

A Study of Essential Competencies for Management Students in India

Sneha Adavi^a, Mita Mehta^b, Arti Chandani^c, ^aPhD Scholar from SCRI (affiliated to Symbiosis Institute of Management Studies Range Hill, 411020), ^{b,c}Associate Professor, Symbiosis International (Deemed University), Symbiosis Institute of Management Studies, Range Hill, 41102, Email: snehapralhad@gmail.com, mita.mehta@sims.edu, arti.chandani@sims.edu

This article indicates the essential competencies required by graduate management students in order to be ready for their journey into the corporate world, especially with reference to India. A smooth transition from academia to corporates is facilitated through knowledge, skill and ability to perform; these words combine to create a new jargon called competency, which in turn leads to employability. The study used a survey method to collect primary data from students. Fifty questionnaires were sent through the email and we received 48 completed questionnaire. A questionnaire was prepared using a Likert scale along with open-ended questions. An extensive literature review was undertaken using premium journal papers to collect the secondary data. The study was limited to two cities of India: Pune and Bengaluru. Students' perceptions of the essential competencies required for the students to be job ready are being explored.

Key words: *Management education, essential competencies, skill development, perception of management graduates, employability*

Introduction

Although there is considerable growth in the education sector, a handful of quality educational institutions remain at the top. Amartya Sen (1970) mentions the need for a deeper analysis of the characteristics of economic and social forces operating in India and also analyses the response of public policy to these factors. He states that most of the policies are brought into effect not because of considerations of the wellbeing of the public but rather to impress a small section. The policies should be formulated to strike a balance between global expectations and local needs.

Over the last two decades, the topic of quality in higher education has received considerable attention. Most researchers have made suggestions about how quality should be defined and

how it should be measured in an educational and service-oriented context (Finnie & Usher, 2005; Garvin, 1984; Harvey & Green, 1993; Van Kemenade, Pupius & Hardjono, 2008). Despite the amount of progress in this field, the major question is how well equipped higher educational institutes are to prepare their graduates to meet the challenges of an ever-evolving and extremely demanding work environment (Hills et al., 2003; Rubin & Dierdorff, 2009). The suggestions point out that most of the undergraduate business schools have failed to adequately prepare their graduates for today's workplaces (Andrews & Higson, 2008; Jackson, 2009; Washer, 2007). The topic of graduate 'work readiness/employability' has been used as a means to promote national competitiveness in the global economy since the 1980s in multiple societies. However, the main concern has been that undergraduate programs are lacking when it comes to providing students with the key skills needed to maintain and gain the right employment (Cranmer, 2006; De La Harpe, Radloff & Wyber, 2000). The main reason for this perceived lack of graduate employability is a mismatch between the skills required by the employer and those acquired in the higher education system (Mason et al., 2003; Wilton, 2008).

Literature Review

The term 'competency' has been defined by many people in different ways. It originated in the field of education, with the term used to describe the behaviour of trainee teachers (Bowden & Masters 1993). Boyatzis (1982) popularised the term in the management field through his work. Competency as a term is used by different stakeholders, each involved in using the term in their own field. Psychologists used it in relation to the measure of ability. Management experts used it as a strategy to measure individual performance in relation to organisational goals. There is no one single definition that is widely accepted (Strebler et al., 1997; Jubb & Rowbotham, 1997). The experts, researchers and practitioners in the field kept on defining the term to serve the purpose of implementing their work.

A more concrete meaning for the term has recently evolved through usage. A group of experts from the United Kingdom, including Strebler et al. (1997), have suggested two different meanings of the term 'competency'. The first is 'expressed as a behaviours that individuals need to demonstrate'; the second is 'expressed as the minimum set standards of performance'. The word 'competency' has been used to refer to behaviour and also to refer the standard of performance (Strebler et al., 1997). The third meaning of competency refers to underlying attributes, such as the knowledge, skill and abilities of persons who are performing a particular job. The third definition bestowed a more concrete meaning on the characteristics required of individual to achieve the desired results. Based on these various definitions, competency was used as an input and output model for measuring the performance of individuals in connection with organisational goals. Figure 1 (Hooffmann, 1999) explains the concept more explicitly.

	Individual	Corporate
Output	Performance standards	Benchmarks
Input	Knowledge, skill and abilities	Set standards

Figure 1. ‘Meaning of competency’. Source: Hooffmann (1999).

Over the last three decades, the literature on education has been concerned mainly with the alignment of higher education to the requirements of the work environment and its contribution to economic development (Leckey & McGuigan, 1997; Marchello, 1987). Hence a transition has to be followed from teacher-centric learning to student-centric learning (Gilis et al., 2008). Avargil and colleagues (2012) suggest that student-centric learning helps to develop abilities with respect to personal efficiency, lifelong learning and flexibility. Competence-based learning has gained the status of a distinct pedagogy within student-centric learning, as demonstrated by Winterton (2009). The emphasis on learning outcomes becomes more important in competence-based learning.

The literature review differentiates between the two types of competencies: technical knowhow and abilities, or professional competencies; and transferable competencies, such as knowledge, abilities and attitudes, or transversal competencies (Leckey & McGuigan, 1997). Regarding transversal competencies, the literature argues that, over the last 20 years, there has been a disparity between the demands of economically strong or economically growing countries and their teaching of such competencies in higher education (Leckey & McGuigan, 1997). The labour market values the transversal competencies even more than professional competencies; the competencies that are most in demand are teamwork, communication skills, leadership, flexibility, logical reasoning, analysis and problem-solving, association and organising skills (Emiliani, 2006; Leckey & McGuigan, 1997).

A systematic review of the literature reveals that for organisations competency involves set standards of performance, and from an individual perspective it includes attributes such as knowledge, skill and ability to perform a particular job. Competency plays an important role in higher education. After completing their education, students are employed in jobs, and once they begin their executive journey the word ‘competency’ becomes relevant. This study aims to establish the prerequisite set of competencies required to perform a particular job, and whether the students who are graduating from universities have this set of competencies.

In the opinion of labour market experts, the slowdown in economic growth of any country can be reduced by changes in many fields, including higher education. Economic growth not only depends upon natural resources, but also on certain developments in the socio-economic environment and optimum utilisation of human capital (David & Foray 2000). It is the responsibility of universities and colleges to develop future human capital that can be utilised optimally by organisations. In this situation, it becomes more important to understand what competencies are expected by corporations.

The 10 competencies shown in Figure 1 have been examined for this article.



Figure 1. Competencies taken from Chiru et al. (2012).

The figure shows some examples of competencies that need to be acquired by students before they enter the corporate world. A survey conducted by Manpower group (2018), showed that companies are facing a shortage of talent, even though enough human resources are available.

There are some exceptions to this assumption; however, a major chunk of graduates are either unemployed or under-employed. According to recent survey conducted by Economic Times (23 February 2018), two out of every three MBA graduates from tier 2 or tier 3 cities in India remain unemployed or under-employed. The main cause of this could be the academic focus of educational institutions. Too many institutions teach predominantly theory, rather than having a practical orientation. There is therefore a mushrooming growth of institutions providing technical and management education.

Limited research has been done in the area of gender perception on competencies that should be developed by the management colleges. Inspired by this gap, this article reveals the difference and similarities between male and female graduates, to study the competencies that need to be developed by management colleges and those that are being developed.

Most of the literature focuses on college students as one group, so this gender specification will help colleges to further develop both genders equally. As Schnotz (2017) suggests, both genders are socially structured with many inter-individual differences (Bührmann et al., 2000), and creating a customised learning situation can provide college students with an opportunity to learn without a competitive gender-specific system (Auszra, 2001).

Objectives

1. To assess the difference in the perceptions of male and female students of the competencies aimed to be developed by management colleges.
2. To assess the competencies truly developed by the management colleges as perceived separately by male and female students.

Hypothesis

H1: There is a significant difference in the perception of male and female students on competencies developed by management colleges.

H0: There is no significant difference in the perception of male and female students on competencies developed by management colleges.

Methodology

The empirical method was used for analysis of the data. The literature review revealed that most of the previous studies used qualitative methods to conduct research, so survey research was adopted to quantify the results.

A sample of 50 students from different management institutes in Pune and Bangalore with NAAC accreditation of A & B rank was collected. A random sampling technique was used to choose the samples.

Tools

A questionnaire was prepared based on the 10 competencies from the list (Figure 1). The questionnaire was adopted from sample questions formulated by Azevedo, Apfelthaler and Hurst (2012). The data collected through questionnaire were analysed using descriptive statistics, such as mean and standard deviation, and inferential statistics, such as independent sample t-test. SPSS was used to analyse the data.

Results

The data were analysed using SPSS and the inference tool used was the independent sample t-test. The test was applied to study the different competencies developed by the management colleges as perceived by two independent groups: male and female students (Table 2).

Table 2: Group statistics results for competencies management colleges aim to develop

	Gender	N	Mean	Std. deviation	Std. error mean
Innovative thinking	F	19	6.316	2.7498	.6308
	M	29	5.759	3.2366	.6010
Problem solving	F	19	5.947	2.6135	.5996
	M	29	5.655	2.8445	.5282
Communication skills	F	19	7.579	2.6732	.6133
	M	29	6.069	3.2943	.6117
Leadership	F	19	6.842	3.0779	.7061
	M	29	6.448	3.1914	.5926
Ability and willingness to learn	F	19	7.000	2.3094	.5298
	M	29	5.966	2.9091	.5402
Flexibility	F	19	6.737	2.5131	.5766
	M	29	5.862	3.0205	.5609
Teamwork	F	19	7.421	1.8048	.4140
	M	29	5.655	3.0505	.5665
Interpersonal relationship	F	19	7.579	2.0362	.4671
	M	29	5.931	2.9992	.5569
Critical thinking/ thinking outside box	F	19	7.316	2.4507	.5622
	M	29	5.828	2.9407	.5461
Decision-making skills	F	19	6.632	3.1484	.7223
	M	29	5.724	3.2282	.5995

Table 3: SPSS output for independent sample t-test for competencies management colleges aim to develop

independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Innovativethinking	Equal variances assumed	1.105	.299	.618	46	.540	.5572	.9018	-1.2580	2.3724
	Equal variances not assumed			.639	42.824	.526	.5572	.8713	-1.2002	2.3145
Problemsolving	Equal variances assumed	.495	.485	.359	46	.721	-.2922	.8136	-1.3454	1.9298
	Equal variances not assumed			.366	40.932	.716	-.2922	.7991	-1.3216	1.9060
CommunicationSkills	Equal variances assumed	3.152	.082	1.668	46	.102	1.5100	.9050	-.3117	3.3317
	Equal variances not assumed			1.743	43.778	.088	1.5100	.8662	-.2360	3.2560
Leadership	Equal variances assumed	.678	.414	.424	46	.674	-.3938	.9290	-1.4761	2.2638
	Equal variances not assumed			.427	39.643	.672	-.3938	.9219	-1.4698	2.2575
Abilityandwillingnesstolea m	Equal variances assumed	1.970	.167	1.303	46	.199	1.0345	.7941	-.5639	2.6329
	Equal variances not assumed			1.367	44.183	.178	1.0345	.7567	-.4903	2.5592
Flexibility	Equal variances assumed	3.999	.051	1.046	46	.301	.8748	.8361	-.8082	2.5578
	Equal variances not assumed			1.088	43.275	.283	.8748	.8044	-.7471	2.4966
Teamwork	Equal variances assumed	10.030	.003	2.271	46	.028	1.7659	.7775	.2009	3.3309
	Equal variances not assumed			2.517	45.644	.015	1.7659	.7017	.3532	3.1785
	assumed			1.367	44.183	.178	1.0345	.7567	-.4903	2.5592
Flexibility	Equal variances assumed	3.999	.051	1.046	46	.301	.8748	.8361	-.8082	2.5578
	Equal variances not assumed			1.088	43.275	.283	.8748	.8044	-.7471	2.4966
Teamwork	Equal variances assumed	10.030	.003	2.271	46	.028	1.7659	.7775	.2009	3.3309
	Equal variances not assumed			2.517	45.644	.015	1.7659	.7017	.3532	3.1785
Interpersonalrelationship	Equal variances assumed	9.624	.003	2.096	46	.042	1.6479	.7863	.0651	3.2307
	Equal variances not assumed			2.267	45.909	.028	1.6479	.7269	.1846	3.1112
CriticalthinkingThinkingou tothebox	Equal variances assumed	1.768	.190	1.827	46	.074	1.4882	.8144	-.1511	3.1276
	Equal variances not assumed			1.899	43.242	.064	1.4882	.7838	-.0922	3.0686
Decisionmakingskills	Equal variances assumed	.313	.578	.962	46	.341	.9074	.9437	-.9920	2.8069
	Equal variances not assumed			.967	39.339	.340	.9074	.9386	-.9906	2.8055

From Tables 1 and 2, it can be inferred that there is a gender difference in perception of some competencies that should be developed more by management colleges.

The results indicated a significant difference in the perception of competencies management that colleges aim to develop between male and female students for the following competencies

- Flexibility: Male students ($M = 5.862$ $SD = 3.0205$); female students ($M = 6.737$ $SD = 2.5131$) $t(43.2) = 1.088$, $P = .283$
- Teamwork: Male students ($M = 5.655$ $SD = 3.0505$); female students ($M = 7.421$ $SD = 1.8048$) $t(45.6) = 2.517$, $P = .015$
- Interpersonal relationship: Male students ($M = 5.931$ $SD = 2.9992$); female students ($M = 7.579$ $SD = 2.0362$) $t(45.9) = 2.267$, $P = .028$.

As the p values for the above competencies are less than 0.05 than the chosen significance level, it can be inferred that female students prefer these competencies over other competencies, whereas their male counterparts think all 10 competencies should be equally developed.

For the remaining seven competencies, both groups had no significant difference in their perception of the competencies management colleges aim to develop:

- Innovative thinking: Male students ($M = 5.759$ $SD = 3.2366$); female students ($M = 6.316$ $SD = 2.7498$) $t(46) = .618$, $P = .540$
- Problem-solving: Male students ($M = 5.655$ $SD = 2.8445$); female students ($M = 5.9947$ $SD = 2.6135$) $t(46) = .359$, $P = .721$
- Communication skills: Male students ($M = 6.069$ $SD = 3.2943$); female students ($M = 7.579$ $SD = 2.6732$) $t(46) = 1.668$, $P = .102$
- Leadership: Male students ($M = 6.448$ $SD = 3.1914$); female students ($M = 6.842$ $SD = 3.0779$) $t(46) = .424$, $P = .674$
- Ability and willingness to learn: Male students ($M = 5.996$ $SD = 2.9091$); Female students ($M = 7.000$ $SD = 2.3094$) $t(46) = 1.303$, $P = .199$
- Critical thinking: Male students ($M = 5.828$ $SD = 2.9407$); female students ($M = 7.316$ $SD = 2.4507$) $t(46) = 1.827$, $P = .074$
- Decision-making skills: Male students ($M = 5.724$ $SD = 3.2282$); female students ($M = 6.632$ $SD = 3.1484$) $t(46) = .962$, $P = .341$.

These results indicate that both groups think these seven competencies need to be developed; however, females think the three competencies teamwork, flexibility and interpersonal relationships need to be developed first, whereas the male graduates think all 10 competencies should receive the same focus (Table 4).

Table 4: Group statistics results for competencies developed by management colleges

	Gender	N	Mean	Std. deviation	Std. error mean
Innovative thinking	F	19	6.316	2.7498	.6308
	M	29	5.759	3.2366	.6010
Problem solving	F	19	5.947	2.6135	.5996
	M	29	5.655	2.8445	.5282
Communication skills	F	19	7.579	2.6732	.6133
	M	29	6.069	3.2943	.6117
Leadership	F	19	6.842	3.0779	.7061
	M	29	6.448	3.1914	.5926
Ability and willingness to learn	F	19	7.000	2.3094	.5298
	M	29	5.966	2.9091	.5402
Flexibility	F	19	6.737	2.5131	.5766
	M	29	5.862	3.0205	.5609
Teamwork	F	19	7.421	1.8048	.4140
	M	29	5.655	3.0505	.5665
Interpersonal relationship	F	19	7.579	2.0362	.4671
	M	29	5.931	2.9992	.5569
Critical thinking/ thinking out of the box	F	19	7.316	2.4507	.5622
	M	29	5.828	2.9407	.5461
Decision-making skills	F	19	6.632	3.1484	.7223
	M	29	5.724	3.2282	.5995

Table 5: SPSS printout for Independent sample t-test for competencies developed by management colleges

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Innovativethinking	Equal variances assumed	1.105	.299	.618	46	.540	.5572	.9018	-1.2580	2.3724
	Equal variances not assumed			.639	42.824	.526	.5572	.8713	-1.2002	2.3145
Problemsolving	Equal variances assumed	.495	.485	.359	46	.721	.2922	.8136	-1.3454	1.9298
	Equal variances not assumed			.366	40.932	.716	.2922	.7991	-1.3216	1.9060
CommunicationSkills	Equal variances assumed	3.152	.082	1.668	46	.102	1.5100	.9050	-.3117	3.3317
	Equal variances not assumed			1.743	43.778	.088	1.5100	.8662	-.2360	3.2560
Leadership	Equal variances assumed	.678	.414	.424	46	.674	.3938	.9290	-1.4761	2.2638
	Equal variances not assumed			.427	39.643	.672	.3938	.9219	-1.4698	2.2575
Abilityandwillingnesstolearn	Equal variances assumed	1.970	.167	1.303	46	.199	1.0345	.7941	-.5639	2.6329
	Equal variances not assumed			1.367	44.183	.178	1.0345	.7567	-.4903	2.5592
Flexibility	Equal variances assumed	3.999	.051	1.046	46	.301	.8748	.8361	-.8082	2.5578
	Equal variances not assumed			1.088	43.275	.283	.8748	.8044	-.7471	2.4966
Teamwork	Equal variances assumed	10.030	.003	2.271	46	.028	1.7659	.7775	.2009	3.3309
	assumed			1.367	44.183	.178	1.0345	.7567	-.4903	2.5592
Flexibility	Equal variances assumed	3.999	.051	1.046	46	.301	.8748	.8361	-.8082	2.5578
	Equal variances not assumed			1.088	43.275	.283	.8748	.8044	-.7471	2.4966
Teamwork	Equal variances assumed	10.030	.003	2.271	46	.028	1.7659	.7775	.2009	3.3309
	Equal variances not assumed			2.517	45.644	.015	1.7659	.7017	.3532	3.1785
Interpersonalrelationship	Equal variances assumed	9.624	.003	2.096	46	.042	1.6479	.7863	.0651	3.2307
	Equal variances not assumed			2.267	45.909	.028	1.6479	.7269	.1846	3.1112
CriticalthinkingThinkingoutofthebox	Equal variances assumed	1.768	.190	1.827	46	.074	1.4882	.8144	-.1511	3.1276
	Equal variances not assumed			1.899	43.242	.064	1.4882	.7838	-.0922	3.0686
Decisionmakingskills	Equal variances assumed	.313	.578	.962	46	.341	.9074	.9437	-.9920	2.8069
	Equal variances not assumed			.967	39.339	.340	.9074	.9386	-.9906	2.8055

Tables 3 and 4 indicate the competencies that are actually developed by the management colleges. The results also give us the gender differences.

The results indicate the three competencies identified by the female group as important to develop (teamwork, flexibility and interpersonal relationships) are in fact being developed by the management colleges:

- Flexibility: Male students (M = 5.862 SD = 3.0205); female students (M = 6.737 SD = 2.5131) $t(43.2) = 1.088, P = .283$
- Teamwork: Male students (M = 5.655 SD = 3.0505); female students (M = 7.421 SD = 1,8048) $t(45.6) = 2.517, P = .015$
- Interpersonal relationships: Male students (M = 5.931 SD = 2.9992); female students (M = 7.579 SD = 2.0362) $t(45.9) = 2.267, P = .028$.

The other seven competencies indicated no gender difference, and are seen as being developed equally by the management colleges:

- Innovative thinking: Male students (M = 5.759 SD = 3.2366); female students (M = 6.316 SD = 2.7498) $t(46) = .618, P = .540$
- Problem-solving: Male students (M = 5.655 SD = 2.8445); female students (M = 5.9947 SD = 2.6135) $t(46) = .359, P = .721$
- Communication skills: male students (M = 6.069 SD = 3.2943); female students (M = 7.579 SD = 2.6732) $t(46) = 1.668, P = .102$
- Leadership: Male students (M=6.448 SD=3.1914); female students (M = 6.842 SD = 3.0779) $t(46) = .424, P = .674$
- Ability and willingness to learn: Male students (M = 5.996 SD = 2.9091); female students (M = 7.000 SD = 2.3094) $t(46) = 1.303, P = .199$
- Critical thinking: Male students (M = 5.828 SD = 2.9407); female students (M = 7.316 SD = 2.4507) $t(46) = 1.827, P = .074$
- Decision-making skills: Male students (M = 5.724 SD = 3.2282); female students (M = 6.632 SD = 3.1484) $t(46) = .962, P = .341$.

We can therefore conclude that the alternate hypothesis has been accepted, indicating that there is a gender difference in perceptions of which competencies are being developed by the management colleges.



Conclusion

Employability is the biggest issue faced by students, colleges and the employers. Each has their own concern about the employability: students worry about it as because it decides their future; colleges/institutions worry about it because it can create or damage their image in the academic world; employers worry about it because if they don't get the right talent, their training costs will be increased.

This article has analysed one angle of this triangle: the perspective of students. The data analysis reveals one major finding: that is there is a gap between expected and delivered competencies as perceived by male and female students. Keeping this gap in mind, the colleges should aim to develop both groups; further, they should focus on the individual competency needs of the two genders as the employability expectations of the two groups are also different.

Since this research is limited to data from only two cities, it cannot be generalised to other cities, thus providing scope for future research. In addition, the perspectives of the institutions and employers could be studied to bring in a holistic perspective to this issue.



REFERENCES

- Azevedo, A., Apfelthaler, G., & Hurst, D. (2012). Competency development in business graduates: An industry-driven approach for examining the alignment of undergraduate business education with industry requirements. *The International Journal of Management Education*, 10(1), 12-28.
- Bridgstock, R. (2011), "Skills for creative industries graduate success", *Education + Training*, Vol. 53 No. 1, pp. 9-26.
- Chiru, C., Ciuchete, S. G., Lefter, G. G., & Paduretu, E. (2012). A Cross Country Study on University Graduates Key Competencies. An Employer's Perspective. *Procedia-Social and Behavioral Sciences*, 46, 4258-4262.
- Deaconu, A., Osoian, C., Zaharie, M., & Achim, S. A. (2014). Competencies in higher education system: an empirical analysis of employers' perceptions. *Amfiteatru Economic Journal*, 16(37), 857-873.
- Emiliani, M. L. (2006). Origins of lean management in America: the role of Connecticut businesses. *Journal of management History*, 12(2), 167-184.
- García-Aracil, A., & Van der Velden, R. (2008). Competencies for young European higher education graduates: labor market mismatches and their payoffs. *Higher Education*, 55(2), 219-239.
- Gilis, A., Clement, M., Laga, L., & Pauwels, P. (2008). Establishing a competence profile for the role of student-centred teachers in higher education in Belgium. *Research in higher education*, 49(6), 531-554.
- Hodges, D., & Burchell, N. (2003). Business graduate competencies: Employers' views on importance and performance. *International Journal of Work-Integrated Learning*, 4(2), 16.
- Hoffmann, T. (1999). The meanings of competency. *Journal of European Industrial Training*, 23(6), 275-286.
- Jonck, P., & Minnaar, R. (2015). Validating an employer graduate-employability skills questionnaire in the faculty of management sciences. *Mediterranean Journal of Social Sciences*, 6(2 S1), 230.
- Leckey, J. F., & McGuigan, M. A. (1997). Right tracks—wrong rails: The development of generic skills in higher education. *Research in Higher Education*, 38(3), 365-378.



- Markus, L., Thomas, H. C., & Allpress, K. (2005). Confounded by competencies? An evaluation of the evolution and use of competency models. *New Zealand journal of psychology*, 34(2), 117.
- Nolan, C., Conway, E., Farrell, T. and Monks, K. (2010), "Competency needs in Irish hotels: employer and graduate perspectives", *Journal of European Industrial Training*, Vol. 34 No. 5, pp. 432-454
- Park, S. and Kim, E. (2018), "Fostering organizational learning through leadership and knowledge sharing", *Journal of Knowledge Management*, Vol. 22 No. 6, pp. 1408-1423
- Promís, P (2008) Are employers asking for the right competencies? A case for emotional intelligence. *Library Leadership & Management* 22(1): 24–30.
- Saad M, Datta S, Razak AA: University–industry relationships in developing countries: Opportunities and challenges in Algeria, Indonesia, Malaysia and India. *International Journal of Technology Management & Sustainable Development*. 2017; 16(2): 175–190
- Trauth, E. M., Farwell, D. W., & Lee, D. (1993). The IS expectation gap: Industry expectations versus academic preparation. *Mis Quarterly*, 293-307.
- Teixeira, AA, Davey, T (2010) Attitudes of higher education students to new venture creation: the relevance of competencies and contextual factors. *Industry and Higher Education* 24(5): 323–341
- Winterton, J. (2009), "Competence across Europe: highest common factor or lowest common denominator? *Journal of European Industrial Training*, Vol. 33 No. 8/9, pp. 681-700.
- Manpower group (2018) 2018 survey on talent shortage by Manpower group website: <https://go.manpowergroup.com/talent-shortage-2018#driversofshortage>