# The Impact of Electronic Resources on Researcher.

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## **ABSTRACT**

Electronic resources (or e-resources) mean that are materials in digital format accessible electronically such as PDF, HTML, HTM, E-BOOK, E-JOURNAL, and more. The purpose of this research is to review the impact of electronic resources by the researcher. This paper was produced by previous research from 2001 to 2020 in various databases such as Emerald insight, Scopus and Science direct to find significant information about this topic. The impact of electronic resources requires understanding intelligence, research output, preparing and recognition of user knowledge. Electronic resources have a big impact on motivating and investigate the research culture in better education. Google was the highly popular method used in finding electronic journals. Findings revealed that academics depend on other than library resources to find information. Additionally, findings also will reveal the new impact that barely is found in the research that will give an important contribution.

Keywords: Electronic resources, information, researcher, impact of electronic resources, knowledge, culture.

## 1.0 INTRODUCTION

Electronic resources are referring to one electronic material that can be all the digital format that the library collection to support its universal collection. The library was the important participant that takes part on the promotion of education and research in the institution. E- resources was the electronic medium that generated to wide range and make it available to both site of viewers which is on- site and off site. The impact of electronic resources on researchers has increased along with the growth of information technology and the use of electronic resources. In the previous study also has mentioned that electronic resources were more common than print resources.

Digital technology has been using in the library for the subscription to databases, journals, e-book, references and cataloging. Electronic resources have been the support for this online database in academic research. The impact of online resources to access is the greatest for the researcher's performance. Before the existence of this database, Science Direct has been used for study the citation. The knowledge of databases in academic institutions is critical to know the effective contribution of academic achievement (Adetomiwa and Okwilagwe, 2018). Concerning the literature reviewed, our research objectives are to identify the impact of electronic resources among the resources and to investigate the electronic resources widely used by researchers

# 1.1 OBJECTIVE

The following below are the research objective of this study:

- i. To identify the impact of electronic resources among the researchers.
- ii. To investigate the electronic resources widely used by researchers.

# 1.2 STATEMENT OF PROBLEM.

The following below are the problem statements addressed in this study:

- i. The difficult of researcher face to use the electronic resources.
- ii. The impact that effecting the usage of electronic resources.

## 2.0 LITERATURE REVIEW

Numerous literature works have once discussed the origin of electronic resources which become part of real world demands of retrieving information. As told by Muhammad Rafi, Zheng JianMing and Khurshid Ahmad (2019), the lack of journals and database resources has slowed down scholars' scientific research. Starting from the year 1990s, technology has rapidly shifted how the world would work and the management of research journals with numerous databases to support scientific research in various are of fields (p. 42). The idea of implementation of technology into physical resources for long term preservation has started from the lack of resources provided by the libraries with publishers selling less journals with the increasing price each year. Archivists are also told on doing more work with less time and resources, providing clear discrimination against information management professionals. At the time when technological and cultural changes were occurring, a utopian vision was bought into the concept of electronic resources where publishers and their customers both hoped that by providing journals electronically, enough money could be saved, principally from paper, print, bind and postage costs, so that this downward spiral of lower sales and higher prices could be broken (Dixon, 1998, p. 3).

In addition to the early history, the impact of electronic resources on research as the main focus arises. Electronic resources and their importance to researchers was emphasized by Thembani Malapela and Karin de Jager (2017) in their research study where "publishing academic research is an essential part of academic life; hence, the access to collections of electronic journals is essential to the research process and stimulates research publication". As consequence to this, the majority of universities and academic libraries choose on subscribing to reputable journals to enable their communities to access collections required by their researchers. This is especially a significant analysis in the era of technological advancement has taken place, enabling libraries to keep track of materials for research students and scholars by developing a large digital resource collection and aggregated electronic journal databases to meet their needs. As an example, that can be evaluated is how electronic information has gradually become a major resource in every university library with the debate regarding electronic resources becoming a hot topic in the field of library study and research (Shuling, 2017). It is safe to make the assumption how electronic resources have greatly assisted research scholars and students in the field of studies as investigated by the authors.

The phenomenon of electronic resources in research studies began meeting its validation through the discussion by Amjid Khan and Shamshad Ahmed (2013) in which the emergence and growth of information and communication technologies (ICTs) and the World Wide Web (www) have enabled libraries to provide quick and easy access with the creation of information in various formats and development of databases and transformation of information rapidly via networks has led to dramatic growth in the application of digital technologies in libraries. It can be argued that the introduction of the World Wide Web becomes the base for more knowledge of humanity to be stored in digital format and the establishment of digital libraries for researchers in accessing relevant information for their studies. Other benefits of electronic resources in research as mentioned by the authors also include the universal acceptance of the resources in digital library, which is not possible in the traditional environment, leading to a dependency of electronic resources as an important tool to provide extensive opportunities for research scholars and students access, evaluate and use the information to create new knowledge. There is also another argument told by the perspective of the professional that electronic resources not only offer golden opportunities of retrieving bulk of information from various sources but also scattering digital resources across the network with a statement of providing more access for patrons to research personal computers and workstations located anywhere.

While the suggested research studies have elaborated the effectiveness of electronic resources in research scholarly publishing world, some arguments arise between the researchers, scholars and information management professions that are linked to the persistent question – are electronic journals provide similar authority against librarians and archivists? Diana Kichuk (2010) argues that "many academic library staff expresses feelings of being overwhelmed or frustrated by the rapid growth and volatility associated with electronic collections and their impact on public and technical services" (p. 55). From the research article, an academic sector may readily talk about the growth of electronic resources, there are little published data on measuring the rapid growth of electronic resources, either by numbers or titles. This statement is supported by Liza Chan (1999, p. 12) regarding the barriers of a technological, sociocultural and economic barriers which can be summarised into lack of appropriate technology in managing electronic resources, social state of the patrons using the system and costs of electronic subscriptions. In addition, there is also raising concern regarding the cost of electronic records. In the past 30 years, the crisis due to escalating journal prices arises. As told by Golnessa Galyani Moghaddam (2009, p. 149), "various groups of

stakeholders, including publishers, libraries, and researchers, are concerned about these increases, which have increased faster than library budgets, causing fewer readers to have access to the journals they need." Despite the positive influence of electronic records in the previous studies, there is no denying that even professionals are faced with difficult reviews. The literature works however provide insight into the connection between electronic resources with research journals and how it may influence the outcome of research studies

#### 3.0 RESEARCH METHODOLOGY

This paper seeks to identify the impact of electronic resources among the researchers and to investigate the electronic resources widely used by researchers. This is based on the results of this study which included methods of content analysis. Articles were chosen by us is from 2001 to 2020 for this literature review.

The literature primarily focuses on the impact of electronic resources among the researchers. The purpose of selecting these themes was to convey how the electronic resources will impact the researchers. The databases that we used to search for the articles related to electronic resources in order to finish this study are Emerald Insight, Google Scholar and also Science Direct. The articles were selected and identified by primarily using the concepts, keywords or terms 'electronic resources', 'information', 'researcher', 'impact of electronic resources', 'knowledge' and 'culture'. Some articles were selected to be used as references in this study.

We did a simple search using Google Scholar database by entering the keyword "electronic resources", which produce approximately 150, 000 hits. Hence, another keyword "impact of electronic resources" yielded about 1, 050 hits and the keyword for "researchers" resulted in about 6, 210, 000 hits. The abstracts, the information collected, the method used, and also the results of every article selected were investigated to produce certain that each article had the information according to the research.

#### 4.0 RESULT AND DISCUSSION

From the study done, electronic resources are found to provide a significant impact in research based on several findings. The improvement in terms of quality in research done is one of the effects of using electronic resources. This finding aligns with a case study written by Paul Manda and Julita Nawe (n.d.) on the positive influence between the use of digital materials with the research output in terms of quality and quantity. However, this statement is flawed as the mutual connection is influenced by additional relevant factors to the study such as the state of electronic resources compared to traditional materials, nature of research, individuals' attribution and other applicable factors which has cause dispute between researchers and scholars. Regardless of the outcome, researchers can agree that electronic resources provide significant influence in terms of quality of the study. In better explanation, electronic records as the reference for scholars helps to identify key importance of their study through the previous research done by the previous authors, providing in-depth information regarding selectable topics. It also aids the researchers in pinpointing the flaws in their current study, eliminating the inaccuracy and better quality in research.

In addition to the discovery, electronic records are proven to provide faster transaction and information delivery compared to their physical counterpart. While printed materials are still part of the research discipline in every work, electronic records have become a new addition in research workflow for its convenience. Tenopir (2003) agrees to this statement through his research methodology on the members of the university regarding 200 recent research publications related to the use of electronic library resources published between 1995 and 2003. The result has proven the point for electronic reports as the main used medium in undergraduate research if the selected sources are perceived as convenient, relevant and time-saving. Hence from these findings, electronic resources provide faster accession to written journals by the researchers to the patrons.

Another influence of electronic resources in research is the discovery of new fields. As discussed previously, research projects that are completed with the aid of resources retrieved through digital means are found to provide significant findings in the new area of fields in line with the emerging trend. As supported in previous study (L, Natarajan & Swaroop, 2010), the research scholars are forced to produce innovative ideas and things using electronic resources. In the era of technology from the perspective of King, Donald W, Montgomery and Carol Hansen (2002), research scholars have identified the need of electronic journals for primary

research, teaching, writing and updating the knowledge. As the result of new research journals published for the patron, future studies can be developed with the current knowledge and information, reliving the loop of the current research's importance as electronic resources in the hereafter.

Another impact to consider is how information is regarded as part of commercial products. Many electronic journals are published in reputable scholarly publishing websites such as ResearchGate and Emerald Insight with loyalties received are based on page counts and the total of patrons reading the works. Research journals not only are written to provide extensive knowledge between scholars of similar fields but also become profitable goods for the authors. With electronic format, the published research journals can be immediately purchased and accessed by the users. As a source of income, electronic resources provide significant influence on enhancing the output research and increase the sales generated by the published research paper.

On the other hand, the way output research is delivered to the patrons is extremely important to ensure the reach and influence of the authors to the patrons accessing scholarly publishing websites. In the past, the finished research is distributed through printed means and accessible in facilities and libraries with the option of both free and paid resources in the time when electronic resources are yet to be popularized, the preferences regarding scholarly works are mainly as psychical materials. Along with the time of digital trends, scholarly works published in electronic format begin to take their place in the publishing world. Qiana Johnson (2004) argues of several articles written on using electronic versions of printed journals. The study was done through a survey on users' preferences between printed materials or electronic journals in universities located within Chicago. While the availability of both formats is possible, the study done by the author has proven the significant increase of preferences on electronic journals, thus further supporting the shifting trends in retrieving information. To keep up with the digital trends, authors are opting on publishing their works in electronic format to satisfy the patrons' needs of digital format and sharing their findings with larger scholarly communities, further increasing their stability in scholarly works among their known patrons.

Further study also suggests that the influence of electronic resources has enabled the cost reduction in publishing the output research. In the past when the idea of digital publishing is a strange concept, publishing scientific research can be costly depending on the journals intended to be physically published. While the overall cost of journal publishing was not

disclosed to the public, the rough estimation was made from the distribution costs, printing fees, page counts and staff involved in the publication. For scholars earning low wages or depend heavily on research publishing, the total cost can be heart-wrenching. Previous research has described the scholarly publishing industry as "displaying the characteristics of a monopolistic competition, with the presence of many firms with differentiated products" (Oppenheim, Greenhalgh & Rowland, 2000, p. 362). The accessibility of publishing research output through electronic format in scholarly publishing websites has significantly reduced the cost with intranet and extranet publishing is regarded as an opportunity, despite this promising area is a largely new and unexplored area.

# **5.0 CONCLUSION**

In a nutshell, it can conclude that this study showed that the uses of electronic resources or e-resources are very common among researchers. The findings of this research have revealed that the use of electronic resources give a positive impact on various research activities and milestones such as research proposal submission, findings, report writing and also journal article publishing. The results, therefore, provide empirical support for the hypotheses that the increased flow of information because of increased access to and use of electronic resources is related to increase the research output and enhancement of the quality of research.

Moreover, several conclusions are drawn from this study. First, the use of these electronic resources helps to identify the key importance of their study through the previous research done by the previous authors, providing in-depth information regarding selectable topics. Second, the use of scholarly databases is limited although the core group of researchers using the resources is growing. However, the use of free Internet resources is significantly high and the frequency of use is almost daily. Third, electronic resources provide significant influence on enhancing the output research and increase the sales generated by the published research paper. Lastly, the use of electronic resources has enabled the cost reduction in publishing the output research.

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