



Implications of COVID-19 on the Labor Market of Saudi Arabia: The Role of Universities for a Sustainable Workforce

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Received: 12 August 2020; Accepted: 26 August 2020; Published: 31 August 2020



Abstract: Governments all over the world are taking preventive measures to contain the spread of COVID-19. However, these measures have caused both long- and short-term effects on the socioeconomic situation of many countries. Due to lockdowns and business shutdowns, people are becoming unemployed or are working on reduced wages, creating a unique type of career shock in the global job market. Moreover, this phenomenon also produces a negative reflux among workers, encouraging a new skill set for this unprecedented time. The present study aimed to investigate the implications of COVID-19 on the labor market of Saudi Arabia. Data were collected with the help of a questionnaire from both public and private sector employers (n = 234) to inquire about their perceptions of the new skill set required in the changing business environment during and after pandemics. The data were analyzed with the help of descriptive statistics as well as simple and companion regression. The results indicate that the healthcare, service and education sectors have quickly transformed themselves from conventional to remote forms of working and consider virtual skills, autonomous working and effective communication the most important skills for their workforce during the current and the postpandemic scenarios. Interviews were then conducted with educational leaders to develop a conceptual framework by integrating both qualitative and quantitative analysis of the surveys. The results of the study are beneficial for the educational leadership of higher education institutions (HEIs) to better align their educational programs with changing market needs. By doing so, they not only increase the sustainability of the workforce but also minimize the impact of COVID-19 on the Saudi labor market.

Keywords: COVID-19; higher education; labor market; employability skills; pandemic; King Abdulaziz University; universities



1. Introduction

The spread of COVID-19 has created enormous challenges for both developed and developing countries. Global supply chains have been disturbed, and economies are entering a recession [1]. On the one hand, affected countries are taking preventive measures to curb the virus, but, on the other hand, continuous lockdowns and business shutdowns further slow down economic growth [2]. As a result, millions of people are becoming unemployed, producing stress, anxiety and depression among global communities [3]. Similarly, the fear of losing jobs or working on reduced wages has created further career shocks among skilled and unskilled workers [4]. However, Lekfuangfu et al. observed that the rate at which people are becoming unemployed does not follow a universal pattern, as both workers' knowledge and their flexibility to work from home play a dominant role in their employment opportunities [5]. However, the phenomenon of working from home has categorized the labor market into "good jobs" and "bad jobs"; due to this, the balance of employment is unfairly skewed in favor of those who possess the right kind of skills compared to workers in roles whose nature prohibits remote working [6]. Similarly, workers with flexible employment relationships in terms of workplace locations and working hours were found to be less affected than workers with fixed employment relationships [7]. Due to the COVID-19 pandemic, organizations are encouraging their workers to minimize social contact, which is in stark contrast with earlier norms, when staff were trained and motivated to develop interpersonal contact between themselves and customers [8]. Although the immediate consequences of the pandemic are negative, in the long term, it may open new career opportunities based on the integration of individuals' competencies and their contextual factors [4].

In a country like Saudi Arabia, where the labor market is transforming and the government has already introduced numerous steps to support small and medium enterprises, the sudden onset of COVID-19 has greatly upset the demographic and socioeconomic balance, as most of the unskilled migrant workers are leaving for their home countries, either due to unemployment or skill mismatches [9]. As a result, the job markets are becoming polarized, and career plans are being primarily associated with job security instead of wages or future growth [10]. Under these situations, higher education institutions (HEIs) are placing more significance on developing the right kind of labor market skills [11] as well as improving their digital competencies [12]. This not only provides increased sustainability to the workforce but also strengthens the economic well-being of society in general [13]. In a study conducted by Fakih et al., it was reported that HEIs must develop the right kind of employability skills among their graduates to boost their career prospects [14]. Similar research was carried out by Ali et al., in which employers expressed a lack of confidence in the capability of HEIs to develop the required employability skills among their graduate students [15]. Furthermore, industrial employers have been found to give more importance to teamwork, language competency and emotional intelligence, while universities focus more on their technical skills. Similarly, the role of language competency is gaining more importance during COVID-19 due to the switching of organizations from conventional to digital operations [16]. It is generally believed that in the current scenario, quick transformation is vital for educational sustainability, but Valverde observed that numerous risks are also associated with digital learning [17]. On the other hand, Vian et al. proposed the idea of a smart campus to harness the integration of information and communications technology (ICT) applications with adaptive learning [18]. Conversely, Di Pietro found that students with overseas study experience had a better chance of gaining employment due to better adaptability, multicultural experience, bilingual skills and dealing with unexpected situations [19]. Although the United Arab Emirates and Bahrain remain proactive in their efforts regarding the development of employability skills, a mismatch still exists between employers' expectations and their satisfaction rates [20]. Nevertheless, even though students undergo a complete foundation year in Gulf countries to increase their skill levels in core subjects, employers expect a broader set of soft skills such as communication, self-learning and interpersonal and planning skills among graduate students [21]. However, Parlamis and Monnot considered soft skills only a supplement to complement the employability of graduates, not a substitute for hardcore technical skills [22].

From the literature review, it is evident that numerous studies have been carried out all over the world to determine the impact of COVID-19 on the labor market; however, most of them are context-specific, highlighting the need for similar research in a county such as Saudi Arabia, where the economy is already transforming from being oil-dependent to rapidly industrializing under the Vision 2030 program [23]. Under these circumstances, COVID-19 has created unique challenges for both employers and the workforce. The present study, therefore, aimed to explore the perceptions of both private and public sector employers, the changing needs of the Saudi labor market and the role of universities with the objective of proposing a conceptual framework for workers' sustainability during and after the pandemic. It is evident that a sustainable labor market can play a crucial role in reviving pandemic-bitten economies. However, this sustainability cannot be achieved without involving the relevant stakeholders in this endeavor. Acquiring important insights from employers, educational leaders, labor consultants and workers not only enhances the applicability of the present study but also gives more credence to its findings.

2. Materials and Methods

Cross-country data were collected from various categories of employers to inquire about their feedback in the aftermath of COVID-19. To this end, an online questionnaire was distributed to employers in both public and private sector industries divided into the following 12 broad categories: retail, service, finance, irrigation, recreation, healthcare, hospitality, education, construction, food services, manufacturing and transportation. The first section of the questionnaire primarily focused on the requirement of a new skill set from their respective workforces during and after the pandemic. The second and third sections aimed to identify the importance of these skills for retention and hiring purposes. A five-point Likert-type scale was used to collect responses from these employers, in which feedback of the respondents ranged from low (one) to high (five). Finally, in the last section of the questionnaire, employers were asked to rate their importance and satisfaction levels with regard to these skills, which were categorized into the following eight broad categories: creativity, effective communication, emotional intelligence, virtual skills, thinking skills, technical skills, teamwork and autonomous working.

Data is analyzed with the help of descriptive statistics in which the employers' demographic profiles are presented. Bar graphs are used to show employers' perceptions about workers' new skill requirements, their job retention and the chances of new hiring. Afterwards, employers' overall assessment of the labor market skills is presented with the help of a combined assessment matrix. Regression analysis is used to see the impact of different predictor variables (workers' skills) on the response variable (employers' satisfaction). Furthermore, companion regression is done to compare the individual impact of each predictor variable along with their combined effects on employers' satisfaction. The findings of the analysis are then discussed with the concerned stakeholders to get their input about the development of strategic guidelines. The research team finally synthesizes all relevant information coming from the present study, literature review and stakeholders' feedback to prepare a ten-point conceptual framework for mitigating the effects of COVID-19 on the labor market.

3. Results

3.1. Demographic Profiles of the Employers in this Study

Table 1 provides the demographic profiles of the respondents who participated in the survey. Out of a total of 284 people who participated in the survey, the highest proportion of respondents belonged to the food services industry, followed by the hospitality and education sectors. Meanwhile, a minimal number of responses came from the irrigation, finance and transportation sectors.

Employer Classification	Frequency	Percentage	
Retail	20	7.04	
Service	25	8.83	
Finance	14	4.92	
Irrigation	12	4.22	
Recreation	28	9.85	
Healthcare	24	8.45	
Hospitality	35	12.3	
Education	32	11.2	
Construction	22	7.74	
Food services	38	13.3	
Manufacturing	19	6.69	
Transportation	15	5.28	

Table 1. Demographic profile of the employers (n = 284).

3.2. Employers' Assessment of Workers' New Skills

Figure 1 shows the perception levels of employers with regard to the requirement for new skills in the labor market of the Kingdom of Saudi Arabia (KSA) after COVID-19. The x-axis indicates the types of industries, while the y-axis shows the employers' perceptions about the requirement level for new skills ranging from one (low) to five (high). The results indicate that the service and education sectors attached maximal importance to updated skills among their workforces, followed by the healthcare and food services industries, as after the pandemic, these sectors quickly transformed from conventional to online working and thus felt the need to develop new skills among their workers. On the other hand, the employers in the irrigation, construction and manufacturing sectors did not feel the need to develop any new skills; they observed that the nature of their work did not allow for a shift from conventional to virtual work, so their workers could continue working with their existing skill set with only some minor modifications.

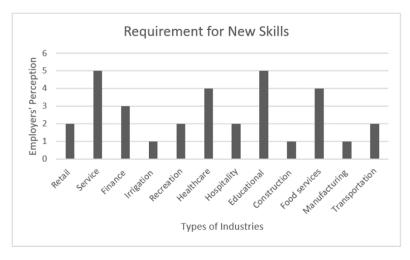


Figure 1. Employers' perceptions of workers' new skill requirements.

3.3. Employers' Assessment of the Job Retention of Their Workers

Figure 2 shows the perception levels of employers with regard to their workers' chances of retaining their jobs in the event that they equip themselves with an updated skill set following the COVID-19 pandemic. The x-axis indicates the types of industries, while the y-axis shows the employers' perceptions about the workers' job retention ranging from one (low) to five (high). The employers in the service, healthcare and education sectors believed that it is very important for their workers to equip themselves with a new skill set, as doing so could significantly improve their chances of

job retention. These sectors were followed by the food services industry, where employers also felt that changing business patterns compel them to retain only those workers who have the flexibility to develop the necessary skills. On the other hand, employers in the irrigation and hospitality industries assigned minimal importance to updated skills in relation to the retention of their workers.

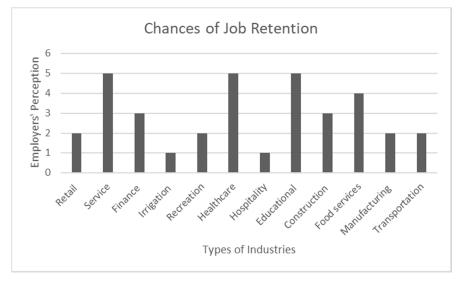


Figure 2. Employers' perceptions of workers' job retention chances.

3.4. Employers' Assessment of the Hiring of New Workers

Figure 3 shows the perception levels of employers with regard to the prospect of hiring new workers, provided that they develop a new skill set. The x-axis indicates the types of industries, while the y-axis shows the employers' perceptions about the chances of workers' new hiring ranging from one (low) to five (high). The results indicate that the employers in the service, healthcare, education and food services industries expressed more confidence in the hiring of those workers who equip themselves with the required skills. Conversely, the employers in the irrigation, recreation, construction and manufacturing industries believed that, keeping in mind the working mechanisms of these sectors, upgrading to a new skill set does not create any significant difference for their new worker hiring decisions.

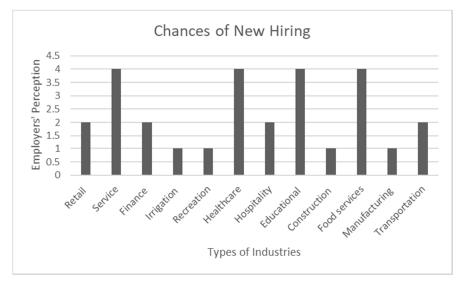


Figure 3. Employers' perceptions of hiring new workers.

3.5. Employers' Overall Assessment of Labor Market Skills During the Pandemic

Table 2 provides the combined assessment matrix of employers in relation to different employability sectors. The first column shows the different categories of employers who participated in the survey. The second column indicates their assessment of the requirement of a new skill set. The third and fourth columns explain the impact of updated skills on the job retention of current workers and the hiring of new workers, respectively. Similarly, the last column shows the combined effect of all three factors, indicating that the education and service sectors were the most vibrant sectors, followed by healthcare and food services, respectively. These were the sectors in which the development of new skills had the maximal positive impact on workers' job retention and job creation. Similarly, the last row indicates the combined score of employers' assessments across all sectors, showing that the job retention of workers is currently the most significant issue for employers, followed by the development of new skills, while hiring of a new future workforce carried the least significance.

Employability Sectors Categories	Employers' Assessment			
	Requirement of New Skills	Chances of Job Retention	Chances of Hiring New Workers	
Retail	2	2	2	6
Service	5	5	4	14
Finance	3	3	2	8
Irrigation	1	1	1	3
Recreation	2	2	1	5
Healthcare	4	5	4	13
Hospitality	2	1	2	5
Education	5	5	4	14
Construction	1	3	1	5
Food services	4	4	4	12
Manufacturing	1	2	1	4
Transportation	2	2	2	6
Total	32	35	28	

Table 2. Employers' assessment matrix of labor market skills.

3.6. Demand for and Satisfaction of Labor Market Skills During the Pandemic

Figure 4 shows the perceptions of employers with regard to labor market skills. The y-axis indicates their perceptions of the importance and satisfaction levels of these skills ranging from one (low) to five (high), while the x-axis shows the categories of these skills. As is evident from the figure, virtual skills were given the highest importance by employers in the COVID-19 scenario, but they expressed very low levels of satisfaction with regard to the current levels of these skills. Similarly, the emotional intelligence and work autonomy of current employees were also ranked very highly by their employers, but they expressed dissatisfaction with regard to present employee skill levels. Additionally, a significant gap was observed between the importance and satisfaction levels of workers' communication skills. On the other hand, no significant difference was observed between employers' perceptions of the importance of technical skills and their respective satisfaction with regard to these skills.

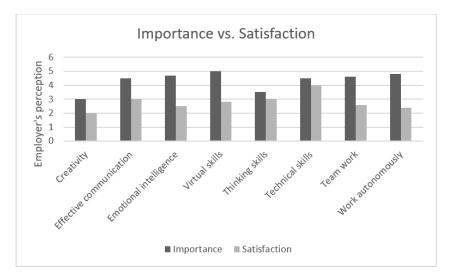


Figure 4. Employers' perceptions of various skills.

Equation (1) shows a regression analysis of employers' satisfaction and workers' skill levels during COVID-19. The regression equation shows that all skills have a positive impact on the satisfaction levels of employers in the labor market, where autonomous working and virtual skills have the highest impact on employers' satisfaction levels, followed by teamwork, communication and emotional intelligence. However, workers' creativity, thinking and technical skills have comparatively lower effects on the satisfaction levels of employers. Positive signs of the regression coefficients tell us that each independent variable is positively correlated with the dependent variable. It means that any increase in the predictor variables (workers' skills levels) can bring a corresponding increase in the response variable, which is employers' satisfaction. For example, a coefficient value of +7.385 for virtual skills shows that the mean response value of the employers' satisfaction increases by 7.385 units for every one-unit increase in the predictor variable.

$$\begin{aligned} Satisfaction = & 19.54 + 1.781 \left(Creativity \right) + 1.453 \left(Effective Communication \right) \\ & + 3.289 \left(Emotional Intelligence \right) + 7.385 \left(Virtual Skills \right) \\ & + 1.539 \left(Thinking Skills \right) + 2.264 \left(Technical Skills \right) \\ & + 4.761 \left(Teamwork \right) + 5.272 \left(Work Autonomously \right) \end{aligned}$$
(1)

Table 3 shows the results of the regression analysis in which companion regression was carried out to determine the individual impact of each predictor variable on the response variable. These individual effects were then compared with their combined effects on the satisfaction levels of employers. The table indicates that the communication skills of workers played a significant role in the satisfaction levels of employers in an individual capacity; however, their importance significantly decreased and balanced out in the presence of other skills. On the other hand, virtual skills and the ability to work autonomously carried the same high levels of impact on employers' satisfaction both in an individual capacity and combined. Similarly, the significance of teamwork increased in the presence of other skills, but its impact on employers' satisfaction was reduced in an individual capacity. Moreover, the *p*-values of virtual skills and autonomous working were 0.002 and 0.001, respectively, which indicates a significant relationship between these two variables and the response variable. Similarly, an R² value of 91.3% with a *p*-value of 0.034 < 0.05 showed the statistical significance of the predictor variables in predicting employers' satisfaction levels.

Predictor Variables	df	Coefficient of Regression		R ² Value	R ² (Adj) Value	<i>p</i> -Value
		Combined Effect	Single Effect	(%)	(%)	
Creativity	1	1.781	1.685	2.75	1.26	0.004
Effective communication	1	1.453	3.542	14.15	10.95	0.003
Emotional intelligence	1	3.289	2.347	6.58	4.74	0.058
Virtual skills	1	7.385	4.690	26.82	21.58	0.002
Thinking skills	1	1.539	0.954	4.61	3.28	0.315
Technical skills	1	2.264	1.826	8.73	5.67	0.127
Teamwork	1	4.761	1.384	6.91	4.41	0.068
Work autonomously	1	5.272	4.179	23.53	18.19	0.001
All	08	-	-	91.32	84.37	0.034

Table 3. Regression analysis for the combined and single effects of predictor variables.

df indicates the number of independent variables in the respective regression models.

4. Conceptual Framework for Universities

Keeping in mind the pivotal role of HEIs in imparting labor market skills, the results of this study were further discussed with the educational leaders of different universities to develop a comprehensive set of guidelines for the development of a sustainable workforce. In this regard, the research team followed a five-stage process to carry out the whole activity in the most productive manner. In the first stage, the results of the study were analyzed and summarized in a concise form. Besides this, a questionnaire was prepared to do structured interviews with different stakeholders, ensuring uniformity during data collection. In the second stage, the concerned stakeholders comprising educational leadership, ministry officials, labor market consultants and representatives of the workforce were identified for the purpose of getting their feedback. In the third stage, online interviews were conducted with the defined stakeholders to inquire about their feedback for the development of strategic guidelines. During these sessions, all the key findings of the study along with the tables and figures were properly shared with the stakeholders to avoid any ambiguity in their minds. Moreover, additional questions were asked to the administrative and academic leadership of the HEIs considering their firsthand experience of managing online classes during the pandemic. Focused discussions were conducted to inquire about the difficulties being faced by the faculty, students and management in conducting these classes. In the fourth stage, the research team did extensive brainstorming to analyze the input of these stakeholders, who provided concise feedback by combining their own experiences with the key findings of the study. The research team then compared their feedback with the studies being carried out in other countries facing the pandemic with similar sizes of universities and educational systems. In the fifth and final stage of the process, all the relevant information was synthesized and formulated to develop a ten-point conceptual framework. Nevertheless, the scope of the study was wide; the guidelines presented below are very precise and offer an effective framework to policymakers in both public and private sector universities intending to play a constructive role in the development of a sustainable workforce.

4.1. Remote Working Guidelines (RWGs)

Remote working guidelines must be developed by the university to enhance the productivity of the organizational workforce. Initially, the necessary analysis of the targeted industrial sector can be conducted, and, subsequently, their requirements can be transformed into a remote work plan for their workforces. These remote working guidelines can be either universal or customized based on the specific requirements of the industrial sector.

4.2. Short-Term Skills Programs (STSPs)

Short-term skills programs must be initiated to develop new sets of skills for the retention of current workers and the hiring of new workers. In a fast-changing business environment, sustainability

of the workforce can only be ensured under the provision of timely and cutting-edge skills, as per market requirements. Universities can enter into strategic partnership programs with industrial employers and can design STSPs to enhance the productivity of their workforces.

4.3. Remote Working Skills (RWS)

Remote working skills must be developed among workers who have the option to work remotely from their homes in emerging scenarios but who are handicapped due to the absence of relevant skills. Since the outbreak of the COVID-19 pandemic, organizations have been swiftly moving from conventional to remote working, creating an enormous pressure for their workers to obtain a new set of RWS. Universities must take the lead in this regard and should offer basic/advanced RWS to aspiring workers and organizations.

4.4. Hybrid Skill Set (HSS)

A hybrid skill set must be introduced among organizational workers and graduate students in order to prepare them well for the fast-changing and dynamic job market. Universities must prepare an effective HSS, combining both conventional and virtual skills to enhance the job spectrum of the current and future workforce. These hybrid skills not only increase the effectiveness of workers but also afford them more flexibility to work under any conditions.

4.5. Idea Generation Skills (IGS)

Idea generation skills must be developed among workers, enabling them to support their organization with creative and innovative ideas, as per the changing market requirements. As business environments are heavily skewed toward dynamism, the respective workforce must be capable enough to match said dynamism with their creativity and innovation. Universities can develop IGS to transform their students and current employees into a vibrant and creative workforce.

4.6. Language for Communication (LFC)

Language for communication must be strengthened among workers in order to prepare them well for all kinds of business communications instead of purely for linguistic purposes. As organizations are shifting to remote working, business communications are also shifting from in-person to remote channels. Under these circumstances, the role of language is becoming more critical, and universities must develop a comprehensive program to improve the LFC of workers far beyond their linguistic needs.

4.7. Digital-Based Learning (DBL)

Digital-based learning programs must be initiated for students and the workforce, facilitating their learning of a new skill set using either different applications on their smartphones or other online methods. This not only provides flexibility in terms of time and location but also affords them the opportunity of a more in-depth use of technology. Keeping in mind the new norms being introduced in the aftermath of COVID-19, universities must switch from conventional learning to DBL, offering better learning opportunities to both organizations and workers.

4.8. Upskilling and Reskilling Program (URP)

An upskilling and reskilling program intends to improve existing skill levels in addition to introducing a new skill set to the current and future workforce. In this regard, universities can engage the relevant stakeholders of the labor market to identify the required market skills. Under the umbrella of the upskilling program, existing skills of the workforce can be upgraded according to the new requirements, while the reskilling program offers an opportunity to develop an entirely new skill set. Universities can play a pivotal role in the sustainable work of the workforce by aligning their URPs with labor market needs.

4.9. Emotional Intelligence Program (EIP)

An emotional intelligence program must be initiated by universities to help the existing and future workforce better handle their own and others' emotions. As both employers and workers have undergone strenuous, testing times due to the physical, economic and psychological implications of the COVID-19 pandemic, emotional intelligence capabilities can enhance their psychological well-being in addition to mitigating the negative consequences of COVID-19. Universities can design an effective EIP to strengthen the current and future workforce against psychological and emotional distress.

4.10. Remote Work/Life Balance Skills (RWBS)

Remote work/life balance skills must be developed among all tiers of the workforce who intend to work from their homes. Due to the COVID-19 pandemic, most organizations are asking their employees to work from home, thus creating a major imbalance between their professional and personal lives. This imbalance creates stress and exhaustion among workers, which can further translate into poor performance. Under these circumstances, universities must design a comprehensive set of guidelines to educate future graduates and the current workforce in balancing their work and life under remote working conditions.

5. Discussion

The results of the current study indicate that organizations need to be flexible enough in order to match the speed and severity of pandemics such as COVID-19. It is evident that a large number of migrant workers are returning to their home countries due to COVID-19 [24], but the situation is more challenging for countries such as Saudi Arabia, where the private sector mostly depends on low-cost foreign workers. This highlights the importance of introducing and implementing a succession planning system [25] in the current and postpandemic scenarios. Under these circumstances, the role of universities becomes paramount, as they can educate both employers and workers about the benefits of effective succession planning.

The present study shows that employers from the education, service and healthcare sectors have highlighted the requirement of a new skill set in comparison to other sectors. This indicates that these sectors, as per their global contemporaries, immediately switched from conventional to virtual working [26] and instantly noticed the skill mismatch of their respective workers. The results further reveal that workers can improve their chances of retention and hiring new workers through the timely development of virtual skills, autonomous working and emotional intelligence because individuals who quickly adapt to changing market needs can better capitalize on the positivity of such career shocks [27]. Similarly, effective communication is gaining more significance in the current scenario, and workers who are bilingual and speak any other language fluently have a better chance of job retention or being rehired [28].

On the other hand, job sectors such as irrigation, tourism, manufacturing and construction assigned less importance to the development of new skills in the COVID-19 pandemic and instead emphasized conventional skills among their workers. This is mainly due to the inability of these sectors to switch to virtual working, as all of these sectors require their workers to be present on site for their day-to-day operations [29,30]. Similarly, employers assigned the highest importance to job retention, followed by the development of a new skill set and hiring new workers [31], clearly indicating that the current and post-COVID-19 situations have shifted the priorities of all businesses to sustaining their current position instead of future growth and expansion. They expect their workforce to quickly adapt to the requirement of a new skill set in order to ensure the smooth functioning of their ongoing business operations. However, a major gap existed between the importance and satisfaction levels of employers with regard to four skills, namely, autonomous working, virtual skills, emotional intelligence and teamwork. This highlights that employers assigned maximal importance to these skills in the COVID-19 situation but expressed minimal satisfaction with regard to the current levels of these skills.

The regression analysis further complemented the previous findings, confirming that these four skills carried a strong impact on employers' satisfaction levels in comparison to creativity, communication, thinking and technical skills. The results of the companion regression further revealed that virtual skills and the ability to work independently, with *p*-values of 0.002 and 0.001, respectively, had the strongest impact on employers' satisfaction.

6. Conclusions

The COVID-19 pandemic has created both challenges and opportunities in the labor market of Saudi Arabia. Due to the economic slowdown, a large number of migrant workers are returning to their home countries, thus creating a huge vacuum that can be conveniently filled by skilled Saudi workers, as the country is already implementing the Saudization program of Vision 2030, in which expatriate workers have to be gradually replaced with a local workforce. However, there needs to be a quick upgrade in the skill levels of local workers according to the requirements of the labor market. In conventional scenarios, organizations mainly focus on serving their stakeholders, while HEIs only concentrate on academic aspects, but the new challenges created by COVID-19 require a renewed alignment and a strong collaboration between the labor market and educational institutions. The universities of Saudi Arabia can play a proactive role in this regard by exploring and incorporating the changing market needs into their curriculums. By doing this, they not only play a constructive role in the rebuilding of the domestic labor market with Saudi nationals but also strengthen the Saudization policy of the country. The results of the study are equally applicable to the other Gulf Cooperation Council (GCC) countries, who are also embarking on creating renewed employment opportunities for their own nationals. Moreover, educational leadership of both developed and developing countries can also benefit from the conceptual framework to develop a sustainable workforce and mitigate the negative fallout of COVID-19 on the labor markets of their respective countries.

Author Contributions: Supervision, A.O.A.-Y. and A.A.-H.; data collection and analysis, A.R. and H.C.; writing—original draft, A.O.A.-Y., A.A.-H., A.R. and H.C. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Queiroz, M.M.; Ivanov, D.; Dolgui, A.; Wamba, S.F. Impacts of epidemic outbreaks on supply chains: Mapping a research agenda amid the COVID-19 pandemic through a structured literature review. *Ann. Oper. Res.* 2020, 1–38, 1–38. [CrossRef] [PubMed]
- Oldekop, J.A.; Horner, R.; Hulme, D.; Adhikari, R.; Agarwal, B.; Alford, M.; Bakewell, O.; Banks, N.; Barrientos, S.; Bastia, T.; et al. COVID-19 and the case for global development. *World Dev.* 2020, 134, 105044. [CrossRef] [PubMed]
- 3. Blustein, D.L.; Guarino, P.A. Work and Unemployment in the Time of COVID-19: The Existential Experience of Loss and Fear. *J. Humanist. Psychol.* **2020**, *60*, 702–709. [CrossRef]
- 4. Akkermans, J.; Richardson, J.; Kraimer, M. *The Covid-19 Crisis as a Career Shock: Implications for Careers and Vocational Behavior*; Elsevier: Amsterdam, The Netherlands, 2020.
- 5. Lekfuangfu, W.N.; Piyapromdee, S.; Porapakkarm, P.; Wasi, N. On Covid-19: New Implications of Job Task Requirements and Spouse's Occupational Sorting. *SSRN* **2020**. [CrossRef]
- 6. Dingel, J.I.; Neiman, B. How Many Jobs Can Be Done at Home? *J. Public Econ.* **2020**, *189*, 1–8. [CrossRef] [PubMed]
- 7. Haak-Saheem, W. Talent management in Covid-19 crisis: How Dubai manages and sustains its global talent pool. *Asian Bus. Manag.* 2020, *19*, 298–301. [CrossRef]

- 8. Gan, W.H.; Lim, J.W.; David, K. Preventing intra-hospital infection and transmission of COVID-19 in healthcare workers. *Saf. Health Work* **2020**, *11*, 241–243. [CrossRef]
- 9. Sawaya, T.; Ballouz, T.; Zaraket, H.; Rizk, N. Coronavirus Disease (COVID-19) in the Middle East: A Call for a Unified Response. *Front. Public Health* **2020**, *8*, 209. [CrossRef]
- 10. Gasana, J.; Shehab, M. Coronavirus Disease (COVID 19): Handling Challenges in Kuwait. *Science* 2020, 2, 40. [CrossRef]
- 11. Abdulrahim, H.; Mabrouk, F. COVID-19 and the Digital Transformation of Saudi Higher Education. *Asian J. Distance Educ.* **2020**, *15*, 291–306.
- Romero-Tena, R.; Barragán-Sánchez, R.; Llorente-Cejudo, C.; Palacios-Rodríguez, A. The Challenge of Initial Training for Early Childhood Teachers. A Cross Sectional Study of Their Digital Competences. *Sustainability* 2020, 12, 4782. [CrossRef]
- 13. Suleman, F. The employability skills of higher education graduates: Insights into conceptual frameworks and methodological options. *High. Educ.* **2018**, *76*, 263–278. [CrossRef]
- 14. Fakih, A.; Haimoun, N.; Kassem, M. Youth Unemployment, Gender and Institutions During Transition: Evidence from the Arab Spring. *Soc. Indic. Res.* **2020**, *150*, 311–336. [CrossRef]
- Alsulami, H.; Bashir, M.; Rizwan, A.; Elnahas, N.; Bawareth, F.; Noorelahi, R.; Kamrani, R. Impact of emotional intelligence on the academic performance and employability of female engineering students in Saudi Arabia. *Int. J. Eng. Educ.* 2019, *35*, 119–125.
- 16. Thomas, A.; Piquette, C.; McMaster, D. English communication skills for employability: The perspectives of employers in Bahrain. *Learn. Teach. High. Educ. Gulf Perspect.* **2016**, *13*, 1–17. [CrossRef]
- Valverde-Berrocoso, J.; Garrido-Arroyo, M.D.C.; Burgos-Videla, C.; Morales-Cevallos, M.B. Trends in Educational Research about e-Learning: A Systematic Literature Review (2009–2018). *Sustainability* 2020, 12, 5153. [CrossRef]
- 18. Ahmed, V.; Abu Alnaaj, K.; Saboor, S. An Investigation into Stakeholders' Perception of Smart Campus Criteria: The American University of Sharjah as a Case Study. *Sustainability* **2020**, *12*, 5187. [CrossRef]
- 19. Di Pietro, G. *University Study Abroad and Graduates' Employability;* IZA World of Labor, Bloomsbury Publishing: Bonn, Germany, 2019. [CrossRef]
- 20. Alfaki, I.; Hijazi, R. Statistics capacity building and alignment of learning outcomes with business sector needs in the GCC countries. In Proceedings of the Tenth International conference on Teaching Statistics (ICOTS10), Kyoto, Japan, 8–13 July 2018.
- 21. Hijazi, R.; Alfaki, I. Reforming Undergraduate Statistics Education in the Arab World in the Era of Information. *J. Stat. Educ.* **2020**, *28*, 75–88. [CrossRef]
- 22. Parlamis, J.; Monnot, M.J. Getting to the CORE: Putting an end to the term "soft skills". *J. Manag. Inq.* 2019, 28, 225–227. [CrossRef]
- 23. Jawadi, F.; Ftiti, Z. Oil price collapse and challenges to economic transformation of Saudi Arabia: A time-series analysis. *Energy Econ.* **2019**, *80*, 12–19. [CrossRef]
- 24. Ranjan, R.; Bisht, M. Novel Coronavirus and Indian Overseas Labour Migrants: Updates from Gulf Cooperation Council Countries. *Roots Routes* **2020**, *9*, 1–4.
- 25. Barton, A. Preparing for leadership turnover in Christian higher education: Best practices in succession planning. *Christ. High. Educ.* **2019**, *18*, 37–53. [CrossRef]
- 26. Seymour-Walsh, A.E.; Bell, A.; Weber, A.; Smith, T. Adapting to a new reality: COVID-19 coronavirus and online education in the health professions. *Rural Remote Health* **2020**, *20*, 6000. [CrossRef] [PubMed]
- 27. Blokker, R.; Akkermans, J.; Tims, M.; Jansen, P.; Khapova, S. Building a sustainable start: The role of career competencies, career success, and career shocks in young professionals' employability. *J. Vocat. Behav.* **2019**, *112*, 172–184. [CrossRef]
- 28. Zainuddin, S.Z.B.; Pillai, S.; Dumanig, F.P.; Phillip, A. English language and graduate employability. *Educ. Train.* **2019**, *61*, 79–93. [CrossRef]
- 29. Foo, L.-P.; Chin, M.-Y.; Tan, K.-L.; Phuah, K.-T. The impact of COVID-19 on tourism industry in Malaysia. *Curr. Issues Tour.* **2020**, 1–5. [CrossRef]

- 30. Ivanov, D.; Dolgui, A. Viability of intertwined supply networks: Extending the supply chain resilience angles towards survivability. A position paper motivated by COVID-19 outbreak. *Int. J. Prod. Res.* **2020**, *58*, 2904–2915. [CrossRef]
- 31. Rangachari, P.; Woods, J.L. Preserving Organizational Resilience, Patient Safety, and Staff Retention during COVID-19 Requires a Holistic Consideration of the Psychological Safety of Healthcare Workers. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4267. [CrossRef]



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