

Replacement of Printed Books with Electronic Books in Pakistan: Challenges faced by University Students and Book Publishers

Tamsila Naeem*, Ayesha Zafar†

Abstract

This survey based study aims to scrutinize the indisposed approach of university learners as well as the publishers of books headed for a swing to digital course books in Pakistan. The study is important for the educational institutes, university scholars, Ministry of Education of Pakistan and book publishing houses, as it is going to support in formulating some operational policies for a transferal to digital use of course books. The study uses a mixed method approach for data collection and analysis. The data are collected at two levels. At the first level, a questionnaire with 20 close-ended self-constructed questions with a column of comments is used to get responses from 250 students from both genders. All of them are studying in a private sector university in Lahore, Pakistan. However; at the second level, a questionnaire with 10 close-ended questions is used to collect response from five book publishers in Lahore. The collected data are computed by getting percentages of the acquired answers. The results of this research revealed that complete replacement of published text books with digital textbooks in Pakistan does not look possible in near upcoming years. It was found that most of the students prefer printed books to digital books on grounds of their established reading habits in an old-style routine. The views of book publishers reveal that the business of printing houses will be affected with new conventions of using digital books. The study commends that it is of vital importance to welcome new trends in the educational institutions with the technical innovations in the present world of machines.

Keywords: Electronic books, Printed books, Challenges, University students, Book publishers.

1. Introduction

In the present era of digital flux, there are multiple challenges faced by people belonging to different walks of life. The practice of using electronic books has proved to be advantageous on grounds of instant accessibility as well as lower prices of electronic books. Adeyinka et al. (2018) describe electronic book as a book in digital format, also termed as a digital book or an electronic version of a printed book. Students can easily find any book and download it to their computers, tablets or their smartphones by using Wi-Fi 3G or 4G networks. Along with that there are retailers, who provide their services in synchronizing book notes, bookmarks, and other information between different expedients. Due to day by day increase in the popularity of electronic books, print book publishers seem to be greatly affected all over the world. They have lost many clients since they have shifted to online book dealers for accessing electronic books, research articles, and notes.

In Pakistan, it has also been noticed that electronic learning devices are becoming more and more popular with the passage of time. Furthermore, students' learning behavior has also transformed as they prefer digital learning devices more than traditional methods. It is also observed that electronic books are becoming students' preferred books since these are easily manageable, adjustable with internet devices, expedient, searched easily, less costly, less massive, and offer far-off access. In addition, their graphical appeal such as graphs, video clips, and other topographies make them more likable to their users than the traditional print books. These books also provide helpful material, audio / visual links, worksheets, and helping websites to readers. Electronic books exist in digital formats and are read on computers, tablets, smartphones etc. and printed books are "set of written, printed or blank sheets bound together between a front and back cover" (Hsiao & Chen, 2018). Moreover, electronic books are fairly inexpensive to publish, so their popularity will surely affect the publishing industry, which is making billions of revenue at present. There are anticipated threats to this industry in future.

On the other hand, there are many students and teachers, who still find print book more appropriate for learning. Rao et al. (2016) found that students generally do not bother about discriminating between electronic and print books, when they are concerned with their academic needs being met by whatever the format is. In this regard, they are more concerned about the availability of the

* Assistant Professor, Department of Linguistics and Communications, University of Lahore.

† Corresponding Author, Assistant Professor, University of Lahore. ayeshazafarsultan@gmail.com

required reading material. Students feel more satisfied with their convenient practices of reading print books. The teachers, who perceive that it is a trend to use electronic books, they intend to continue use of these books in future. The students who love to read printed books, they feel satisfied with the tangible nature of printed books, they feel progressed when they turn each page of the book. The scrolling down can never be replaced with the page turning satisfaction for such readers. They consider that the content in e-books is brief in description and its authenticity is questionable (Keller, 2012).

The present study aims to investigate students' preference of electronic books over print books in Pakistan. The study addresses the following objectives:

- To examine students' preference of books on the basis of their reading satisfaction, availability of books, pricing of books and book storage.
- To identify some possible threats faced by print book publishers in Pakistan due to increasing popularity of electronic books.

2. Review of the Literature

The commencement of electronic books goes back to the previous century. In this regard, Michael Hart at the University of Illinois is worth mentioning, in 1971, started Project Gutenberg as a first step in the digital reading field. Later on, during the last decade of the twentieth century, many companies began books trading on CDs. The first eminent writer is Stephen King, who in 2000, launched a novelette in digital format. Stephen King's book registered thousands of downloads via, Barnes & Noble and Amazon (Laudon & Tracer, 2008). However; it can be claimed that the real booming of digital books came in the first decade of the twenty-first century, when Sony and Amazon launched digital reading devices. Since, that time, many other companies have been joining the business of producing digital reading stuff (Gabbatt, 2011). Gibson and Gibb (2011) presented a report by Amazon, which claimed that the sale of digital books exceeded those of print books in 2011.

The most promising field in which digital books can generate business is the educational sector. Sanders (2012) found that in America, a considerable number of schools and universities are replacing printed textbooks with digital books and tablets. A study was conducted by Toor et al. (2021) to know about the preference of students for printed versus electronic books in Lahore. They found that students prefer electronic books due to their availability, cost-effectiveness, and portability. They also highlighted that e-books have become a necessary part of students' lives nowadays. Likewise, another study confirmed the preference of students for e-books due to their easy user-friendly nature. The students shared that e-books are sufficient to fulfill their educational needs (Oni, 2019). A case study carried out in East London revealed that students prefer both printed and e-equally because both have their pros and cons (Oni, 2019). The students shared multiple benefits of preferring and using e-books including the easy and quick availability, improvement in their academic achievement, and evidence-based material. There are also some of the challenges of e-books such as insufficient e-books on related subjects, lack of individual computers, and a plethora of formats. The researcher recommended future studies on the capability of readers for e-books, the collection of e-books related to disciplines, and the development of e-books in individual disciplines.

One of the problems in considering printed book usage versus electronic book usage is to define the possible measures to compare both formats in an evocative manner. In a research probing the differences between the two formats, Slater (2009) at Oakland University presented the relative usage factor. In (2016), Knowlton proposed a two-step model for library staff to compare different formats of books with each other. The studies under this model showed that students' preferences about the selection of appropriate format vary from discipline to discipline. According to Fasso and Knight (2014), most of the teachers motivated their students to read printed textbooks as an influential source of information and knowledge in any domain.

Buckley and Johnson (2013) established that university students generally prefer printed textbooks over electronic books, although the latter are easily affordable. Millar and Schrier (2015) found electronic books difficult to read, interpret, and bookmark. Omeluzor (2016) found that university scholars displayed a very robust fondness for printed books as reinforced by the transfer to print part of the academic electronic labels they would like to read. Wang (2016) found that though the majority of

respondents indicated that they preferred printed books to electronic books, they nevertheless enjoyed the convenience which the electronic format provides them.

On the other hand, McGowan (2017) suggested that students mostly prefer e-books for the reason that they remark them as cheap, light, and expedient as the electronic books enable them to store all the course books in a particular unit rather than holding plenty of printed books. Miller (2015) found that electronic books are also perceived to develop the learning skills of students if they are efficaciously integrated into learning environments particularly, for students with disabilities and long-distance students. Woodward (2012), found that electronic books have become more popular among people than printed books, since electronic books, are read from a range of devices. Furthermore, the accessibility of electronic textbooks on a wide range of digital devices has given an alternative to very expensive and heavy print resources.

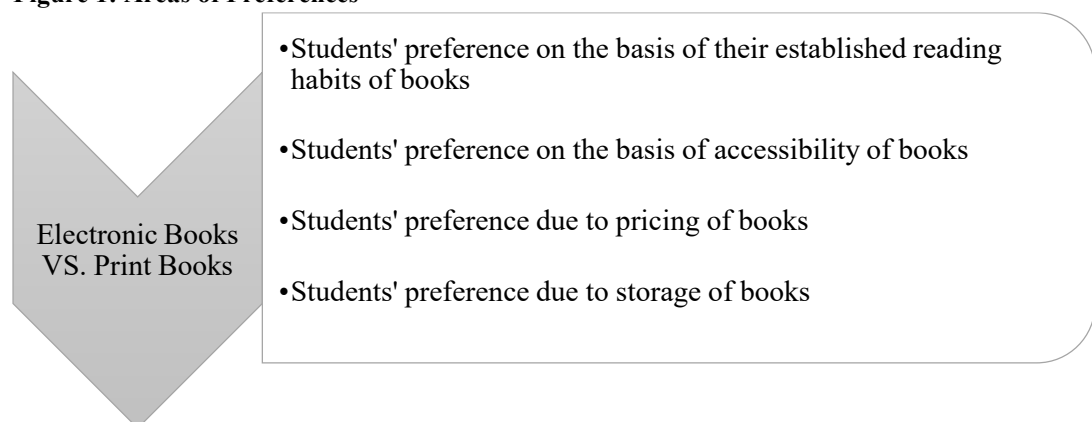
Hence, on the basis of previous studies, it appears to be quite difficult to decide which format of books is preferable, since there are merits and demerits of both formats on the basis of their qualities. This study is significant as it scrutinizes the preference of students regarding appropriate format on the basis of the challenges they are facing in Pakistan. It also highlights possible threats to the printed books publishing industry in Pakistan

3. Method

The aim of this study is to scrutinize the preferences between electronic and printed books in order to know which factors are motivating students to their reading choices. Further, the study aims to find how qualities like readability, portability, and affordability affect students' choices when determining between an electronic and a printed book. The study followed a descriptive research design for the description of the collected data. As the data collection instruments, two self-administered questionnaires were used. In the first survey, the data were collected from university students, and in the second survey, the data were collected from book publishers in Lahore, Pakistan.

The first questionnaire comprising 20 close-ended questions with three options; "agree", "disagree" and "neutral", was designed under four different areas including students' preference for printed books over e-books due to their reading habits, accessibility of books, affordability of books and storage of books and pricing of books. The data were collected from students studying in different departments such as Business Administration, Linguistics and Communications, Law, Computer Sciences, Mass Communication, and Health Sciences, etc. at the University of Management and Technology, Lahore. The selection of this university is based upon the convenience sampling technique since all the researchers are faculty members in the same university.

Figure 1: Areas of Preferences



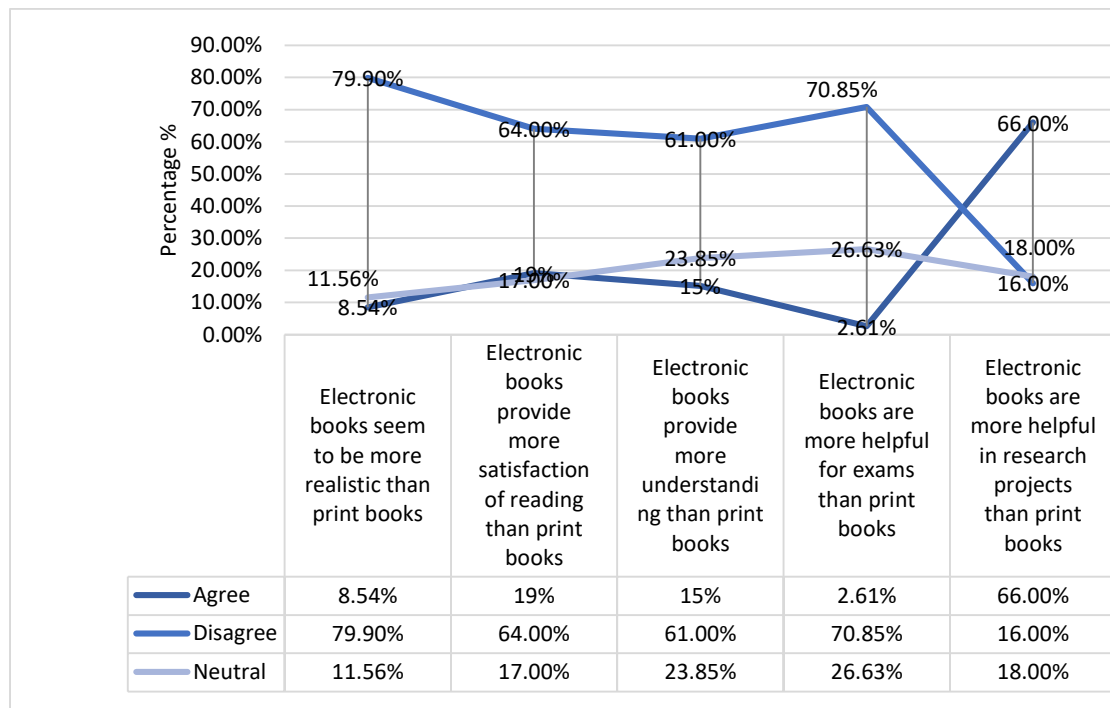
The second survey was conducted by distributing a questionnaire comprising ten questions about the challenges, print book publishers face in replacement of printed books with digital books. This questionnaire was both close ended with 'Agree' and 'Disagree' with an open ended section of "Comments". This questionnaire was distributed among 100 people working in five book publishers in Lahore. The names of these book publication houses are not shared following the research ethics.

The collected data from both types of surveys were analyzed by calculating their percentages. The analysis section is divided into two; the first section is about students' preferences of electronic books over print books and the second section analyzes challenges and threats faced by book publishers.

4. Data Analysis: Students' preference on the basis of their established reading habits of books

In response to the question about students' perception that electronic books are more realistic than printed books, only 8.54% of the respondents agreed but 79.90% disagreed upon it, and 11.56% of respondents did not give their judgment. To the next perception of satisfaction provided by books, only 19.10% of the respondents favored electronic books as they agreed to the question, 64% were in favor of print books as they disagreed to the question, and 17% could not decide. In response to their preference on the basis of more understanding provided by, 61% were in favor of print books, hence they disagreed the question and 15.13% were in favor of electronic books as they agreed to the question but 24% remained neutral. Their next response showed that printed books prove to be more helpful for them regarding preparation of exams, since 70.85% of the respondents favored print books and hence they disagreed the question only 2.61% agreed to it and 26.63% could not decide. In case of another query regarding research projects, 66% favored preferred electronic books over print books on the other hand only 16% preferred print books in this regard and 18% remained neutral.

Figure 2: Quantitative analysis of students' preference on the basis of their established reading habits of books

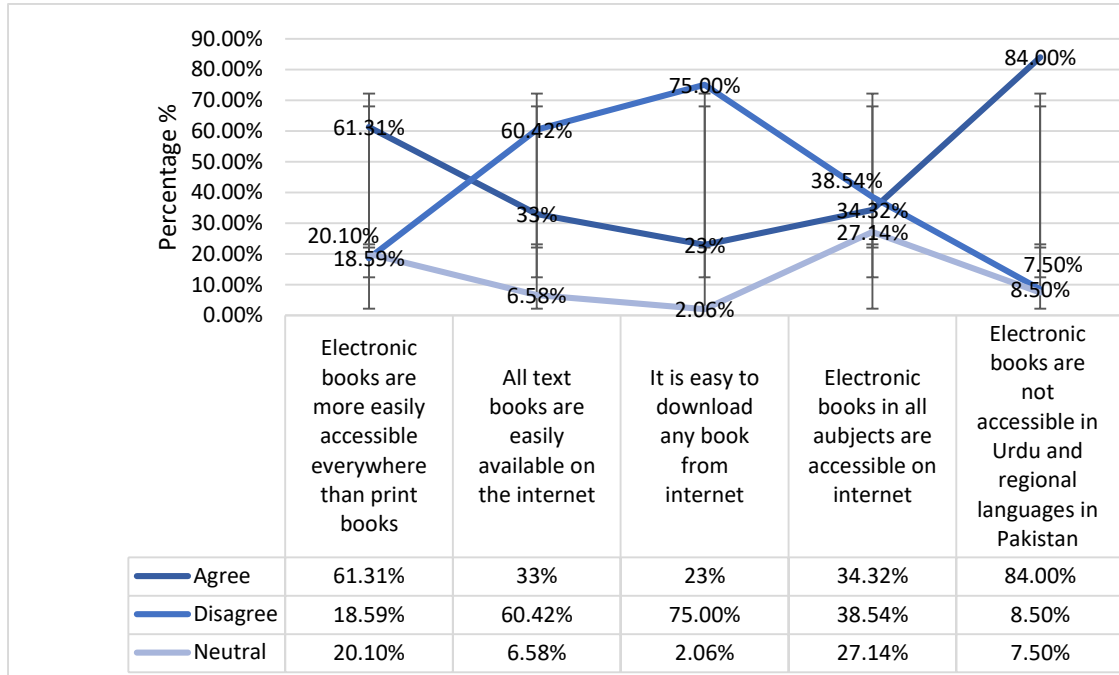


Based upon these results, it is noticed that the students, who prefer print books to electronic books are not expected to change the reading platform they like. It also determines that the students in favour of print books have established their traditional reading habits, which will not be changed readily. No doubt, a print book provides psychological relief to book lovers with smell of its pages, a smooth feel of paper underneath their fingertips and sight of beautiful images etc. In this regard, it can be assumed that the print books have emotional appeal to their readers. In lines with similar ideas, Omeluzor (2016) found that university students still have strong inclination towards print books. Although most of the students use electronic devices such as smart phones and computers in reading electronic books in their routine life, yet they depend more upon print resources for academic purposes. Weigel et al. (2006), showed that printed books provide a unique sort of fulfilling experience to readers, and hence they can retain information and knowledge longer in their memory. Almost 90% of parents and teachers believe that children learn better by reading printed books. Some students told that they get more reading

satisfaction from print books, although, electronic books provide numerous options such as change of font size appropriate for their reading, change of colour, change of background, etc. for their outstanding convenience.

4.1 Students' preference on the basis of accessibility of books

Figure 3: Quantitative analysis of students' preference on the basis of accessibility of books



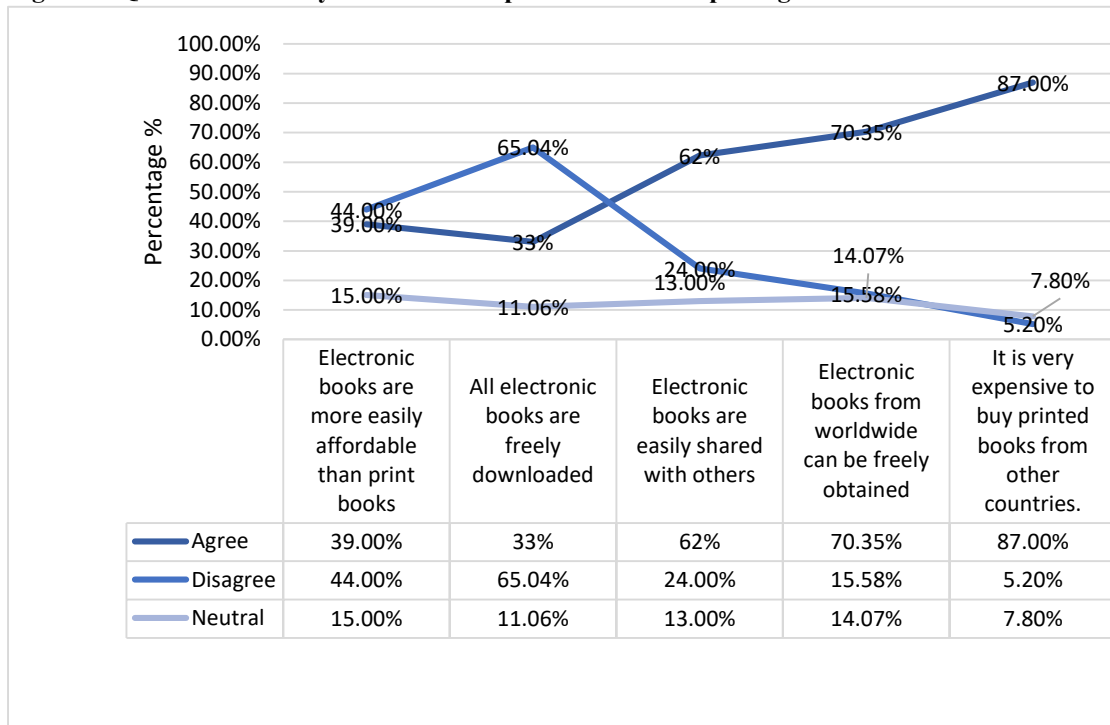
The quantitative description of the data related with accessibility of books exhibits that 61.31 % of the participants agreed that electronic books are quite easily accessible, while 18.59 % of them disagreed and 20.10 % remained disinterested regarding this aspect. To the next question about their preference, only 33% respondents agreed that all the text books are available on the internet, because 60.42% disagreed and 6.58% could not decide. In case of downloading books from internet to their digital gadgets, 23% agreed but 75% disagreed and 2% remained neutral. In the question about availability of electronic books of all subjects, 34.32% agreed, 38.54% disagreed and 27.14% did not prefer any. To the question about availability of electronic books on National and regional languages in Pakistan, 84% agreed that they are not available on the internet, only 8.50% disagreed and 7.50% remained neutral.

Chen et al. (2013) found that electronic books propose more options of accessibility than printed books do, which enable their readers to set-up their device to display book pages as per their selection. Another study in Pakistani context found some of the important variables Involved in the preference of e-books for academic purposes. Khan et al. (2016) reported that male postgraduate students between the ages of 21-40 prefer e-books. The academic discipline also showed variability. Those from discipline of engineering prefer e-books in day to day life. On the other hand, the students from social sciences and agriculture do not use e-books as frequently.

Mushtaq et al. (2020) explored the reading habits of those students who belong to generation Z in Pakistan. The study revealed that these students prefer to read the books in paper form and in English language. The preferred venue for reading is their home and around four hours per day for academic purpose. The students reported that they prefer book in printed form but the benefits of e-books motivate them to move to electronic content available. An important finding of the study was that students spend less time in libraries and they prefer to read at their preferred place. In Pakistan, the books in Urdu and other regional languages are not accessible online. Christianson and Aucoin (2005) examined the figures for 2,852 book, which were accessible in both set-ups at Louisiana State University and established that printed books are used for more than electronic books.

4.2 Students' preference on the basis of pricing of books

Figure 4: Quantitative analysis of students' preference due to pricing of books



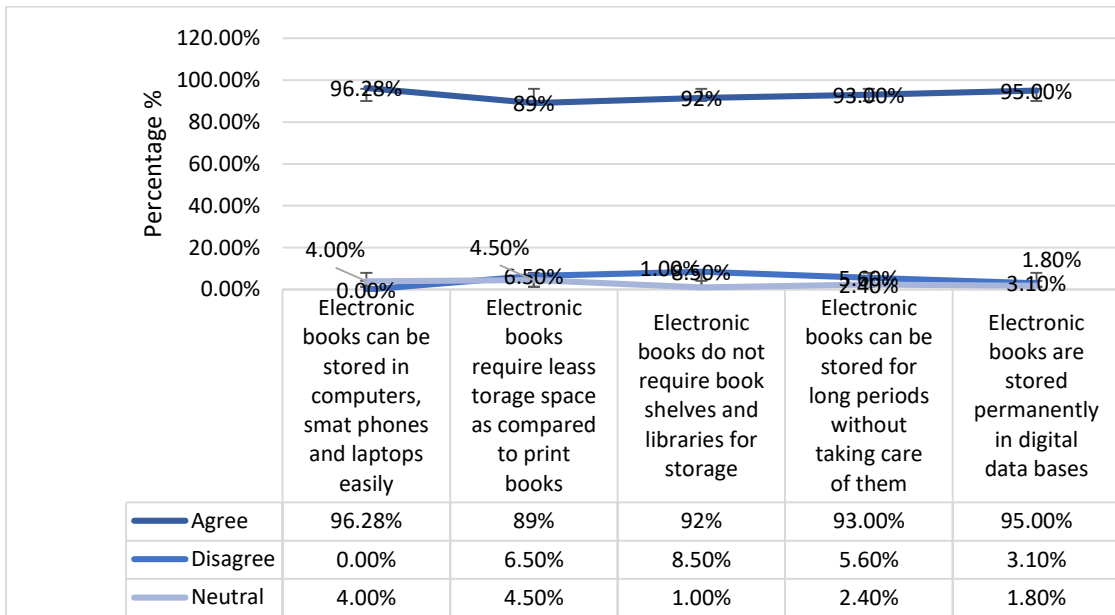
In the section of students’ preference on the basis of affordability or pricing of books, 39% students agreed, 44% disagreed and 15% could not respond in favour of any. To the question about free downloading of digital books, 33% agreed, but 65% disagreed and 11.06% remained neutral. On the point that electronic books can be easily shared with others, 62% agreed, 24% disagreed and 13% did not opine. The quantitative version of the obtained data about their perception about free obtainability of electronic books worldwide, 70.35% agreed, 15.58% disagreed and 14.07% remained neutral. To the question about buying print books from other countries is very expensive, 87% agreed, only 5.20% disagreed and 7.80% could not decide.

According to a survey performed at Auburn University at Montgomery, electronic books cost much higher than print books. Electronic readers are “consistently higher than print in its preliminary price”. This research established that electronic readers normally have to pay more prices that the students can undergo such as, “electronic books carry a ‘premium price,’ and most probably include the annual charges as well. Moreover, electronic books usually carry the additional charges of printing before consumers are able to possess that book for reading (Bailey et al., 2015).

A big challenge which students’ teachers face while using e-books is the expenditures they required. Tosun (2014) investigated the reasons behind the preference of students and teachers towards printed books. It was revealed that printed books are cost-effective and user-friendly so they prefer to read printed books. The taxes applied on e-books in Turkiye are the major challenge the students face. The study further added that there is 8% tax on printed books and 18% on the e-books (Sahin, 2013). That is why e-books are costlier than printed. The requirements of reading e-books including the software and hardware also add in the expenditures and make the affordability difficult for students.

4.3 Students' preference on the basis of storage of books

Figure 5: Quantitative analysis of students' preference due to storage of books

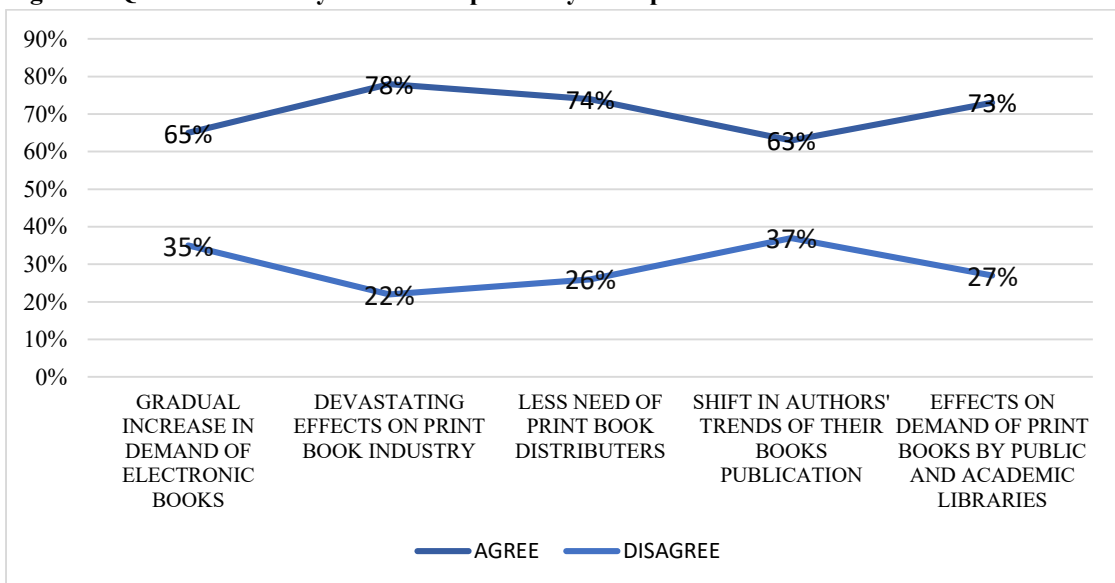


The quantitative representation of the data obtained in relevance to the preference of electronic books over print books on the basis of their storage, 96.28% agreed that electronic books can be easily stored in their digital gadgets, 0% disagreed and 4% remained neutral. Almost similar responses were obtained from students’ perceptions about the storage place required by both types of books. 89% agreed that electronic books require quite less storage space than print books, 6.5% disagreed and 4.5% remained neutral. Again this question met almost similar responses by the respondents, 91.5% agreed that there is no need for bookshelves and libraries for storage of electronic books, 8.5% disagreed and 1% remained neutral. To the question about the storage of books for a long time, 93% of respondents agreed, 5.6% disagreed and only 2.4% remained neutral. Along similar lines, 95% of respondents agreed that electronic books are stored permanently in digital databases. To the same question, only 3% disagreed, and 2% remained neutral.

Approximately, hundreds of full-length editions can occupy a disk space in computer, but it is quite impossible for print books to accommodate in small physical space.

4.4 Data Analysis: Responses of book publishers.

Figure 6: Quantitative analysis of the responses by book publishers in Pakistan



The findings of the second survey based research demonstrate that book publishers in Pakistan feel that electronic books trend in educational institutions will surely bring loss to the publishing industry in Pakistan. Most of them commented that at present the printing book business is running smoothly but it will be affected with rising demand of electronic books by university students. The collected data reveals that 65% of the respondents agree that in the present era, they find students' preference of electronic books over print books, which may lead to replace the latter. In this regard, 35% respondents did not agree. They commented that printing of books will never meet ending, since educational institutions are earning a lot of business, since they have their shares involved in it. To the next question about the devastating effects on printing business, 78% respondents agreed but 18% disagreed. In response to the next question, 74% agreed that less demand of print books will delimit the scope of text book dealers, and 26% disagreed to it. With rising trends in educational technology, the authors of books also like to upload their books online. In this way, it affects printing press business, since the physical publication of books is a vast industry in Pakistan. To the question related to this aspect, 55% of the respondents agreed but 45% disagreed. Another question was about the demand of print books by public and academic libraries. This demand will also be influenced if print books lose their popularity among students. 73% of the respondents showed their concerns by agreeing to it and only 26% disagreed. They commented that in Pakistan, the books are printed in English, Urdu and regional languages such as Punjabi, Pushto, Seraiki, Sindhi and Balochi, etc. Books in Urdu and regional languages are not found online, in form of electronic books, hence these are published and printed physically.

5. Conclusion

The findings of the study expose that the majority of the respondents preferred both book formats; print and electronic as compared to print books or electronic books only. Regardless of the popularity of electronic books in the era of digital flux, the students, who prefer electronic books over print books are convinced that electronic books can never replace printed books in an absolute manner. This is so because both types of formats have their own types of advantages as well as disadvantages. The surveys on the future of print books reveal that in spite of the fact that electronic books are getting more popular day by day print books will stay forever. The modern school system will keep book publication process alive since expensive and heavy print books are considered essential norms of education system. Additionally, the substance of information inside many textbooks is the same throughout many years. Hence, it can also be suggested that the book publishers, retailers, and book authors are advised to be active in safeguarding their places in the electronic book market otherwise, they will surely lose their business in this new industry as the traditional print is gradually being replaced by digital. The study suggests that authors and book publishers of print books should add digital editions of their books as well. CD-ROM of print books can facilitate book storage easily. In order to cope up with new digital advancements in reading, the book publishers, librarians, authors and educators should try to incorporate the experiences of both print books and electronic books in such a manner that in years to come, both formats may be able to complement each other by providing the same contents in both the mediums; print and electronic.

Ethics Approval Statement

This study is based upon two surveys. In the first survey, the data were collected from university students studying in different departments such as Business Administration, Linguistics and Communications, Law, Computer Sciences, Mass Communication and Health Sciences, etc. at University of Management and Technology, Lahore. The names of the respondents were not mentioned in the study in consideration of research ethics. The selection of this university is based upon convenience sampling technique, since all the researchers are faculty members in the same university. In the second survey the data were collected from five book publishers in Lahore, Pakistan. The names of these book publication houses are not shared following the research ethics.

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