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Priority Competencies for Entry-level Interior Designers in the Saudi Labour Market

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Abstract

This study aimed to identify the priority competencies that entry-level interior designers had developed to practise the profession and the differences in the priority of these competencies between different graduation years. A questionnaire comprising four axes was distributed to 53 students who had graduated from interior design programmes between 2015 and 2019 and were practising the profession.

The results indicated that the competencies on all axes were considered by entry-level interior designers to be priorities for development, while those that obtained the highest scores were related to materials and lighting, client relationships and management, tasks related to project planning, resource and cost management, contract management, project supervision, and English language proficiency. In general, the highest priority competencies were those related to project management; however, the results showed that there were no differences between the priority of these competencies in different graduation years.

The findings may help interior design programme management by highlighting the competencies needed in the labour market. In addition, it may raise academic advisers' awareness to assist students to choose the appropriate optional courses and activities that contribute to the achievement of programme learning outcomes and labour market requirements, which, in turn, may reduce the time required for training and the speed of entering the profession.

Keywords: interior designer competencies; labour market; interior design; entry-level interior designers; interior design practice

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1. Introduction

The Ninth Development Plan of Saudi Arabia's Ministry of Economy and Planning highlighted positive growth in the field of building and construction and the promise of developing national manpower and raising its professional competencies to improve the quality of the sector's products (MEP, 2017). The Vision 2030 initiative of the Kingdom of Saudi Arabia (KSA) has opened up many opportunities that have led to the growth in this field (Vision 2030); the interior design sector is considered one of the largest in the KSA, and its increasing growth has led to a new demand for qualified designers (Al-Zahrani, 2016).

Interior design is a recent specialisation in the KSA, first initiated in 1999 by Dar Al-Hekma University with the introduction of three new majors, including the Interior Design Programme (Dar Al Hekma, 2020). According to Al-Zahrani, male students had previously enrolled in university arts programmes to train to work in the interior design field due to the shortage of interior design departments for male students (Al-Zahrani, 2016). However, with this rapid development and the increasing demand for qualified national employees, it is expected that new academic programmes will be launched that serve all of the fields related to the building and construction sector. The learning outcomes of these academic programmes will also need to be periodically reviewed to ensure compatibility with the demands of the labour market. The processes of measuring learning outcomes may go through multiple stages that require time and effort, the researchers stated that studies related to labour market requirements can increase awareness in the academic field to support students by enriching their knowledge and enabling them to develop skills that increase their competencies before graduation (Alawad, Bazuhair, Alhojaly, & Mossawa, 2020).

1.1 Professional practices in interior design

Interior designers must undertake academic study to practice the profession: the field does not simply entail colour scheme choices or the arrangement of furniture. As such, educational preparation in interior design allows future

designers to apply creative and technical solutions to achieve an internal environment built with regard to functional and aesthetic considerations. For example, the implementation of building codes, knowledge of safety regulations, and support for environmental issues, as well as an understanding of the basic construction and mechanical systems of buildings, are all critical. The designer also seeks to understand the needs and requirements of the client by formulating space plans; choosing colours, materials, and finishes that achieve the design concept appropriately; choosing and equipping furniture specifications and related drawings; producing lighting schemes; managing schedules, budgets, and contract documents; and coordinating and cooperating with other design professionals within the project (Piotrowski, 2011). The interior designer can be a manager, an employer, or even a teacher, and without an understanding of the practice of the profession, their success will be limited (Piotrowski, 2014).

One of the aims of higher education institutions is to ensure the graduate attributes and learning outcomes that are compatible with professional standards and labour market needs, a goal that necessitates different strategies to achieve it. Huber and Waxman suggested that students should gain experience outside the classroom because entry-level interior designers are likely to work in a variety of tasks within the profession and, therefore, should build the personal skills and experiences that support their formal education and are consistent with their profession goals (Huber and Waxman, 2019). Deficits in graduate competencies that are required by employers cause difficulties in obtaining a job (Ntinyari, 2014) and cost the employer in terms of training expenses and on-boarding time (Huber and Waxman, 2019; Ntinyari, 2014); employers, ultimately, need graduates who are ready to work and have the appropriate experience (Alrifa and Raju, 2019; Huber and Waxman, 2019).

1.2 Higher education outcomes and the labour market

There have been many studies on competencies and the labour market in general; however, those specific to the interior design profession are limited. One study on the compatibility between interior design programme outcomes and labour market needs in KSA found that graduates had good professional knowledge and skills and good communication skills, although a shortage was found in the project management skills that are required by employers, for example, in tasks related to budgets, contracts, schedules, and reports (Alawad et al., 2020). Combining the requirements of the profession and the labour market by analysing design projects, Bettaieb & Alawad (2016) identified six essential competencies of the interior designer, incorporating practical, research-analytical, service, management, communication, and technical aspects. The authors further determined the most vital skills for the interior design labour market, namely, professional knowledge and skills, creativeness, effective communication, time management, and marketing skills. Another study examined the role of Saudi university arts and interior design departments in the Saudi interior design sector and observed that interior design departments contributed only slightly to its development, possibly because some Saudi Universities do not have an interior design programme or their programmes are limited to females (Alawad, et al., 2020).

The Saudi market still needs highly qualified professionals to continue its growth and enter into global competition (Al-Zahrani, 2016). Research undertaken with senior design students at one college in Kuwait aimed to examine the competencies required by international design firms and showed that the students had performed below the expected average in some aspects related to colour and light, universal design, building codes, materials and furniture selection, drawing, cultural perspectives, and design solutions. Qualified interior design students with competencies desired by international design firms will be able to enter the global market by matching the expectations for entry-level interior designers (Alansari, Parkinson, Gaines & Alnajadah, 2016). Tarver (2013) further demonstrated that new interior design graduates felt they were more prepared in the five professional practice competencies of space planning; design concepts and sketching; considering functional, aesthetic, and safety standards during space planning; programming; and colour, material, and finish selection. On the other hand, the graduates felt less prepared in competencies related to project preparation and implementation, such as management of the client's contract files, budgets, schedules, contracts, and monitoring and reporting during the project stages and after completion.

Meanwhile, Alrifa and Raju (2019) undertook to develop a framework for employment skills in interior design education and determine the relationship between design graduate skills and employer satisfaction. The study highlighted that interior designers should have soft skills "communication skills, problem-solving skills, teamwork skills" and hard skills "style skills, project management skills, and computer skills", in addition to personal attributes and skills that focus on more practical training. Some specific topics that should be taught to students related to business, economics, ethics, technology, and research methods were also defined. Further, employers stressed that graduates performed the best in dealing with programs, written and oral communication skills, and negotiation and decision-making skills but lacked social skills.

1.3 Competencies needed in the labour market

Interior designers have an effective role in improving individuals' quality of life (Alawad, et al., 2020); facing an increasingly complex task to meet the physical, psychological, and aesthetic requirements of the user; and staying abreast of technological developments and legal responsibilities (Baker & Sondhi, 1989). To achieve this, the interior designer should keep constantly updated with the developments in their field (Bettaieb & Alawad, 2016). Hernecheck, Rettig, and Sherman (1983) reported the views of interior design professionals about the required competencies for entry-level interior designers and the importance of learning these competencies during the study period or when practising the profession. The professionals stated that "oral communication skills, furniture arrangement, space planning, and color theory" were more important competencies for entry-level interior designers than 'presentation technique' and that "history of architecture, perspective drawing, color theory, and lettering and line drawing" must be learned during the study period. Other study indicated that personal characteristics and skills such as being "ethical, organized, self-motivated, [a] team player, resourceful, flexible, [effective at] decision making, self-confident, and [demonstrating] leadership" and communication skills such as "listening and retention, oral and written communication, [and] visual presentation" have also been cited by employers as more important competencies than computing and technical skills when employing an entry-level interior designer (Ntinyari, 2014).

Huber and Waxman (2019) identified employability priorities for entry-level interior designers and compared them to those of management-level designers in the United States. Amongst soft skills, hard skills, and experiences, the results indicated that soft skills were appreciated the most in all cases. In another study, Huber (2018) investigated what is most desired when firms are hiring entry-level interior design candidates and how they are evaluated. The hiring practitioners involved evaluated the desired attributes through a heuristic process and subjective strategies, and between soft skills, hard skills, or previous experience, the results showed that the most desired skills were a 'strong work ethic and positive attitude', which are considered soft skills. Cultural compatibility with the firm was also appreciated, and, in total, the six highest-scoring skills were all soft skills. Baker and Sondhi (1989) also examined the competencies expected from entry-level interior designers by interior design firms, revealing that businesses seek critical thinking based on design theories, effective oral communication and presentation skills, the application of ethics in the work place, maturity, enthusiasm, and a pleasing appearance.

In summary, extant studies have highlighted the compatibility of academic programme outcomes with the requirements of the labour market and the competencies that contribute to the inclusion of new graduates in the labour market, professional requirements, and employer preferences. These studies have suggested several recommendations that would improve and develop the outcomes of interior design programmes. However, during the literature review, only a very limited number of studies were found that have focused primarily on the competencies of entry-level interior designers and the labour market in the KSA, a scarcity that can be traced back to the field's recent specialisation in the Kingdom. The lengthy periods between research focused on the competencies of entry-level interior designers were also noted, which induced the researchers to combine all of the sources that were found to form a base of literature specialised in interior design.

Accordingly, the present study posed the following research questions:

Q1. What are the priority competencies that entry-level interior designers have developed to practice the profession?

Q2. How did these priorities differ between graduation years?

Although many studies have focused on learning outcomes and the labour market in general, the present study is among the few specifically concerned with academic interior design education and its relationship to practising the profession. The results of this study are expected to benefit:

Interior design programme management by focusing the required competencies needed in the labour market.

Raising student academic advisers' awareness to assist students to choose the appropriate optional courses and activities that contribute to the achievement of programme learning outcomes and labour market requirements. This may also contribute to reducing the time graduates spend in training and their speed of entry into practising the profession.

In the present study, entry-level interior designer means an individual at the initial stage of entering the profession after graduating from an academic programme and committing themselves to work responsibility. Competencies represents the knowledge, skills, obligations, and abilities related to a specific profession that enable a person to act effectively in a job or position (Ntinyari, 2014).

2. Methodology

A descriptive analytical approach was taken to determine the most important competencies that students gain in the study of interior design. The learning outcomes and study plans of several interior design academic programmes in the KSA that were available at the universities' official websites were reviewed to build the axes of a questionnaire, along with the abovementioned literature. Many researchers have used the questionnaire tool to identify required competencies (Ntinyari, 2014; Tarver 2013; Hernecheck, Rettig, & Sherman, 1983). The study was conducted in the KSA's Western Region in 2020 with graduates of interior design programmes from 2015 to 2019.

2.1 Sample participants

Participants in this study were 53 female graduates of interior design academic programmes in the KSA. The sample was selected according to the following criteria:

- Western Region graduates.
- Graduated between 2015 and 2019 (2020 graduates were excluded because they had not yet entered the profession due to the impact of the COVID-19 crisis).
- Practicing the profession of interior design.

2.2 Instrument and data analysis

Previous studies have differed in their classification of competencies, for example, dividing them by project phases (Alawad, et al., 2020 & Bettaieb & Alawad, 2016); soft, hard, and personal skills (Alrifa and Raju, 2019); and soft skills, hard skills, and experience (Huber and Waxman, 2019).

The questionnaire asked participants for general information, followed by their year of graduation, type of work, and workplace activity. The four questionnaire axes were specialist knowledge, specialist skills, project management, and personal characteristics. The questionnaire concluded by asking an open-ended question about the challenges that the graduates faced, as well as requesting development suggestions. The researcher explained the study's purpose to the students and assured them that their responses would be anonymous.

2.3 Statistical processing methods

SPSS software was used for data analysis. A 5-point Likert scale was employed to analyse and describe the data (mean, standard deviation) for each question.

2.3.1 Questionnaire validation

To verify the validity and internal consistency of the questionnaire, a Pearson Correlation coefficient was used to measure the relationship between each vertebra and the overall score of the axis to which it belonged (Table 1), as well as between each axis and the overall degree of the questionnaire.

Table 1. Item correlation coefficients for each axis

Axis	Item	Pearson Correlation	Item	Pearson Correlation
Specialist knowledge	1	0.768**	5	0.783**
	2	0.673**	6	0.389**
	3	0.751**	7	0.403**
	4	0.520**	8	0.455**
Specialist skills	1	0.782**	4	0.592**
	2	0.670**	5	0.813**
	3	0.709**	-	-
Project management	1	0.764**	5	0.735**
	2	0.769**	6	0.764**
	3	0.833**	7	0.796**
	4	0.835**	-	-
Personal characteristics	1	0.638**	6	0.614**
	2	0.799**	7	0.664**
	3	0.750**	8	0.501**
	4	0.599**	9	0.542**
	5	0.696**	-	-

** Function at (0.01)

Table 1 demonstrates that all correlation coefficients between each vertebra and the axis belonging to it were positive and statistically significant at the 0.01 level.

Table 2. Correlation coefficients for each axis in the overall degree of the questionnaire

Axis	Pearson Correlation
Specialist knowledge	0.738**
Specialist skills	0.767**
Project management	0.781**
Personal characteristics	0.842**

** Function at (0.01)

Table 2 shows the correlation coefficients for each axis with the overall degree of the questionnaire. All were positive and statistically significant at the 0.01 level, indicating that all questionnaire axes measured the goal for which they were set.

2.3.2 Stability

To verify the stability of the questionnaire, a Cronbach's Alpha test was performed for the axes of the questionnaire (Table 3).

Table 3. Stability values

Axis	Cronbach's Alpha coefficient values
Specialist knowledge	0.755
Specialist skills	0.757
Project management	0.892
Personal characteristics	0.820
Total	0.910

As shown in Table 3, the values of the Cronbach's Alpha coefficient for the axes of the questionnaire were high, confirming that the questionnaire had a high degree of stability.

3. Results

The 53 interior design programme graduates were analysed over five years. The number of respondents per graduation year is shown in Table 4.

Table 4. Graduation years

Graduation Year	Frequency	Per Cent
2015	11	20.8
2016	10	18.9
2017	10	18.9
2018	11	20.8
2019	11	20.8
Total	53	100.0

Table 4 illustrates that there were between 10 and 11 graduates per year from the total number of 53 respondents.

The largest percentage of the study sample (41.5%) worked in the private sector, with a diversity in their places of employment (Table 5).

Table 5. Type of work

Type of work	Frequency	Per Cent
Government sector	8	15.1
Private sector	23	43.4
Freelancer	22	41.5
Total	53	100.0

More than half of the study sample (50.9%) was working in the interior design field (Table 6). The lowest

number of graduates worked in architecture (1.9%).

Table 6. Type of activity

Type of activity	Frequency	Percent
Interior design	27	50.9
Academic	10	18.9
Architecture	1	1.9
Furniture Design	8	15.1
Other	7	13.2
Total	53	100.0

3.1 Priority competencies for entry-level interior designers

3.1.1 Specialist knowledge axis

To answer the first research question, means and standard deviations were calculated for the degrees to which participants rated specialist knowledge aspects as a priority (Table 7).

Table 7. Respondent answers in the specialised knowledge axis

No	Competencies	Mean	S. D	Index
1	Materials	4.68	0.510	6
2	Client relationships and management	4.60	0.743	8
3	Lighting and acoustics	4.53	0.749	7
4	Interior design terms	3.92	0.997	4
5	Interior design theories	3.89	1.013	2
6	Design principles	3.83	1.105	1
7	Interior design concepts	3.72	0.863	3
8	Colour theories	3.51	1.250	5
-	Total	4.08	0.564	-

As shown in Table 7, the answers associated with specialised knowledge had values between 3.51 and 4.68, where items 6, 8, and 7 obtained the lowest scores (i.e. these competencies were not considered a very great priority). The mean response for item 1 (materials) was 4.68, while item 2, client relationship and management, was 4.60, and item 3, lighting and acoustics, was 4.53, indicating the graduates believe there was a very great need to develop these competencies in order to enter the interior design profession. The lowest score was demonstrated by item 5, colour theories, with a mean value of 3.51. Finally, the average value across all of the specialised knowledge items was 4.08, revealing 'a great need' degree of approval (Table 8).

Table 8. Mean and degree of approval

Mean	Degree of approval
A very great need	4.2 and above
Great need	From 3.4 to less than 4.2
Medium	From 2.6 to less than 3.4
Little need	From 1.8 to less than 2.6
Very little need	Less than 1.8

3.1.2 Specialist skills axis

Means and standard deviations were also calculated for the degrees of participant approval related to the development of specialist skills (Table 9).

Table 9. Respondent answers in the specialised skills axis

No	Competencies	Mean	S. D	Index
1	Presentation techniques	3.98	1.118	5
2	Advanced design programmes	3.94	1.167	4
3	Project analysis and case studies	3.91	1.148	1
4	Space plans	3.87	1.161	2
5	Freehand sketching	3.42	1.200	3
-	Total	3.82	0.825	-

As shown in Table 9, the values of participant ratings associated with specialised skills were between 3.42 and 3.98. All items were judge as being of 'great need', where item 1, presentation techniques, obtained the highest score with a mean of 3.98, while the mean of item 3, freehand sketching, was 3.42. The average value across the axis was 3.82, demonstrating a 'great need' degree of approval for specialist skills.

3.1.3 Project management axis

Means and standard deviations were calculated for the degrees of participant approval related to project management competencies (Table 10) .

Table 10. Respondent answers in the project management axis

No	competencies	Mean	S. D	Index
1	Project planning	4.51	0.869	3
2	Resources and cost management	4.42	1.027	2
3	Preparing contracts	4.38	0.925	4
4	Project supervision	4.30	1.049	1
5	Laws and regulations	4.19	1.020	7
6	Ethics	4.08	1.190	6
7	Interacting with others	4.00	1.038	5
-	Total	4.27	0.796	-

As shown in Table 10, the means associated with project management competencies were between 4.00 and 4.51, where item 1, 2, 3, 4 obtained the highest score, signifying 'a very great need' for these skills. The mean response of item 1, project planning, was 4.51, while that of item 7, interacting with others, had the lowest score value at 4.00. The findings further showed the items taken together had an average value of 4.27, indicating 'a great need' degree of approval.

3.1.4 Personal characteristics axis

Finally, means and standard deviations were calculated for the participants' degrees of approval regarding the need for specific personal characteristics (Table 11).

Table 11. Respondent answers in the personal characteristics axis

No	competencies	Mean	S. D	Index
1	Learning the English language	4.32	0.936	8
2	Negotiation and persuasion	4.11	0.954	4
3	Job interview	3.87	0.981	7
4	Communication skills and dialogue methods	3.81	0.962	5
5	Problem-solving and decision-making	3.72	1.116	2
6	Creative and critical thinking	3.70	1.067	3
7	Foundations of scientific research	3.60	1.306	9
8	Time management	3.55	1.170	1
9	Portfolio and CV writing	3.55	1.202	6
-	Total	3.80	0.694	-

As shown in Table 11, the mean values associated with personal characteristics were between 3.55 and 4.32, where item 1, learning the English language, obtained the highest score (4.32), representing 'a very great need', while item 6, portfolio and CV writing, got the lowest score value (3.55). The findings also showed that, across the axis, the items had an average value of 3.80, signifying 'a great need' degree of approval.

Table 12 shows the means and the standard deviations for the participants' degrees of approval regarding the priority of development of each of the axes of competencies.

Table 12. Mean and standard deviations

No	Axes	Mean	S. D
1	Specialist knowledge	4.27	0.796
2	Specialist skills	4.08	0.564
3	Project management	3.82	0.825
4	Personal characteristics	3.80	0.694
-	Total	4.00	0.555

Table 12 illustrates that the axis of project management obtained the first rank with a mean average of 4.27 and 'a very great need' of development, while, in total, the axes obtained an average mean of 4.00, representing 'a great need'.

3.2 Differences in competency priority between graduation years

To answer the second research question, a Kruskal-Walls test was used to discover the significance of the differences in the degree of approval amongst participants regarding the priority of each competency according to their different graduation years (Table 13).

Table 13. Differences between priority competency ratings according to graduation year

Axis	Graduation year	N	Mean	Kruskal-Wallis H	df	Sig.
Specialist knowledge	2015	11	34.91	7.234	4	0.124
	2016	10	23.55			
	2017	10	24.40			
	2018	11	31.82			
	2019	11	19.77			
Specialist skills	2015	11	30.41	4.589	4	0.332
	2016	10	21.50			
	2017	10	26.90			
	2018	11	33.23			
	2019	11	22.45			
Project management	2015	11	29.59	2.255	4	0.689
	2016	10	25.15			
	2017	10	26.40			
	2018	11	31.18			
	2019	11	22.45			
Personal characteristics	2015	11	31.91	6.075	4	0.194
	2016	10	17.40			
	2017	10	26.35			
	2018	11	31.77			
	2019	11	26.64			
Total	2015	11	35.41	7.835	4	0.098
	2016	10	20.40			
	2017	10	24.40			
	2018	11	32.14			
	2019	11	21.82			

As Table 13 reveals, the values of the significance levels were greater than 0.05 in all study axes, indicating that there were no differences amongst sample members who had graduated in different years about the priority

competencies that they had developed.

3.3 Open-ended questions

3.3.1 Challenges graduates faced

Respondents mentioned the speed of growth in materials and lighting, diversity amongst client personalities, project management, and using the English language as specific challenges they faced.

3.3.2 Development suggestions

Respondents suggested that interior design programmes should be more focused on project management skills and offer opportunities to work on real projects so that students can experience and understand the realities of the labour market and have the opportunity to develop accordingly before graduation. They also suggested a focus on the English language in these programmes.

4. Discussion

This study aimed to identify the priority competencies that entry-level interior designers had developed to practice the profession, as well as the differences in the priority of these competencies between graduation years. Fifty-three participants, who had graduated between 2015 and 2019, completed a questionnaire comprising four axes related to the interior design competencies required for professional practice. The largest percentage of the sample (41.5%) worked in the private sector, with diversity amongst their places of employment, while the government sector had the lowest percentage of graduate employment compared with the private and freelance sectors. Furthermore, more than half of the study sample worked in interior design (50.9%), followed by academic education (18.9%), then furniture (15.1%), and other areas, such as furniture exhibitions, raw material factories, landscaping, and other fields related to interior design. Seven graduates worked in other areas, representing 13.2%, while the lowest percentage of respondents worked in architecture (1.9%). This diversity amongst the workplaces of interior design graduates confirmed Piotrowski's (2014) claim that the designer can be a manager, employer, or teacher in practising the profession of interior design. Two graduates (3.8%) out of the entire sample of 53 were working in public administration, representing a low percentage in relation to the total number. This means that graduates generally work in the same field or fields related to interior design, signifying that there is a demand in the labour market for this specialisation, especially considering its aforementioned ongoing development.

The results indicated that competencies across all axes are in great need of development. In particular, those related to specialised knowledge had a particular need for development, including issues related to materials and lighting and client relationships and management, while the graduates claimed the lowest priority was colour theories. Furthermore, the academic programmes usually include one course each for materials and lighting, but the students deal with materials and lighting in studios; therefore, the interior designer needs to be aware of the latest material and lighting technologies. This result is consistent with Alansari et al. (2016) regarding the competencies related to light and materials.

The results regarding client relationships and management may have been due to the shortage of real client participation in projects during the study period. The need to develop concepts and design theories was rated highly, which supports the programmes' endeavours to educate the student in the basics of interior design. This may open up opportunities for entry-level interior designer jobs as Baker and Sondhi (1989) stated that large interior design firms seek junior staff who can critically think through design solutions based on design theories. It is likely that participants registered a great need degree of approval regarding developing all the competencies because graduates are now working on larger, living projects involving implementation that differs from smaller projects in the study phase, which are is not followed by implementation responsibilities.

All priority competencies that related to specialised skills were rated as being of 'great need' but not 'very great'. Skills such presentation techniques, advanced design programmes, project analysis and case studies, space plans, and freehand sketching are always needed due to differences between project requirements and depend on the project's type, size, budget, time, competitors, etc. Presentation techniques are required to present and produce projects clearly; however, design programs are usually limited to CAD and 3D MAX during university study, even though some companies in the labour market employ a variety of advanced design programs. The lowest percentage in this axis was freehand sketching since interior design programmes usually focus on manual drawing and computing to enable the representation of the stages of work and idea development. Sketching is also required in many basic courses, such as the design studio, and optional courses, such as free drawing and others. The results confirm Tarver's (2013) aforementioned finding that new interior design graduates feel they are more prepared in five specific professional practice competencies, such as sketching, concepting, and space planning.

Graduates stated that the highest-priority competencies for entry-level interior designers are those related to project management, that is, project planning (including cost estimation, activities, scheduling, professional fees, etc.), resource and cost management (financial management, specifications, resources, etc.), contract management (terminology, contents, rights, etc.), and project supervision (follow-up, reports, etc.). This finding is positively associated with a number of previous studies, such as Alawad et al. (2020), who found that graduates had a specific shortage of knowledge and skills in project management. Tarver (2013) also found that graduates felt less prepared in some competencies related to project preparation and implementation. This may be because some academic programmes offer just one related course in professional practice that deals with such aspects, and some related, optional subjects, which students are not guaranteed to choose. Furthermore, studio practice does not cover these points in-depth during the students' design projects. The answers with the lowest percentages on this axis were ethics and interpersonal interaction (e.g. with stakeholders), although, according to Ntinyari (2014), being ethical and a team player were characteristics that are preferred by employers when hiring entry-level interior designers. However, academic programmes should focus on project management skills; freelance graduates, in particular, need these skills as compared to graduates working in large companies where there are usually dedicated project managers.

The priority personal characteristic that respondents stated there was 'a great need' to develop was competency in the English language. This is possibly due to the fact that some programmes are taught in the Arabic language, although many sources are written in English, and many companies require English proficiency. The lowest rated item, on the other hand, was portfolio creation and CV writing, highlighting that interior design programmes already focus on teaching students to build their design portfolio before graduation. The highest priority for development was the project management axis and the lowest priority was the personal characteristics axis, giving a positive indication of job opportunities and labour market engagement as Huber and Waxman (2019) stated that soft skills are preferred by employers. It is noteworthy that there were no differences in the participants' degrees of approval about the priority competencies of entry-level interior designers in terms of the different graduation years. Answers to the open questions that were associated with each axis revealed no new points; however, all the points that were in the axes were discussed, alongside the challenges faced by graduates due to the evolution of technology, global competition, working on real projects with responsibility, and the need to continue learning.

5. Conclusion

Despite the limited sample of this study, it was observed that 96.2% of the female graduates were professionally practising interior design, which is a high rate in terms of the total study sample. There was agreement about the great need for development, which means that all areas of learning outcomes are required in the labour market, and this is very promising. The priority competencies that entry-level interior designers had gained to practice the profession were varied, although the highest priority axis was project management. Therefore, the researchers recommend that academic programmes in interior design focus on specific project management competencies by allowing students the opportunity to work on real projects with real clients so they can gain various experiences and become acquainted with the job market early. The development of students' English language proficiency should also be supported. The study was limited in that it measured the needs of interior design graduates in the Western Region of the KSA only. The researchers suggest that future studies should identify the competencies that the interior designer must learn within interior design programmes, as well as those learnt in the labour market.

References

Alansari, A., Pati, D., Parkinson, S., Gaines, K., & Alnajadah, A. (2016). Examining knowledge and skills of Interior Design Students in Kuwait from Global Design Firm Perspective, *International Design Journal*, **26**(58), 77-83.

Alawad, A. A., Bazuhair, R. S., Alhojaly, R. A., & Mossawa, M. M. (2020). The Compatibility of Higher Education Outcomes with the Requirements of the Labour Market in an Interior Design Programme in the Kingdom of Saudi Arabia, *Art and Design Review*, **8**, 94-113. https://doi.org/10.4236/adr.2020.82007.

Alrifa, A., & Raju, V. (2019). Framework for Employability Skills of Graduate in Malaysian Interior Design, *International Advanced Research Journal in Science, Engineering and Technology*, **6** (6), 19- 28.

Al-Zahrani, M. (2016). The Role of Art Education Departments and Interior Design Departments in Saudi Universities in the Interior Design Sector, in the Kingdom of Saudi Arabia. International Educational Specialization. *Journal, Jordanian Society of Psy- chology*, **5**, 411-427. https://doi.org/10.12816/0035709

Baker, I. J., & Sondhi, L. E. (1989). Entry-level competencies and attributes needed by interior design graduates: A survey of top interior design firms, *Journal of Interior Design education and research*, **15**(2), 35-40.

Bettaieb, D & Alawad, A. (2016). Interior design, professional practice and competency requirements, *International Design Journal*, **6** (2), 101-108.

Dar Al-Hekma (2020). [Online] Available: http://www.dah.edu.sa/en/about/Pages/History.aspx . (May 7, 2020)

Hernecheck, P. J., Rettig, K. D., & Sherman, M. R. (1983). Professional viewpoints of competencies for interior design entry-level positions, *Journal of Interior Design Educators and Research*, **9**(2), 7-13.

Huber, A. M., & Waxman, L. K. (2019). Comparing employability priorities of emerging and experienced interior designers. *Artifact: Journal of Design Practice*, **6**(1-2), 5-1.

Huber, A. (2018). Exploring Hiring Practitioner Preferences for and Assessment Practices of Prospective Candidates. *Journal of Interior Design*, **43**(4), 21-44.

Ministry of Economy and Planning (MEP) (2017). Building and Construction (Ninth Development Plan) [Online] Available: www.mep.gov.sa (May 15, 2020)

Ntinyari, E. (2014). Competencies preferred by employers of interior design graduates in Kenya (Doctoral dissertation, University of Nairobi).

Piotrowski, C. M. (2014). *Professional practice for interior designers*. John Wiley & Sons.

Piotrowski, C. M. (2011). *Becoming an interior designer: a guide to careers in design*. John Wiley & Sons.

Tarver, E. (2013). What I Wish I Knew: Interior Design Graduates Sense of Preparedness to Practice. [Online] Available: http://purl.flvc.org/fsu/fd/FSU_migr_etd-7625 (May 15, 2020)

Vison 2030, [Online] Available: https://vision2030.gov.sa/en (April 3, 2020)