ISSN: 0976-3376

Available Online at http://www.journalajst.com

ASIAN JOURNAL OF SCIENCE AND TECHNOLOGY

Asian Journal of Science and Technology
Vol. 08, Issue, 11, pp.6497-6509, November, 2017

RESEARCH ARTICLE

GRADUATE'S MARKETABLE SKILLS: AN EMPIRICAL INVESTIGATION OF ITS EFFECT ON PERCEIVED MARKETABILITY OF YEMENI GRADUATES IN THE ARAB GULF STATES

[1,*]Fatihya Mahdi Ahmed Ali, [2]Abdul Rahim Othman and [3]Norzieiriani Bt. Ahmad

[1]School of Business Management, College of Business, University Utara Malaysia, 06010 Sintok, Kedah, Malaysia
[2,3]Department of Marketing, School of Business Management, College of Business, University Utara Malaysia, 06010 Sintok, Kedah, Malaysia

ARTICLE INFO

Article History:
Received 08th August, 2017
Received in revised form
20th September, 2017
Accepted 3rd October, 2017
Published online 30th November, 2017

Key words:

Perceived Marketability,
Higher Education Graduates,
Marketable Skills,
Arab Gulf labor market, Yemen.

ABSTRACT

A Graduates' marketable skills have now become the major key of success in today labor market and have increasingly concerned by employers around the globe. This study aimed to examine the effect of Yemeni graduates' marketable skills on their perceived marketability in the Arab Gulf countries labor market. Graduates' marketable skills was assessed by way of a multi-dimensional scale which was inclusive of seven dimensions of skills: analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and teamwork and interpersonal skills. Participants were 85 Yemeni graduates at public and private universities. The data was analyzed using Partial Least Squares-Structural Equation Modeling. The findings showed a significant positive effect for graduates' marketable skills on their perceived marketability. The study results also demonstrated the acceptability of marketable skills as an integrated construct formed by the dimensions identified. This study make a significant theoretical and methodological contribution to both the graduates' marketable skills on their perceived marketability by assessing marketable skills as an integrated reflective construct and by examining the overall marketable skills of Yemeni graduates on their perceived marketability.

INTRODUCTION

The Arab Gulf labor market is considered an open market on the Arab and international world and attracts workers from different places around the world (See Table 1). Yemen is considered one of the most important countries of sending labor to this market in various economical, developmental and agricultural fields. According to statistics of World Bank for 2010 published by the "Al-Riyadh" newspaper in February 8/ 2015, in its issue 17030, Yemeni labor was the fourth among countries exporting labor to this market after India, Egypt and Pakistan which reached 894 thousand workers; is equivalent to 6.3% of the expatriate labor in the Arab Gulf (See Fig. 1). This with knowing that these data do not include employees in the international organizations and diplomatic missions, as well as the number of illegal workers. Also this data is limited on the number of employees and does not include the members of families accompanying them.

Corresponding author: **Fatihya Mahdi Ahmed Ali,**
School of Business Management, College of Business, University Utara Malaysia, 06010 Sintok, Kedah, Malaysia.

The report of the National Plan for Youth Employment 2014-2016, which was prepared by the Ministry of Planning and International Cooperation and the Ministry of Social and Labor Affairs in 2013- Yemen, was mentioned that the labor rate of Yemeni higher education graduates in the Arab Gulf labor market is only 6% of total Yemeni labor. From another side, the Gulf and Arabic studies that are specialized in Asian expatriate workforce, pointed that the Asian workforce pose a major threat to the survival and existence of the peoples of these countries in the near future, especially under the demand of a lot of human rights organizations in the world for need to settle this workforce. This, in turn, has led to a real tendency in the Gulf Cooperation Council (GCC) to the absorption of eligible Yemeni labor, which was reinforced by a set of agreements, in order to gradually replace an Asian workforce (Al-Qahas, 2008; Al-Samarrai, 2007; Hassan, 2010). In order to be more marketable and able to compete and success in the Arab Gulf labor market, Yemeni's higher education graduates should concentrate on the resources that make them more valuable to employers.

According to the Matching Theory, labor market failure on the part of graduates reflects mismatches between graduates and employers (Mason *et al.,* 2009). A number of recent studies have mentioned that skills matching is a better predictor of successful entry into the labor market after graduation and in ensuring the marketability of the graduates (Abdul Hamid *et al.* 2014; Al-Abduwani, 2012; Alias *et al.,* 2013; Singh *et al.,* 2013; Weligamage, 2009; Wincenciak, 2009). The recent changes that have taken place within the labor market and organizations (e.g. the increase in global competition, knowledge work increasing, the rapid technological change, demographic change unfolding, the changed nature of production, and the growth of alternative employment arrangements) have led to skill mismatches and pervasive skill gaps (Green *et al.,* 2016; Mane and Miravet, 2016). In the Arab Gulf countries, according to World Economic Forum (2017), 21% of core skills in the Arab Gulf labor market by 2020 will be different compared to skills that were needed in 2015. It was mentioned in the report of the National Plan for Youth Employment 2014- 2016 (The Ministry of Planning and International Cooperation, and The Ministry of Social and Labor Affairs 2013), the reason of loss Yemeni higher education graduates for job opportunities in these countries was because they are lacking of required skills that enable them to compete with other foreign labor and keep up with the needs and requirements of regional and foreign labor markets. At level in the Yemen, researchers and publications issued by the responsible authorities (Al-Rimi, 2012; The Supreme Council of Education Planning (SCEP), 2011) have stressed for immediately addressing the mismatch between the skills of graduates and the needs of market labor, as employers are dissatisfied with the graduates' skills that are currently available.

It could be argued that higher education graduates are continuously challenged regarding which marketable skills to acquire to meet employers' needs and substantiate their valuable in labor market. As a result of the contemporary view of competitive advantage through individuals, employers are demanding graduates who have exceptional skills whose add value, notably various "soft" skills", including communication effectively, solve problems and think creatively, teamwork, entrepreneurship, leadership, and information technology skills (Majid *et al.,* 2012; Moalosi *et al.*, 2012; Rani, 2010; Shakir, 2009; Wilson *et al.,* 2011; Yassin *et al.,* 2008). Previous studies findings showed that it is no longer sufficient for new graduates to have only hard skills (technical skills, academic degree) to success in today's labor market. Employers have indicated their preference over graduates who also possess soft skills (marketable skills) (Abayadeera and Watty, 2016; Abdul Hamid *et al.,* 2014; Al Abduwani, 2012; Ali *et al.,* 2014; Archer and Davison, 2008; Hairi *et al.,* 2011; Kandra *et al*. 2011; Kofli *et al*. 2012; Krish *et al.,* 2012; Nafiand Ghani, 2011; Rani, 2010; Schulz, 2008; Shakir, 2009; Sturges *et al*. 2003). Thus, this study intends to examine the Yemeni graduates' viewpoints of the marketable skills in order to identify how far graduates marketable skills play a role in achieving their marketability in the Arab Gulf labor market.

Research Motivations and Contributions

Considering the fact that employers are demanding graduates who add value to their organizations (Alias et al. 2013); who have exceptional skills whose add value (Majid *et al.,* 2012; Moalosi *et al.,* 2012; Rani, 2010; Thomas and Scroggins, 2006), it is appropriate to investigate the association between graduates' marketable skills (soft skills that are highly valued by employers today) and their perceived marketability from the Middle East context where the environment is different from those of the East Asian and Western regions. Where, majority of the studies that have investigated marketable skills are focused on Western and East Asian countries. Additionally, in spite of marketable skills are seen to be highly involved in the perceived labor market success (Abayadeera and Watty, 2016; Abdul Mutalib and Mahmuddin, 2010; Akomolafe and Adegun, 2009; Duncan and Dunifon, 2012; Hairi *et al.,* 2011; Tran, 2012; Warraich and Ameen, 2011; Zadel *et al.,* 2009), it appears there is paucity of empirical evidence on marketable skills and their effect on perceived marketability as an indicator of today's labor market success. Moreover, it appears that previous studies have paid little attention to perceived marketability within the field of labor market success (De Vos and De Hauw, 2010; De Vos *et al.,* 2011; Eby *et al.,* 2003), which increases the value of this study. Therefore, the major contribution of this study is to provide an empirically understand and investigate the significance of marketable skills and their effect as a predictor of perceived marketability in today's labor market.

Related Literature and Research Hypothesis

Perceived Marketability

One of the most important indicators for describing an individual of being successful in today labor market or not is his/her perceived marketability (Arthur and Rousseau, 2001; Day, 2005; De Vos and De Hauw, 2010; De Vos *et al.,* 2011; Eby *et al.,* 2003). Perceived marketability is defined as the beliefs that individual is valuable to the employers (De Vos and De Hauw, 2010; De Vos *et al.,* 2011; Eby *et al.,* 2003) or the extent to which one is viewed as marketable to employers (Day 2005). Essentially, perceived marketability is a relevant indicator of subjective career success (Arthur and Rousseau, 2001; Day, 2005; De Vos and De Hauw, 2010; De Vos *et al.,* 2011; Eby *et al.,* 2003), which refers to a positive career outcome of individuals' potential that regarding their added value in the labor market (De Vos *et al.,* 2011). Therefore, individuals who are viewed as marketable by employers are those who are successful in the marketplace (Eby *et al.,* 2003).

Marketable skills

Marketable skills of graduates have continually received considerable attention in recent times. Marketable skills, according to The Free Dictionary.com, means "being in demand by especially employers". From the Cambridge Business English Dictionary, marketable skills are useful ones that make an employer want to give individual a job. According to Centrallo (2007), marketable skills are the abilities that are in great demand in the labor market. Similarly, Rudra (2013) defines marketable skills as the skills for which there is market demand. In the sense that higher education graduates have to be value-added to stay viable and competitive in the ever-changing labor market conditions. To produce a value-added, higher education graduates need to enhance the skills that are highly valued by employers. Moreover, it is important to realize that marketable skills are constantly changing depending on employers' needs

(Centrallo, 2007; Rudra, 2013). Previously, the focus of much education and training policy was on the academic and technical skills. Recently, it has argued that marketable skills are 'soft' skills which are non-academic skills (Rajan, 2010; Shakir, 2009), and non-technical skills (Conrad and Leigh, 1999; Jackson, 2013; Nasir *et al.,* 2011). Numerous studies have shown that soft skills are the in-demand skills (Al Abduwani, 2012; Alias *et al.,* 2013; Al-Mamun, 2012; Archer and Davison, 2008; Hairi *et al.,* 2011; Kandra *et al.,* 2011; Kee *et al.,* 2012; Kofli *et al.,* 2012; Krish *et al.,* 2012; Majid *et al.,* 2012; Musa *et al.,* 2012; Nafi and Ghani, 2011; Nasir *et al.,* 2011; Rajan, 2010; Rani, 2010; Schulz, 2008; Shakir, 2009; Vyas, 2013; Wahl *et al.,* 2012; Warraich and Ameen, 2011; Wilson *et al.,* 2011; Yassin *et al.,* 2008; Zainal *et al.,* 2012). According to Joubert *et al* (2006, p. 28), "there is no ultimate definition of soft skills, but they include such skills such as ethics, attitudes, interpersonal abilities, communication and being a lifelong learner". According to Nasir *et al.* (2011), 'soft skills' are skills, abilities, and traits that are not specific to any employment environment or particular job position, that are can be used widely for all jobs and tasks assigned. It means that these skills tend to be more generic in nature, unlike 'hard skills' which tend to be more closely related to the actual task being performed or more job-specific. As described by Yorke and Knight (2006, p. 3) the soft skills are "a set of achievements, skills, understandings and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations". On a similar note, Goswami (2013) describe these skills as "personal attributes that enhance a person's job performance, interactions and career prospects". The most critical soft skills in the current global job market especially in this fast moving era of technology which employers are seeking among higher education graduates are communication, problem solving, teamwork, lifelong learning, entrepreneurship, information management, and leadership skills(Abdul Hamid *et al.,* 2014; Kee *et al.,* 2012; Shakir, 2009; Wilson *et al.,* 2011; Yassin *et al.,* 2008).

Relationship between Marketable skills and Perceived Marketability

The human capital theory suggests that investing in individual's skills development should lead to greater value in the labor market (Becker, 1994). In recent times, higher education graduates' marketable skills (soft skills) are conceived as an important determinant predicting their success in labor market (Abayadeera and Watty, 2016; Abdul Mutalib and Mahmuddin, 2010; AbdWahab and Ismail, 2014; Akomolafe and Adegun, 2009; Centrallo, 2007; Clarke and Patrickson, 2008; Duncan and Dunifon, 2012; Goswami, 2013; Hairi *et al.,* 2011; Kee *et al.,* 2012; Kofli *et al.,* 2012; Krish *et al.,* 2012; Rajan, 2010; Tran, 2012; Warraich and Ameen, 2011; Zadel *et al.,* 2009). In addition, literature suggests that 85% of graduates' success in the labor market is made by these skills (Rani, 2010; Robles, 2012). More than 75% of employers surveyed said that soft skills are even more important than technical skills in securing entry -level employment (Pritchard, 2013). On a similar views, a survey done on over 400 employers from across the United States to gauge their perspectives on which skill sets new higher education graduates entrants need to succeed in the workplace, it was revealed that soft skills are of increasing importance in terms of success in the 21st century workplace.

Further, Al-Abduwani (2012), Alias *et al.* (2013), Singh *et al. (*2013), Weligamage (2009), and Wincenciak (2009), have argued that these skill matching is a better predictor of successful entry into the labor market after graduation that ensuring the graduates marketability. However, to date, direct empirical evidence of the impact of strengthen marketable skills on perceived marketability is scarce. Eby *et al.* (2003) observed that skills development was as most essential in predicting perceived marketability. Therefore, this study is empirically addressed their claim that graduates' marketable skills (soft skills) will be positively related to their perceived marketability. Hence, the following hypothesis is suggested:

H1: The graduate's marketable skills have a positive effect on his/her perceived marketability.

Conceptual Framework

This study attempted to examine the effect of the Yemeni graduates' marketable skills on their perceived marketability in labor market in the Arab Gulf countries. In this study, to represent the marketable skills, skills that in great demand were unified into an integrated single construct. It was developed the marketable skills as an integrated construct inclusive seven soft skills, namely: analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and teamwork and interpersonal skills. Where these seven soft skills are the most commonly used in the description of marketable skills, and required by employers, as well as enable graduates to survive in today's market place. It is predicted that these marketable skills would be related to graduates perceived marketability.

Research method

This study used a cross-sectional quantitative survey. A self-administered questionnaire was developed to measure perceived marketability and marketable skills (See Appendix 1). Perceived Marketability was measured using an adapted instrument developed by Day (2005) based on Eby *et al*'s (2003) marketability scale. The instrument consists of a five-item measure which Eby *et al. (*2003) introduced the first scale to measure the perceived marketability, contained three items and the other two-item marketability scale was added by Day (2005) to enhance the content validity and reliability of the measure. Marketable skills was assessed using seven dimensions of skills: analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and teamwork and interpersonal skills. The six dimensions of marketable skills namely, analytical thinking and problem solving skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and teamwork and interpersonal skills were measured using scale developed by Abdul Hamid *et al. (*2014) with modification on the wording. The last dimension of marketable skills, that is continuous learning and information management skills, was measured using four-item scale developed by Kee *et al*'s (2012) with modification on the wording. In addition, the instrument of perceived marketability and marketable skills were measured

using a five-point Likert's scale range on "1 indicating strongly disagree" to "5 indicating strongly agree". Since the language of the targeted respondents of this study is the Arabic, this study is used the Arabic and English version of the questionnaire.

The target population of this study was the Yemeni higher education graduates who have recently worked in the private sector, both productive and service companies that are operating in the Arab Gulf countries. Due to the target population is spread throughout in the Arab Gulf countries, this study selected Saudi Arabia as the sampling frame, where it includes most than 90% of the study's population. A random sampling design was employed to collect the sample elements in this study. Out of the 120 distributed questionnaires, 85 retuned completed and used for the analysis, resulting in 70.8% usable response rate. A rule-of-thumb for determining the minimum sample size is ten times or more as large as the number of variables being considered in the study (Roscoe, 1975; Sekaran, 2003). Moreover, according to Roscoe (1975), a sample size larger than 30 and less than 500 is appropriate for most research and sufficient to obtain credible results. Therefore, a sample comprising 85 questionnaires was acceptable. Sample characteristics are shown in Table 2, where the overwhelming majority of participants were male (97.6%), and married (65.9%). Most were under 30 years of age (57.6%), and graduated from public universities (62.4%). Just (43.5%) of the respondents had get the job in less to six months. To analysis data in this study, Partial least squares-structural equation modeling (PLS-SEM) version 2.0 M3 was used. PLS-SEM is more robust and well suited method when analyzing small samples (Chin, 2010; Hair *et al.,* 2011). In addition, the model for this study included a reflective second order construct (Marketable Skills) which leads to the use PLS-SEM as it is suitable for assessing the second order construct (Becker *et al.,* 2012; Hair *et al.,* 2014). Further, PLS-SEM is the preferred method when the research objective is prediction (Chin, 2010; Hair *et al.,* 2011).

Analysis and findings

The study model was assessed via PLS-SEM which generally follows two-stage analytical approach involving assessment of the measurement models and the structural model respectively (Chin, 2010; Hair *et al.,* 2011). The assessment of the measurement model involves examining the validity and reliability of the relationships between the constructs and their corresponding indicators, while the assessment of the structural model involves examining the relationships between the constructs (Chin, 2010; Hair *et al.,* 2011).

The Measurement Model

In the Structural Equation Modeling literature, reliability and validity should be confirmed for establishing the goodness of the measurement before the hypotheses testing. The final model for this study involved a reflective second order construct namely 'Marketable skills' and a reflective construct, namely 'Perceived Marketability'. Marketable skills (MSs) construct was inclusive of seven reflective first order constructs: "Analytical Thinking and Problem Solving Skills", "Continuous Learning and Information Management Skills", "Communication Skills", "Entrepreneurship Skills", "Information Technology Application Skills", "Leadership and Management Skills", and "Teamwork and Interpersonal Skills". In the initial assessment of the measurement model, the 8 first-order constructs (i.e., analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, teamwork and interpersonal skills, and perceived marketability) were assessed together. Since all first order constructs in this model were reflective, the measurement model evaluated reliability and validity, as measured by the "Indicator Loading", "Composite Reliability (CR)", "Cronbach's Alpha Coefficient", "Average Variance Extracted (AVE)", "Fornell-Larcker Criterion" and "Cross Loadings of the indicators" (Chin, 2010; Hair *et al.,* 2011).

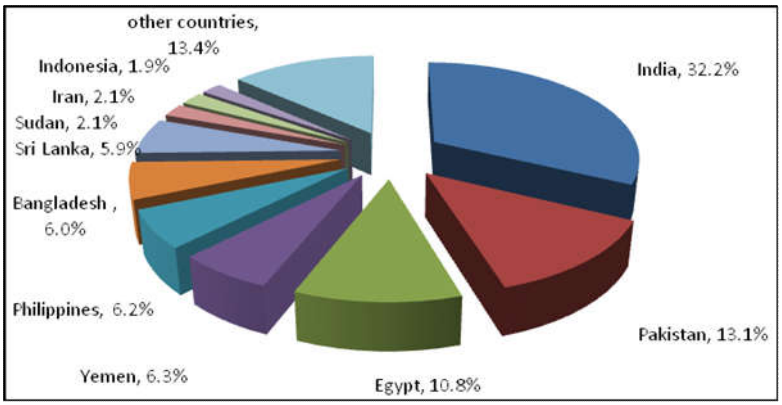
Indicator loading was used to assess indicator reliability. The indicator loadings of 0.70 and higher are considered the preferred level and the minimum acceptable level of 0.40 (Hair *et al.,* 2011). However, indicators with loadings between 0.40 and 0.70 should be removed only if have cross loadings with other constructs or the CR and AVE are lower than the suggested threshold value (Hair *et al.,* 2011). From the first check of indicator reliability, it found that all indicators' loading on their associated construct in the first stage (i.e., before creating the second-order construct of MSs) were more than the minimum acceptable level of 0.40. Several items with loading between 0.40 and 0.70 and that have cross loadings with other constructs were considered for deletion in order to achieve acceptable discriminant validity (Hair *et al.,* 2011). Table 3 shows the result of the assessment of measurement model for first order constructs after deleting those items and indicates that all of the indicators have significantly loaded on their respective constructs. These results indicate that the measurement model used possesses the required content validity. CR and Cronbach's Alpha Coefficient were examined to ascertain the construct reliability(Chin, 2010; Hair *et al.,* 2011; Hair *et al.,* 2010). Table 3 indicates that both the CR and Cronbach's Alpha Coefficient for all first order constructs in the measurement model exceeded the recommended value of 0.70 (Hair *et al.,* 2011; Hair *et al.,* 2010). These results indicate that the measurement model was internally consistent and reliable.

AVE of each construct was evaluated to estimate convergent validity in this study (Hair *et al.,* 2011; Hair *et al.,* 2010). The AVE values of the constructs should be higher than 0.50 for their convergent validity to be considered acceptable (Chin, 2010; Hair *et al.,* 2011). Table 3 shows that the AVE for all the 8 first-order constructs in the measurement model in this study exceeded 0.50, which ranged from 0.602 to 0.799. These results indicate that the measurement model's convergent validity was highly acceptable. "Fornell-Larcker Criterion" and "Cross Loadings of the indicators" are two measures which used to assess discriminant validity in this study (Chin, 2010; Hair *et al.,* 2011). The discriminant validity can be assumed according to the Fornell-Larcker criterion if the square root of the AVE of each construct are higher than the construct's correlations with all other constructs (Hair *et al.,* 2011). As illustrated in Table 4, the square root of the AVEs are shown on diagonal elements and the below the diagonal elements are the correlation amongst constructs. The comparison results of the diagonal elements with other off-diagonal elements in their respective rows and columns in Table 4 illustrated that the discriminant validity is confirmed.

Table 1. The number of international labor in the Arab Gulf Countries in 2010

	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE	Total
India	137,402	393,210	447,824	250,649	1,452,927	2,185,919	4,867,930
Pakistan	57,251	122,878	94,993	250,649	1,005,873	453,005	1,984,647
Egypt	34,350	319,483	40,711	87,727	1,005,873	140,935	1,629,079
Yemen	1,354	0	0	0	894,109	60,401	955,864
Philippines	28,625	86,015	15,250	125,324	558,818	120,801	934,834
Bangladesh	0	208,893	149,275	0	447,055	100,668	905,889
Sri Lanka	0	208,893	40,711	87,727	391,173	161,068	889,572
Sudan	2,703	0	12,626	0	279,409	30,200	324,938
Iran	34,350	98,302	0	150,389	0	40,267	323,309
Indonesia	0	11,059	0	0	279,409	0	290,468
Syria	1,254	122,878	0	0	111,764	0	235,895
Nepal	0	0	0	175,454	18,282	0	193,736
Jordan	386	0	11,642	0	172,266	0	184,295
Gaza	245	0	0	0	122,608	0	122,853
Turkey	0	0	0	0	89,411	0	89,411
Lebanon	272	0	0	0	58,261	0	58,533
UK	0	0	10,955	0	31,999	0	42,954
Eritrea	318	0	0	0	40,644	0	44,962
USA	0	0	0	0	36,258	0	36,258
Ethiopia	0	0	0	0	28,618	0	28,618
Somalia	561	0	0	0	27,252	0	27,813
Thailand	0	0	0	0	23,547	0	23,547
Morocco	2,296	0	0	0	20,584	0	22,880
Afghanistan	0	0	0	0	17,227	0	17,227
Nigeria	0	0	0	0	14,976	0	14,976
other countries	14,036	525,918	2,087	177,509	160,558	0	880,108

Source: Al-Riyadh Economic (2015, February 8)



Source: Al-Riyadh Economic (2015, February 8)

Fig. 1. The Top Ten Sending Countries of International Labor in the Arab Gulf Countries in 2010 as a Percent

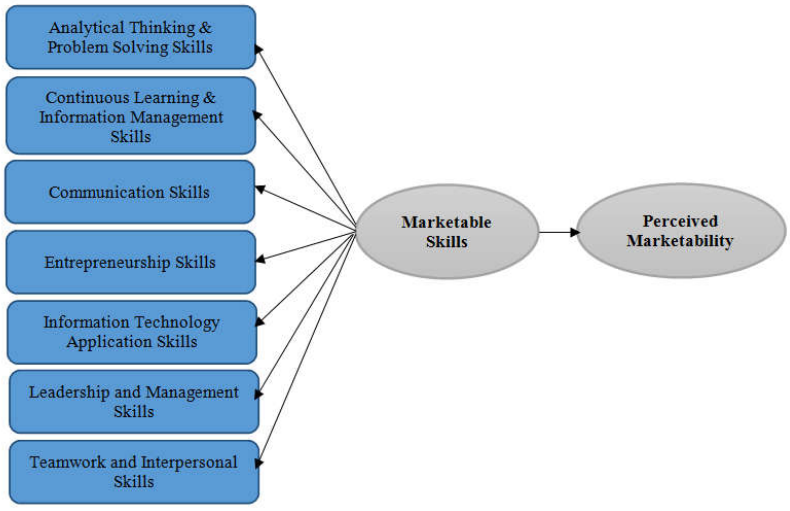


Fig. 2. The Proposed Theoretical Framework of the Study

Table 2. Demographic profile of respondents

Description	Frequency	Percentage (%)
Gender		
Male	83	97.6
Female	2	2.4
Age		
Up to 25	19	22.4
25 to 30 years	49	57.6
More than 30 years	17	20.0
Marital Status		
Single	29	34.1
Married	56	65.9
Type of University Graduated		
Public	53	62.4
Private	32	37.6
Period to Get Your First Job after Graduating		
Up to six months	37	43.5
From six months to one year	13	15.3
More than one year	35	41.2

Table 3. Results of the assessment of measurement model for first order constructs

Construct	Indicators	Loadings	CR	Cronbach's Alpha	AVE
Analytical Thinking and Problem-Solving Skills	ATPSS1	0.813	0.925	0.899	0.712
	ATPSS2	0.865			
	ATPSS3	0.828			
	ATPSS4	0.898			
	ATPSS5	0.813			
Continuous Learning and Information Management Skills	CLIMS1	0.815	0.905	0.861	0.704
	CLIMS2	0.813			
	CLIMS3	0.848			
	CLIMS4	0.877			
Communication Skills	CS2	0.871	0.909	0.873	0.715
	CS3	0.798			
	CS5	0.851			
	CS7	0.861			
Entrepreneurship Skills	ES1	0.727	0.858	0.784	0.602
	ES3	0.753			
	ES4	0.799			
	ES5	0.821			
Information Technology Application Skills	ITAS1	0.848	0.913	0.888	0.637
	ITAS2	0.812			
	ITAS4	0.872			
	ITAS5	0.664			
	ITAS6	0.736			
	ITAS7	0.838			
Leadership and Management Skills	LMS1	0.855	0.934	0.915	0.703
	LMS2	0.892			
	LMS4	0.847			
	LMS5	0.926			
	LMS6	0.775			
	LMS10	0.717			
Teamwork and Interpersonal Skills	TIS1	0.838	0.923	0.875	0.799
	TIS3	0.939			
	TIS7	0.902			
Perceived Marketability	PM1	0.842			
	PM2	0.804	0.918	0.888	0.692
	PM3	0.900			
	PM4	0.796			
	PM5	0.812			

Table 4. Discriminant validity for first-order constructs

	ATPSS	CLIMS	CS	ES	ITAS	LMS	PM	TIS
Analytical Thinking and Problem-Solving Skills	0.844							
Continuous Learning and Information Management Skills	0.812	0.839						
Communication Skills	0.752	0.667	0.846					
Entrepreneurship Skills	0.612	0.648	0.498	0.776				
Information Technology Application Skills	0.708	0.773	0.587	0.597	0.798			
Leadership and Management Skills	0.743	0.741	0.641	0.748	0.658	0.838		
Perceived Marketability	0.624	0.530	0.440	0.552	0.362	0.599	0.832	
Teamwork and Interpersonal Skills	0.756	0.753	0.834	0.501	0.567	0.750	0.476	0.894

Note: Square roots of AVEs are shown on diagonal in bold.

The discriminant validity can be establish according to the second criterion "Cross Loadings" if an indicator's loading with its associated construct is higher than its loading with any other construct (Hair *et al.,* 2011). The results in the cross loadings illustrated in Table 5 ensure the first-order constructs' discriminant validity. In the second stage, the measurement model was evaluated by generating the second order construct (Marketable Skills).

teamwork and interpersonal skills are involved to establish marketable skills reflective construct. Since the first-order constructs have unequal number of indicators, a two-stage approach was used to create the second order construct as recommended by Becker *et al. (*2012), Ringle *et al. (*2012), and Wetzels *et al. (*2009). According this approach, the construct scores of the first-order constructs in a first-stage model are estimated without the second-order construct, and

Table 5. Loadings and cross loadings (after deletion)

	ATPSS	CLIMS	CS	ES	ITAS	LMS	PM	TIS
ATPSS1	0.813	0.609	0.627	0.439	0.483	0.606	0.503	0.593
ATPSS2	0.865	0.634	0.703	0.518	0.589	0.607	0.445	0.687
ATPSS3	0.828	0.669	0.529	0.500	0.653	0.589	0.553	0.491
ATPSS4	0.898	0.759	0.659	0.549	0.547	0.677	0.616	0.707
ATPSS5	0.813	0.740	0.673	0.578	0.731	0.653	0.487	0.727
CLIMS1	0.636	0.815	0.565	0.480	0.734	0.554	0.359	0.616
CLIMS2	0.661	0.813	0.478	0.597	0.783	0.526	0.415	0.499
CLIMS3	0.703	0.848	0.615	0.462	0.582	0.649	0.460	0.690
CLIMS4	0.716	0.877	0.579	0.622	0.548	0.725	0.519	0.704
CS2	0.683	0.529	0.871	0.454	0.439	0.603	0.455	0.700
CS3	0.585	0.608	0.798	0.372	0.485	0.451	0.279	0.680
CS5	0.524	0.518	0.851	0.382	0.445	0.487	0.220	0.719
CS7	0.686	0.606	0.861	0.446	0.598	0.574	0.430	0.732
ES1	0.496	0.622	0.354	0.727	0.563	0.575	0.447	0.380
ES3	0.535	0.446	0.508	0.753	0.471	0.550	0.367	0.411
ES4	0.339	0.423	0.263	0.799	0.437	0.454	0.291	0.205
ES5	0.491	0.484	0.397	0.821	0.387	0.676	0.531	0.481
ITAS1	0.665	0.751	0.584	0.550	0.848	0.639	0.361	0.561
ITAS2	0.550	0.620	0.387	0.503	0.812	0.493	0.206	0.433
ITAS4	0.561	0.694	0.437	0.483	0.872	0.515	0.321	0.502
ITAS5	0.387	0.292	0.224	0.456	0.664	0.403	0.206	0.084
ITAS6	0.481	0.473	0.456	0.408	0.736	0.454	0.182	0.330
ITAS7	0.662	0.713	0.607	0.459	0.838	0.582	0.356	0.618
LMS1	0.611	0.561	0.538	0.694	0.495	0.855	0.525	0.633
LMS10	0.591	0.610	0.630	0.466	0.569	0.717	0.243	0.596
LMS2	0.743	0.700	0.626	0.683	0.549	0.892	0.585	0.694
LMS4	0.601	0.620	0.514	0.644	0.628	0.847	0.527	0.692
LMS5	0.630	0.630	0.517	0.698	0.574	0.926	0.572	0.632
LMS6	0.578	0.646	0.476	0.517	0.549	0.775	0.438	0.542
PM1	0.525	0.355	0.377	0.379	0.230	0.536	0.842	0.420
PM2	0.511	0.381	0.435	0.473	0.300	0.518	0.804	0.411
PM3	0.550	0.457	0.441	0.513	0.293	0.524	0.900	0.480
PM4	0.489	0.529	0.245	0.474	0.362	0.499	0.796	0.301
PM5	0.519	0.487	0.326	0.458	0.325	0.407	0.812	0.360
TIS1	0.696	0.773	0.623	0.382	0.555	0.629	0.334	0.838
TIS3	0.732	0.679	0.766	0.509	0.499	0.703	0.453	0.939
TIS7	0.618	0.605	0.823	0.441	0.489	0.679	0.471	0.902

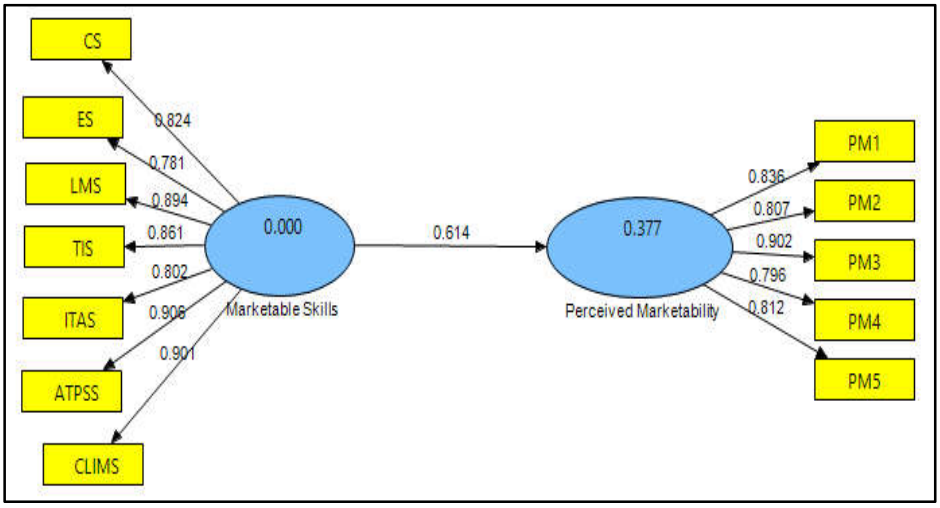


Fig. 3. Items Loadings, Path Coefficient and R² Values

Analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and

subsequently these first-stage construct scores are used as indicators for the second-order construct in a separate second-stage analysis (Becker *et al.,* 2012). Consequently, the measurement model in the second stage was assessed with one

second order construct (i.e., marketable skills) and one first order construct (i.e., perceived marketability) (See Fig.3). The results of the assessment of the reflective measurement model after the generation of the second-order construct are presented in Table 6 and 7, and indicate that the reliability, convergent validity, and discriminant validity for the two reflective constructs met acceptability criteria.

The Structural Model

Having established the constructs' reliability and validity, the evaluation of the structural model and the proposed hypotheses in this study were tested by running PLS Algorithm and Bootstrapping in SmartPLS 2.0. Three primary evaluation criteria for the structural model: the R^2 measure for the

Table 6. Results of the assessment of measurement model after generating second-order construct

Constructs	Indicators	Loadings	CR	Cronbach's Alpha	AVE
Marketable Skills	MS-ATPSS	0.906	0.950	0.938	0.729
	MS-CLIMS	0.901			
	MS-CS	0.824			
	MS-ES	0.781			
	MS-ITAS	0.802			
	MS-LMS	0.894			
	MS-TIS	0.861			
Perceived Marketability	PM1	0.836	0.918	0.888	0.692
	PM2	0.807			
	PM3	0.902			
	PM4	0.796			
	PM5	0.812			

Table 7. Discriminant validity after generating second-order construct

	Marketable Skills	Perceived Marketability
Marketable Skills	0.854	
Perceived Marketability	0.614	0.832

Table 8. Prediction Relevance of the Model

Endogenous	R Square	Cross-Validated Redundancy	Cross-Validated Communality
Perceived Marketability	0.377	0.257	0.529

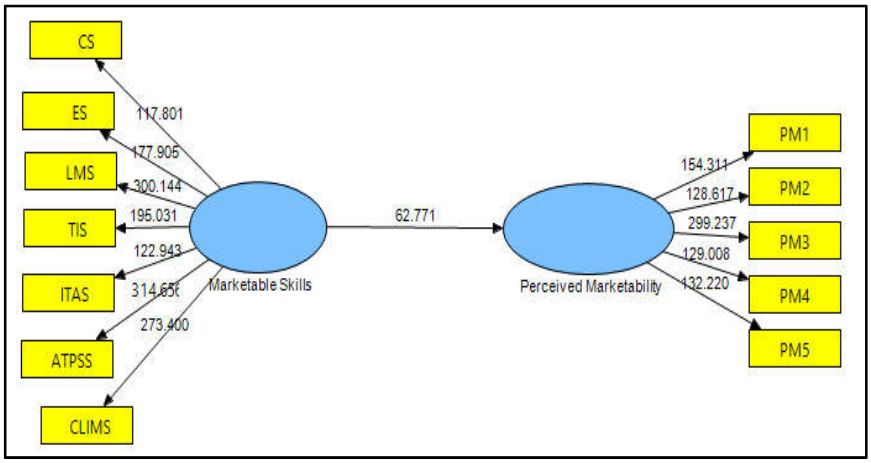


Fig. 4. PLS Bootstrapping (t-values) for the Study Model

Table 9. Result of significance testing of the structural model path coefficients

Hypothesis	Path Coefficient	SE	*t*-Value	*p*-Value	Decision
Marketable Skills -> Perceived Marketability	0.614***	0.010	62.771	0.000	Supported

Note: ***p < 0.01

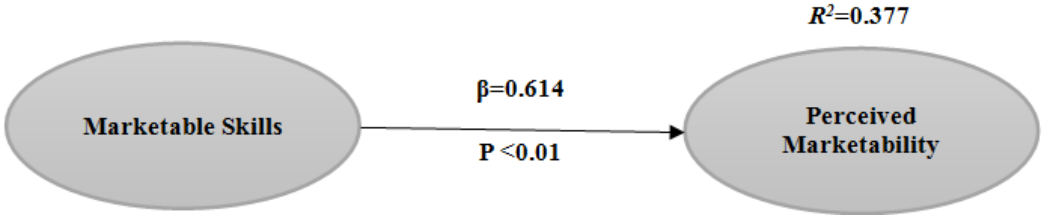


Fig. 5. Results of assessment of structural model

endogenous constructs, the predictive relevance of the model (Q^2), and the level and significance of the path coefficients were conducted (Chin, 2010; Hair *et al.,* 2011). Chin (1998) suggested that values of 0.67, 0.33 and 0.19 as measures of R^2 to be considered substantial, moderate, and weak respectively. The R^2value of the endogenous construct in this study was 0.377 (See Fig. 3); therefore, this value was considered moderate and acceptable. Hence, 37.7% of the variance in extent of the graduates' perceived marketability can be explained by their marketable skills. By running the Blindfolding procedure in SmartPLS, the Q^2 value of the path model was obtained by using the Cross-Validated Redundancy approach (Hair *et al.,* 2011). A path model is said to have the predictive relevance if the Q^2 value was found to be larger than zero, otherwise the predictive relevance of the path model cannot be confirmed (Chin, 2010; Hair *et al.,* 2011). The result in Table 8 showed that the obtained predictive relevance Q^2 of the endogenous latent variable in this study (Perceived Marketability), was 0.257. This result is considerably above zero, thus providing support the claim that the model has an adequate prediction quality. The value of the path coefficient was 0.614 (See Fig. 3). To assess whether the path coefficient is significant, the T-values for the path coefficient was generated by running the bootstrapping routine using mean replacement in the PLS-SEM algorithm setting and the no sign changes option, 85 cases, and 5,000 samples in the bootstrapping settings (See Fig. 4) and the p-value was lower than 0.01. Therefore, the results show the moderate effect of Yemeni graduates' marketable skills on their perceived marketability at the Arab Gulf countries labor market (See Table 9 and Fig. 5).

DISCUSSION

This study aimed to investigate Yemeni graduates' marketable skills and their perceived marketability in the Arab Gulf countries labor market. This study used a multi-dimensional scale to assess the marketable skills of graduates. While previous studies have assessed marketable skills as a single integrated construct (e.g., Grace *et al.,* 2012; Kember and Leung, 2005; Lizzio *et al.,* 2002; Rahman and Mokhtar, 2012; Rahman *et al.,* 2011; Smith and Bath, 2006) or assessed individual dimensions of marketable skills construct (e.g., Kee *et al.,* 2012), no previous studies have used multi-dimensional scales to assess marketable skills. However, this study assessed marketable skills as an integrated reflective construct and the results of the assessment of the measurement model demonstrated the acceptability of marketable skills as an integrated reflective construct inclusive of analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and teamwork and interpersonal skills. Assessing marketable skills as a multi-dimensional integrated construct is consistent with the basic concept of the marketable skills, that marketable skills is a set of skills that are in a great demand (Centrallo, 2007; Rudra, 2013). Moreover, while most previous studies focused on examining several predictors of marketable skills; such as individual characteristics (Lizzio *et al.,* 2002), learning approaches (Kemberand Leung, 2005; Lizzio *et al.,* 2002; Rahman and Mokhtar, 2012), learning environment (Grace *et al.,* 2012; Kember and Leung, 2005; Lizzio *et al.,* 2002; Rahman and Mokhtar, 2012; Rahman *et al.,* 2011; Smith and Bath, 2006), and university-student relationship (Kee *et al.,* 2012), studies that examined the consequence of marketable skills in labor market are scarce where a majority of the research studies that addressed marketable skills is theoretical in nature and offers recommendations and prescriptive advice (e.g. Abdul Mutaliband Mahmuddin, 2010; Akomolafe and Adegun, 2009; Centrallo, 2007; Clarke and Patrickson, 2008; Duncan and Dunifon, 2012; Goswami, 2013; Tran, 2012; Zadel *et al.,* 2009). Therefore, this study examined the effect of graduates' marketable skills on their perceived marketability. The results of this study revealed a significant positive effect of the marketable skills of graduates on their perceived marketability. In other words, if higher education graduates have high level of marketable skills, they are likely to be valuable to the employers.

This finding provides an empirical evidence and lends credence to the extant literature that indicates positive correlation existed between graduates' marketable skills and their perceived marketability (Eby *et al.,* 2003; Goswami, 2013). Given the Arab Gulf countries are being an open labor market on the Arab and international, in order to increase the number of Yemeni graduates' labor, the Yemeni higher education graduates should be have marketable skills to be marketable and able to compete in these promising markets of job opportunities. Therefore, it can be argued that the policymakers in the Yemeni's higher education must consider marketable skills as an important predictor of success in the labor market and work towards promoting these skills in students from the first year in degree. Further, this study broke new ground by having assessed marketable skills in the higher education context as an integrated higher order reflective construct inclusive of seven soft skills namely, analytical thinking and problem solving skills, continuous learning and information management skills, communication skills, entrepreneurship skills, information technology application skills, leadership and management skills, and teamwork and interpersonal skills. Further, this was the first time that the effect of marketable skills has been empirically examined on perceived marketability.

Conclusion and Future Research

Marketable skills are usually overlooked in the Arab countries and the previous studies have been confined to the Western and East Asian countries which is also confined to theoretical in nature and offers recommendations and prescriptive advice because the empirical research is still in its early stages. Nevertheless, it has been worthwhile studying the impact of Yemeni graduates' marketable skills on their perceived marketability in the Arab Gulf countries labor market which are overlooked by researchers and professionals. This study provides vital information in the form of empirical evidence about the importance of graduates' marketable skills in today's labor market. Overall, this study concludes that the graduates' marketable skills have a significant impact on their perceived marketability in today's labor market. Although to the significant theoretical contributions of this study to the literature of graduates' marketability, this study has limitations. The limited number of the Yemeni graduates in the Arab Gulf countries labor market resulted in a small sample size. Further, due to the sample elements were only drawn from Yemeni higher education graduates, leaving out graduates from other nationalities who are working in the Arab

Gulf countries, it is very likely that the different cultures might yield different results. Therefore, there is potential for further research to examine the concept of graduates' marketability with larger sample sizes and under different culture contexts. Future studies may help more detailed inquiry about the graduates' marketability phenomena in the Middle East context.

REFERENCES

Abayadeera, N., Watty, K. 2016. Generic skills in accounting education in a developing country: Exploratory evidence from Sri Lanka. *Asian Review of Accounting, 24*(2), 149 – 170.doi: 10.1108/ARA-03-2014-0039

Abdul Hamid, M.S., Islam, R., AbdManaf, N.H. 2014. Employability skills development approaches: an application of the analytic network process. *Asian Academy of Management Journal, 19*(1), 93–111.

Abdul Mutalib, A., Mahmuddin, M. 2010. Student marketability: enhancing software skills. *Issues in Informing Science and Information Technology, 7*, 413-422.

AbdWahab, A.W.A.M., Ismail, N.A.S. 2014. Communication skills and its impact on the marketability of UKM graduates. *International Journal of Higher Education, 3*(4), 64-71.doi:10.5430/ijhe.v3n4p64

Akomolafe, C.O., Adegun, O.A. 2009. Strategies of managing higher education for youth labour market in Nigeria. *International NGO Journal, 4*(10), 456-460.

Al Abduwani, T.A.R. 2012. The value and development of soft skills: the case of Oman. *International Journal of Information Technology and Business Management, 2*(1), 77-86.

Ali, J., Eam, L.H., Ismail, R., Abdul Rahim, F., Isa, F.M., Ismail, I.A. 2014. The effectiveness of finishing school programmes from the perspectives of graduates and employers. *Malaysian Journal of Learning and Instruction, 11*, 147-170.

Alias, R., Hamzah, M.I.M., Yahya, N. 2013. Generic skill requirements: between employer's aspiration and the need of professional employees. *Journal Pengurusan, 37*, 105 – 114.

Al-Mamun, M.A. 2012. The soft skills education for the vocational graduate: value as work readiness skills. *British Journal of Education, Society &Behavioural Science, 2*(4), 326-338.

Al-Qahas, A. 2008, July 11. Foreign labor in the Gulf are worried about the demographic situation. *Al-Riyadh Newspaper.* No.14627.http://www.alriyadh.com/2008/07/11/article358216.html. Accessed 28June 2016

Al-Rimi, H.S.S. 2012. Community colleges and its central role in qualifying educational outcomes. Working Paper Submitted For The Regional Expert Meeting On Education And Technical And Vocational Training In The Arab States. (March 17-19), Muscat, Sultanate of Oman.

Al-Riyadh Economic, 2015, February 8. Expatriate workers' remittances in the Gulf of 70 billion dollars, and their numbers exceed 15 million. *Al-Riyadh*.http://www.alriyadh.com/1019854. Accessed 30 June 2016

Al-Samarrai, A. 2007, July 28. Foreign labor in Arabic Gulf between the need and the vehicle challenges.*Middle East Newspaper*, No.10469. http://www.aawsat.com/details.asp?section=6&article=429975&issueno=10469. Accessed 20 May 2016

Archer, W., Davison, J. 2008. Graduate employability: The view of employers. The Council for Industry and Higher Education (CIHE).http://aces.shu.ac.uk/employability/resources/0802Grademployability.pdf.Accessed 20 May 2016

Arthur, M.B., Rousseau, D.M. 2001. The boundaryless career: A new employment principle for a new organizational era. Oxford University Press. https://books.google.com.my/books?hl=en&lr=&id=yona3e7k5GIC&oi=fnd&pg=PR9&ots=RoWH7S6jIP&sig=KN4NzI67O1wabcUdDIrIBsclnD8&redir_esc=y#v=onepage&q&f=false. Accessed 20 May 2016

Becker, J.M., Klein, K., Wetzels, M. 2012. Hierarchical latent variable models in PLS-SEM: guidelines for using reflective-formative type models. *Long Range Planning, 45*, 359-394.

Centrallo, C. 2007. Job search! Marketable skills. Alabama Cooperative Extension System. http://www.aces.edu/pubs/docs/H/HE-0845/HE-0845.pdf. Accessed 15 May 2016

Chin, W. W. 1998. The partial least squares approach to structural equation modeling. In: G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum Associates.

Chin, W.W. 2010. *How to write up and report PLS analyses*. In Vinzi, V.E., Chin, W.W., Henseler, J., Wang, H. (eds.), Handbook of partial least squares: Concepts, Methods and Applications, pp. 655–690. Springer, London.

Clarke, M., Patrickson, M. 2008. The new covenant of employability. *Employee Relations, 30*(2), 121-141. doi: 10.1108/01425450810843320

Conrad, C.A., Leigh, W.A. 1999. Soft Skills: Bridge or Barrier to Employment? *FOCUS Magazine, 27*(1), 5-6.

Day, R. 2005. An empirical investigation of the predictors of self and other reported marketability: looking beyond human capital. (*Doctoral dissertation*). http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3848&context=etd. Accessed 29 May 2016

De Vos, A., De Hauw, S. 2010. Linking competency development to career success: exploring the mediating role of employability. Vlerick Leuven Gent Management School, Working Paper Series 2010, 3. https://public.vlerick.com/Publications/41770ac2-6aa9-e011-8a89-005056a635ed.pdf. Accessed 26 June 2016

De Vos, A., De Hauw, S., Van Der Heijden, B.I.J.M. 2011. Competency development and career success: The mediating role of employability. *Journal of Vocational Behavior, 79*, 438–447. doi:10.1016/j.jvb.2011.05.010

Duncan, G. J., Dunifon, R. 2012. "Soft-Skills" and long-run labor market success, In Solomon W. Polachek, Konstantinos Tatsiramos (ed.) 35th Anniversary Retrospective (Research in Labor Economics, Volume 35) Emerald Group Publishing Limited, 313 – 339.

Eby, L., Butts, M., Lockwood, A. 2003. Predictors of success in the era of the boundaryless career. *Journal of Organizational Behavior, 24*, 689–708. doi: 10.1002/job.214

Goswami, R. 2013. Importance of Soft Skills in the employability of IT students. *Proceedings of National Conference on Emerging Trends: Innovations and Challenges in IT*. India: BVIMSR'S Journal of Management Research ISSN: 0976-4739.

http://www.bvimsr.com/documents/publication/NCIT2013/13.pdf. Accessed 26 June 2016

Grace, D., Weaven, S., Bodey, K., Ross, M., Weaven, K. 2012. Putting student evaluations into perspective: The Course Experience Quality and Satisfaction Model (CEQS). *Studies in Educational Evaluation, 38*(2), 35-43.

Green, F., Felstead, A., Gallie, D., Henseke, G. 2016. Skills and work organisation in Britain: a quarter century of change. *Journal for Labour Market Research, 49*(2), 121–132. doi: 10.1007/s12651-016-0197-x

Hair, J.F. Jr., Black, W.C., Babin, B.J., Andersen, R.E. 2010. *Multivariate data analysis* (7th ed.). Pearson Prentice Hall, Upper Saddle River, NJ

Hair, J.F., Hufit, G.T.M., Ringle, C.M., Sarstedt, M. 2014. *A primer on Partial Least Squares Structural Equation Modeling {PLS--SEM)*. Sage Publications, Inc, Los Angles

Hair, J.F., Ringle, C.M., Sarstedt, M. 2011\). PLS-SEM: indeed a silver bullet. *Journal of Marketing Theory and Practice,19*(2), 139–151. doi: 10.2753/MTP1069-6679190202

Hairi, F., Toee, M.N.A., Razzaly, W. 2011. Employers' perception on soft skills of graduates: A study of Intel Elite soft skill training. *International Conference on Teaching & Learning in Higher Education (ICTLHE)*. http://eprints.uthm.edu.my/2191/1/EDC243.pdf. Accessed 26 June 2016

Jackson, D. 2013. Business graduate employability – where are we going? *Higher Education Research and Development, 32*(5), 776-790.

Joubert, P.M., Krüger, C., Bergh, A-M., Pickworth, G.E., Van Staden, C.w., Roos, J.L., Schurink, W.J., Du Prees, R.R., Grey, S.V., Lindeque, B.G. 2006. Medical students on the value of role models for developing 'soft skills'- "That's the way you do it". *South African Psychiatry Review, 9*, 28-32.

Kandra, M., Sewell, T., Nyamari, J. 2011. A young professional's guide to career success using soft skills. *Isaca Journal, 1*, 1-5.

Kee, C.P., Ahmad, F., Ibrahim, F., Nie, K.S. 2012. Correlating graduate marketability dimensions with the measurements of university-student relationship. *Asian Social Science, 8*(6), 63-73. doi:10.5539/ass.v8n6p63

Kember, D., Leung, D.Y.P. 2005. The influence of active learning experiences on the development of graduate capabilities. *Studies in Higher Education, 30*(2) 155–170. doi: 10.1080/03075070500043127.

Kofli, N.T., Badar, S.N., Rahman, N.A., Mastar, M.S., Abdullah, S.R.S. 2012. Open ended laboratory (OEL) assignment as tool imparting generic skills for engineering students. *Asian Social Science, 8*(16), 146- 152.

Krish, P., Meerah, T.S.M., Osman, K., Ikhsan, Z. 2012. Are UKM graduates ready to face the challenges of the job market? *Procedia - Social and Behavioral Sciences, 59*, 584 – 590. doi: 10.1016/j.sbspro.2012.09.317

Lizzio, A., Wilson, K., Simons, R. 2002. University students' perceptions of the learning environment and academic outcomes: implications for theory and practice. *Studies in Higher Education, 27*(1) 27- 52. doi: 10.1080/03075070120099359

Majid, S., Liming, Z., Tong, S., Raihana, S. 2012. Importance of soft skills for education and career success. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE), Special Issue, 2*(2), 1036- 1042.

Mane, F., Miravet, D. 2016. Using the job requirements approach and matched employer-employee data to investigate the content of individuals' human capital. *Journal for Labour Market Research, 49*(2), 133–155. doi: 10.1007/s12651-016-0203-3

Mason, G., Williams, G., Cranmer, S. 2009. Employability skills initiatives in higher education: what effects do they have on graduate labour market outcomes? *Education Economics, 17*(1), 1-30.

Moalosi, R., Oladiran, M.T., Uziak, J. 2012. Students' perspective on the attainment of graduate attributes through a design project. *Global Journal of Engineering Education, 14*(1), 40-46.

Musa, F., Mufti, N., Abdul Latiff, R., Amin, M.M. 2012. Project-based learning (PjBL): inculcating soft skills in 21st century workplace. *Procedia - Social and Behavioral Sciences, 59*, 565–573. doi: 10.1016/j.sbspro.2012.09.315

Nafi, M.N.A., Ghani, I.A. 2011. Modelling employability of graduates using logistic regression. *Journal of Statistical Modeling and Analytics, 2*(1), 45-51.

Nasir, A.N.B.M., Ali, D.F., Noordin, M.K.B., Nordin, M.S.B. 2011. Non-technical skills for technical skilled workers in Malaysia. *In Proceedings of the Conference on IETEC'll International Engineering and Technology Education*, Ianuary (pp. 16-19). http://educ.utm.my/dayanafarzeeha/files/2012/10/Non-technical-skills-for-technical-skilled-workers-in.pdf. Accessed 29 June 2016

Pritchard, J. 2013. The importance of soft skills in entry-level employment and post-secondary success: Perspective from employers and community colleges. *Seattle Jobs Initiative*. http://www.seattlejobsinitiative.com/wp-content/uploads/SJI_SoftSkillsReport_vFINAL_1.17.13.pdf. Accessed 26 June 2016

Rahman, S., Mokhtar, S.B.2012 . Structural relationship of learning environment, learning approaches, and generic skills among engineering students. *Asian Social Science, 8*(13), 280- 290. doi:10.5539/ass.v8n13p280

Rahman, S., Mokhtar, S.B., Yasin, R.M., Jusoff, K., Hamzah, M.I.M.2011 . Learning environment and the development of students' generic skills. *Middle East Journal of Scientific Research, 7*(5): 663-668.

Rajan, R.K.M.2010. . Soft skill requirement for employability in mechanical engineering industry. *Journal of Human Capital Development, 3*(2), 41-54.

Rani, S.M.E.2010. Need and importance of soft skills in students. *Open Journal Academic System, 2*(3), 1-6.

Ringle, C.M., Sarstedt, M., Straub, D.W. 2012. Editor's comments: A critical look at the use of PLS-SEM in MIS quarterly. *Management Information Systems Quarterly, 36*(1), 2–14.

Roscoe, J.T. 1975.*Fundamental research statistics for the behavioral sciences* (2nd ed.). Holt, Rinehart and Winston, New York

Rudra, S. 2013. Interview of the day: 'Build marketable skills for a competitive career'. *Times Business Solutions Ltd*. http://www.content.timesjobs.com/interview-of-the-day-build-marketable-skills-for-a-competitive-career/. Accessed 16 November 2016

Schulz, B. 2008. The importance of soft skills: Education beyond academic knowledge. *Journal of Language and Communication*, 146-154.

Sekaran, U. 2003. *Research methods for business: A skill-building approach* (4th ed.). John Wiley & Sons, Inc., New York

Shakir, R. 2009. Soft skills at the Malaysian institutes of higher learning. *Asia Pacific Educ. Rev., 10*, 309–315. doi 10.1007/s12564-009-9038-8

Singh, P., Thambusamy, R., Ramly, A., Abdullah, I.H., Mahmud, Z. 2013. Perception differential between employers and instructors on the importance of employability skills. *Procedia - Social and Behavioral Sciences, 90*, 616 – 625. doi: 10.1016/j.sbspro.2013.07.133

Smith, C., Bath, D. 2006. The role of the learning community in the development of discipline knowledge and generic graduate outcomes. *Higher Education, 51*, 259–286. doi: 10.1007/s10734-004-6389-2

Sturges, J., Simpson, R., Altman, Y. 2003.Capitalising on learning: an exploration of the MBA as a vehicle for developing career competencies. *International Journal of Training and Development, 7*(1), 53- 66.

The Ministry of Planning and International Cooperation, andThe Ministry of Social and Labor Affairs 2013.*National Plan for Youth Employment 2014- 2016*. The Prime Minister, Sana'a http://www.mosal.gov.ye/. Accessed 30 June 2016

The Supreme Council of Education Planning (SCEP) 2011, August.*Educational indicators of the Republic of Yemen: Stages - various types 2009-2010* (9th ed.). The Prime Minister, Sana'a

Thomas, S.L., Scroggins, W.A. 2006. Psychological testing in personnel selection: contemporary issues in cognitive ability and personality testing. *Journal of Business Inquiry*, 28-38.

Tran, T.T. 2012. Graduate employability: Interpretation versus expectation. In Brown, N., Jones S.M., and Adam, A. (eds.), *Research and Development in Higher Education: Connections in Higher Education, 35*, 317– 325. Hobart, Higher Education Research and Development Society of Australasia, Inc., Australia

Vyas, P. 2013. Soft skills: Panacea for sustainable employability. *The Criterion an International Journal in English, 4*(2), 1-8.

Wahl, H., Kaufmann, C., Eckkrammer, F., Mense, A., Gollner, H., Himmler, C., Rogner, W., Baierl, T., Slobodian, R. 2012. Soft skills in practice and in education: an evaluation. *American Journal of Business Education, 5*(2), 225- 232.

Warraich, N.F., Ameen, K. 2011. Employability skills of LIS graduates in Pakistan: needs and expectations. *Library Management, 32*(3), 209-224. doi: 10.1108/ 01435121111112916

Weligamage, S.S. 2009. Graduates' employability skills: Evidence from literature review. *University of Kelaniya, Sri Lanka*, 115- 125.

Wetzels, M., Odekerken-Schroder, G., Oppen, C.V. 2009. Using PLS path modeling for assessing hierarchical models: Guidelines and empirical illustration. *MIS Quarterly, 33*(1), 177-195.

Wilson, R.A.J., Ahmad, A.B., Shamree, L., Abu Zarin, H. 2011.The embedment of soft skills in real estate curriculum. *In International Conference on Sociality and Economics Development, IPEDR* (vol.10, pp. 226- 230). IACSIT Press, Singapore

Wincenciak, L. 2009. Graduates' characteristics and labour market entry: polish experience. *In DECOWE Development of Competencies in the World of Work and Education: Conference Proceedings* (24-26 September, 2009), (pp. 127-135), University of Ljubljana, Slovenia

World Economic Forum 2017, May. *The future of jobs and skills in the Middle East and North Africa: Preparing the region for the fourth industrial revolution*. http://www3.weforum.org/docs/WEF_EGW_FOJ_MENA.pdf. Accessed 26 June 2017

Yassin, S., Abu Hasan, F., Amin, W., Amiruddin, N.A. 2008. Implementation of generic skills in the curriculum. *In EDU-COM International Conference*. Sustainability in Higher Education: Directions for Change (19-21 November, 2008,pp. 571-582, Edith Cowan University, Perth Western Australia

Yorke, M., Knight, P. 2006. Embedding employability into the curriculum. Learning and Employability Series One. *The Higher Education Academy*, UK

Zadel, A., Skrt, I., Cerinšek, G., Poglajen, M. 2009. Mission, objectives and activities of the Slovene university career centres. *In DECOWE Development of Competencies in the World of Work and Education: Conference Proceedings* (24-26 September, 2009, pp. 143-146, University of Ljubljana, Slovenia

Zainal, K., Wan Hassan, W.Z., Alias, J. 2012. Generic skill level of UKM students after pursuing the compulsory general studies courses. *Procedia - Social and Behavioral Sciences, 59*, 558 – 564.doi: 10.1016/j.sbspro.2012.09.314

Appendix 1. The adapted items to measure Perceived Marketability and Marketable skills

Perceived Marketability	
PM1	I believe that I could easily obtain a job.
PM2	There are many jobs available in the labor market for megiven my skills and experience.
PM3	Given my skills and experience, employers view me as a value-added resource.
PM4	When it comes to finding work in the labor market, I consider myself highly competitive.
PM5	Regardless of the current economic situation, I expect that I could easily find jobs.
Analytical Thinking and Problem Solving Skills	
ATPSS1	I have the ability to recognize and analyze problems.
ATPSS2	I have the ability to explain, analyze and evaluate data and information.
ATPSS3	I have the ability to generate creative ideas.
ATPSS4	I have the ability to think critically.
ATPSS5	I have the ability to learn and apply new knowledge skills.
ATPSS6	I have the ability to understand statistical and numerical data.
ATPSS7	I have the ability to think outside of the box.
ATPSS8	I have the ability to make logical conclusions by analyzing relevant data.

Continue……

Continuous Learning and Information Management Skills	
CLIMS1	I have the ability to find information from different and diverse sources.
CLIMS2	I have the ability to manage information.
CLIMS3	I have the ability to accept new ideas.
CLIMS4	I have the capability of autonomous learning.
Communication Skills	
CS1	I have the ability to listen attentively and give appropriate feedback.
CS2	I have the ability to negotiate and reach consensus.
CS3	I have the ability to write effectively in Arabic.
CS4	I have the ability to write effectively in English.
CS5	I have the ability to speak fluently in Arabic language.
CS6	I have the ability to speak fluently in English language.
CS7	I have the ability to communicate formally and informally with people from different backgrounds.
CS8	I have the ability to effectively deliver presentations of a case/project.
CS9	I have the ability to express my own ideas clearly, effectively and with confidence.
Entrepreneurship Skills	
ES1	I have the ability to explore and identify business opportunities.
ES2	I have the ability to develop a business plan.
ES3	I have the ability to develop business opportunities.
ES4	I have the ability to capitalize on business opportunities.
ES5	I have the ability to be self-employed.
Information Technology Application Skills	
ITAS1	I have a good level of keyboard competency.
ITAS2	I have the ability to use word processing software.
ITAS3	I have the ability to use statistical software package.
ITAS4	I have the ability to deliver effective presentations using computer software.
ITAS5	I have the ability to use database programmes fordata management.
ITAS6	I have the ability to use spread sheets for data analysis.
ITAS7	I have ability to use internet search engines for search the relevant information from various sources.
Leadership and Management Skills	
LMS1	I have the ability to lead a project.
LMS2	I have the ability to supervise group members.
LMS3	I have the ability to optimize the use of resources.
LMS4	I have the ability to good time management.
LMS5	I have the ability to plan, coordinate and organize a project.
LMS6	I have the ability to monitor group members to achieve targets.
LMS7	I have the ability to plan and implement an action plan.
LMS8	I have the ability to work under pressure.
LMS9	I have the ability to work independently.
LMS10	I have the ability to deliver expected results.
Teamwork and Interpersonal Skills	
TIS1	I have the ability to work and contribute to the group/team.
TIS2	I have the ability to understand other peoples' problems, emotions, concerns and feeling related to work.
TIS3	I have the ability to negotiate with subordinates or colleagues.
TIS4	I have the ability to encourage and motivate others.
TIS5	I have the ability to network.
TIS6	I have the ability to work in a diverse environment.
TIS7	I have the ability to deal with superiors.
TIS8	I have the ability to manage others.

****