

Adopting the Electronic Services in the Light of Coved 19 from Employees' Perceptive in Karak University College

Sattam Allahawiah¹, Haroon Altarawneh², Kafa al nawaiseh³

Al-Balqa Applied University, Jordan, salt,

Summary

This study aims to investigate and analyze the impact of the COVID-19 pandemic on the adopt electronic services in education sector in Jordan, where the COVID-19 pandemic has left huge threats in terms of health and led to a significant decrease in economic output and a rise in unemployment. This study also aims to know the steps taken by the Jordanian governments and higher education ministry and universities to overcome this crisis and mitigate the economic and financial impacts that would enhance the resilience of the education sector. To achieve the goal of the study, both methods of deductive and inductive analysis were used, which helped us to systematically consider the economic and other consequences of the COVID-19 pandemic, such as statistical analyses and other tools that helped us in this study. The results of this study, showed that the COVID-19 pandemic led to a significant increase in adopt electronic services in education sector in Jordan, and decline in economic growth, a significant rise in unemployment, an increase in market instability, and a decrease in the financial position of companies. The recommendations concluded that Jordan should begin to change its policies according to the new data, and take Measures to advance the education sector by relay on electronic services and directing investment in education sector through saving policies and infrastructure equipment in parallel with the population boom in Jordan.

Keywords:

Covid-19, electronic services, online application, e-services.

1. Introduction

In late 2019, the coronavirus SARS-CoV-2 was discovered in Wuhan, a Chinese city of 11 million persons Hubei province. In late January and February 2020, the number of cases of coronavirus COVID-19 have emerged in China, increasing to tens of thousands a day, and since that date cases have evolved to the level of a pandemic in South Korea, Iran and the United States. Thousands of infected patients and deaths, in total. The Jordanian government imposed a general lockdown in March 2020 in an attempt to stop the spread of the virus, which led to economic consequences for the region .. During the lockdown, During the lockdown, the government imposed precautionary measures across the country.. This included not only compulsory population quarantine, the closure of schools and mosques, stores, hotels, and grocery shops, but

also the cancellation of national and international airlines, the closure of non-essential ports and airports, and the closure of non-essential businesses and sectors.

This resulted in lower depend on direct learning and, as a result, billion children are out of the classroom in the world as a hall. In Jordan, the COVID-19 interventions had an astrong effect on education sector , billion children are out of the classroom With this sudden shift away from the classroom in many parts of the globe,the Jordan one of them , some are wondering whether the adoption of online learning will continue to persist post-pandemic, and how such a shift would impact the worldwide education market.[1] Despite the fact that many people were working from home by smart working, the increase in residential usage did not compensate for the overall decrease in demand[2]. The COVID-19 pandemic has claimed thousands of lives around the world and poses an unprecedented threat to public health, food supplies, and the workplace. The pandemic's economic and social consequences are devastating: tens of millions of people are at risk of living in extreme poverty around the world, at the same time, the (JPSD)Jordanian Public Statistics Department(issued a report showing an increase in the unemployment rate in Jordan to 24.7% in the fourth quarter of 2020[3] .

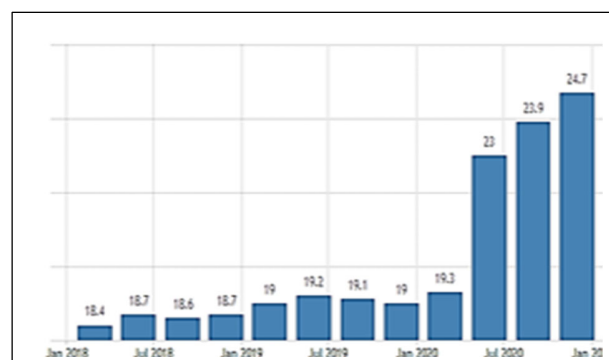


Figure 1: Data on Jordan's Unemployment Rate from 2018 to 2021[4].

Jordan is an emerging country and does not have natural resources like other neighboring countries, and there is no

doubt that the Covid-19 pandemic has created enormous obstacles to the Jordanian economic system and education sector, Consequently the government was advised by His Majesty King Abdullah to continue to strengthen the Jordan strategy toward online learning and to take advantage of low prices throughout the current time , so the government has quickly implemented a strategy to adopt distance learning as a solution to face this pandemic , according to international standards [4].

From this point of view arose the study problem, which can be summarized by the following main question: What is the direct and indirect impact of the COVID-19 pandemic on the education sector in Jordan?

Where the need for this study appeared to find out the damages caused by the COVID-19 (on the education sector in particular and on the economy in general) and to study the measures that have been taken to reduce the risk resulting from it, and then work to build a fortified sector that can respond to a possible pandemic that may come in the future.

2. Problem Statement of the Study

This study comes to investigate the reasons that push us to study the effects of lockdown measures imposed across the country due to the COVID-19 pandemic, which have exacerbated the weak abilities of companies to operate in the area, and so the capacity of families to pay for life's basic needs. It also led to a decrease in all sectors investments, causing liquidity challenges to finance new projects. Combined with disruptions in supply chains, maintenance delays, and delays in establishing new projects, these factors together are likely to lead to further shortages, also billion children are out of the classroom.

In Jordan, the COVID-19 interventions had an astrong effect on education sector , billion children are out of the classroom With this sudden shift away from the classroom in many parts of the globe,the Jordan one of them , some are wondering whether the adoption of online learning will continue to persist post-pandemic, and how such a shift would impact the worldwide education market.

So this research will provide an opportunity to evaluate e-applications in karak university college and provide an accurate assessment for each department within the college and mitigate loss of services during crisis, and understand the factors affecting the electronic services and support them with available recommendations.

3. Research Objectives:

The main goal of this study is to determine the impact of the COVID-19 pandemic on Jordan's education sector, along with this main purpose, the following objectives will be achieved:

-Draw attention to the alternatives that can be accessed to online learning improve its efficiency, and encourage everyone to follow it.

- Explain the most important key performance indicators to monitor and embedding e-services to enhance the overall performance in KUC.

- Explain the important to have online applications in karak university college .

-Reviewing in-depth research on the education sector in Jordan.

4. Questions of the study

The aim of this research is to answer the following questions:

1. Why it's important to have e-services and smart applications in KUC?

2. How to embed online applications in KUC?

3. What are the most important key performance indicators to monitor?

4. Will embedding e-services enhance the overall performance in KUC?

5. Can we avoid a failure through using and implementing smart applications ?

5. Literature review

This section includes detailed review of literature on e-services applications and covid19 with related literature to areas affecting adoption e-services from employee perspective in education sector during and after the pandemic.

Lea Sorilla Nisperos[6] in her study *Assessing the E-Learning Readiness of Selected Sudanese Universities* in today's knowledge-driven society and information economy. This study found that there is a general feeling that higher education in Sudan requires a focus on flexible education. The study She also pointed out that Sudanese universities are not exempt from recognizing this technological trend and also pointed out that there is a need to realize the process of implementing e-learning in an institutional environment and entering into the educational context of the university is a complex endeavor and faces many challenges. Therefore, universities must first organize and know the level of readiness of universities from an organizational point of view, and then determine as a technology can be applied. This study was concerned with the process of assessing the readiness of distance education through the sample selected by graduate students in order to identify the challenges that may hinder the possible implementation and prepare measures that can be taken to meet these challenges early. where data was collected by two hundred students from six faculties of selected universities in Sudan, The results of this study indicated that Sudanese universities are not ready for distance education and still need some work in many areas, especially with regard to the training and development process. Finally, this study recommended that there should be a proposed policy to help improve the electronic readiness of the selected institutions.

According to Beauty Undi-Phiri and Jackson Phiri[7] in their study *Assessing Factors Affecting the Adoption of E-Government Services in Developing Countries for Transport Sector* The study looked at the factors affecting the adoption of e-government services in the transport sector in developing countries. It looked at the factors affecting the adoption of e-government services in the transport sector in developing countries during the Corona pandemic based on the acceptance of the unified theory and the use of the technological model. This study first examined the main challenges facing Zambia's transport sector in implementing e-government services among citizens. The study then presented a proposed model through the web that relies on electronic portals in e-commerce that can be adopted and identifies the challenges in this study also the study was based on all registered cyclists from various transport sectors in the capital Lusaka, the questionnaire was conducted based on the acceptance of the unified theory and the use of the technological model, where the percentage of respondents was 57% and the number of questionnaires was 141. The study used the statistical analysis program(spss) and the results indicated that the interaction between trust in the government and trust in the internal has a significant impact on the benefit of electronic services.

Mohammad Ziaul Hoq [8] in his research *E-Learning during the Period of Pandemic (COVID-19) in the Kingdom of Saudi Arabia: An Empirical Study* Which talked about e-learning and the extent of its need and extension in education, but also there is a special focus on how e-learning solves the disruptions in the education sector due to this pandemic .the researcher has conducted a survey to verify the preference of teachers for the diverse features of e-learning. The results of the study showed that the majority of teachers have a positive opinion towards e-learning.

Shihui Xiang and others [9]in their study the effect of coved-19 panademic on service sector sustainability and growth explained that the Corona pandemic has affected the global economy and the service sector, where their study aimed to assess the impact of the Corona pandemic on the growth of the service sector. The study focused on the sectors severely affected by the pandemic and discussed the strategies and measures taken by various countries to maintain their economies. This study concluded that the vital role of information technology and digitization supports economies in their fight against the pandemic and helps to sustain themselves amid the crisis. This study contributed to proposing existing solutions for information technology for various industries to raise the level of effective response and avoid losses.

5. Research gap

What distinguishes this research is that to the best of the author's knowledge, the literature related to the research topic talked about adopting e-services in organizations in general, while this research is concern with the application of some dimension in mission critical organizations like universities. This research will evaluate the performance of smart application in KUC which is a well-recognized college in the region, based on four main dimensions obtained from literature, also providing an accurate analysis for each department performance with recommendations to enhance this performance by managing weakness points.

This Research provided an accurate assessment for mission critical organizations based on international standards concerning quality of e-services, this assessment can be used to measure the application performance in any organization and with proper analysis will spot weakness points easily. We hope to move away from manual education and low level of teaching toward distance learning, from manual learning to e-learning. There are more than one options than ever before in education, but in order to reduce the systems cost, we must achieve a balanced and integrated mass learning system.

6. Research Design

This research is designed to test and examine the level of adopting e-services and the performance of e-applications in karak university college, as well as finding any gaps and opportunities to improve the distance learning and its performance, also adopted the quantitative research method for answering the research questions, in which numbers are used in the analysis of the collected data subjected to validity and reliability.

This study uses a quantitative research methodology because it's clearly known in advance what the researchers is looking for, with all aspects of the study are previously designed before data collection phase. Numerical data were collected using a questionnaire, those data were translated to numbers by giving numerical weights to answers then analysis were conducted to interpret numerical data into useful information to this research.

8. Data Collection

In this research we are going to use two data collection methods: first, literature review for relevant previous studies and review of information that may contain any procedures and strategies related mandates or plans.

Second, questionnaire data collection method. The data collection consists two steps as follow:

Step one: Human Resources and Management director was asked to provide us with the current documentation regarding college plans, and practices concerning adopting e-services.

Step two: disseminate a self-administered questionnaire on a representative sample of karak university college employees consist of higher management and decision making chain of command which includes managers, team leaders and senior staff members ,and academic staff .

9. Questionnaire

Data gathered from the questionnaire might be both qualitative as well as quantitative in nature. So we use quantitative research method that must include a questionnaire to increase the efficiency of data gathering from respondents.

This method will provide the researchers with fast result, easy analysis, reliable, comparable information. The questionnaire statements were developed to measure the level of adopting the e-services and the main requirements, it was designed to measure to what extent the karak college follow the new applications related their target and how well are departments within the college are prepared against unwanted events.

It was designed based in to four main dimensions (Table 1.1): first, awareness to measure how much staff members aware about e-services and smart devices that could be used

in college , second is implementation to measure the level of adoption , third is design and analysis to measure if these applications were designed correctly, and forth validation to measure how well are these services are validated and exercised.

Table 1: Questionnaire Dimension and questions

Dimension	Number of questions
Awareness	9
Implementation	9
Design and Analysis	9
Validation	9
Total	36

10. Participants

This research targets higher management and decision making chain of command, accordingly participants were department's directors, managers and team leaders who are responsible of practicing e-services and smart applications for their roles and responsibilities during Coved19 pandemic in their departments: academic staff departments , Human Resources, planning and development and Communication Technologies department , student affairs ,registration department ,inventory department and Financial affairs through their plans and engagement with business as usual activities. They will provide this research with enough data about each department in the KUC that are needed to provide an accurate assessment for each dimension in each department, will also highlight the applications weak points through implementation and how can we overcome the obstacles to shift from Manuel use and relay on these e-services in all sectors.

11. Population and Sample of the study

The sampling strategy for every research project must be justifiable according to the appropriate relationship (or logic) between the sample and the intellectual question. The organization under study (karak university college) has 230 employees; This research targets higher management positions who must be aware of e-services application practices and guidelines, thus through their roles and responsibilities they can affect e-applications implementation and validation. This research targets high and medium management sectors of employees which includes all directors, instructors, managers, and team leaders in the college and they are 50 staff member; the questionnaire was distributed to those 50 staff member representing the population of the study.

12. Data-Analysis

As mentioned in the last section, 50 respondent answered the questionnaire, accordingly we have rich row data that must be processed to present useful information can contribute to this research with trends and answers.

12.1 Instrument Consistency

Internal consistency measure is related with the homogeneity of the data or the extent to which a construct is measured by a group of items. To evaluate how much the collected data are related within departments and different dimensions, Cronbach’s alpha was employed. It values range from 0 to 1 with 1 being the highest value, meaning perfect internal consistency. A Cronbach’s Alpha with value higher than 0.7 is considered as reliable and acceptable in comparison with values lower than 0.7 (Nunnall, 1978). Cronbach’s Alpha test function in Microsoft Excel was used to identify Cronbach’s alpha, to measure the reliability of data of the variables. Test results of internal consistency based on the value of Cronbach’s alpha value for different departments are shown under in Table 4.4, which shows very high internal consistency as the value of Cronbach’s Alpha is very close to 1 for the whole center, and for the variables; which are NCSCM departments.

Table 2: Instrument Consistency

Dimension	Cronbach’s alpha
Awareness	0.83
Implementation	0.86
Design and Analysis	0.74
Validation	0.73
Total	0.89

13. Questionnaire Dimensions Results and Analysis

13.1 Awareness

This dimension was designed to evaluate e-services awareness level among KUC staff and how well oriented they are about using the smart and electronic activities being a key management discipline that builds and

improves organizational resilience. In addition, to measure how much KUC staff are familiar with fundamental e-services principals and terms, and to measure level of understanding of those principals and terms among staff and departments.

Table 3: Awareness

Number	Item Description	Average	STD	Rank	Level
1	In large or complex organizations, a fully scoped smart application plan may take many months to complete.	4.50	0.50	1	High
2	The use of project management methodology enables the organization to build and maintain effective e-learning systems .	4.40	0.54	2	High
3	My department program complies with other programs in the college .	2.40	0.86	8	Medium
4	The college is vulnerable to disruption. And make correction action	3.43	0.87	7	Medium
5	The college during disaster or crisis is more complicated.	4.30	0.78	4	High
6	e-services and other responsibilities should be included in college plans	4.43	0.67	3	High
7	It is important to be a well-qualified and have Standard skills to work in IT field.	3.85	1.09	6	High
8	The principle of college Management has contributed to developing an efficient response to change in your department	3.95	0.92	5	High

9	I have an ability to use any new application in my department	2.39	0.85	9	Medium
	Overall	3.74	0.78		High

[1] An inspection of the statistical analysis for the awareness section are shown in Table (3) demonstrates that awareness scored an overall average of (3.74) for the 50 respondents, with a standard deviation of (0.78). The overall average of the section awareness corresponds to a rank of “High ” with a confidence limit of (69.15%) according to research methodology calculations based on Z value under the normal distribution curve . The highest average of awareness between KUC departments scored by planning and Communication Technology department with an average equals to (3.99). followed by academic staff departments with an average equals to (3.93), followed by Financial Affairs department with an average equals to (3.67), followed by registration department with an average equals to (3.63), followed by Human Recourses department with an average equal to (3.58), and finally inventory department with an average equal to (3.44). Three departments scored value of mean indicating a rank of high, while the other three scored a rank moderate.. The highest mean scored for the planning department , registration department can be attributed to their role in the college and their daily work related to the student . Tasks and work roles assigned to these departments forced them to be aware about distance learning principles and terms through routine work and best practice without being necessarily introduced to e-application discipline. For example, planning department mission’s is to deliver continuous information and communication services to KUC employees, and to guarantee this services anytime anywhere; Same thing can be observed with registration department which are equipped with multiple plans to number of crisis that might happened in Jordan increased their level of awareness about new and smart applications related to distance learning .

Inventory, and Human Resources departments showed relatively lower average than other departments, which can be justified for Human Resources might not be interested with the framework like Administrate Services section due to their tasks and responsibilities which includes cleaning services, and transportations which are managed by lower education levels than other sections. When discussing how well KUC employees are consensus about a questionnaire statement using standard deviation of respondents to each statement, it is an indicator about their level of understanding for the statement. In this section, it is clear

that statement (1) which states that “In large or complex organizations, a fully scoped smart application plan may take many months to complete” has the lowest standard deviation score among other statements in the section thus it has the highest agree. While statement (7) which state that “It is important to be a well-qualified and have Standard skills to work in IT field.” has the highest standard deviation score, thus the least agreed on statement. Because of the lack of understanding of this principal among KUC employees and their belief that no need to e-services in their departments . It is important to analyze level of consensus between each department’s staff members as an indicator, which represent out how well oriented staff member in the same department are. Properly oriented departments will have low standard deviation for the answers because there is a common understanding about distance learning principles ad terms that cannot misunderstood. By analyzing standard deviation of the mean for each department alone, the lowest standard deviation will indicate the most agreed department thus well oriented department about their roles and responsibilities while highest standard deviation will indicate the most non-agreed department. By referring to Table (3) it is clear that registration department has the least standard deviation equals to (0.71), while planning department has the highest standard deviation equals to (1.4).

13.2 Implementation

This dimension of the questionnaire designed to measure the implementation of e-services criteria in KUC and assess its adherence to the e-services . Based on information gathered by the researchers, this section in the questionnaire intended to discover the feature of the applications and any response structure at the college that defines the necessary roles, skills, and authority required to manage these services .

Table 4: Implementation

Number	Item Description	Average	STD	Rank	Level
10	The department is currently engaged with e-services	4.50	0.50	1	High
11	A documented strategy for e-applications is available at the department.	4.42	0.53	2	High
12	All staff members in your department	2.44	0.84	8	Medium

	have been assigned to roles and responsibilities within KUC				
13	All critical data in your department are backed up and readily available offsite.	3.5	0.89	7	Medium
14	There are effective Service Level Agreements (SLA) with vendors and suppliers that define their obligations.	4.30	0.78	4	High
15	There is an assigned person for IT within each department.	4.41	0.68	3	High
16	There is a well-established communication plan among staff in case of disruption.	3.83	1.09	6	High
17	There is an effective IT Continuity Plan irrespective of the work place.	3.92	0.92	5	High
18	The majority of employees have been trained for business continuity and incident management	2.37	0.84	9	Medium
	Overall	3.20	0.63		Medium

Statistical analysis for this section demonstrated in Table 4.9 shows that implementation of college plans and procedures scored an overall average of (3.2) for the 50 respondents, with a standard deviation of (0.63). The overall average of the implementation section corresponds to a rank of “moderate ” with confidence level of (68.2%). The highest average of implementation between KUC departments scored by academic departments with an average equal to (3.89). Followed by Human Resources with an average equals to (3.56), followed by planning department with an average equals to (3.54), followed by registration department with an average equals to (3.42), followed by student affairs department with an average

equals to (3.19), and finally Financial Affairs department with an average equals to (2.81).

One department scored an overall average corresponds to a rank of high; the five other departments scored an overall average corresponds to a rank of moderate. Planning department scored the highest average and the only high rank among kuc departments and that attributed to the importance of media response to crisis and unwanted events, which forced the college to implement new systems to guarantee a quick and efficient response with lessons learned from several incidents happened lately and managed through social media. Whether it is a terrorist attack or harsh weather conditions, public messages presented by KUC proved its credibility through several occasions, and to maintain this credibility Media Response Unit work according to highest standards .

The majority of the college represented by the other five departments show an average correspond to moderate rank of implementation which represents a huge opportunity for improvements that can increase level of resilience in the college . Level of consensus between employees on this section was slightly better than the first section, which is according to Table (4) represented by the standard deviation of respondents. Statement (15) which states that “There is an assigned person for IT within each department.” has the lowest standard deviation score among other statement in the section thus the highest consensus level. While statement (18) which states that “The majority of employees have been trained for business continuity and incident management” has the highest standard deviation score thus the least agreed on statement. This results indicate that there is a division between employees about the program training that can be managed easily. Analyzing level of consensus between each department’s staff members shows that that Human Resources department has the least standard deviation equals to (0.42), while planning department has the highest standard deviation equals to (1.13).

13.3 Design and Analysis

This dimension was designed to measure to what extent KUC staff members select appropriate solutions, to determine how college programs can be achieved in this pandemic , and to measure to what extent they analyze processes for smart application purposes and the impact of these applications on education sector .

Table 5: Design and Analysis

Number	Item Description	Average	STD	Rank	Level
19	e-services of your department are prioritized according to their importance.	2.93	0.98	6	High
20	Activities that are essential for the delivery of the college services are defined..	3.60	0.83	3	High
21	An analysis / review is carried out for each activity that had been affected by a disruption.	2.48	0.95	7	Medium
22	The maximum tolerable period of disruption (MTPD) is defined for all products and services.	2.23	2.23	9	Medium
23	Recovery time objective (RTO) is defined for all products and services..	2.25	0.89	8	Medium
24	There is always a compromise between cost and speed of recovery..	4.13	0.84	1	High
25	There is a master plan for your department..	3.00	0.89	5	High
26	Mitigation measures are identified and implemented to reduce the impact of a disruption to your department's prioritized activities	3.45	0.84	4	High

27	There are different levels of response in the college, according to the type of the program.	3.88	1.08	2	High
	Overall	3.10	0.66		Medium

Statistical analysis for this section shown in figure 4.5 based on The highest average of implementation between KUC departments scored by registration with an average equal to (3.74). Followed by planning with an average equals to (3.14), followed by student affairs department with an average equals to (3.09), followed by Human Resources department with an average equals to (3.05), followed by inventory department with an average equals to (3.03), and finally Financial Affairs department with an average equals to (2.74).

Table (5) data, shows that design and analysis for e-services in KUC scored an overall average of (3.1) for the 50 respondents, with a standard deviation of (0.66). The overall average of the Design and Analysis section correspond to a rank of “MODERATE” with confidence level of (67.4%). In this section, we have very similar results to the implementation section. Only one department scored an overall average corresponds to a rank of high; while five departments scored an overall average corresponds to a rank of moderate. Planning department scored the highest average and the only high rank among KUC. While, the majority of the college represented by the other five departments show average correspond to moderate rank of implementation which represents a huge opportunity for improvements that can increase level of resilience in the Implementation depends heavily on design and analysis, and that explains the strong relation between respondents answers for those two sections as mentioned here by numbers.

Again, level of consensus between employees on this section was very similar to that for the implementation section, which represented by the standard deviation of respondents presented in Table (5) Statement (20) which states “Activities that are essential for the delivery of the college services are defined.” has the lowest standard deviation score among other statement in this section thus the highest consensus level. While statement (27) which states “There are different levels of response in the college, according to the type of the program.” has the highest standard deviation score thus the least consensus on statement. The high deviation about levels of response in the college indicates lack of information about those levels

among staff members. Analyzing level of consensus between each department’s staff members shows that ICT department has the lowest standard deviation equals to (0.63) while Human Resources department has the highest standard deviation equals to (0.87). This is completely opposite to the implementation section, which indicates difference in consensus level about those section that must be addressed.

13.4 Validation

The purpose of this section is to measure how e-services present solution and response to the any change could be appear in the future . And to check if the plans are current, effective, accurate, and complete.

Table 6: Validation

Number	Item Description	Average	STD	Rank	Level
28	The college conducts periodic drills simulating change .	2.93	0.98	6	High
29	Results from Simulated change drills are used to improve and update college plans	3.60	0.83	3	High
30	Simulated change drills verify the recovery time and recovery point objectives of key dependencies.	2.48	0.95	7	Medium
31	Working remotely is possible when it is not safe to come to work.	2.23	2.23	9	Medium
32	Assigning well defined roles and responsibilities for each staff member is important during implementing the system.	2.25	0.89	8	Medium
33	The department staff members manage & monitor e-services performance	4.13	0.84	1	High

34	The department staff members assess the strengths and weaknesses points of the new systems	3.00	0.89	5	High
35	The application of the concept of e-learning systems creates more bureaucracy to the flow work.	3.45	0.84	4	High
36	Adopting smart application in my department efficient and easily accessible	3.88	1.08	2	High
	Overall	3.10	0.66		Medium

Statistical analysis for this dimension shown in Table (6), shows that validation for e-services in KUC scored an overall average of 63 (3.55) for the 50 respondents, with a standard deviation of (0.39). The overall average of the validation section corresponds to a rank of “MODERATE” with confidence level of (60.5%).

The highest average of implementation between KUC departments scored by planning department with an average equal to (3.89). Followed by registration department with an average equals to (3.74), followed by Financial Affairs department with an average equals to (3.56), followed by student affairs department with an average equals to (3.51), followed by academic department with an average equals to (3.43), and finally Human Resources department with an average equals to (3.41).

In this section planning department , and registration department corresponds to a rank of high, while the other four departments correspond to a rank of moderate, for the third time planning department scored high rank in the analysis. Level of consensus for this section among KUC staff members was the best compared to all sections with an overall standard deviation equals to (0.39). According to Table (6) represented by the standard deviation of respondents, Statement (36) which states that “Adopting smart application in my department efficient and easily accessible”has the lowest standard deviation score among other statement in the section thus the highest consensus level. While statement (31) which states that “Working remotely is possible when it is not safe come to work” has the highest standard deviation score thus the least agreed on

statement. It is obvious that the high deviation about the working remotely capability statement indicates a conflict between staff members believe in it. Analyzing level of consensus between each department's staff members shows that inventory department has the lowest standard deviation equals to (0.46) while Financial Affairs department has the highest standard deviation equals to (0.89).

14. Weak Points

The overall performance of the college concluded in section is (3.4). Taking into consideration that standard deviation equals to (± 0.26). Thus, the average range will be (3.14-3.66) that falls in the upper side of the moderate range, which is (2.34-2.66) this implies that improving the overall performance to high level is possible and can be done through addressing adopt e-services weak points of the college based on this research and design proper corrective measures accordingly. Through the analyses shown in the results, weak points can be addressed easily wherever low rank is presented in average which has the range of (1-2.33) and that will be addressed for the whole college as one unit to address possible solutions with minimum financial cost, and individually for each department to exclude no weak points department form any corrective measures to save time and money.

15. Conclusions

After discussing results of data analysis, we can conclude the following:

1. Nowadays, e-services and smart applications has become a vital necessity for modern organizations and universities .
2. e-applications objective is to identify and increase resilience to potential organizational threats.
3. The overall e-services performance in KUC is moderate, with high contrast in performance for the four main dimensions between departments.
5. High level of awareness about adopting e-services and procedures but with poor implementation as a result that this awareness is coming from external organizations such as crisis management field best practice not from college awareness mentoring programs.
6. Human Resources department revealed the least performance among all departments, although it is concerned with human resources, supply and logistics, maintenance, and management of KUC .

7. Discrepancy in answers for some statements indicate that there is a need to smart application in college to adopt with change and overcome the obstacles that faced the education sector.

8. The outcomes of this research, if implemented all at once or on phases, will boost the performance of college from moderate to high, and will guarantee that the college will withstand different types of crises .

16. Recommendations

Based on the results of this research, it is recommended to:

1. Design an executive plan that is executable with respect to available budget, starts with treating weak points that are common for departments in the college , then start with each department according to their importance.
2. Conduct a mentoring program about e-services and smart application for all staff members regularly, and educate its relationships with other ongoing management programs in the college .
3. Define the main services and which a service must be provided by the college .
4. Invest in more scientific analysis and creative concepts in this field, focusing on a systematic approach to gathering, reporting, and tracking data as non-biased and emotion-free theoretical observations.
5. Look at the possibility of introducing new strategies and technology to help the nation properly meet the need for new services .
6. Coordinate student programs in colleges and schools related to e-services efficiency, Restructuring the education system in schools to provide an a smart systems and policy for changing student behavior.

References

- [1] (<https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning>).
- [2]. Emilio Ghiani, M. G. (2020). Impact on Electricity Consumption and Market Pricing of Energy and Ancillary Services during Pandemic of COVID-19 in Italy. *energies*.
- [3]. Amer Jamal, d. (2020). Jordan Unemployment Rate http://dosweb.dos.gov.jo/ar/un_emp_q3_11_2020/.
- [4]. Alnuimat, A. (2020, 2 30). *almamlakatv*. Retrieved from <https://www.almamlakatv.com/news/42416->.
- [5]. alaa obeidat ,rana obeidat ,mohammad alshalabi, The Effectiveness of Adopting e-Learning during COVID-19 at Hashemite University (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 11, No. 12, 2020.

- [6]. Lea Sorilla Nisperos, Assessing the E-Learning Readiness of Selected Sudanese Universities In today's knowledge-driven society and information economy, Asian Journal of Management Sciences & Education Vol. 3(4) October 2014
- [7]. Beauty Undi-Phiri, Jackson Phiri, Assessing Factors Affecting the Adoption of E-Government Services in Developing Countries for Transport Sector, amidst the Covid-19 Pandemic, Communications and Network, 2022, 14, 69-90
- [8]. Mohammad Ziaul Hoq, "E-Learning during the Period of Pandemic (COVID-19) in the Kingdom of Saudi Arabia: An Empirical Study." American Journal of Educational Research, vol. 8, no. 7 (2020): 457-464. doi: 10.12691/education-8-7-2.
- [9]. Shihui Xiang and others, the effect of covid-19 pandemic on service sector sustainability and growth
- [10]. Gupta, P.K., Singh, S. and Bhaskar, P. (2016) Citizen Adoption of E-Government: A Literature Review and Conceptual Framework. Electronic Government, an International Journal, 12.
- [11]. Ra'ed Nahar Myyas, Mohammad R. Almajali Effect of COVID-19 on Energy Sector in Jordan, International Journal of Energy Economics and Policy, 2022, 12(2), 20-29.

Sattam Allahawiah is associate professor of management information system at the University of Al-balqa applied University. He teaches "E-commerce" and "information system" for the courses of management information system. His research areas are related to the e-business.

Haroon Altarawneh is associate professor of computer information system at the University of Al-balqa applied University. He teaches "system analysis" and information system" for the courses of management information system. His research areas are related to the software engineering.

kafa al Nawaiseh is Assistant Professor of Business Administration at Al Balqa Applied University (BAU). She obtained his business administration PHD in impact of management information system on knowledge management functions, her research interests include Business administration, MIS, Knowledge management and HR.