Antecedents of Soft-Skills in Higher Education Institutions of Saudi Arabia Study under COVID-19 Pandemic

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Abstract

Higher Education Institutions (HEIs) play an important role in development of productive academic environment for university graduates. Similarly, soft skills are an essential requirement for fresh graduates to provide and prepare them for the convenient and suitable job market. In last few months, emerging situation of COVID-19 has affected the Saudi higher education sector at large scale from business perspective by diverting the regular studies to online classes. Online classes have made it more difficult for academic staff to cope up with this deteriorating situation. This study is planned to identify numerous soft-skills, which could be important to conduct academic activities under COVID-19 crisis. Study will make an analysis focusing on the importance of soft-skills in higher education institutions before and after the COVID-19 crisis. Study collected data from both public and private sector higher educational institutions located in Jeddah, Saudi Arabia. Study observed the key role and overall impact of soft-skills to enhance the learning aptitudes under uncertain COVID-19 situation. Study will also focus on the importance of soft-skills in job success in the Saudi job market for university graduates. Study will also focus on the importance of soft-skills integration in higher education curriculum. Study will help the decision makers to plan and prepare accordingly for developing academic environment to get better job opportunities in the competitive Saudi business organizations.

Keywords

Convergent and Discriminant Validity, Composite Reliability, Average Variance Extracted

1. Introduction

Higher Education Institutions (HEIs) play a key role in the development of modern education standards. HEIs are responsible in developing and maintaining a high level of academic curriculum equipped with most modern learning tools and skill. In this regards, HEIs must identify and develop set of important soft-skills and attributes to integrate into the academic curriculum of different study fields in higher education sector. These soft-skills can help the university graduates for a better candidate in the Saudi job market (Redha Al Abduwani, 2012). The main objective of the study is to identify the measures that how Saudi higher education institutions can improve the learning process under COVID-19 pandemic. Furthermore, how university graduates can be benefited in this uncertain situation by learning the proposed important soft-skills (Sharma, 2019). Business organizations have been already reporting that they need to conduct special training sessions for fresh graduates to learn and adapt the business requirements (Tang, 2020). Keeping this in view, study will contribute to enhance the importance of soft-skills to address the competitive job market concerns. Study will focus on the integration of proposed soft-skills in the higher education curriculum for different field of studies. Study will maintain a level of coordination in incorporating the course objectives, learning outcomes in accordance with the job market requirements to further strengthen the curriculum. Following is the detail of the research objectives and Saudi market problem:

1.1. Problem Statement

COVID-19 pandemic has shifted the regular studies paradigm to online studies using different online tools like (Zoom, 2020; https://zoom.us/), (Webex, 2020; https://www.webex.com/), (Moodle, 2020; https://moodle.com/), (WizIQ, 2020; https://www.wiziq.com/) and (Blackboard, 2020; https://www.blackboard.com). It has also affected the Saudi higher education sector at large scale from business perspective to academic activities progression. This study is planned to identify important soft skills, which could help the academic environment to perform better in the uncertain COVID-19 pandemic crisis. University graduates have an issue of being not prepared for the job market and most of them need trainings as they join the competitive job market. This is mostly happening in the engineering and technical study areas, where more focus is on technical skills instead of focusing on working environment skills. Study will address and focus on the importance of soft-skills to be integrated in the university curriculum in different study fields at higher education institutions.

1.2. Research Objective

Study will particularly focus on higher education institutions of Saudi Arabia under this uncertain situation of COVID-19 pandemic. Study will observe and identify the important soft-skills before and after the pandemic situation. Study will focus particularly on the fresh university graduates to cope up with the job market requirements by learning and adapting the proposed soft-skills. Further-

more, study will assess and evaluate the importance of the soft-skills in HEIs curriculum with emphasis on before and after COVID-19 situation. Finally, study will propose recommendations for integrating the proposed soft-skills in higher education curriculum.

2. Importance of Soft-Skills

University education is an ongoing process for developing and preparing the university graduates for the competitive job market. Saudi higher education ministry is providing international standard opportunities and services to university students in their respective study fields. Soft-skills are playing a vital role in personality development of university graduates and known to form the personality traits, attitudes, career attributes, social intelligence and emotional intelligence quotients. This will enable them to communicate better, perform efficiently and cooperate well with others in a professional business environment (Melluso et al., 2020). Since the COVID-19 pandemic has disturbed the normal way of education, new ways and means of education has been introduced during this short period of time. Saudi higher education in compliance with the universities and colleges is ready to equip the graduates with modern education standards (Tang, 2020). The graduates must understand and learn the soft-skills knowledge effectively to get them ready to be placed in the job market. In modern times, academic education and soft-skills keep changing as per the work environment and market demands. At the same time, business organizations are complaining about the university graduates in terms of lack in soft-skills learning. They feel that they have to arrange training sessions for fresh graduates to prepare them for the job market. This argument is mostly focused on engineering and technical field of studies, as they feel that soft-skills are not part of their regular studies. This looks correct as engineers are technical professionals and they don't get involved with management and business operations but modern business demands are changing as business needs are growing (Yaacoub, Husseini, & Choueiki, 2011). One of the most common criticism is regarding the communication skills like local, bilingual or trilingual languages of the graduate in Saudi job market (Sharma, 2019). On the other side general academic programs such as Arts, Design and Business Administration put more emphasis on learning and adopting the soft-skills during the studies (Chondekar, 2019). However, during the COVID-19 pandemic situation, it has become more important for the university graduates to learn and adopt the soft-skills. It has become difficult for both faculty members and students to handle the current academic situation as its online not on regular basis. Both will require a more solid and applied evidence of implementing academic standards in higher education institutions (Pomeroy, 2014). Hence, it is very important for higher education ministry, universities and colleges to integrate soft-skills in academic in COVID-19 pandemic situation.

3. Literature Review

Relevant literature is an important source of collecting the information for the

research studies. The main objective is to determine the hypothesis for the current study. Soft-skills play an important role in developing the university graduates as per the job market requirements. These skills will help and prepare the graduates to look for the better and appropriate job in the saturated job market. There are many soft-skills discussed and addressed in the previous studies but this study will focus on soft-skills in the uncertain situation of COVID-19. Researcher has reviewed the relevant literature and found some important soft-skills, which could add value to the university graduates in addition to the knowledge of the study field. It could also help the academicians to prepare and plan the best ways and means for the university graduates. These soft skills include, *Creativity* (*CRT*), it is known to generate original and unique ideas and provide solutions to resolve the issue (Sharma, 2019), *Patience* (*PAT*), is recognized to deal with different cultural environments, with different backgrounds, learning styles and intellectual abilities (Yaacoub, Husseini, & Choueiki, 2011), *Persuasion* (*PER*), is defined as convincing others to support your innovative ideas and solutions to take into practical actions (Tang, 2020), *Organization* (*ORG*), is known to make different class activities and assessments for ensuring a smooth grading process (Chondekar, 2019), *Adaptability* (*ADP*), is recognized to perform work in changed and uncertain environment, specially in the uncertain COVID-19 situation (Bak, Jordan, & Midgley, 2019), *Leadership* (*LED*), is the ability to inspire others and lead teams to success for achieving the ultimate objectives (Redha Al Abduwani, 2012), *Teamwork* (*TMW*), is recognized to work in a team to achieve common goals (Marinakou & Giousmpasoglou, 2015), *Time Management* (*TMG*), is known as working under pressure as well as within strict deadlines (Sharma, 2019), *Technological Skills* (*TCS*), are means of learning and applying modern technological skills under COVID-19 situation (Bak, Jordan, & Midgley, 2019), *Conflict Resolution* (*CFR*), is known to manage differences among peers (Marinakou & Giousmpasoglou, 2015). These soft-skills have been addressed in different research studies as per the study requirements but this particular study will focus on the uncertain situation of COVID-19. This was already a difficult task and has become more tedious when there is a technological barrier between the academic staff and the students.

4. Research Methodology

For data collection, quantitative method has been adopted and non-probability based convenience data sampling technique is used for the current study as recommended by the research experts (Saunders, Lewis, & Thornhill, 2008). A questionnaire based survey in public and private sector higher education institutions was conducted by the researcher himself. Public sector universities were including King Abdulaziz University and University of Jeddah, whereas private sector college and universities were including Effat University, Dar Al-Hekma University, University of Business and Technology, Arab Open University and Jeddah International College. Questionnaire was prepared and distributed through Google Docs to General Managers, Deans and Vice Deans, Academic staff, Stu-

dents, Head of Departments and general staff working the higher education institutions. Collected data has been verified and only valid data has been used for study and results have been analyzed by using Microsoft Excel and mainly Smart PLS3.0.

5. Analysis and Interpretation

For the purpose of analysis and data interpretation, researcher has performed descriptive analytical methods in accordance with study objectives and problem identified earlier. Different statistical measures like frequencies and averages were performed for the analysis purposes. Detail is given below:

5.1. Demographic Detail

Following graph (Figure 1) shows the overall demographic detail of the respondents, where each position is listed with female and male respondents. An online questionnaire was prepared using Google Docs to address the study objectives. For the purpose of analysis, descriptive analytical methods were deployed to perform the statistical measures like frequencies and averages. Questionnaire asked about the basic demographic information of the participant like gender and position, i.e. Managers, Deans, HODs, Teachers, Students, Staff and Others Gender and Position in the university or college. There were ten questions in four sections asking for the COVID-19 impact as (*Low*, *Medium*, *High* and *Increase*, *No Change* and *Decrease*). Last three questions were about the final opinion of the respondent's regarding the integration of soft-skills in higher education institution's curriculum. Detail is illustrated in Figure 1.
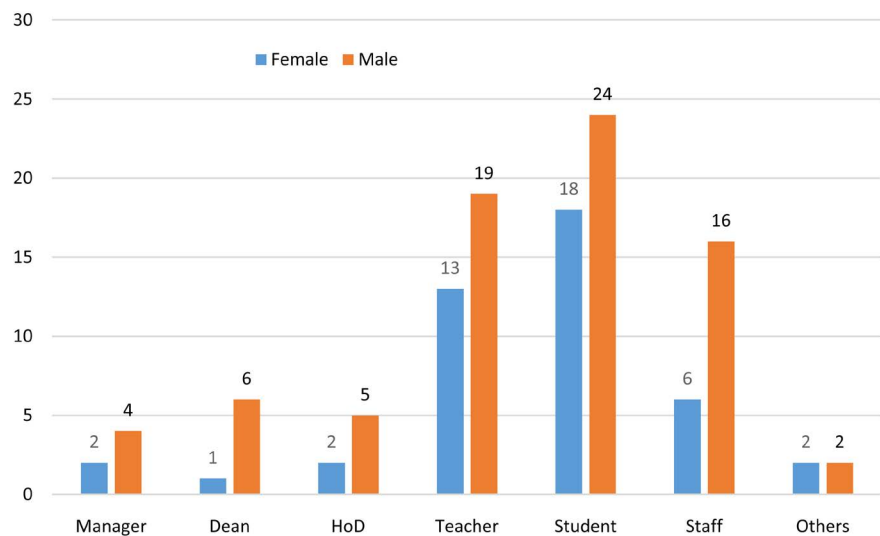

Figure 1. Soft-skills for job-market success before COVID-19.

5.2. The Convergent Validity Analysis

According to Hair et al., convergent validity refers to the degree to a group of variables converge in measuring a particular concept. It can be established through

the simultaneous testing of three criteria; Factor Loadings, Composite Reliability and Average Variance Extracted. As such, the entire items loadings were examined and confirmed where AVE must be >0.50 CR must be >0.70, Cronbach's must be >0.70 and Loadings must be >0.60. However, if all other criteria of measurement model fulfil the validity and reliability requirements, we can retain some item's loading even as low as 0.40 as an acceptable level (Hair, Babin, & Krey, 2017). The factor loadings were all significant with 0.01 level of significance, shown in Table 1. The values of Cronbach Alpha fall well above the thresh hold value while composite reliability values fall between 0.881 and 0.956 indicating that the latter values exceeded the recommended value of 0.70 (Nouf Rashed Al khater, 2017). Hence, results show the group of items AVE in relation to the variance shared with measurement errors. Specifically, AVE measures the variance encapsulated by indicators that relate to the assignable variance to the measurement errors. If the AVE value is 0.5, the set of items is deemed to have sufficient convergence in measuring the construct (Hair et al., 2014). The detail is given below in Table 1.

Table 1. Convergent validity analysis.

Items	Items	Loadings	AVE	CR	Cronbach's α
Job-Success Before COVID-19 (JSB)	CRT	0.7583	0.5031	0.7532	0.7231
	PAT	0.7662			
	PER	0.7424			
	ORG	0.7304			
	ADP	0.7105			
	LED	0.7201			
	TMW	0.7022			
	TMG	0.7201			
	TCS	0.7010			
	CFR	0.7301			
Job-Success After COVID-19 (JSA)	CRT	0.7223	0.5123	0.7321	0.7221
	PAT	0.7341			
	PER	0.8101			
	ORG	0.7701			
	ADP	0.6995			
	LED	0.4053			
	TMW	0.8196			
	TMG	0.7858			
	TCS	0.7735			
	CFR	0.7229			
Soft-Skills Integration Before COVID-19 (SIB)	CRT	0.7321	0.5321	0.7322	0.7320
	PAT	0.7243			
	PER	0.7302			
	ORG	0.7501			
	ADP	0.7945			

Continued

	LED	0.6023			
	TMW	0.7181			
	TMG	0.7214			
	TCS	0.7425			
	CFR	0.7229			
	CRT	0.6896			
	PAT	0.7229			
	PER	0.7399			
	ORG	0.7679			
Soft-Skills Integration After COVID-19 (SIA)	ADP	0.6442	0.5532	0.7941	0.7731
	LED	0.6896			
	TMW	0.7229			
	TMG	0.7399			
	TCS	0.7679			
	CFR	0.6442			

5.3. The Discriminant Validity Analysis

Discriminant Validity refers to the level to which items can differentiate among different constructs to show that the items of different constructs are not overlapping. Additionally, discriminant validity of measures share variance between each individual construct and hence it should be higher than the variance shared among specific constructs. In this study, discriminant validity of measures was established through Fornell and Larcker's (1981) method, where the square root of AVE for all constructs was replaced at diagonal elements of relation matrix (Henseler, Ringl, & Sarstedt, 2014). The detail is given below in Table 2.

Table 2. Discriminant validity analysis.

Items	JSB	JSA	SIB	SIA
Job-Success Before COVID-19 (JSB)	**0.73**			
Job-Success After COVID-19 (JSA)	0.23	**0.79**		
Soft-Skills Integration Before COVID-19 (SIB)	0.36	0.36	**0.82**	
Soft-Skills Integration After COVID-19 (SIA)	0.43	0.28	0.37	**0.76**

5.4. The Path t-Values

First of all, data is tested by evaluating the path t-values which are provided by the bootstrap routine. These values indicate the significance levels of each path and thereby the strength of support for the proposed hypothesis (Willis, 2018). Table below provides corresponding path t-values levels of significance. Result shows that there is significant variance among the soft-skills status for *Low*, *Medium*, *High* (L, M, H) and *Increase*, *No Change*, *Increase* (I, N, D) regarding job-market and integration at higher education curriculum before and after the COVID-19 crisis. The detail is given below in Table 3.

Table 3. Soft-skills significance in higher education institutions.

| Items | Soft-Skills Status *Before* & *After* COVID-19 | | | |
| | LMH | IND | LMH | IND |
	t-Values	*p*-Values	t-Values	*p*-Values
CRT	2.812	0.197	5.835	0.372
PAT	2.543	0.052	5.742	0.403
PER	2.513	0.061	5.735	0.381
ORG	2.843	0.189	5.742	0.432
ADP	2.502	0.072	5.82	0.372
LED	2.817	0.075	5.761	0.462
TMW	2.513	0.173	5.745	0.381
TMG	2.533	0.053	5.842	0.432
TCS	2.802	0.169	5.638	0.391
CFR	2.791	0.171	2.791	0.197

6. Discussion & Conclusion

Study was based on observations of the people concerned with the academic environment of higher education institutions of Saudi Arabia. Study pointed out that the importance of soft-skills at higher education institutions has got more importance under COVID-19 pandemic crisis. Questionnaire was prepared to assess and evaluate the importance of soft-skills before and after the COVID-19 pandemic occurred by using Google Docs for data collection. Questionnaire had total six sections, first part was asking for basic demographic information of the participant i.e. Gender and Position in the academic environment. Second part had four sections each having 10 questions regarding the impact soft-skills before and after the COVID-19 pandemic crisis. Questions were distributed to Managers, Deans, HODs, Teachers, Students, Staff and Others. Questionnaire was focusing on the Job-Success before COVID-19 (JSB), Job-Success after COVID-19 (JSA), Soft-Skills Integration before COVID-19 (SIB) and Soft-Skills Integration after COVID-19 (SIA). Each section of questionnaire further has one question for each soft-skill to get the respondent's opinion with the *Low*, *Medium and High*, *Increase*, *No Change and Decrease* scales for evaluation purposes. Study results support the importance of soft-skills at higher education institutions in Kingdom of Saudi Arabia. Study results pointed out that Higher Education Ministry and Institutions have to observe it closely to initiate the role of the universities and colleges to improve the university graduate's prospects in terms of learning the soft skills to get better job opportunities in competitive Saudi job market. In this regards, descriptive analytical methods were applied for statistical measures like convergent validity, discriminant validity and path t-values were performed on the data collected through the questionnaire. Study results proved that it will help the fresh graduates to learn the soft-skills and be ready to join

the human resource at the work place. Study results showed that respondents were in opinion that soft-skills integration in higher education curriculum is very important and hence it should be added in all academic majors. Study results have shown significant evidence of respondents that Higher Education Institutions of Saudi Arabia must reconsider the integration of soft-skills in all study majors to enhance an improve the course objectives and learning outcomes as per the requirements of the job market during the COVID-19 crisis. In addition to this, role of soft-skills is very imperative in modern academic environment as it helps the university graduates to learn and apply the knowledge to real life situations in their work environment.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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