

HUMAN CAPITAL FACTORS IN THE RECENT COLLEGE GRADUATE: EMPLOYERS' PERSPECTIVE

Jaya Sangeetha 

¹ Department of Business and Economics, Modern College of Business and Science, Muscat, Sultanate of Oman

ARTICLE INFO

Received: 12 November 2021

Revised: 16 February 2022

Accepted: 19 February 2022

Keywords: Employability Factors, Hard Skills, Human Capital Factors, Personal Characteristics, Soft Skills

Corresponding Author: Jaya Sangeetha

Email: jaya@mcbs.edu.om

Copyright © 2022 by author(s)

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



ABSTRACT

Purpose: This paper aims to identify and evaluate the human capital factors that are expected in fresh college graduates as perceived by employers. The paper also aims to identify the gap between the expectation of the employer and the skills found (reality) in the graduate as perceived by the industry. Further, the study involves estimating if the expectation-reality gap in these factors is different across industries.

Design/Methodology/Approach: Qualitative research was undertaken to identify those factors and items within each factor. Then, descriptive research was conducted which involved a survey with several respondents from major industries in the private and public sectors in the Sultanate of Oman. The responses were statistically analyzed using Fisher Exact Test.

Findings: The study revealed that the most important Human Capital/ employability factor varies from one industry to another. The most and least important items/ skills in each of the three categories of Human Capital factors were independent across industry types, except for the most important of soft skills. Though the expectation-reality gap existed in the factors, it was found to be independent across industries, except for the Personal Characteristics factor.

Practical Implications: Fresh graduates need to understand that their prospective employers are perceiving gaps in their expectations versus reality. Being cognizant of this gap and working for self-improvement is imperative not only for improving the probability of employment with the favorite employer but also to fuel their career growth. These insights are relevant and useful to other stakeholders as well. By taking action based on these findings, the industry would reap better productivity benefits, and the economy of the nation would improve and propel sustainable development. Also, Higher Education Institutions (HEI) would be able to show better employment rates and student successes.

Originality/Value: The findings provide important insights for students and HEI to formulate intervention strategies. The employers would be aware of the gap and thus, design suitable bridge programs to adapt the new graduates to their and the industry needs. Therefore, the government would acquire valuable cues to formulate suitable policies to achieve the nation's strategic goals.

INTRODUCTION

The business world is dynamic and is experiencing transformation in all functional areas. New technologies and automation are bringing about sweeping changes in established work methods (International Labor Organization, 2018). Globalization has led to increased competition and employers also want their Human Capital to have sophisticated employability characteristics to deliver the requirements. These are being extended for recruitment of recent college graduates since employers are looking for job fit and effectiveness. On the other hand, higher education

institutions (HEI) and the government are also concerned about the quality of Human Capital being developed. HEIs need to know these criteria and assess the level of their outgoing graduates since they need to develop these requirements in graduates to make them employable.

Due to the weak economic conditions prevailing in most economies across the world including the Middle East, there has been a rise in competition among graduates for the available vacancies (IMF, 2003). Governments in the Middle Eastern countries are also concerned since a lot of students' higher education is sponsored by them (as noted from the Ministry of Higher Education website, Oman). They need to assess the return they receive on their investment in the Human Capital since most of the Middle Eastern countries are looking to diversify their economies and hence need to develop a knowledge economy.

From the discussion above, it is evident that there are multiple stakeholders involved when we consider the development and assessment of Human Capital factors; (1) Students who spend their valuable resources including time and efforts, and expect to be employed at the end of their educational program (2) The employers/industry who seek Human Capital to manage and develop their business; (3) HEIs would like to assess the perceptions of the employers on the quality of their graduates on the various skills that they endeavor to develop during the period of education. (4) The government would like to monitor the development of the human resource of the country, considering their long-term plans and competitiveness of the nation.

Dana Wilkie (2019) in her article series in SHRM indicates that employers find the college graduates lacking soft as well as hard skills. This is found to affect their on-the-job performance and effectiveness in the workplace. Hence, this research endeavors to study the Human Capital factors needed in the recent college graduates across various industries from the employers' perspective and assess the gaps. This would help capture information that could feed the needs of all the stakeholders and help each one to identify the required intervention techniques

LITERATURE REVIEW

Knowledge, skills, maybe more?

Harvey (2005) refers to employability as "a set of achievements, skills, understandings and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations, which benefit themselves, the workforce, community, and the economy." From this definition, employability skills can also be considered as the Human Capital factors desired by the employing organizations. Hence the factors in this study have been considered to encompass knowledge, skills, and personal characteristics required in graduates not only for getting employment but also excelling in the career and contributing to the growth and sustainability of the organizations, thus amounting to Human Capital.

In many research studies, knowledge has also been referred to as hard skills or technical skills. Three decades ago, widespread opinion was that education is mainly to acquire hard skills or mastery in one's functional discipline (Assiter, 1995). However, the waves of change became evident as Candy and Crebert (1991) recommend developing higher-order capabilities (i.e. problem solving, lateral and critical thinking, etc.). With increasing globalization and competition, the need was felt for innovation and hence for Human Capital possessing skills, such as creativity and initiative (BCA, 2006).

According to Lowden et al. (2011), technical and discipline competencies from the degree programs are the basic expectations of employers from college graduates. However, other broader skills and attributes which include teamwork, leadership, critical thinking,

communication, problem-solving and managerial abilities are considered vital. These results corroborate with the findings from the research conducted in different countries in the world which include both developed and developing economies (Jackson, 2009; Boateng et al., 2015; Dahri, 2008; Zainuddin and Rejab, 2010; Jeswani, 2016, Blom & Saeki, 2012)

Starkey and Tempest (2008) indicate that business schools in Europe must focus on inculcating the aspects of liberal education along with the development of knowledge. They recommend the inclusive development of self-knowledge, wisdom, and leadership, integrative thinking, reflexivity, etc. According to them, this is in keeping with the needs of a contemporary, and knowledge-based economy that demands from the workforce comprehensive analysis and interpretation of financial and economic scenarios, while upholding the delicate framework of culture, sustainability, and morality.

The skills, both “hard” and “soft,” sought today in current graduates include the ability to prioritize, ability to work in teams, organizational awareness, good etiquette, problem-solving skills, self-awareness, proactivity, influential, communication skills, technical savvy, interpersonal and intercultural skills, time management, adaptability, creativity, good judgment, etc (Steinberg, 2017; Rolfe, 2017). Bortz who is a contributor to Monster.com, one of the largest job seeker websites in the world states in one of the articles states the soft skills that help your career hit the big time- communication, teamwork, adaptability, problem-solving, critical observation, conflict resolution, and leadership.

A research done by Sloka et al. (2015) showed that not only are professional knowledge and skills of employees were highly evaluated, but their general knowledge, attitudes, and motivation, too. However, in the research they identified the general knowledge and skills as a combination of soft and hard skills from being able to work on a computer, being able to drive the ability to plan and lead a team.

Greene (2017) presented the industry expectation from employees in 2025. The research indicated that the workforce must have some characteristics which include - strong work ethic, personal integrity, dependability and the ability to think critically etc. With the given information we would like to believe that it is not only the knowledge (also referred to as “hard skills”) and skills (mostly considered “soft skills”) that the employee must possess, but some personal characteristics that need to be developed along the way.

The transition from school to work is complex and challenging for graduates (Holden & Hamblett, 2007). The result of higher education is not only to gain knowledge and wisdom but also to acquire skills that help to translate the abilities to the job market requirements. (Dahri, 2008; Zainuddin & Rejab, 2010). The higher education institutions (HEIs) endeavor to develop the graduates to be work-ready. Yorke and Knight (2004) indicate that student learning experiences and their relationship and contribution to the industry, are not matching.

Mind the gap

As the industries and technologies change and evolve, there has also been a shift in the skill search of employees to be hired in an organization or an industry to be precise. There are a lot of forces gardening this reason and these graduates are expected to fulfill these skills set and knowledge for them to get the right job fit.

Hendry (2003) notes that learning and skill desired by different organizations can be quite different since their strategies and processes are different. This leads to inherent differences across the industry in the desired Human Capital factors in fresh graduates.

In the study of fortune 500 companies, Martell and Carroll (1994) expressed that the functional areas stipulated the technical skills needed in graduates for the jobs that they seek, but the “generic business skills” and “personal attributes” applicable were similar across all domains. In employing engineering graduates, the importance of vocational and technical skills is waning and the demand for soft skills and personal attributes seem to be on the rise (Nilsson, 2010).

DETYA (2000), a study in Australia, presented the skills valued most by the industry. These include academic achievement in the domain, time management skills, written and oral communication skills, interpersonal skills, teamwork, problem-solving, ethical behavior and standards, as well as people management skills, etc. However, studies have found those deficient in graduates in Australia (Jorgensen-James & Nouwens, 2003) and the US (Porter & McKibbin, 1988).

Cotton (2001) reveals that in the U.S. context, although the employers do not find a gap in technical skills, there is a significant gap in the other professional skills. Butler and Gheorghiu (2010) indicate a gap in team working, problem-solving, communication, and an attitude to work. A research study in the United Kingdom conducted by Pollard et al., in 2015 indicated that the employers do have their concerns that there are not many suitable fully tailored graduates. They are found to lack interpersonal skills (verbal and written), commercial orientation, positive work attitudes, like timekeeping. They are perceived to have unrealistic expectations of special treatment or rapid progression on one hand and weak career management in presenting themselves to employers and showing their skills to best effect in job applications and interviews on the other.

Soft skills also understood as human skills or behavioral skills are the basis of most recruitments in professional schools (Coll & Zegwaard, 2006). Most recruiters appeal to the academic institutions to produce more employable graduates (Kember and Leung, 2005; Barrie, 2006) who can be put to job work with the least possible lag between their hiring and becoming productive at work. Research studies by Rainsbury et al. (2002) indicate that academic institutions have a lopsided focus on domain knowledge, rather than on imparting skills to the students. Therefore, the recruiters are looking at skills like initiative-taking, communication ability (both verbal and non-verbal), problem-solving and interpersonal skills which are of prime importance for students to be job-ready (Hind et al., 2007; Maher & Graves, 2007; Tewari & Sharma, 2016).

According to Lees (2002), from the perspective of HEIs employability is about producing graduates who are capable and enable the effective functioning of their employer organizations. In other studies, organizations also indicate the need to develop practical perspectives and skills towards innovation at the undergraduate level, to aid in organizations' goals and operations. Studies showed a gap in these skills across various developed economies. (Maiden & Kerr, 2006; Manpower, 2005).

The Middle East context

The economies in the middle-east are trying to reduce their dependence on oil. Much of the development in this region has been contributed by the buoyant oil revenue from the start of the century (IMF, 2008). But the volatility in oil prices from 2014 has pushed the governments to seriously look at diversification of the economy (IMF, 2016). This need has been consistent across economies, both rich in oil reserves and those that are not so endowed. The latter have a pressing need to identify alternate sources of revenue which imply the development of a knowledge economy. Sultanate of Oman belongs to the second group and

the nations Vision 2020 and 2040 are a testimony to governments initiative to act. Therein, Human Capital is identified as a crucial resource to achieve this critical goal.

There have been very few studies in the Middle East on employability skills and Human Capital. Belwal, Priyadarshi, and Al Fazari(2017) aimed to assess the students' perspectives on the most common graduate attribute driving employment of college graduates in Oman. Findings suggest that computing skills, ability to engage in teamwork, English language proficiency, prior training, and the graduate's personality are considered the most important for employment. Abbas, Ali, and Bibi in 2018 focused on finding out the gap between the skills expected by the banking industry and those that are possessed by graduates. The study found significant gaps in skills such as listening, problem-solving, communication, leadership, interpersonal, analytical, self-management, numeracy, and critical thinking.

Insufficient research interest in this area can be justified considering this quandary that has developed just in the last decade. There has been a change in the supply and demand equation of Human Capital that existed from 1970 till the 2014 oil crisis. There was a steep increase in oil exploration and production in this region, generating demand for employees in this sector. Since the countries had a sparse population and also the available personnel lacked the right skill sets, they became lucrative job markets for expatriates from all around the world. Over the years the scenario changed. With increases in oil revenues and trade surplus, the governments invested in educational infrastructure (IMF, 2016), and today the local higher education institutions are churning out an increasing number of graduates from different programs. Also, from 2014 onwards the volatility in the oil market has led to decreases in the economic activity in the region, thereby affecting demand for fresh graduates. The developments have given rise to the need to study the factors of Human Capital, thus providing information to the stakeholders to formulate suitable measures to propel them towards their respective goals.

Need for the study

A survey of U.S. information technology employers believed that in-house courses could contribute to embedding technical skills. However such measures were not so effective in developing the other employability factors (BATEC 2007: 34). This explains the emphasis placed on employability skills when recruiting and hence the onus on the HEI to develop these in graduates.

Studies have failed to find conclusive evidence on what factors contribute to employability and advise on seeking employer opinions on their needs (Jackson, 2009). Further, Hendry (2003) expresses that any amount of government intervention or investment cannot bear fruit in the enhancement of skill and personal attributes to alleviate employability problems unless higher education institutions and business organizations communicate concerning the Human Capital factors needed by the industry. To this effect, Kramer-Simpson et al. (2015) recommend frequent, structured interactions with employers in the different industries to create job-ready college graduates.

Considering the information collected from the review of literature, it is evident that there is a gap in the literature as to what is expected by the employers in Oman from their recent college recruits in terms of Human Capital factors. This study aims to bridge the gap and the objectives of the study are as follows; (1) To investigate if there is an association between industry type and the choice of what are the most or least important skills in each category (hard skills, soft skills, and/or personal characteristics)? (2) To assess the degree of

importance of the three factors of Human Capital/ employability in future graduates across industries; (3) To assess the “expected-reality” gap in the factors and its analysis across industries.

The findings can provide insights and inputs to the educational institutions and the student community, thereby enhancing their chances of employment and the creation of a knowledge economy

METHODOLOGY AND PROCEDURES

The information from the literature was collated to identify the items or characteristics belonging to each category of Human Capital factors namely, hard skills, soft skills, and personal characteristics. The research was conducted in two phases: Qualitative and Quantitative. In the qualitative phase, discussions were conducted with human resource experts and recruiters from the industry to identify any additional skills apart from the ones identified in the literature review. The questionnaire was prepared using the inputs from the literature review, insights provided by the expert and industry participants, and the objectives of the study.

Data was collected from 8 industries across the private sector in Oman over a period of 3 weeks in April 2018. The industries considered included oil and gas, banking, insurance, hotels, communication (including businesses in Advertising and Promotions), law firm, construction, and other manufacturing. The companies in each industry were chosen by random sampling method to reduce bias.

Data analysis

Data collected from 35 respondents from the private sector in Oman was analyzed. Since the sample size was only 35, a contingency table was constructed for the variables of interest indicated a cell count of less than 5. Therefore, the Fisher’s Exact Test was used to conclude the existence (or absence) of association between the variable in the research questions.

Statement of null hypotheses

H1 There is no association between the industry type and the employer’s choice for the most important Human Capital factor.

H2 There is no association between industry type and the importance of items in each category of Human Capital factors.

H3 There is no association between the Human Capital factor and the corresponding “expected-reality” gap.

H4 There is no association between the industry type and the Human Capital “expected-reality” gap.

RESULTS AND DISCUSSION

Testing of hypotheses

H1 There is no association between the industry type and the employer’s choice for the most important Human Capital/ employability factor

The study attempts to investigate if there is an association between the industry type and the employer’s choice for the most important Human Capital/ employability factor.

Fisher’s Exact Test was performed between the industry type and the Human Capital factors. The results are as indicated below.

Table 1. Results of Chi-Square test (Fisher Exact Test) between Industry type and the Human Capital factors

	Value	df	Asymptotic (2-sided)	Significance	Exact Sig. (2-sided)
Pearson Chi-Square	21.435	14	.091		.071
Likelihood Ratio	26.624	14	.022		.043
Fisher's Exact Test	19.500				.037
N of Valid Cases	35				

Source: Author

The p-value is 0.037 which is less than 0.05 supporting the rejection of the null hypothesis. In other words, there is an association between the industry type and the employer’s choice for the most important employability factor. From Fig. 1, we have the following conclusion (for each industry): The most important Human Capital/employability factor in the Banking industry is “personal characteristics,” in the Communication industry are both “hard skills” and “soft skills,” in Hotels industry is “soft skills,” in the insurance industry are “personal characteristics” and “soft skills,” in the manufacturing industry is “hard skills,” in Oil and Gas industry is “soft skills,” in Professional Services industry is “hard skills,” and in other industries (Real estate and Trading) are “hard skills” and “personal characteristics.”

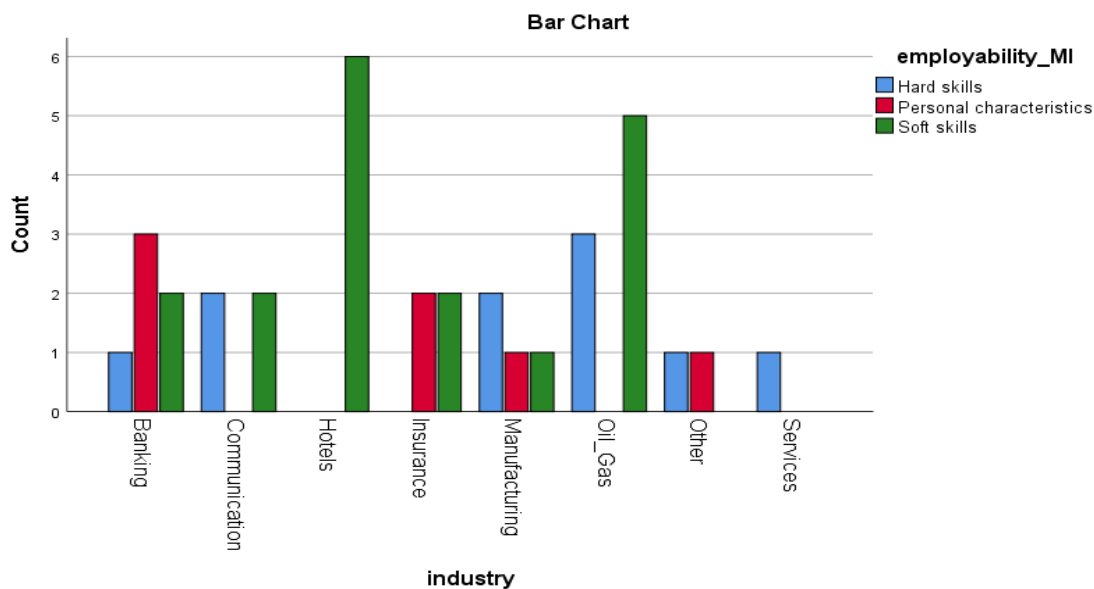


Figure 1. Industry-wise “Most Important” Human Capital/employability factor

H2 There is no association between industry type and importance of items in each category of Human Capital factors

The industry respondents were given a list of skills under each category of Human Capital factors (Hard Skills, Soft Skills and Personal Characteristics) and were required to indicate the “most important” and “least important” skills under each category. Fisher’s Exact Test was performed using industry type and the “Most” and the “Least” important Human Capital factors and the results are indicated in Table 2.

Table 2. Results of Chi-Square test (Fisher Exact Test) between Industry type and the skills under each category of Human Capital factors

Variables	Value	df	Fisher's Exact Test Exact Sig. (2-sided)
Hard Skills (Most Important)	45.042	42	0.262
Hard skills (Least important)	57.701	56	0.670
Soft Skills (Most Important)	94.056	77	0.0001
Soft skills (Least important)	68.811	63	0.287
Personal Characteristics (Most Important)	59.977	56	0.567
Personal Characteristics (Least important)	49.055	42	0.206
N of Valid Cases	35		

Source: Author

From the above analysis, it is evident that only for “most important” soft skills, the p-value is 0.0001, which is less than 0.05. Hence, the null hypothesis is rejected only for this category. This confirms that there is an association between the industry type and the employers’ choice for what is considered as most important in soft skills. The findings reveal that the choice of an employer for what is considered as the most or least important skill in each Human Capital factor is independent of their industry type except for the choice of the most important soft skill. For all the other variables, there is enough evidence to support the null hypothesis. In other words, there is no association between the industry type and the employer’s choice of skills except for the most important soft skills. Furthermore, these can be found by considering the frequencies of preference. As shown in Fig. (2) we have the following conclusions for the “most important” soft skills (for each industry):

The most important soft skill in the Banking industry is “teamwork,” in Communication industry is “creativity and innovation,” in Hotels industry is “good etiquettes,” in the Insurance industry is “oral communication,” in the Manufacturing industry is “critical thinking/judgment,” in Oil and Gas industry is “other skills,” in Professional Services (Legal and Accounting) industry is “time management,” in other industries, which are Real Estate and Trading, the most important skills indicated are “critical thinking/judgment” and “written communication.”

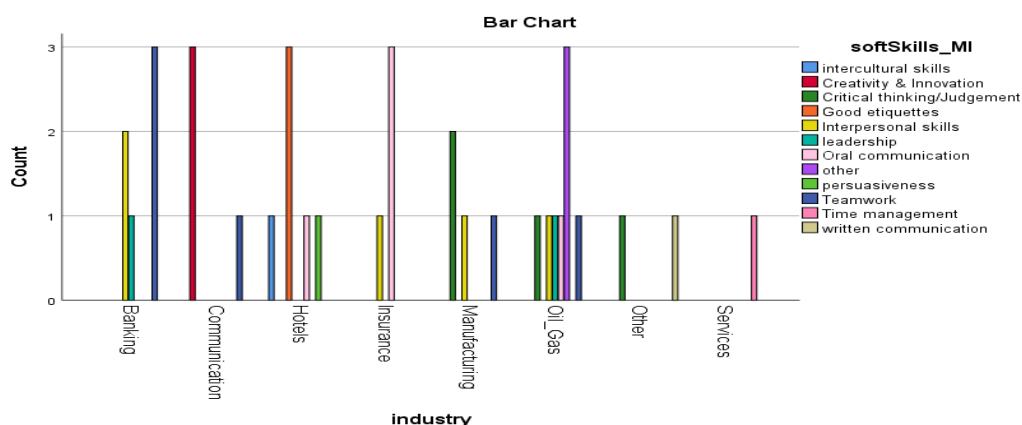


Figure 2. “Most Important” (MI) soft skill across Industries

For the other variables – “most” and “least” important hard skills and personal characteristics and “least important” soft skills - the conclusions (independent from the industry) are as follows:

The hard skill and personal characteristics considered most important is “job-specific technical skills/knowledge” and “positive attitude” respectively. The least important are

“math-based skills” among hard skills, “intercultural skills” among soft skills, and “emotional quotient” among personal characteristics.

We can combine the results in this section with the results in the previous to understand more about the employer’s needs as indicated in Table 3. For instance, from the previous section the most important Human Capital/employability factor in the Banking industry are the “personal characteristics,” and the results in this section indicate that the most important “personal characteristic” is “positive attitude.” Thus, for a current graduate who wishes to work in the banking industry should focus on his personal characteristics and especially, the positive attitude. Other similar conclusions are for employment and success in Communication industry, “job specific technical skills/knowledge” and “creativity and innovation” is important; in Hotels the need is for “good etiquette.” Insurance industry looks for graduates with a “positive attitude” and “oral communication,” Manufacturing gives maximum importance to “job specific technical skills/knowledge” and the Oil & Gas industry prefers graduates with “other skills.” For employment in Accounting firms and Legal agency, “job specific technical skills/ knowledge” is most preferred and in Real Estate and Trading (“others”), graduates need to have “job specific technical skills/ knowledge” as well as a “positive attitude.”

Table 3. Summary of results of most important Human Capital (HC) factors and items
Industry-wise

Sl.No.	Industry	Most Imp. (MI) HC factor	MI Soft skill	MI Hard skill	MI Pers. Char.
1	Banking	Personal characteristics	Team work		
2	Communication	Hard & Soft skills	Creativity & Innovation		
3	Hotels	Soft skills	Good Etiquettes		
4	Insurance	Personal characteristics & Soft skills	Oral communication		
5	Manufacturing	Hard skills	Critical thinking/ judgement	Job specific technical skills/ knowledge	Positive attitude
6	Oil & Gas	Soft skills	Other skills		
7	Professional services (Law & Accounting firms)	Hard skills	Time management		
8	Others (Real Estate & Trading)	Hard skills & Personal characteristics	Critical thinking & Written communication		

H3 There is no association between the Human Capital factors and factor-wise “expected-reality” gap

The expected-reality gap was measured by a 5-point Likert scale where “1” represented “level much lower than expected,” and “3” was a “level equal to what was expected” and “5” was a “level much higher than expected.”

Fisher’s exact test was used to check the association. The p-value for each of the three factors was much higher than 0.05, indicating the absence of association and hence acceptance of null hypothesis in all the factors.

However, by comparing the means of the gap for the three factors, we can see that the soft skill level of current graduates is perceived to be less than expected, as compared to hard skills and personal characteristics. Current graduates should focus more on developing their soft skills to be closer to what the employers are expecting.

Table 4. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
hardSkills_GAP	35	1	5	2.60	.946
softSkills_GAP	35	1	4	2.49	.818
persChar_GAP	35	2	4	2.80	.759

Source: Author

H4: There is no association between the industry type and the “expected-reality” gap found in each of the factors.

First, the degree of association between the industry and the combined value of the “expected-reality” gap was conducted. This resulted in a value much higher than 0.05. This provided enough evidence to suggest that there is no association between the industry type and the gap found. However, we felt a need to explore the association for gaps individually in each factor to get a clearer picture. Fisher’s exact test revealed the information provided in Table 5.

Table 5. Results of Chi-Square test (Fisher Exact Test) between Industry type and the skills under each category of Human Capital factors

Variables	Value	df	Fisher's Exact Test Exact Sig. (2-sided)
Gap in Hard Skills	27.934		0.573
Gap in Soft skills	18.945		0.658
Gap in Personal Characteristics	19.096		0.051

Source: Author

The “expected-reality” gap in hard skills and soft skills is independent of the industry type. In other words, being from a certain industry type does not affect the skill gap perceived by employers, i.e. all industries perceive the same gap. By considering the previous results of null hypothesis H3, we can say that industries indicated the mean value of **2.60 and 2.49** for the gap in hard skills and soft skills, respectively. They are getting less than expected on average.

In the case of the gap in personal characteristics, since the p-value is was found to be very close to 0.05, further analysis was undertaken to understand the nature of the gap across industries. The following information as presented in Fig. 3 was obtained.

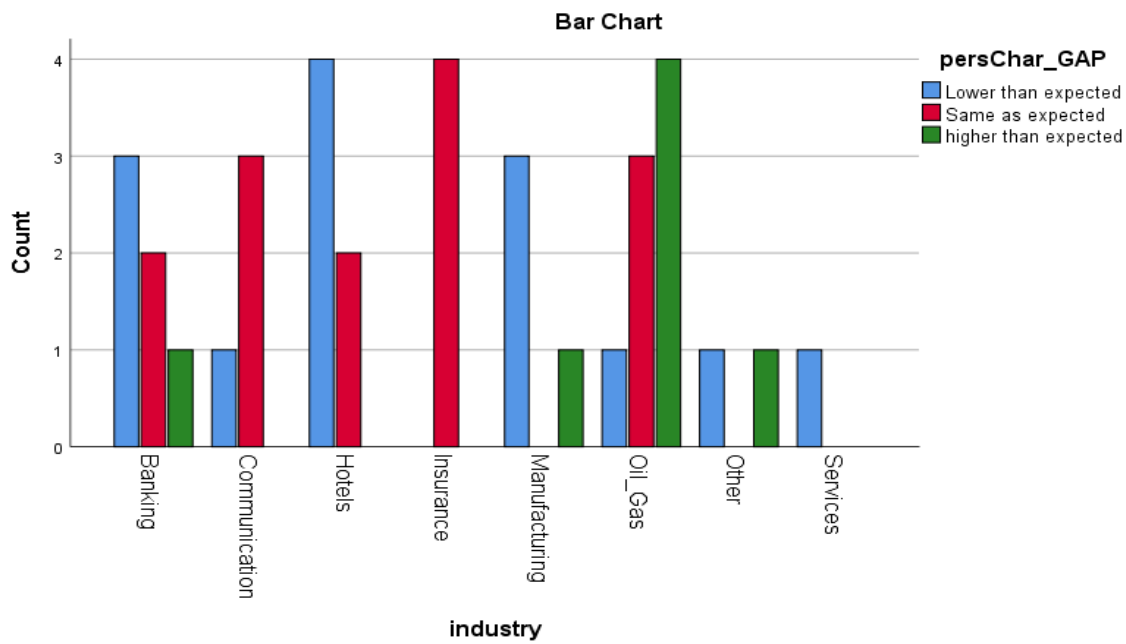


Figure 3. “Expected-reality” Gap in Personal Characteristics across Industries

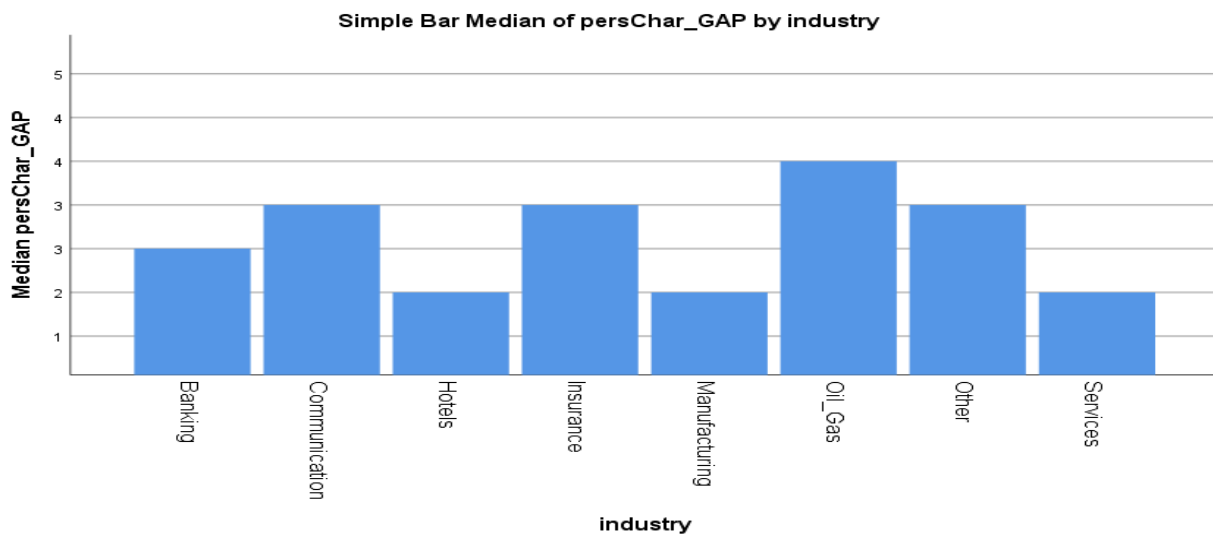


Figure 4. Gap in Personal Characteristics by Industry

Hotels, banking and manufacturing industries are having the most difficulty when trying to find graduates with the needed personal characteristics. However, Oil and Gas companies are managing to get candidates who are able to exhibit characteristics higher than the recruiters’ expectations.

As noted earlier, in Banking, Insurance, Real Estate and Trading industry, the most important Human Capital factor/ employability are “personal characteristics” and specifically, a “positive attitude.” The high gap perceived in graduates on this factor does not augur well for the graduating students or the organizations’ future growth potential. Graduates looking forward to a career in these industries should try to consciously develop and maintain “positive attitudes” to be successful.

CONCLUSION

This study focused on the Human Capital factors desired by the employers from different industries in the Sultanate of Oman, which in turn can be considered important for the employability of recent college graduates. The Human Capital factors considered are hard skills, soft skills, and personal characteristics. The research had four research objectives from the employers' perspective – first, to identify the most important Human Capital/employability factor; second, to identify the most important and the least important item in each of the human factor categories and its association across industries; third, to investigate the existence and the extent of “expectation-reality” gap across industries and finally, the extent of association of the gap to the type of industry. The findings reveal that the most important Human Capital/employability factor desired varies from industry to industry, indicating that current graduates desiring employment in a particular industry should take cognizance of this and develop themselves accordingly. In the attempt to find the most important items in each of the three categories of Human Capital/employability factors, it was found that only the most important of the soft skills vary from one industry to the other, while the other categories are independent of the nature of the industry. The hard skills and personal characteristics considered most important across all industries are “job-specific technical skills/ knowledge” and “positive attitude” respectively.

The analysis on the nature of the gap between the expectation of the employers and the skills they find in the current graduates revealed that the “expectation-reality” gap is perceived across all industries but the significance could not be established given the sample size. The descriptive statistics reveal that the gap perceived in soft skills is the highest, followed by hard skills and then, in personal characteristics. This indicates that the current graduates aiming to get employed in industries where soft skills are considered important might find it difficult to get employed and also, the organizations may perceive them to be creating less value for the organization. However, the gaps perceived were not associated with the industry type except for Personal Characteristics. The finding indicates that all of the industries were perceiving similar gaps in the graduates from the various programs in the Hard and Soft Skills. The perceived gap in Personal characteristics for each industry was also identified.

The findings can be of immense value to several stakeholders. Students can assess what areas they need to develop to get employed in the industry of their choice. The educational institutions can take note of the level of their graduates' attributes and the deviation from the desired. This would help them to design intervention strategies to develop “work-ready” graduates. The employers can formulate strategies to develop the skills desired in their industry but are lacking in the current graduates recruited and in existing employees. This would be necessary to enhance the future growth and success of the organization. To the government, the findings may serve as performance indicators of the education system in the country in preparing the nation for future competitiveness and thereby, help them conceive a support plan and guidance policy.

ACKNOWLEDGEMENT

I would like to acknowledge the support from Ms. Theresa Potter, Franklin University USA for proofreading and language correction. Also, my acknowledgment is due to Mr. Souleimane Cheikh for his help on statistical analysis.

Conflict of Interest

The author declares no conflict of interest.

Funding

No funding was received from any source for this research study

REFERENCES

- Abbasi, K. F., Ali, A. & Bibi. N. (2018). Analysis of skill gap for business graduates: managerial perspective from banking industry. *Education + Training*, 60(4), 354-367. <https://doi.org/10.1108/ET-08-2017-0120>
- Abed, T. G. and Davoodi, R. H. (2003). Challenges of Growth and Globalization in the Middle East and North Africa. *International Monetary Fund*. www.imf.org
- Assiter, A. (Ed.) (1995). *Transferable Skills in Higher Education*. Kogan Page.
- Barrie, C. S. (2006). Understanding what we mean by the generic attributes of graduates. *Higher Education*. 51(2),215-241. <https://doi.org/10.1007/s10734-004-6384-7>
- BCA (2006) *Changing Paradigms: Rethinking Innovation Policies, Practices and Programs*. Melbourne: Report by the Business Council of Australia.
- Belwal, R., Priyadarshi, P. & Al Fazari, M. H. (2017). Graduate attributes and employability skills. *The International Journal of Educational Management*; Bradford, 31(6), 814-827. <https://doi.org/10.1108/IJEM-05-2016-0122>
- Blom, A. and Saeki, H. (2012). Employability and skill sets of newly graduated engineers in India: A study. *The IUP Journal of Soft Skills*, 6(4).
- Boateng, J., Eghan, A. and Adu, M. (2015). Enhancing graduate attributes and employability through standards aligned curriculum delivery. *International Journal of Economics, Commerce, and Management*, 3(1), 1-17.
- Butler, M. and Gheorghiu, L. (2010). Evaluating the skills strategy through a graduate certificate in management: an experiential learning theory approach. *Education + Training*, 52 (6/7), 450-462. <https://doi.org/10.1108/00400911011068414>
- Candy P and Crebert R (1991). Ivory tower to concrete jungle: The difficult transition from the academy to the workplace as learning environments. *The Journal of Higher Education* 62(5), 570-592. <https://doi.org/10.1080/00221546.1991.11774153>
- Coll, R. K. and Zegwaard, K. E. (2006). Perceptions of desirable graduate competencies for science and technology new graduates. *Research in Science and Technological Education*. 24(1), 29-58. <https://doi.org/10.1080/02635140500485340>
- Harvey, L. (2005) Embedding and Integrating Employability. *New Directions for Institutional Research*, 128, 13-28. <http://dx.doi.org/10.1002/ir.160>
- Hendry, C. (2003). Applying employment systems theory to the analysis of national models of HRM. *International Journal of Human Resource Management*, 14(8), 1430-42. <https://doi.org/10.1080/0958519032000145837>
- Holden, R., & Hamblett, J. (2007). The transition from higher education into work: Tales of cohesion and fragmentation. *Education & Training*, 49(7), 516–585. <https://doi.org/10.1108/00400910710832014>

- IMF (2016, April). Economic Diversification in Oil-Exporting Arab countries, prepared for *Annual Meeting of Arab Ministers of Finance*.
- IMF. (2008), *World Economic and financial surveys, Regional Economic Outlook: Middle East and Central Asia*, www.imf.org
- Jackson, D. (2009). Undergraduate management education: Its place, purpose and efforts to bridge the skills gap. *Journal of Management & Organization*, 15(2), 206-223. <https://doi.org/10.5172/jmo.837.15.2.206>
- Jeswani, S. (2016). Assessment of employability skills among fresh engineering graduates: a structural equation modeling approach. *The IUP Journal of Soft Skills*, 10(2).
- Kember, D. and Leung, Y. P. D. (2005). The influence of the teaching and learning environment on the development of generic capabilities needed for a knowledge-based society. *Learning Environments Research*, 8(3), 245-266. <https://doi.org/10.1007/s10984-005-1566-5>
- Kramer-Simpson, E., Newmark, J. and Ford, J. (2015). Learning beyond the classroom and textbook: client projects' role in helping students transition from school to work. *IEEE Transactions on Professional Communication*, 58(1), 106-122. <https://doi.org/10.1109/TPC.2015.2423352>.
- Martell, K. and Carroll, S. (1994). Stress the functional skills when hiring top managers. *HR Magazine*. 39(7), 85-7.
- Nilsson. S. (2010). Enhancing individual employability: the perspective of engineering graduates. *Education + Training*, 52(6/7), 540-551. <https://doi.org/10.1108/00400911011068487>
- Pollard. E., Hirsh, W., Williams, M., Buzzeo, J., Marvell, R., Tassinari, A., Bertram, C., Fletcher, L., Artess, J., Redman, J., and Ball, C. (2015). Understanding employers' graduate recruitment and selection practices. Reserch Paper 231, Department of Business, Innovation and Skills. <http://dera.ioe.ac.uk/id/eprint/24683>
- Rainsbury, E., Hodges, D., Burchell, N .and Lay, M. (2002). Ranking workplace competencies: Student and graduate perceptions. *Asia-Pacific Journal of Cooperative Education*, 3(2), 8-18.
- Sloka, B., Kantāne, I., Buligina, I., Tora, G., Dzelme, J., Buševica, R., ... & Tora, P. (2015). Employers' needs and expectations for qualified employees: case study on the opinions in one of the regions in Latvia. *Economics and Business*, 27(1), 69-75 <https://doi.org/10.1515/eb-2015-0011>
- Starkey, K and Tempest, S. (2008). A clear sense of purpose? The evolving role of the business school. *Journal of Management Development*. 27(4), 379-390. <https://doi.org/10.1108/02621710810866732>
- Tewari, R., & Sharma, E. (2016). An Investigation into the Expectations of the Recruiters and the Preparedness of the Management Graduates for Effective On-Job Perormance *IUP Journal of Soft Skills*. 10 (1), 14-24.
- Yorke, M., & Knight, P.T. (2004). *Embedding Employability into the Curriculum*. York: Learning, Teaching and Support Network (LTSN).
- Zainuddin, M. and Rejab, M. (2010). ME generation's' entrepreneurship degree programmes in Malaysia. *Education + Training*, 52(6/7), 508-527. <https://doi.org/10.1108/00400911011068469>