

# **Awareness And Attitudes Of Users In Jordan Towards The Use Of Digital Full-Text Books During Pandemic Covid-19: Case Study, University Of Jordan**

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## **Abstract**

The goal of this study is to explore the awareness and attitudes of users at the University of Jordan as regards the use of digital books provided by academic libraries during the Covid-19 pandemic. Used the descriptive quantitative methodology through building a structured questionnaire to collect data from users at the University of Jordan which has the largest number of users. Out of the 650 total sample of students, a total of 540 questionnaires were collected for analysis. The results indicated that users were familiar with digital books and they use them in their research and studies. A maximum of the student participants had an affirmative awareness and attitude towards full text in form of digital books, and they indicated easy access to digital books; digital books support them in their research and study tasks. The results also indicated that digital books on the Internet are of great importance. In addition, there are significant differences of belief among students from different colleges regarding the use of digital books. This study will help guide decision-makers in the Jordanian university libraries to develop digital book collections, identify students' needs, and improve the digital services they provide. As far as the researcher knows, this first study is to identify awareness and attitudes of users the in academic environment towards the use of digital full textbooks in Jordan in particular and the Arab world in general.

**Key Words:** Digital Books, Full-Text; Awareness, Usage, Trends, Users, Academic library, Jordan.

## **Introduction**

In light of the Corona pandemic, we are living today in the era of the digital revolution, in which scientific discoveries and technological developments are accelerating, and digital knowledge is widely spreading, some may find it difficult to cope with and implement. Perhaps one of the most important rapid technological developments is the Internet and computer technology. The communications and computer technology revolution has affected all aspects of life and imposed new challenges in all fields of politics, economics, education, and society, as this digital revolution imposed a new reality on all aspects of life.

One of the most important areas that have been actively affected by the development of communication and computer technology in the field of education and university education including graduate studies which face many challenges that require dealing with these rapid developments in the fields of knowledge and technology, which led to a change in the literature of traditional university education to keep pace with this development. Therefore, new terminology, such as the digital library and learning management systems, appeared in many prestigious universities. The communications and knowledge revolution also led to the development of open university and distance education. For electronic or virtual universities to appear, including the digital libraries.

Digital books offer a variety of favorable options such as ease of mobility, the increasing percentage of digital full-text book publishing ordigitalfull-text content creation, and enhancement of digital content in the form of fixed texts, hypertexts, interactive texts, multimedia, etc., with continuous development and restructuring of techniques.

Moreover, the digital book consists of text, pictures, and tables, and it can be delivered on smart devices such as smartphones, e-book readers, and tablets. Digital full-text books are available in different designs formats such as (TXT; PDF; HTML; IIT; EPUB; etc.)and so on. Nowadays, many digital full textbook providers have adopted the format using the technology of HTML andCSS. Also, the publishers of digital full-text books focus on compressing the file dimension of the digital full-text book to enable their users to easily transfer or download and read full-text books by smart devices with minimal configuration requirements. Furthermore, environmental protection initiatives around the world are protecting trees and reducing paper use, which increases the demand for digital books. (Research and Markets, 2020).

These aspects permit more effective usage of e-books over traditional counterparts in many respects, and they are commonly evaluated extremely by users. The weaknesses point include complications and lack of standardization of the interfaces of smart devices through e-books required to be opened and in some cases restrictions on their use for one user at a time (Wells& Sallenbach, 2015). Therefore Li, Jiao, Zhang, & Xu (2019) emphasized that not only do the information esources of the new digital collection have the physical characteristics of big data, but also the service area of the current library, especially digital books, need great use and procedures to succeed reforming and improvement, as well as the transfer of digital resources, their use, social identity, and creative thinking. Hence the significance of the customer service area and the categories of new resources of digital libraries big data that can use should be emphasized.

In 2020, and light of the Corona pandemic and distance education, digital books have been a major source for students as they can be downloaded on any mobile device and ready anywhere. Of the advantages of digital books, for example, is from Springer Nature is that one address can be accessed simultaneously by a large number of students as the groups offer Digital Rights Management (DRM) for free. Therefore, "the attractive feature among the modules is that digital books can be accessed simultaneously in real-time" (Graham-Clare, 2020).

The global impact of the Covid-19 pandemic at the level of higher education institutions, including libraries, is still notable due to the importance of digital resources that are available online, and the importance of digital books has also increased. For Jordanian universities and especially for most users, it was very important to maintain contact with students during the lockdown and to continue to support them by providing access to digital resources to support learning and scientific research, this is considered one of the priorities of the libraries that have merged with information technology in Jordanian

universities. So, the need emerged for research to extend the level of awareness and trends towards users' use of digital full-textbooks, from various colleges and disciplines, and within the levels of master's and doctoral degrees.

### **Research objectives:**

1. Measuring the extent of awareness & attitudes of users in Jordan towards the use of digital books.
2. Are there statistically significant variances at a significance level of ( $\alpha 0.05$ ) for the level of awareness and attitudes of users in Jordan towards the use of digital full-text books attributed to the variable of gender, the college to which the student belongs, and the degree in which he/she is studying?

### **Literature review**

The first computerized (now digital) book go back to the eighties of the last century in conjunction with the spread of computers and their superior ability to store giant texts that allow a single device to contain thousands of titles and the possibility of transferring them on CDs to reach thousands and perhaps millions of readers around the world through the international information network (Internet) in the least possible time. The digital book began then to make its way and compete strongly as a medium for transferring knowledge (Al-Kamishi, 2010). The digital book can be defined differently as follows: The other side of the traditional book but it depends on the written texts program, in addition to a set of interactive, graphic, and animated elements, and this digital book is presented via networks and CDs through a computer or mobile phone - it depends on the concept and form of the traditional paper document, and the interaction with the digital pen, It supports research activities through the use of annotations and comments that readers add to the book (Rao, 2001; Marshall et al. 2001: 41; Gardiner and Ronald, 2010; Chen, 2003). Currently, it is not required that a computerized book have a paper-printed copy.

Advantages of the full-text digital-book, computerized (digital) books work in the same way despite the difference in appearance and capabilities. They are produced using computer programs or websites dedicated to this purpose. The majority of digital books are marketed via the Internet through digital bookstores. The computerized books consist of multimedia, including text, still and motion images, and video clips. Some of them are interactive, while others are non-interactive being limited to present information without any interaction and like the traditional paper book. In addition, digital books are easy to circulate, import from anywhere in the world, and control they're in proportion to the capabilities and competencies of the learner .We can add the following features to digital books in all their forms:

1. Although the book consists of text only, it has indexes that facilitate access to the topics and it contains a search engine in which topics are searched according to the keywords that refer to them.
2. The e-book can be read using the E-Book Reader device which is a special purpose computer itself.
3. The user can add comments and notes to the margins of the computerized interactive book.
4. Ease of transferring and downloading between various devices.
5. It can contain multimedia such as pictures, videos, animations, various sound effects, and others.
6. It can be displayed to students in the classroom using the data-show projector.
7. Global distribution of the e-book without the need to search for copyright and distribution in each country.

8. Fast updating of the e-book data and informing the reader about it immediately.

The last advantage is the lower costs of publishing an e-book compared to a printed book, because there are no costs for paper printing, and there are no commercial intermediaries who take profits at the reader's expense. (Al-Manharawi, 2016:254; Oyaid & Alshaya, 2019; Frye, 2014).

**Availability of digital books in light of the Corona pandemic (cost challenges)**

Like many sectors and institutions that used innovative solutions to overcome the challenges imposed by the Corona pandemic, the publishing and distribution field does not seem to exclude itself from the solutions of the virtual world to be able to overcome the exceptional recession in the book market and continue to provide the public with the latest publications, after closing all the libraries in the world.

The academic environments are nowadays the biggest customers of digital full-text books. This applies also to the special inventions of digital book readers. Now, a large number of students, faculty members, and staff have received awards for the central role of digital books in libraries (OECD, 2016). The use of digital books is increasing. Although there are many advantages and disadvantages of digital books, especially barriers to the use of digital books, the situation can be better improved through user awareness, training, reduced publisher restrictions, and IT adoption (Pedró, 2006). However, Walters (2014) recommended that publishers consider offering free e-books with complete content without restrictions on accessibility. Readers may encounter difficulties in understanding the content of the e-book if they read it digitally. In response to the rising costs of full-text books, higher education institutions have launched financial affordability initiatives, especially in academic libraries. For example, Joyner Library at East Carolina University (ECU) made three initiatives: the approved textbook program, the alternative books program, and obtaining a license to broadcast the video accompanying the text of the book to reduce costs of the increasing library services (Hoover, Shirkey, Barricella, 2020; Sotak, Scott, Griffin, 2020).

Publishers currently provide a diverse range of high-quality books, research journals, and educational solutions via print, digital, and audio business methods. However, as the COVID-19 scenario continues to be a hot topic, many publishers are doing more to help book readers and other users who are hungry for literature and resources, including about the coronavirus in general and education in particular (Association of American Publishers, 2021).

**The publishing houses responded to the Corona pandemic by providing digital books**

The American Publishers Association confirmed that about 19 publishing companies around the world have responded to help publish digital books and make them freely available to students, teachers, universities, schools, and communities as well. Here is a collection of examples of publishing houses that have responded to the COVID-19 challenge and are continuing their updates to the public.

The Cambridge University Press (2021) stated that the higher education books in HTML format are freely accessible online during the coronavirus outbreak, to support universities and their students. More than 2000 full-text books are accessible to students via their university library's website, regardless of whether they had already purchased them. or not, and for all over the world. Students in the US have also been accessible freely as full-text digital book editions through the vital source. In addition, reference work is provided to libraries during the same period. Combining such groups of publications reflect the context and challenges of the pandemic while attempting to generate an appropriate humanitarian reflection as well as a practical response to address this challenge. Ceng age Publishing House (2020) provided US

college students affected by COVID-19 through Cengage Unlimited, you can have free access to all of the company's digital and e-book platforms. platform. This was the experience of the e-book trouble-free, at any time and in any place, and on any device. It provides the platform for e-books from Gale Comprehensive support by several major publishers in these circumstances and has been optimized for research, discovery, and integration across educational programs that are suitable for all students.

Another example of publishing companies to provide digital books is Macmillan (2020) Partnership with (Vital Source and Red Shelf provide free access to academic but non-commercial e-books, whether the student is online or offline. Regarding Pearson offered free access to the e-book library to higher education students in "the United States, United Kingdom, and Canada only," as well as free access to students and teachers who utilize Pearson courses in their teaching and learning processes, as well as free access to the Aida Calculus app. (Pearson, 2020).

Princeton University Press collaborates with e-book suppliers in response to the growing demand for digital content and expanding distance learning arrangements in light of the COVID-19 pandemic. (EBSCO, JSTOR, Perusall, Project MUSE, Proquest, Red Shelf, and Vital Source) to make the digital content available to global libraries and academic institutions exact content availability will vary depending on the partner, However, it will feature free temporary upgrades from a single user to a huge number of users, depending on the partner. PUP is one of almost fifty scientific publishing houses that have signed up for this program. Under the slogan "Stay safe and keep reading"(Princeton University Press,2021). SAGE services also collaborate with higher education institutions to meet the challenges of COVID to provide free access to digital full-text books, educational curricula, and a collection of articles and information on online education in the US, UK, and all other regions of the world that deal with SAGE Publishing (SAGE, 2020).

By reviewing the relevant literature, researchers and decision-makers in the educational institutions realize the importance of digital books in developing learning and scientific research in addition to encouraging decision-makers and professionals to increase awareness of digital books and make them available to beneficiaries in general and to use in particular. Therefore, this study aimed to demonstrate the impact of demographic characteristics on user awareness and attitudes regarding digital full-text books, by measuring the differences between the levels of degrees, colleges, and majors to establish an infrastructure in the field of Arabic literature on digital books and to make them available in university libraries.

## **Methodology**

At the University of Jordan, the goal of this study is to determine user awareness and attitudes concerning the use of digital books. The study used a descriptive (survey) strategy to attain this goal, since prior studies had used the same methodology, by delivering a questionnaire to 650 postgraduate students in masters and doctorate programs (through Google Docs, WhatsApp, and e-mail). They were picked in a stratified random manner, with (540) students participating in the answer and (83%) of the study sample being regarded as sufficient for the research study's aims. According to the study questions, the questionnaire has 24 items separated into three parts. The information gathered from the questionnaire was coded with(SPSS).

## **Results**

### **Sample characteristics:**

To collect demographic information about the participants, questionnaires were delivered first. The sample's characteristics were described using the numbers in the tables.

| <b>Tabl-1-Sex of students.</b> |                 |             |
|--------------------------------|-----------------|-------------|
| <b>Classifications</b>         | <b>Students</b> | <b>%</b>    |
| Female                         | 173             | 32.0        |
| Male                           | 367             | 68.0        |
| <b>Total of Students</b>       | <b>540</b>      | <b>100%</b> |

As per the Jordan University site (2020/2021), 68% of users at Jordan University are males, while 32% of the sample are females as in the above table (1).

| <b>Table-2- Students Age.</b> |                 |             |
|-------------------------------|-----------------|-------------|
| <b>Classification</b>         | <b>Students</b> | <b>%</b>    |
| Less - 29                     | 248             | 45.9        |
| 30 - 39                       | 150             | 27.8        |
| 40 - 49                       | 121             | 22.4        |
| More - 50                     | 21              | 3.9         |
| <b>Total of Students</b>      | <b>540</b>      | <b>100%</b> |

Regarding the students' age, consider table-2- there are many numbers of students in the age group of 25-30 (45.9%), followed by the percentage of those between the ages of 31-40 (27.8%), 41-50 (22.4%), 51 Years or More (3.9%). The community of students who have graduated from Jordan University has an outstanding age.

| <b>Table-3-Which Faculty, do you study in?</b> |                 |              |
|--|-----------------|--------------|
| <b>Discipline Students</b>                     | <b>Students</b> | <b>%</b>     |
| Arts   | 183             | 33.9         |
| Business                                       | 210             | 38.9         |
| Health Faculties                               | 24              | 4.4          |
| Engineering                                    | 123             | 22.8         |
| <b>Total of Students</b>                       | <b>540</b>      | <b>100.0</b> |

It is based on the number of students enrolled in each college. Students were chosen from Jordan University's four colleges. Below are some question categories. The results from the analysis showed that in 393 out of the total 540 respondents, the subjects are Business (38.9 percent), Arts (33.9 percent), and the maximum number of Engineers (123 respondents, 22.8 percent), while the lowest number of respondents in the college of Health Science (24 respondents). The reason for this is because there are far more graduate programs in university in comparison to Arts & Business programs.

| <b>Table-4-What is your educational degree?</b> |                 |          |
|---|-----------------|----------|
| <b>Degree of Students</b>                       | <b>Students</b> | <b>%</b> |
| (M.S.) degree                                   | 326             | 60.4     |
| (Ph.D.) degree                                  | 214             | 39.6     |

|                          |            |             |
|--------------------------|------------|-------------|
| <b>Total of Students</b> | <b>540</b> | <b>100%</b> |
|--------------------------|------------|-------------|

The information in the table represents each respondent's current degree. 60.4 percent of the sample is seeking a master's degree, while 39.6 percent is pursuing a doctoral degree (Ph.D.).

### Reliability test:

According to the Cronbach Alpha test scores, which are displayed in the following table, the data from the questionnaire has to be double-checked because it is greater than 0.60 percent.

| <b>Variables</b>                          | <b>Alpha</b> |
|---|--------------|
| Awareness Towards Digital-books           | 0.619        |
| Students' Attitudes Towards Digital-books | 0.894        |
| <b>All the variables</b>                  | <b>0.908</b> |

The alpha value for each variable in the table above is greater than 0.60, indicating that the questionnaire is reliable.

### Answering the Study Questions:

#### 1. What is the Awareness of Digital-books?

The aforementioned question is answered using the mean and standard deviations. The following steps can be used to determine the level of acceptability for each variable scale was used:

| <b>Measures</b> | <b>Acceptance Level</b> |
|-----------------|-------------------------|
| 1 - 2.34        | low                     |
| 2.35 – 3.65     | medium                  |
| 3.66 - 5        | high                    |

The following results are found:

| <b>Statement</b>  | <b>M</b> | <b>Std. Deviation</b> |
|---|----------|-----------------------|
| Q5.I know what the digital book means                                   | 3.19     | 1.24                  |
| Q6: The start and end times of the lecture must be adhered to by users. | 3.01     | 1.45                  |

|  |             |            |
|--|-------------|------------|
| Q7: The university's users are dedicated to making the most of their lecture time.       | 4.21        | 1.06       |
| Q8: The scientific stuff they are studying is objectively evaluated by university users. | 4.50        | .68        |
| Q9: University students are taught in a variety of ways.                                 | 3.13        | 1.33       |
| <b>Awareness</b>   | <b>3.61</b> | <b>.74</b> |
| <b>Valid N (listwise)</b>  | <b>540</b>  |            |

The variable's grand mean depicts a middle level of acceptability of the aforesaid measure, As seen in the table. Furthermore, Q8 (The scientific stuff they are studying is objectively evaluated by university users) has the highest level of acceptability, whereas Q6 (The start and end times of the lecture must be adhered to by users) has the lowest level of approval.

## 2. How Do Students Feel About Digital Books?

**Tab-8-Attitudes in Full-Text Digital Books**

| <b>Statement</b>  | <b>M</b> | <b>Std. Deviation</b> |
|---|----------|-----------------------|
| Q10: The university's users are bound by pre-determined office hours.                                   | 3.02     | 1.40                  |
| Q11: The university's users are focused on following the university's subject course.                   | 4.07     | .99                   |
| Q12: At the university, the distribution of grades among users is equitable.                            | 3.19     | 1.20                  |
| Q13: The university's users are devoted to sharing their expertise.                                     | 3.10     | 1.28                  |
| Q14: The examination instructions bind all users at the university.                                     | 3.26     | 1.22                  |
| Q15: Users at the institution prioritize public good over personal gain.                                | 4.19     | .92                   |
| Q16: Users at the institution are required to complete their scientific research projects on schedule.  | 4.40     | .68                   |
| Q17: During lectures, university users are required to refrain from engaging in off-topic conversation. | 3.91     | 1.10                  |
| Q18: The university's users follow the thesis outline as closely as possible.                           | 3.52     | 1.24                  |
| Q19: The letter, notes, and modifications are all required reading for university users.                | 3.92     | 1.03                  |
| Q20: The university discusses the dissertations of its users in a scholarly, non-biased manner.         | 4.03     | .96                   |
| Q21: When dealing with colleagues and society, university users are humble.                             | 3.85     | .98                   |
| Q22: Users at the institution are expected to positively respect the views of other audio resources.    | 3.63     | 1.14                  |
| Q23: The university's users are eager to lead by example.   | 3.64     | .96                   |
| Q24: The university's users are taught in a variety of ways.  | 3.82     | 1.06                  |



|                            |             |            |
|----------------------------|-------------|------------|
| <b>Attitudes</b>           | <b>3.70</b> | <b>.69</b> |
| <b>Valid N (list wise)</b> | <b>540</b>  |            |

The grand mean of the variable, as shown in the table above, demonstrates a high level of acceptability for the aforesaid variable. Q16 (Users at the institution are required to complete their scientific research projects on schedule) has the highest level of acceptance, while Q10 (The university's users are bound by pre-determined office hours) has the lowest level of approval.

3. Is there a statistically significant difference in the level of awareness and attitudes of users in Jordan toward the use of digital books related to the variables of gender, the university to which the student is a member, and the degree in which he is studying, at the significance level (0.05)?

### Awareness Towards Full-Text Digital-Books

| <b>Tabl-9-Between-Subject Effects Experiments</b> |                                |            |                     |          |             |
|---|--------------------------------|------------|---------------------|----------|-------------|
| <b>Awareness is a dependent variable.</b>         |                                |            |                     |          |             |
| <b>Source</b>                                     | <b>Type III Sum of Squares</b> | <b>df</b>  | <b>M. of Square</b> | <b>F</b> | <b>Sig.</b> |
| A model that has been corrected                   | 5.358 <sup>a</sup>             | 3          | 1.786               | 3.239    | .000        |
| Intercept   | 223.860                        | 1          | 223.860             | 406.006  | .000        |
| gender  | 1.190                          | 1          | 1.190               | 2.158    | .000        |
| collage   | .023                           | 1          | .023                | .042     | .000        |
| qualification                                     | 4.677                          | 1          | 4.677               | 8.482    | .000        |
| Error   | 295.535                        | 536        | .551                |          |             |
| <b>Total</b>                                      | <b>7342.560</b>                | <b>540</b> |                     |          |             |
| <b>Corrected Total</b>                            | <b>300.893</b>                 | <b>539</b> |                     |          |             |
| <b>R Squared =.018 (R Squared Adjusted =.012)</b> |                                |            |                     |          |             |

When the ANCOVA Test is performed to solve the question above, it is discovered that:

**Sex:** As indicated in the following table, the F value is not significant at the 0.05 level, indicating that there are no statistically significant changes in the level of awareness of the usage of digital books due to the variable of gender, at the level of significance (0.05).

| <b>Tabl-10-ANCOVA Test Variable of Sex</b> |          |                           |             |
|--|----------|---------------------------|-------------|
| <b>Sex</b>                                 | <b>M</b> | <b>N. of Participants</b> | <b>S.D.</b> |
| Female                                     | 3.59     | 367                       | .79         |

|              |             |            |            |
|--------------|-------------|------------|------------|
| Male         | 3.62        | 173        | .72        |
| <b>Total</b> | <b>3.61</b> | <b>540</b> | <b>.74</b> |

**Faculty:** The **F** value at the 0.05 level is not significant, indicating that there are no statistically significant changes in the level of awareness of the usage of digital full textbooks related to the variable of Faculty at the level of significance (0.05).

| <b>Table-11-ANCOVA Test Variable of Faculty</b> |             |                           |             |
|---|-------------|---------------------------|-------------|
| <b>Faculty</b>                                  | <b>M</b>    | <b>N. of Participants</b> | <b>S.D.</b> |
| Arts  | 3.49        | 183                       | .82         |
| Business  | 3.70        | 210                       | .69         |
| Health Faculties                                | 3.67        | 24                        | .62         |
| Engineering                                     | 3.60        | 123                       | .71         |
| <b>Total</b>                                    | <b>3.61</b> | <b>540</b>                | <b>.74</b>  |

**Educational Level:** The **F** value is significant at the 0.05 level, indicating that there are statistically significant differences in the level of awareness of the usage of digital books related to the variable of the educational level at the significance level (0.05). As seen in the accompanying table, these variances tend to increase more in the (M.S) background than in the (Ph.D.) background.

| <b>Table-12-ANCOVA Test Variable of Educational Level</b> |             |                    |             |
|---|-------------|--------------------|-------------|
| <b>What is your educational background?</b>               | <b>M</b>    | <b>N. Students</b> | <b>S.D.</b> |
| (Ph.D.)background   | 3.50        | 214                | .72         |
| (M.S) background  | 3.68        | 326                | .75         |
| <b>Total of Students</b>                                  | <b>3.61</b> | <b>540</b>         | <b>.74</b>  |

**Attitudes of Students Towards Digital Full-Text Books:**

| <b>Tabl-13-Effects of the ANCOVA Test on Subjects</b> |                                   |           |                            |          |             |
|---|-----------------------------------|-----------|----------------------------|----------|-------------|
| <b>Attitudes, as a dependent variable</b>             |                                   |           |                            |          |             |
| <b>Basis</b>  | <b>Sum of Squares of Type III</b> | <b>df</b> | <b>Square Root of Mean</b> | <b>F</b> | <b>Sig.</b> |
| The model that has been corrected                     | 8.961 <sup>a</sup>                | 3         | 2.987                      | 6.374    | .000        |
| Cut off   | 243.769                           | 1         | 243.769                    | 520.221  | .000        |

|   |                 |            |       |        |      |
|---|-----------------|------------|-------|--------|------|
| sex   | .535            | 1          | .535  | 1.141  | .000 |
| college   | .022            | 1          | .022  | .046   | .000 |
| qualification                                     | 8.339           | 1          | 8.339 | 17.796 | .000 |
| Error   | 251.162         | 536        | .469  |        |      |
| <b>Corrected Total</b>                            | <b>7691.253</b> | <b>540</b> |       |        |      |
| <b>Corrected Total</b>                            | <b>260.123</b>  | <b>539</b> |       |        |      |
| <b>R Squared =.034 (R Squared Adjusted =.029)</b> |                 |            |       |        |      |

When the ANCOVA test is performed to answer the question above, it is discovered that:

**Sex:** The **F** value is not significant at the 0.05 level, indicating that there are no statistically significant changes in the level of students' views toward Digital-books related to the variable of sex at the level of significance (0.05). As seen in the table below:

| <b>Sex</b>   | <b>M</b>    | <b>N. of Students</b> | <b>S.D.</b> |
|--------------|-------------|-----------------------|-------------|
| Female       | 3.73        | 367                   | .74         |
| Male         | 3.69        | 173                   | .67         |
| <b>Total</b> | <b>3.70</b> | <b>540</b>            | <b>.69</b>  |

**Faculty:** **F** value is not significant at the 0.05 level, indicating that there are no statistically significant changes in the level of students' views toward Digital-books attributable to Faculty at the level of significance (0.05).

| <b>Faculty</b>   | <b>M</b>    | <b>N. of Students</b> | <b>S.D.</b> |
|------------------|-------------|-----------------------|-------------|
| Arts             | 3.74        | 183                   | .70         |
| Business         | 3.63        | 210                   | .71         |
| Health Faculties | 3.53        | 24                    | .66         |
| Engineering      | 3.81        | 123                   | .63         |
| <b>Total</b>     | <b>3.70</b> | <b>540</b>            | <b>.69</b>  |

**Educational level:** The **F** value is significant at the 0.05 level, indicating that there are statistically significant differences in the level of students' attitudes toward Digital-books due to their educational level, and these differences tend to increase in the (M.S) sample more than the (Ph.D.) sample, as shown in the table below:

| <b>The table-16-Educational level is an ANCOVA test variable.</b> |             |                       |             |
|---|-------------|-----------------------|-------------|
| <b>Educational level</b>  | <b>M</b>    | <b>N. of Students</b> | <b>S.D.</b> |
| (Ph.D.) background  | 3.55        | 214                   | .66         |
| (M.S.) background   | 3.81        | 326                   | .69         |
| <b>Total of Students</b>  | <b>3.70</b> | <b>540</b>            | <b>.69</b>  |

### **Conclusions of Study**

The findings of this study show that, in general, and in light of the Corona epidemic in particular, the use, understanding, and attitudes of users regarding digital books have substantially improved in Jordanian institutions. The results indicated that students are aware of digital book collections that can be accessed through their library portals and they use digital books when needed to support their research projects and e-learning processes because they feel that these books provide them with the required information when needed, being easily accessible if universities subscribe to them or for free through open access, thus greatly saving time.

It appears that users belonging to business majors  $M = 3.63$  and health sciences  $M = 3.53$  are fewer users of digital books from other disciplines. The reason may be that information in these two areas is updated more frequently than in other areas. Digital books are mostly used to help research efforts in Jordanian institutions. In terms of the usage of digital books, awareness, and attitude toward digital books, the outcomes of this study show that there is a variance between the two master's stages  $M = 3.81$  and Ph.D.  $M = 3.55$  since the number of master's students is always more than the number of doctoral students.

### **Recommendations and Future Studies**

The current study was restricted to users at the University of Jordan. This is because all Jordanian public universities share databases in cooperation with each other under the Center of Excellence umbrella, which manages these universities' libraries. Therefore, the findings of this research study may be disseminated to other Jordanian institutions, except private universities, which do not participate in the Center of Excellence and so require a separate study.

Furthermore, this research will contribute to the dissemination of information on the usage of digital books as well as assistance to libraries and university decision-makers on how to create digital book collections and services. This research can also assist librarians in better understanding user demands for digital books and how to access and utilize them, whether for free or on a subscription basis and establish and maintain digital services.

Information and awareness-raising campaigns, advertisements, and promotion of the use of digital books should be launched based on the above initiatives provided by international publishing houses, to promote and develop the interests of readers in Jordanian academic institutions and society. This goal may be carried out through various social media platforms as well as university and public library websites, including virtual training platforms on how to utilize digital books and how to solve challenges associated with their use during the Covid 19 epidemic and beyond. Given the current generation's aversion to most physical books, universities should set aside money to subscribe to digital books.

Finally, I call for a similar study, using more students, using different psychological techniques and methodologies, to explore and encourage awareness and use of digital books. It can also be conducted at the level of civil societies.

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