

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

3-18-2021

Digitalisation of library services as a magnifying factor in improving public library services in Limpopo

Itumeleng Aaron Khanya
itumelengkhanya@gmail.com

Maoka Dikotla Dr
University of Limpopo

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Library and Information Science Commons](#)

Khanya, Itumeleng Aaron and Dikotla, Maoka Dr, "Digitalisation of library services as a magnifying factor in improving public library services in Limpopo" (2021). *Library Philosophy and Practice (e-journal)*. 5318. <https://digitalcommons.unl.edu/libphilprac/5318>

Digitalisation of library services as a magnifying factor in improving public library services in Limpopo

Khanya Itumeleng Aaron

Department of Information Studies, University of Limpopo

Itumelengkhanya@gmail.com

ORCID: orcid.org/0000-0002-7554-7751

Maoka Andries Dikotla

Department of Information Studies, University of Limpopo

Maoka.Dikotla@ul.ac.za

ORCID: orcid.org/0000-0002-6699-6782

Abstract

Background: Many public libraries embraced digitalisation while some are hesitant to embrace it.

Aim: The purpose of the study was to examine digitalisation of library services as a magnifying factor in improving public library services in Limpopo.

Method: The study used a quantitative research approach. Data were collected through a questionnaire comprising both open and closed questions.

Results: Findings revealed that ICT infrastructure in Limpopo public libraries is underdeveloped and inadequate. Given this, the majority of public librarians are unable to utilise ICTs to render library and information services resulting in limited access to those services. It is recommended that management should prioritise the acquisition of ICT infrastructure for public libraries.

Keywords: Digitalisation, information and communication technology, library services, Limpopo province, public libraries, South Africa.

Introduction

Many public libraries in South Africa and elsewhere in the world are embracing digitalisation of library services in order to improve their services to the public. Digitalisation refers to an increase in the adoption and usage of digital or computerised technology by libraries (Paulin, Anthopoulos and Reddick, 2017). The purpose of digitalisation is to improve access to library materials and their preservation (Fabunmi, Paris and Fabunmi, 2006). Stewart and Newman (2018) note that digitalisation facilitates simultaneous online access from anywhere at any time thereby accelerating the collection and delivery process. This is evident in users of public libraries that have online databases not having to physically visit their respective libraries when looking for materials – they can access them whilst at home at any given moment. This is a good practice especially in light of the Covid-19 pandemic which still persists. Stewart and Newman (2018) highlight that digitalisation is important because it extends opening hours and provides for equitable access. Without digitalisation, library users must visit the physical library and gain access to print or other material with the help of a librarian (Stewart and Newman, 2018). The provision of public library services in this manner leads to ineffective and inefficient services and “costs” users in many ways. First and foremost, it costs users their time and secondly, it costs them money in the form of travelling expenses. Moreover, a service which necessitates close physical proximity puts both librarians and users at risk of contracting the potentially deadly Covid-19. Therefore, providing venue-based library services may limit accessibility of public libraries. Shortage of public libraries also a limit accessibility of public libraries. The National Library of South Africa (2016) affirms that, inadequate provision of public libraries in Limpopo province denies rural communities access to information. As such public libraries in rural communities

provide a minimal support services and have poor technological infrastructure and they lag behind compared to their counterparts in urban areas (Stilwell, 2016).

Contextual setting

Limpopo province is predominantly rural and the public libraries in the province largely operate in urban areas. This means that the greater percentage of the population which is based in rural areas is without access to basic library and information services (Mokgaboki, 2002). The province is divided into five municipal districts, namely, Capricorn, Waterberg, Sekhukhune, Vhembe and Mopani (Municipalities of South Africa, 2012). In total, Limpopo province has 69 public libraries as depicted in Table 1.

Table 1: Number of public libraries in the five Limpopo districts

District	Capricorn	Mopani	Sekhukhune	Vhembe	Waterberg	Total
Number of public libraries	14	17	14	11	13	69

(Source: Library and Information Association of South Africa, 2015)

Majority of library staffs in Limpopo public libraries do have the necessary ICT skills; and most of these public libraries lack ICT systems and still use the traditional methods of information retrieval such as card-catalogue (Mojapelo, 2019). The major challenge contributing to this unavailability of technology is lack of funds (Mphidi, 2016).

There are some initiatives by the South African government to improve the quality and accessibility of public library services in the country. The first is the Mzansi Libraries Online project which aims to provide public libraries, especially those in rural areas, with internet access and ICT facilities (National Library of South Africa, 2015). The Thulamela Public Library in the Vhembe district is the beneficiary of this project in the Limpopo province. A second initiative involves the Department of Arts and Culture (DAC) Conditional Community Library Services grant which is allocated annually to all the nine provinces in South Africa (Malotle and Selwana, 2016). The grant aims to redress the imbalances and inequalities in the library and information services (LIS) sector by improving and

refurbishing existing public library and information services, establishing new libraries and purchasing new books. These initiatives have paved a way for some public libraries to have ICT tools such as computers connected to internet/ Wi-Fi, Online Public Access Catalogue, photocopying machines and fax machines.

Theoretical framework

Theories play a pivotal role in research by providing underlying guidelines. This study was guided by the Technology Acceptance Model (TAM) of Fred Davis. The model was used to assess the acceptance behavior of library staff towards the digitalisation of libraries. The model entails six stages, namely, external variables, perceived usefulness, perceived ease of use, attitude, behavior and actual system use (Davis, 1989). Mugo et al. (2017) stipulate that the user acceptance of the technology must precede the inclusion of the technology in the LIS sector. Should this not occur, the technology will remain abandoned or heavily underutilised once supplied to the library system.

Problem statement

The ineffective and inefficient library service offered by Limpopo public libraries prompted the researchers to conduct this study. In many instances, library staffs are unable or struggle to render efficient and effective library services to citizens due to ineffective manual systems (Ariole, 2017). Presently in South Africa many users have to physically visit the library for service and this, as pointed to above, can be financially costly and time consuming (Salman, Mugwisi and Mostert, 2017). Digitalisation of resources and services can be employed to ensure that users have timeous access to the right information or library service at the right time. Digitalisation of library services provides remote access to users and users can access information sources 24 hours a day (Yakkaldevi and Ghante, 2014). As Ariole (2017) attests, applying ICTs in library services increases the usage of library resources and the patronage of libraries. Therefore, there is a need to enhance access to and improve the quality of public library services in Limpopo and the digitalisation of library services can play an important role in this regard.

Purpose and objectives of the study

The purpose of the study was to examine the digitalisation of library services as a magnifying factor in improving public library services in Limpopo. The specific objectives were to:

- Establish the attitudes of library staff towards digitalisation
- Investigate the skills of library staff in terms of retrieval and usage of online materials
- Determine the extent to which Limpopo public libraries are digitalised and provide online services.

Literature review

The literature review is guided by the research objectives listed above.

Attitudes of library staff towards digitalisation

Attitude can be defined as how much people like or dislike something and this may influence their reaction as well as their behavior (Maio, Haddock and Verplanken, 2018). In the context of this study, attitudes involve the association in the memory of a librarian between a given subject or object and a given summary of the evaluation of that subject or object. The object here being the new technology introduced. Attitudes can be either positive or negative. In this study public library staff attitudes (positive or negative) to ICT facilities existing in their public libraries, were determined.

The attitudes of library staff play a crucial role in determining how well a service will be rendered. Kumar (2008) emphasised that a positive attitude not only improves the usage of IT systems, but it also improves the efficiency of the library as well as the communication channels. A study conducted by Kumar (2008) in Indian public libraries revealed that 115 out of 126 library staff agreed that a positive attitude towards digitalisation helps to improve services rendered in public libraries. Kumar (2008) also revealed that through a positive attitude, library staff can obtain the right information for the right people in the shortest period of time.

A qualitative study conducted in Nigeria by Ariole (2017) found that the successful integration of service delivery depends on the availability, competence and, most importantly, the attitudes of library staff toward the role of ICT in the provision of services.

A related study conducted in Indian public libraries by Kumar (2016) established that the introduction of ICTs in libraries prompted fear among most library staff because they believed that digitalisation was likely to affect their jobs adversely and that they may lose them. Similarly, in his earlier study, Kumar (2008) found that 21 out of 97 library staff assumed that the application of information technology (IT) would spoil the image of public libraries and disturb the routine work of the library. They also believed that IT applications would take over the traditional way of handling information in the libraries. Staff members who hold these views are likely to have negative attitudes towards digitalisation and would certainly not embrace it within their work spaces

Librarians in South Africa are not immune to having negative attitude towards digitalisation. Some library staffs tend to adopt the same negative approach alluded to above when confronted by the reality of the new technologies, such as 5G, Google and Web 2.0 tools (Moropa, 2010). For example, library staffs always look for faults with the technologies, implying that they have negative attitude towards digitalisation. This result in many library staffs not utilising the new technologies to provide services, thus missing the new ways

libraries, through technology enhancement, are able to provide information (Enakrire and Ocholla, 2017).

Skills of library staff in using ICT

Most skilled and experienced library staff in South African public libraries are close to retiring and this will lead to a shortage of skills in the sector (Library and Information Association of South Africa, 2015). Therefore, that public library staffs who are not retiring need to have the necessary skills to operate the different ICT tools used in their libraries. In essence, ICT skills along with communication and administration skills are essential for every modern librarian in a digitalised library (Gerolimos and Konsta, 2008). Additionally, Lai (2011) expounded that librarians require ICT skills in order to provide effective formal and informal training opportunities to the public. Nicholson (2017) emphasised that library staff need ICT skills in order to access, locate and be able to use information. It is thus of paramount importance to ensure that library staff are well skilled (Nicholson, 2017) so that they are able to use self-serving machines, library applications and social media channels such as Facebook and Twitter. In doing so library staffs will be able to provide for greater ease of use of and access to the public library and its resources, as well as avenues for better community engagement.

According to Mwai, Kiplang'at, and Gichoya (2016), training helps managers to focus on strategic priorities and more important high-level activities thereby freeing up resources to focus on measurement, evaluation and operational excellence in the training programmes themselves. However, librarians in many libraries in South Africa and elsewhere in the world, are often found wanting in terms of having the necessary skills to operate ICT tools and library systems. A qualitative study conducted by Mwai, Kiplang'at and Gichoya (2016) found that minority library staff in Kenyan public libraries lacked skills in ICT areas and that 13 out of 40 sampled library staff lack ICT skills. Lack of ICT skills among staff in public libraries may be attributed to a shortage of ICT tools. This is evident in a study by Kingori, Njiraine and Maina (2016) which found that 37% of public library staff lacked teaching equipment and skills in using ICT facilities and Ricardo (2011) argued that library staffs with no ICT skills affect the quality of the service rendered to library clients. He correctly noted that the lack of training impedes staff capacity to serve the users in the best possible way. Therefore, library users need digital literacy training in order to locate access and use information in digital format.

Usage of library online materials

Worldwide, librarians are increasingly using ICTs to access digitised information (Enakrire and Ocholla, 2017). When services are digitalised, accessibility becomes easier and faster which increases the usage of materials in public libraries (Salman Mugwisi and Mostert, 2017) thus increasing user satisfaction. Using ICTs not only enhances the services provided by public libraries but also improves the librarian's abilities and the organisation of the library (Leung, Nkhomaand John, 2013). However, the use of online

resources in public libraries is influenced by various factors, one of them being ICT skills (Sharma 2011; Ricardo, 2011).

Mugwisi (2015), through a questionnaire survey, established that the lack of computer skills is a problem negatively affecting South African public libraries leading to a loss of library clientele. Age and gender of library staff also influence the usage of digitalised library services in public libraries (Leung, Nkhoma and John, 2013). In addition, digitised materials and broadband width affect access to and use of public libraries (Pateman and Williment, 2016). If the library broadband width is low, it implies that the service will also be slow. These factors have a bearing on the extent to which public library services are used in a country or a region. In Nigerian libraries, ICT is used by 54% of librarians (Isiyaku, Ayub and Abdulkadir, 2015). In South Africa a study conducted in KwaZulu-Natal public libraries by Hoskins (2005) found that 94% of library staff used computers and other ICT facilities in their workplace and they encountered no problems because of the training they received.

Research methodology

A quantitative research method was adopted in this study to investigate progress in the adoption of digitalisation in Limpopo public libraries. The study population comprised 888 library staff working in the 69 public libraries in Limpopo. The population was geographically scattered making it both difficult and costly to include all the staff in the study. Given this, the study adopted a non-probability sampling method called convenience sampling. In terms of this method, data was collected from seven public libraries chosen on the basis of their proximity and accessibility to the researchers. Only library staffs that were present at work during data collection were used as respondents in the study. The researchers sampled 10% of the population as guided by scholars (Hancock and Mueller, 2010; Krathwohl, 1998) who assert that a sample of 10-20% of the population is adequate to draw valid conclusions from. Data was thus collected from 87 respondents through a self-administered questionnaire. The collected data was analysed using Microsoft Excel and results are presented in the form of tables and figures (pie and bar charts).

Research findings

This section outlines and discusses the research findings. The findings are presented and discussed based on the objectives of the study.

Attitudes of library staff towards digitalisation of library services

Library staffs were asked to indicate whether or not they support the digitalisation of services. The aim was to determine the attitudes of librarians in Limpopo public libraries towards the digitalisation of services. Results are shown in Figure 1.

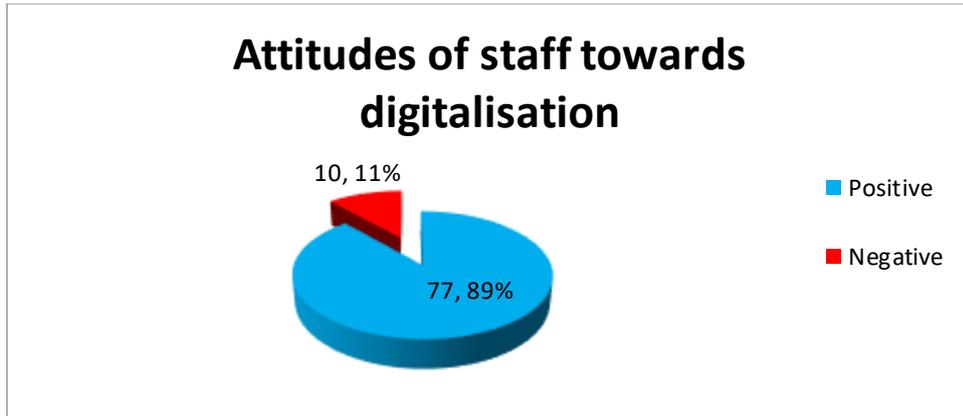


Figure 1: Attitudes of staff towards digitalisation (N=87)

Findings revealed that the vast majority 77 (89%) of the library staff have positive attitudes towards the digitalisation of library services. Based on the TAM (Davis, 1986), if users have positive attitudes towards ICTs like the librarians in Limpopo public libraries do, they are likely to use ICTs to render library and information services.

Skills of library staff in terms of retrieval and usage of online materials

Khan and Rubina (2017) stipulate that for any work to be executed properly, skill is a prerequisite. Therefore, it was important to establish if librarians in Limpopo public libraries have the necessary skills to utilise ICTs to render quality services. Librarians were asked to rate their ICT skills and Figure 2 depicts the findings to the question.

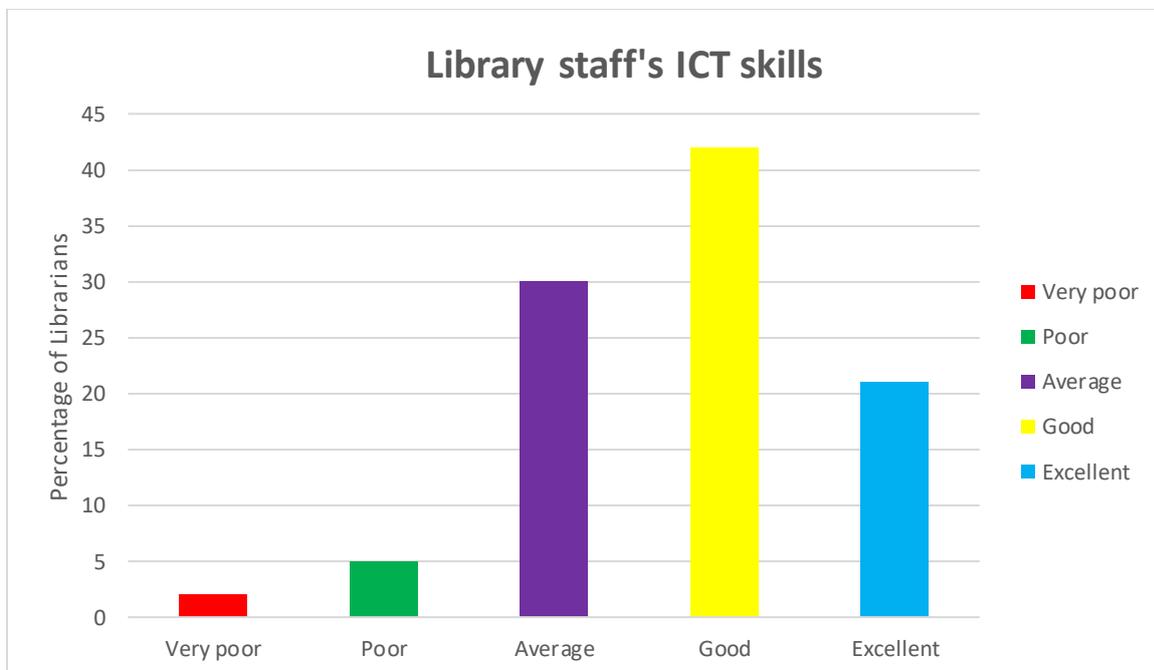


Figure 2: Library staff's ICT skills (N=87)

It was found that 43% of library staff considered their ICT skills as good; 30% average; 21% excellent; 5% poor; and 2% very poor. These results indicate that many staffs in Limpopo

public libraries consider themselves as having the necessary ICT skills. According to the TAM (Davis, 1989) ICT skill is a necessary condition for operating or using any ICT tool. In this regard, library staffs in Limpopo public libraries are well equipped to use ICT tools to render library services.

Extent to which Limpopo public libraries render digitalised services

In this question, the researchers wanted to determine the extent to which Limpopo public libraries render digitalised services. Respondents were asked to use the categories “Always”, “Sometimes” and “Never” to indicate how frequently they rendered digitalised services. Table 2 illustrates the results.

Table 2: Provision of digitalised services (N=87)

Provision of digitalised services		
	Frequency	Percent
Always	27	31
Sometimes	45	52
Never	15	17
Total	87	100

Although, library staff in Limpopo public libraries have positive attitude towards ICTs and have ICT skills as depicted in Figures 1 and 2 respectively, only 31% of library staff always provide digitalised services, 52% sometimes, while 17% never render such services. This is an indication that Limpopo public libraries are lagging behind in terms of using ICTs to provide library services. This may affect the accessibility and quality of library services, particularly now that services are increasingly being rendered online in this Covid-19 period. These results are inconsistent with studies conducted in other provinces of the country and other parts of the continent. For example,(and as mentioned) in KwaZulu-Natal 94% of librarians used ICT to provide library services (Hoskins, 2005), while in Nigeria 54% of library staff used ICT tools to do so (Isiyaku, Ayub and Abdulkadir, 2015).

Conclusions and recommendations

The following conclusions based on the objectives and findings described above are drawn:

The first objective of the study was to establish the attitudes of library staff towards digitalisation. It was established that staff in Limpopo public libraries have positive attitudes towards the digitalisation of library services. However, findings from other studies indicate that staff members have negative attitudes towards the use of ICTs. Thanuskodi (2019), for instance, found that in India 63% of public library staff has a negative attitude towards ICT, they get inundated with data and fail to access the latest information. When employees have negative attitudes towards the use of ICT, consequences are serious ones and affect the

quality of library and information services provided. Researchers argue that negative attitudes towards the use of ICT are influenced by different factors that may include misconceptions, resistance to change, having to learn new things and the belief that the use of ICTs will take away people's jobs. Thus, in the main, staff in Limpopo public libraries do not fall into the category of librarians having negative attitudes towards ICTs and it is of the utmost importance to maintain this status quo— library staff need to continue perceiving the use of ICTs in a positive way, particularly in this, the 4th industrial revolutions, era. This is also in line with Kumar (2008) assertion that staff having a positive attitude improves the usage of IT systems, the efficiency of the library, as well as communication channels resulting in good quality services.

The second objective was to investigate the skills of library staff in terms utilising ICTs to provide quality services. In this regard it was found that a majority of staff in Limpopo public libraries consider themselves as having the necessary skills to render online library services. This was evidenced by the 64% of library staff who rated their ICT skills as either good or excellent. Without the necessary ICT skills, librarians will be like a ship without radar. They will not be able to operate tools such as computers and scanners to search, retrieve and disseminate information to their clients. Training and development of librarians should be continuous because ICTs are evolving. When staff members are continuously trained they will be able to keep abreast of ICT developments and so be able to provide clients with the right information, packaged in the right format at the right time. Of importance is that training should be relevant to the roles of both management and employees in each library (Byrnes and Munro, 2019). This means that training should not be a “one size fits all”; rather, it should be according to work-related needs of each member of staff in the library. This is because some library staff may need training in areas that others already have. The level of training may vary from basic to advanced training.

The third and final objective was to determine the extent to which Limpopo public libraries render digitalised services. It is interesting to note that even though staff in Limpopo public libraries have the necessary skills and positive attitudes towards ICTs, 55% indicated that they do not always utilise ICT tools to render library and information services due to the underdeveloped and inadequate ICT infrastructure in their libraries. It appears as if this finding is unique to Limpopo public libraries. For instance and as noted above, 94% of public librarians in KwaZulu-Natal use ICTs to provide library services (Hoskins, 2005). In other parts of the African continent and also as mentioned 54% of Nigerian public libraries use ICT tools to render library services (Isiyaku, Ayub and Abdulkadir 2015).

During this period of Covid-19, libraries that do not provide online library and information services deny the communities they serve access to information because many libraries are closed or have limited physical contact between library staff and users due the regulations implemented in response to the pandemic. Access to information is a fundamental right enshrined in the Constitution of the Republic of South Africa. To protect this right, public library management should acquire ICT infrastructure and encourage library staff to always

use ICT tools when interacting with one another and providing library services. In this way they will perfect the practice of rendering library and information services using ICT tools.

Final remarks

It is clear that ICTs enhance the provision of library and information services in public and other types of libraries. Through ICTs libraries are able to use new methods and techniques to acquire, preserve and disseminate information such as, for example, through web-based library services (Khan and Rubina, 2017). Without the use of ICT tools access to library and information services is compromised. Therefore, management in public libraries should ensure that adequate ICT infrastructure is made available for their staff to use. However, the availability of ICT infrastructure does not guarantee that library staff will use ICT tools. Staff also need to be well trained, motivated and monitored to ensure that they use the available ICT infrastructure to provide library and information services effectively and efficiently. Not doing so will result in the ICT infrastructure being considered a white elephant.

References

- Ariole, I. A. 2017. "Provision of ICT Services and User Satisfaction in Public Libraries in South-East and South-South Zones of Nigeria." *Information Technologist* 14 (2): 39–50.
- Byrnes, W. and R. Munro. 2019. *Money Laundering, Asset Forfeiture and Recovery and Compliance – A Global Guide*. New York: LexisNexis.
- Davis, F. D. 1989. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." *MIS Quarterly* 13 (3): 319–340.
- Department of Arts and Culture. 2013. *Project Report for the Costing the South African Public Library and Information Services*. Pretoria: DAC.
- Enakrire, R. T. and D. N. Ocholla. 2017. "Information and Communication Technologies for Knowledge Management in Academic Libraries in Nigeria and South Africa." *South African Journal of Information Management* 19 (1): 1–9.

- Fabunmi, B., M. Paris and M. Fabunmi. 2006. "Digitization of Library Resources: Challenges and Implications for Policy and Planning." *International Journal of African and African American Studies* 5 (2): 24–36.
- Gerolimos, M. and R. Konsta. 2008. "Librarians' Skills and Qualifications in a Modern Informational Environment." *Librarians' Skills and Qualifications* 29 (8/9): 691–699.
- Hancock, R. and R. Mueller. 2010. *Quantitative Methods in Education and the Behavioral Sciences: Issues, Research, and Teaching. Structural Equation Modeling: A Second Course* (2nd ed.). Charlotte, NC: Information Age Publishing.
- Hoskins, R. 2005. "Information and Communication Technology (ICT) Knowledge and Skills of Subject Librarians at the University of KwaZulu-Natal." *South African Journal of Library and Information Science* 71 (2): 151–163.
- Isiyaku, D. A. Ayub and S. Abdulkadir. 2015. "Empirical Modeling of Information Communication Technology Usage Behaviour Among Business Education Teachers Colleges of a Developing Country." *South African Journal of Education* 35(4): 1–14.
- Khan, S. A. and B. Rubina. 2017. "Technological Advances in Libraries and Possibilities of Ubiquitous Library Services: An Analysis." *Pakistan Library and Information Science Journal* 48 (3): 2–8.
- Kingori, G., D. Njiraine and S. Maina. 2016. "Implementation of Information Literacy Programmes in Public Libraries." *Library High Tech News* 33 (2): 17–22.
- Krathwohl, D. R. 1998. *Methods of Educational and Social Science Research: An Integrated Approach*. 2nd ed. New York: Longman.
- Kumar, A. 2008. *Public Library System and Services in Tamil Nadu*. Chennai: Bharathi Puthakalayam.
- Kumar, V. R. 2016. "A Study on Challenges and Opportunities for Academic Libraries in Migrating to E-Resources." *International Journal of Digital Library Services* 6 (3): 85–94.
- Lai, H. J. 2011. "Information Literacy Training in Public Libraries: A Case from Canada." *International Forum of Educational Technology and Society* 14 (2): 81–88.
- Leung, N., M. Nkhoma and B. John eds. 2013. *Proceedings of the 4th International Conference on IS Management and Evaluation: ICIME 2013*. Ho Chi Minh City: Academic Conferences Limited.
- Library and Information Association of South Africa. 2015. *The State of Libraries in South Africa*. Pretoria: LIASA.

Maio, G., G. Haddock and B. Verplanken. 2018. *The Psychology of Attitudes and Attitude Change*. 3rd ed. New Delhi: SAGE.

Malotle, A. and K. Selwana. 2016. *The Impact of the Public Libraries and Community Libraries Conditional Grant*. In *The State of Conditional Grant Funded Libraries in South Africa*. Department of Arts and Culture and National Council for Library and Information Services: National Library of South Africa.

Mojapelo, S.M. 2019. The Internet Access and Use in public Libraries in Limpopo Province, South Africa. *Public Library Quarterly* 39(3) 264-282.

Mokgaboki, S. N. 2002. "Extending Community Library and Information Services to Rural Areas: The Challenges that Lie Ahead." *South African Journal of Library and Information Science* 68 (1): 78–79.

Moropa, R. 2010. "Academic Libraries in Transition: Some Leadership Issues—a Viewpoint." *Academic Librarians in Transition* 31 (6): 381–390.

Mphidi, M., H. 2016. *Strategy for South African Public Libraries to Bridge the Digital Divide*. Pretoria: University of Pretoria.

Mugo, D., K. Njagi, B. Chemwei and J. Motanya. 2017. "The Technology Acceptance Model (TAM) and its Application to the Utilization of Mobile Learning Technologies." *British Journal of Mathematics and Computer Science* 20 (4): 1–8.

Mugwisi, T. 2015. *Role of Librarians in Teaching Information Literacy in Zimbabwean and South African Universities: a Comparative Study*. Mousaion, 33(1), pp. 23-42.

Municipalities of South Africa. 2012. *Limpopo Municipalities*. [Online] Available at: <https://municipalities.co.za/provinces/view/5/limpopo> [Accessed 13 March 2018].

Mwai, N., J. Kiplang'at and D. Gichoya. 2016. "Outsourcing Information Communication Technology Services in Selected Public Libraries in Kenya." *Inkanyiso* 8 (1): 44–56.

Nicholson, K. 2017. *Innovation in Public Libraries: Learning from International Library Practice*. Cambridge: Chandos Publishing.

Pateman, J. and K. Williment. 2016. *Developing Community-led Public Libraries: Evidence from the UK and Canada*. London: Routledge.

Paulin, A., L. Anthopoulos, and C. Reddick. eds. 2017. *Beyond Bureaucracy: Towards Sustainable Governance Informatisation*. Burgdorf: Springer.

Ricardo, G. ed. 2011. *Libraries, Telecentres, Cybercafes and Public Access to ICT: International Comparisons*. Hershey: IGI Global.

Salman, A. A., T. Mugwisi and B. J. Mostert. 2017. Access to and use of Public Library Services in Nigeria. *South African Journal of Libraries and Information Science*, 83(1), pp. 26-38.

Sharma, R. N. 2011. *Libraries in the Early 21st Century, Volume 1: An International Perspective*. Boston: Walter de Gruyter.

Stewart, P. and Newman, N. 2018. "User Services in the Digital Environment: Implications for Academic Libraries in the English-Speaking Caribbean." *Library Review* 66 (4/5): 213–234.

Stilwell, C. 2016. Public libraries and inclusion: An update from South Africa. In *Perspectives on libraries as institutions of human rights and social justice*, 41, 119–46. Doi: <http://0-dx.doi.org.oasis.unisa.ac.za/10.1108/S0065-283020160000041006>.

Thanuskodi, S. 2019. *Handbook of Research on Digital Content Management and Development in Modern Libraries*. Hershey: IGI Global.

The National Library of South Africa. 2016. *The state of conditional grant funded libraries in South Africa*. Pretoria: Department of Arts and Culture and the National Library of South Africa.

The National Library of South Africa. 2015. *Mzansi Libraries On-Line*. [Online] Available at: <http://www.nlsa.ac.za/mlo/index.php/about-us/> [Accessed 13 March 2018].

Yakkaldevi, A. and P. Ghante. 2014. *Library Automation*. Solapur: Laxmi Book Publication.