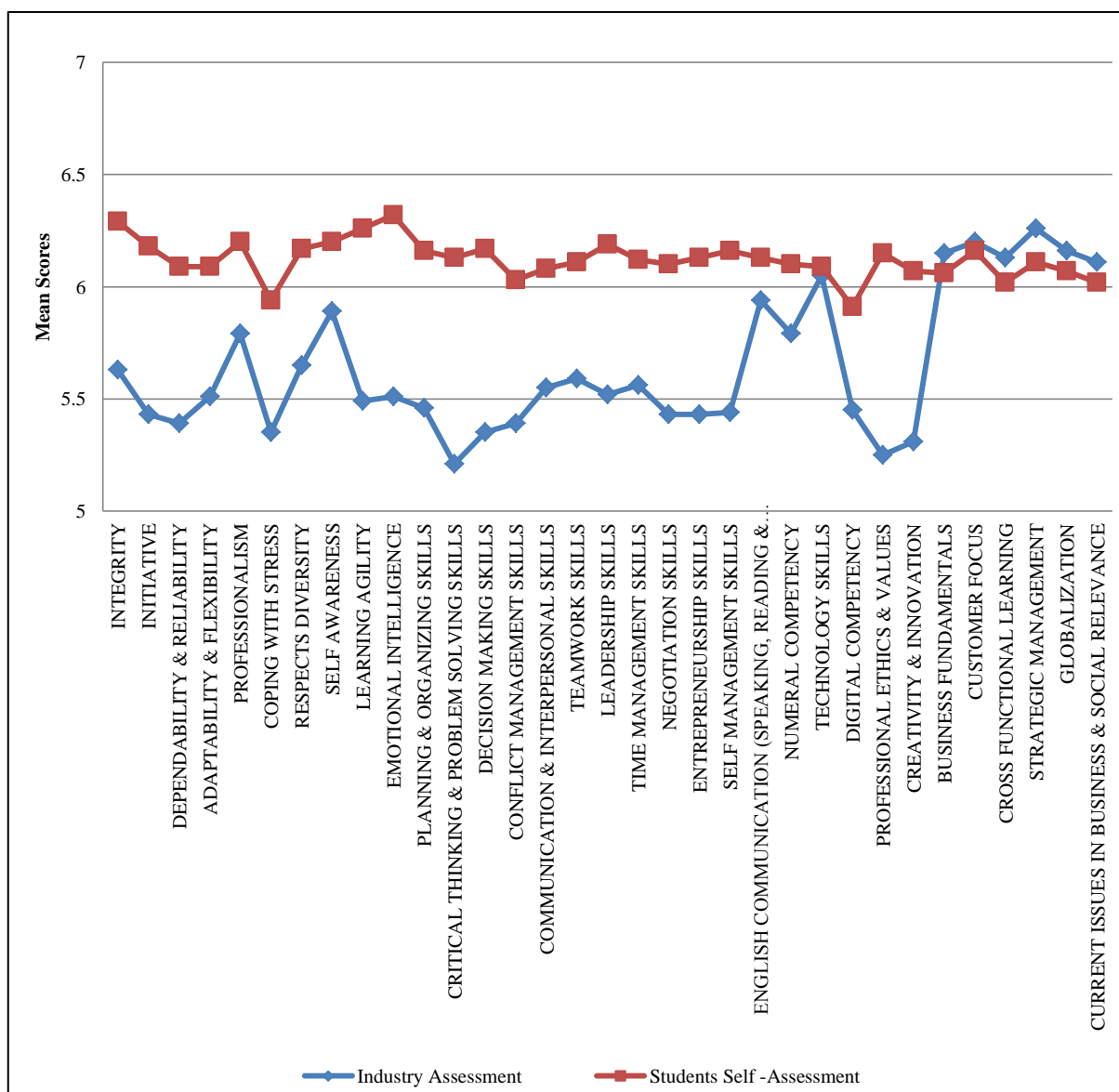| Employability Skills		Levene's Test for Equality of Variances		t-test for Equality of Means			Effect size
		F	Sig.	t	df	Sig. (2-tailed)	Cohen's d**
Current Issues in Business and Social Relevance	Equal variances assumed	3.749	.053	.755	616	.450	0.088
	Equal variances not assumed			.883	188.514	.379	

*. Significance at .05 level

**d > .80; Large or larger than typical

> .50; Medium or typical

> .20; Small or smaller than typical

Survey results

Figure 1: Competency mapping of skills as assessed by Industry and Management Graduates

Survey Results