Perceptions of librarians towards the adoption of embedded librarianship in Tanzania

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Abstract

Academic libraries in Tanzania have not fully adopted or embraced embedded librarianship as an innovative approach to enhance library service delivery. To gain understanding on the adoption of embedded librarianship, the present study explored the librarians' perceptions towards the adoption of embedded librarianship approach in academic libraries in Tanzania. The study mainly employed exploratory research design blended in a mixed research approach where both quantitative and qualitative aspects were used. A total of 166 librarians from six university libraries filled the questionnaire while 6 directors were interviewed. Statistical Product for Service Solutions (SPSS) version 21 was used to perform descriptive statistics. The study revealed librarians' positive perceptions on the adoption of embedded librarianship in academic libraries. Strengthening librarians and user partnership is an important mechanism to enhance library service delivery. Building strong collaboration between library and faculties through MoU, and enhancing librarians' competencies in teaching, research, communication, ICT applications are necessary for effective adoption of embedded librarianship.

Keywords: Perception, librarians, library users, ICT, embedded librarianship, academic libraries

Introduction

For ages, academic libraries have been making unique contributions to the academic community and to higher learning institutions themselves(ACRL, 2011). Mainly, they contribute to develop collections and provide bibliographic access to diverse library materials. Other notable contributions include providing users with access to and use of print and online library resources. In the same note, academic librarians play substantial role in creating innovative tools that enhance access to information available locally, regionally, nationally and internationally (Abumandour, 2020; ACRL, 2011; Mwantimwa, Mwabungulu & Kassim, 2020). In fact,

academic libraries are the repositories of knowledge and integral part of higher learning education. Evidently, academic libraries play a critical role in the education of millions students and faculty members globally (Abumandour, 2020; Das, 2017; Men & Isreal, 2017). On this, Das (2017)opines that "we cannot deny the role and importance of academic libraries in higher education. A quality education is impossible without a quality library (pg.159)….The library is a really source of knowledge and no education can be regarded as perfect and fruitful in the absence of libraries" (pg. 160). It is also important to note that academic libraries not only serve the student community but also support education, consultancy, research, teaching and other academic programmes of faculty members(Arjun, Kumar, Majumder & Bose, 2010; Baral, 2019; Das, 2017; Onwudinjo, 2015; Parmar & Pateria, 2019).

In recent years, the substantial role played by the academic libraries seems to be declining(Buenrostro, 2013; Mushi, 2020; D. Shumaker, 2012; Wu and Mi, 2013). Attributors for their decline are diverse. Noting from the extant literature information is widely retrieved from anywhere and at any time. This makes libraries less centralized(Wu & Mi, 2013). The development in Information and Communication Technology (ICT) appears to expose libraries to a number of challenges(Bonnand & Hansen, 2012).With the advent of ICT, traditional library users are now seldom visiting libraries. Evidently, library users can search for information while they are at homes, offices, and restaurants or even in their cars through using various mobile gadgets, different web databases and search engines(Wu & Mi, 2013). In fact, smart mobile phones with sophisticated applications are now available which makes information search and retrieval easier. Buenrostro (2013: 1)narrated that "nowadays people will come to the library because they need a quiet place to work on their project, attend a program, needs a computer or a space for group discussion." The situation is accelerated by the development of new digital information resources as well as economic and administrative changes without forgetting the drastic change in the scholarship pattern from on-campus to online(Buenrostro, 2013; Shumaker, 2012; Shumaker & Talley, 2009)

To rectify the challenges posed by ICT, academic libraries worldwide are introducing numerous initiatives. On this, Monroe-Gulick, Brien and White (2013) affirm that academic libraries have long been discussing the need to remain relevant and demonstrate value to their institutions.(Thomas, 2013: 1)emphasizes that:

> In the 21st century waiting for customers to come to the libraries is no longer working and is also no longer relevant. Getting out of our comfort zones, getting close to our clients, invading their space when they least expect and getting in bed with those customers to satisfy their information needs is now a buzzword or the name of the game.

On the same note, Riccio (2012) shares that academic libraries and librarians need to find ways to make changes that will allow them to continue to provide relevant, focused information and resources to their various user groups. This informs that deliberate efforts totransform the library centric approach of library service delivery into user centric approach of library service delivery is a requisite for solving the challenges brought forth by the advancement in Information and Communication Technology (Luca, 2019). It is worth noting that the librarians are changing the models of providing their services and come up with new approaches to providing services and maintaining interactions with the users(Luca, 2019; Thomas, 2013). In specific, embedded librarianship is seen as a new recommended approach to showcasing the value of academic

librarians outside the library walls. Shumaker and Talley (2009) as cited by Kvenild (2012) define embedded librarian as "a librarian that focus on the needs of one or more specific groups, building relationships with those user groups, developing an understanding of their work, and providing information services that are highly customized and targeted to their greatest needs". That is, as an embedded librarian integrates services in the user community. Sometimes are being part of teaching faculty and in other instance they embed in the project activities of clients(Almeida and Pollack, 2017).

Undeniably, embedded librarianship model is becoming more popular practice to enhancing library services(Carlson & Kneale, 2011; Helms & Whitesell, 2013; Inuwa & Abrizah, 2018; Madu & Dawha, 2019). The model provides approach to solve the situation by bringing the academic libraries and librarians close to their library users. Embedded librarianship has emerged to challenge the traditional library services delivery to retain the value of academic libraries and tackle the recurring challenges of information landscape and showcasing the relevance of librarians within the academic environment (Luca, 2019; Thomas, 2013). It is in this stance, Monroe-Gulick, Brien, and White (2013) recommend 'embedded librarianship' as an approach to showcase the value of librarians and libraries outside the library walls. Embedded librarianship is important and has many benefits including promoting professional growth, protecting professional prestige, enhancing the value of librarians, increasing use of the library services and resources to promote academic and social development hence achieve librarians' vitality in academic libraries (Wu & Mi, 2013).

With potentials embedded librarianship approach has, academic libraries in Tanzania have not fully adopted or embraced it as an innovative approach to enhance library service delivery (Mushi, 2020). As a result, both print and electronic library resources alongside services are underutilized (Alphonce & Mwantimwa, 2019; Msagati, 2014; Mwantimwa, Elia, & Ndenje-Sichalwe, 2017; Mwantimwa, Mwabungulu & Kassim, 2019). Studies (e.g. Madu& Dawha, 2019) conducted in developing countries suggest that "the actual practice of embedded librarianship is still low from the practical assessment" (pg.37). The question on why academic libraries in Tanzania are not fully practicing embedded librarianship remains unanswered. Indeed, librarians' perceptions and attitudes on practicing embedded librarianship in academic libraries in Tanzania seem to be unexplored. This makes librarians' perceptions on the adoption of embedded librarianship not clearly known. The dearth of literature on the subject in question is one of the evidences. To add new insights, study to explore librarians' perceptions on adoption of embedded librarianship in academic libraries becomes necessary. Therefore, the present study explored librarians' perceptions on adoption of embedded librarianship in selected academic libraries in Tanzania. Specifically, the study intended to explore perceived importance on fostering library services, collaborations and capacities.

Literature review

The adoption and application of embedded librarianship seem to have a significant impact towards library services provision in academic libraries. This is clearly documented in a number of prior library and information science studies (Luca, 2019; Madu & Dawha, 2019; Moruf, 2020; Wu and Mi, 2013). However, significant impact of the adoption of embedded librarianship depends on librarians perceptions (Madu & Dawha, 2019).Evidently, librarians' positive perceptions found to be important booster for adoption of new innovation practice. For example, it is worth noting that self-efficacy and perceptions factors contribute the most to determine

librarians' attitudes towards adoption of new services and practices. Besides these factors, availability of time, resources, infrastructure, and support from the management influence librarians' attitudes towards adoption of new activities and practice (Yun-Ke, Adiputra & De Yang, 2013). It is also observed that the people in organization can be either the key to achieving effective change, or the biggest obstacles to success. This entails that when the employees have positive attitudes, they are more likely to adopt new practices while those with negative attitudes are more likely to become barriers (Aiman-Smith, Goodrich, Roberts & Scinta, 2005). This exposes that not all librarians support the adoption of embedded librarianship practice. In this regard, Shumaker (2009: 241) observed that "not every customer group needs this kind of service, and not every librarian has the skills or the motivation to provide it. Furthermore, your library operation can't sustain an over- night, wholesale conversion to a new service model either." Carlson & Kneale (2011)assert that embedded librarianship requires the approval and understanding of fellow colleagues who may need to adjust their boundaries and comfort levels to accommodate the new model of librarianship.

Accordingly, the reviewed literature informs that embedded librarianship practice is perceived differently by librarians. For example, in understanding the roles of awareness, attitude and perception of academic librarians in North-east Nigeria towards embedded librarianship practice, Madu and Dawha (2019) found that academic librarians in the study area have a high awareness level, positive attitude and perception about embedded librarianship. For example, librarians perceive that embedding library services promote the usage of library resources and services (see Carlson & Kneale, 2011; Drewes & Hoffman, 2010). More notable example include an integrated electronically based library instruction model where librarian interact and respond to students' questions and post relevant course assignments and materials found to increase number of students served and use the library resources and services. These entail that the library services and resources are brought closely to the library users. The adoption of embedded librarianship is associated with the librarians ability to customize the user needs of specific students and classes attract more library clients to use the library for academic, research and consultation purposes (Matthew & Schroeder, 2006). This is also supported by other prior studies (e.g. Shumaker, 2012; Wu & Mi, 2013) that providing customized and value-added services attract significant proportion of users.

Furthermore, librarians in different academic libraries perceive that the adoption of embedded librarianship is rewarding. The main reasons provided include social connectedness through conversation and sharing knowledge (Konieczny, 2010). From these observations, positive attitudes and perceptions towards the embedded librarianship provides a room to foster the adoption and practices. Apart from that, some of the librarians perceived that they are embracing additional responsibilities through embedded librarianship which increases their workload hence becoming overwhelming (Bartnik, Farmer, Ireland, Murray & Robinson, 2010; Dewey, 2005; Foutch et al., 2007; Hoffman, 2011). In different note, the noticeable percent of librarians perceived that embedded librarianship practice provide students with ability to accomplish assignments (58.7%), enhance classroom instruction (52.9%), facilitate literature search services (53.9%), online teaching of a course (41.9%), publication (34.9%), and scholarly support (27.9%). Not only librarians perceive that the practice saves time of the users but also significant proportion (97.6%) of faculty members strongly agreed that embedded librarians saved their time and were an integral part of their groups (95.3%) as found by Blake, Ballance, Davies, and Gaines (2016). This is undeniable fact that literature searches conducted by the embedded librarian help faculty members and students to make viable decisions about learning,

teaching, and research activities. In fact, librarian being available during multiple class sessions helps students to meet their requirements of course assignments (Rath & Wright, 2018).The literature also discloses that highly-engaged students are more likely to be the most effective than those who are passive (Yearwood, Foasberg & Rosenberg, 2015). Besides that, participation of different library stakeholders such as students and teaching staff found to foster diverse competencies including information literacy, classroom teaching and research(Landry-Hyde & Cantwell, 2013; Lysiak, Mross & Raish, 2018; Wu & Mi, 2013).

Along that, embedding library services enhance close coordination and collaboration with faculty, students and researchers which in turn promote the usage of library resources and services (see Carlson & Kneale, 2011; Drewes & Hoffman, 2010; Madu & Camble, 2020; Madu & Dawha, 2019).Empirically, Madu and Dawha (2019)found that 67% of the librarians perceived that effective adoption of embedded librarianship strengthen collaboration between librarians and users. These are supported by the studies (e.g. Shumaker, 2012; Wu & Mi, 2013) that close coordination and collaboration help to build strong relationship with library users, enhance team work spirit, helps librarians to anticipate user needs and contributing to the success of ongoing projects. According to Blake, Ballance, Davies, and Gaines (2016), the practice adds value to various embedded projects. More importantly, embedded librarians play a greater part in the research process and in particular the management, curation and preservation of research data, scholarly communication and effective dissemination of research outputs(Auckland, 2012).

Noting from the study by Madu and Dawha (2019), embedded librarianship practice is good for researchers and students engagement as cited by significant percent (68.6%) of the librarians involved in the study. For example, an electronically based integrated library instruction model where librarian interact and respond to students' questions and post research help and materials relevant to the course assignments found to increase number of students served and use the library resources and services(Kumar & Edwards, 2013; Matthew & Schroeder, 2006; Zhang, Goodman & Xie, 2015). These entail that the library services and resources are brought closely to the library users. The ability of librarians to customize the user needs of specific students and classes attract more library clients to use the library for academic, research and consultation purposes(Matthew & Schroeder, 2006). Undeniably, the embedded librarianship provides a viable mechanism to marketing library resources and services to potential library users in academic libraries. It is evidenced that most academic libraries in developing countries are embracing and leveraging and experiencing the power of embedded librarianship approach to their library service delivery(Almeida & Pollack, 2017; Bonnand & Hansen, 2012; Kvenild, 2012; Riccio, 2012). On the whole, effective adoption of embedded librarianship foster teaching, research and learning in higher learning institutions.

Design and methods

The study used exploratory research design to establish librarians' perceptions on adoption of embedded librarianship in academic libraries. Along that, a mixed research approach in which both qualitative and quantitative approaches were employed in the entire research processes. The mixed approach enabled the study to exploit the strengths and reduce the weaknesses of each approach. The qualitative aspects of the study were rooted due to the fact that reality is constructed in the context(Creswell, 2018). Whereas qualitative approach was used to explore the librarians' feelings and opinions towards the adoption and implementation of embedded

librarianship in university libraries, quantitative approach was used to establish some numerical data such like socio-demographic characteristics and access to and use of library services and resources.

The present study was conducted in six university libraries including the University of Dodoma (UDOM), St. Johns University of Tanzania (SJUT), Sokoine University of Agriculture (SUA), St. Augustine University of Tanzania (SAUT), Muhimbili University of Health and Allied Sciences (MUHAS), and the University of Dar es Salaam (UDSM) libraries. The six university libraries were selected because of different reasons. Prior studies (e.g. Msagati, 2014; Mutani, 2016; Mwantimwa et al., 2017) reported low usage of library services and resources in academic libraries in Tanzania. Yet, the impact of embedded librarianship as a new innovative approach to enhance the utilization of library services and resources is not well documented. The study to provide a clear picture on the adoption of embedded librarianship is not accessible. It was necessary to select 6 university libraries for the purpose of drawing a clear picture on embedded librarianship practice in Tanzania. The second reason was to get insights from the two angles of public and private university libraries where UDSM, UDOM, SUA and MUHAS are public universities libraries while SJUT and SAUT are private universities libraries.

The units of investigation and analysis for the study were libraries and the library staff. Both probability and non-probability sampling were used to select the sample. Probability (i.e. stratified) sampling technique was used to select library staff while non-probability (i.e. purposive) sampling technique was used to select the libraries and the library directors. The final sample size was 172 librarians from the six libraries (UDOM = 47, UDSM = 54, SUA = 33, SJUT = 8, MUHAS = 15, SAUT = 9) and six library directors from the six university libraries.

Regarding data, both primary and secondary data were collected through diverse methods and instruments. Primary data were collected through face-to-face interviews and questionnaire surveys. Self-administered questionnaires were distributed to 186 librarians where 166 questionnaires were returned. Mainly, questionnaire comprises two sections where section one covered socio-demographic characteristics, section two covered issues on librarians' perceptions. Both nominal and ordinal (i.e. Likert) scales were used. For example, a five point Likert scale (e.g. 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree) was mainly employed to gauge the level agreement on a number of statements associated with librarians' perceptions. Besides, semi-structured interviews were conducted to library directors through face-to-face by the researchers. In an average, 10 minutes were spent by the respondents to accomplish the questionnaire, face-to-face interview sessions took about 15 to 20 minutes. Accordingly, secondary data were collected through documentary review. Both published and unpublished books, journal articles research reports and electronic resources were reviewed and major points summarized.

Along that, the present study triangulated quantitative and qualitative approaches so as to capture all important information related to the librarians' perceptions on adoption of embedded librarianship. Also, the combination of sampling techniques and data collection methods help the researcher to get credible data and findings. On the whole, the triangulation of the research methods helped to minimize the threats of validity and reliability for data collected by producing complementary information that approves the data collected by other methods (Mwantimwa, 2012).

Data obtained were subjected to both quantitative and qualitative data analysis techniques. Quantitative data were subjected to descriptive analysis (frequencies and percentages) by the use

of Statistics Package for Service Solution version 20 (SPSS). The analysis was done immediately after the data were collected and being presented in figures and tables. The information obtained from the interviews were subjected to the thematic data analysis procedures and presented in descriptions and narratives to further understanding of the results of quantitative data. The next section presents the findings of the study.

Study results

Socio-demographic information

The study collected personal information of the respondents, mainly to establish their institution, age, gender, level of education, working experience in librarianship professional and position. Table 1 presents socio-demographic characteristics:

Table 1: Socio-demographic characteristics of the respondents

Characteristics		Frequency	Percentage
Institutions	UDSM	54	32.5
	UDOM	47	28.3
	SUA	33	19.9
	MUHAS	15	9.0
	SAUT	9	5.4
	SJUT	8	4.8
Gender	Male	78	47
	Female	88	53
Age	< 20	1	0.6
	21-30	43	25.9
	31-40	69	41.6
	41-50	38	22.9
	51+	15	9
Level of Education	Certificate	26	15.7
	Diploma	49	29.5
	Bachelor	44	26.5
	Masters	34	20.5
	PhD	13	7.8
Position	Professor	5	3
	Senior Librarian	11	6.6
	Librarian	19	11.4
	Assistant Librarian	26	15.7
	Tutorial Assistant	3	1.8
	Principal Librarian	4	2.4
	Senior Library Officer	7	4.2
	Library Officer	27	16.3
	Library Assistant	64	38.6
Experience	Less than 2 years	22	13.3

2-5 years	35	21.1
6-10 years	71	42.8
Over 11 years	38	22.9

The outputs in Table 1 show that moderate (32.5%) of respondents participated in the present study were from UDSM. This can be attributed to a big number of library staff and the high return rate of the questionnaires whereas 54 out of 55 respondents filled and returned the survey. This was followed by (28.3%) from UDOM which is also a big newly university with over 90 library staff. Further, the outputs reveal that SUA which has also a big number of library staff had (19.9%) of respondents. It can also be seen from the outputs that least (9%), (5.4%) and (4.8%) of the respondents were from MUHAS, SAUT and SJUT respectively as they have a small number of library staff.

Table 1 also depicts that more than half (53%) of the library staff respondents were female while less than half (47%) were male. In reference to age, the outputs show that a moderate percent of the responding library staff (41.6) were aged 31-40 years of age. This was followed by (25.9%) and (22.9%) whose age ranged from 21-30 and 41-50 respectively whereas, a small percentage (9) of the study respondents was aged above 50 and only (0.6) percent was below 20 years of age. Looking at the level of education part, the outputs demonstrate an approximately equal distribution of library staff with diploma (29.5%), bachelor's degree (26.5%), Master degree (20.5%) and certificate (15.7%) in academic libraries in Tanzania. In this the output express that there is a very small percentage of PhD (7.8) holder in the field of LIS in academic libraries in Tanzania.

Concerning the position held by the respondents in the library, the outputs indicate that the large proportion (38.6%) of respondents was made up of library assistants while the average percentage (16.3) and (15.7) of them was made up of library officers and assistant librarians respectively. Further, the outputs show that a small percentage of respondents was made up of librarians (11.4), senior librarians (6.6), senior library officers (4.2), professors (3), principal librarians (2.4) and tutorial assistants (1.8). Taking working experience into account, the results show that large proportion 42.8 percent of the respondents had been working in the library for six to ten years. Also the study outputs indicate that an average percentage (22.9) of them had been working in the library for 11 years and above. This was followed by (21.1) percent who have worked in the library between two and five years. In addition, the study outputs suggest that least of the respondents (13.3%) had working experience of less than 2 years in library work.

Librarians' perceptions on adoption of embedded librarianship

Various questions were asked to gauge librarians' perceptions on adoption of embedded librarianship in selected academic libraries. In order to measure their level of agreement on effective adoption of embedded librarianship practices, a five points Likert scale (i.e. 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree) was used. Their responses are summarised in Figure 1:
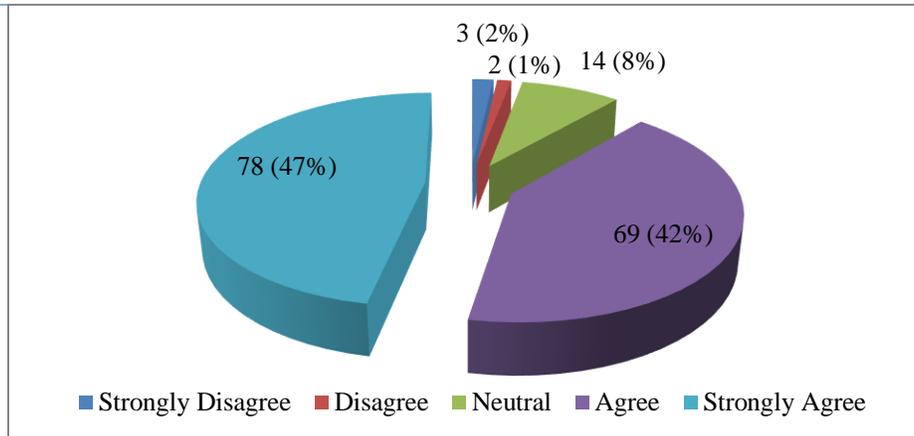
Figure 1: Librarians' perceptions on adoption of embedded librarianship

The results suggest that librarians agreed that embedded librarianship approach is an innovative approach to library service provision. In specific the results show that majority (89%) agreed that embedded librarianship is an innovative approach to enhancing library service delivery. This informs least (11%) of the librarians participated in the present study disagreed. Also, the librarians were asked on perceived importance of embedded librarianship in improving utilisation of library services and resources. Figure 2 presents the results:
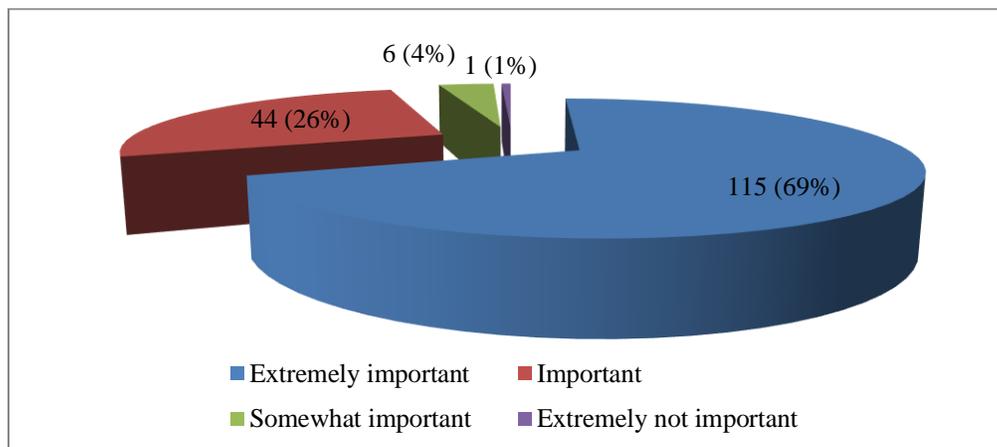

Figure 2: Perceived importance of embedded librarianship

Generally, the results expose that librarians have different perceptions on effective adoption of embedded librarianship. For example, while majority (69%) of librarians perceived embedded librarianship as extremely important, about a quarter (26%) perceived it important. The results also show that least (4%) perceived it somewhat important while (1%) perceived it extremely not important. These findings corroborate with the response made by one of the directors (P1) during an interview session that:

> I find the effective adoption of embedded librarianship in our library very important because it will assist us to meet the demands of our user community, it will also enable us to maintain collection development activities based on the information needs of our

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library users, and finally it will assist us to maintain the quality of library services in general [Female, Aged 44].

In support, another key informant (P5) has the following to say:

In order to remain relevant, effective adoption of this innovative program is very important today than before. It is one of the ways towards building strong relationship with users, that library becomes part and parcel of their academic life. I think this is the only way to pool our users close and bridge the existing gap brought forth by ICT development. [Male, Aged 61]

These narrations inform that librarians perceive embedded librarianship as an approach that offers them the opportunity to delivery library services to the users. The approach appears to be important in maintaining the library users which in turn improves the utilization of library services and resources. To gain more insights, more questions were asked to explore how the librarians feel on the role of embedded librarianship on enhancing access to and use of library services and resources, collaboration and coordination, and librarians and users capabilities.

Access to and use of services and resources

On how embedded librarianship enhance access to and use of library services and resources, the respondents were asked to circle a number of statement that reflects how they feel about the adoption of embedded librarianship by academic libraries in Tanzania on a five points Likert scale (i.e. 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), and 5 = Strongly Agree). The results are summarized in Table 2:

Table 2: Access to and use of library services and resources

Statements (n = 166)	SD	D	N	A	SA
Promotion of library services and resources	5(3.0%)	1(0.6%)	4(2.4%)	54(32.5%)	102(61.4%)
Promotes usage of library services and resources	3(1.8%)	3(1.8%)	9(5.4%)	52(31.3%)	99(59.6%)
Librarians customize services based on users' needs	1(0.6%)	1(0.6%)	16(9.6%)	75(45.2%)	73(44.0%)
It helps librarians to identify needs and find solutions	1(0.6%)	0 (0.0%)	11 (6.6%)	71 (42.8%)	83 (50.0%)
Makes librarians flexible in service delivery	2(1.2%)	1 (0.6%)	8 (4.8%)	56 (33.7%)	99 (59.6%)
Users' needs are addressed more effectively	1(0.6%)	2 (1.2%)	8 (4.8%)	60 (36.1%)	95 (57.2%)
Familiarizes students with the role of librarians	1(0.6%)	1 (0.6%)	10 (6.0%)	73 (44.0%)	81 (48.8%)
Users gain access to an invaluable knowledge	2(1.2%)	1 (0.6%)	9 (5.4%)	61 (36.7%)	93 (56.0%)
Improves scholarly communication	2(1.2%)	2(1.2%)	14(8.4%)	78(47%)	70(42.2%)
Improves users achievement	1(0.6%)	4 (2.4%)	7 (4.2%)	59 (35.5%)	95 (57.0%)

The results in Table 2 show that significant percent (>80) of the responding librarians agreed that effective adoption of embedded librarianship can positively improve access to and use of library services and resources. In particular, the approach can enhance the promotion of library services and resources, promote usage of library services and resources, and allow librarians to customize services based on users' needs. In the same note, the results disclose that the practice helps

librarians to identify needs and find solutions, makes librarians more flexible in service delivery, helps librarians to address users' needs more effectively and alter the perception that their help is confined to the physical library's walls. These results tally with qualitative results emanated from interview sessions. One of the key informants (P2) opined that:

> Although we agree that the adoption of embedded librarianship has many advantages to our libraries, effective implementation is hampered by a number of factors. Factors such like inadequate competencies, staffing, infrastructures, librarians and institutional readiness, and technophobia among librarians draw back our efforts to effectively embed library services and resources [Female, Aged 48].

This narrations show that effective implementation of embedded librarianship in academic libraries is not smooth. According to the key informants, factors that undermine its implementation are numerous. Furthermore, the results inform that other noticeable percent of librarians agreed that effective adoption of embedded librarianshipfamiliarizes students with the role of librarians and how their expertise is relevant to their academic success, provides users with opportunity to gain access to an invaluable wealth of knowledge that may have previously been perceived as a distant, improves scholarly communication and users achievement.

Collaboration and coordination

In order to explore librarians' perceptions on the role of embedded librarianship on enhancing collaboration and coordination, the librarians were asked to indicate their level of agreement on a number of statements as Table 3 presents:

Table3: Collaboration and coordination

Statements (n = 166)	SD	D	N	A	SA
Strengthens coordination with different departments	5(3.0%)	1(0.6%)	13(7.8%)	77(46.4%)	70(42.2%)
Fosters collaboration between librarians and users	2(1.2%)	2(1.2%)	5(3.0%)	76(45.8%)	80(48.2%)
Allows libraries to reach more users	2(1.2%)	2(1.2%)	11(6.6%)	63(38.0%)	88(53.0%)
Increases interaction between staff and users	3(1.8%)	1(0.6%)	8(4.8%)	64(38.6%)	90(54.2%)
Increases social networking	2(1.2%)	2(1.2%)	26(15.7%)	65(39.2%)	71(42.8%)
Allows users to reach librarians at the point of need	2(1.2%)	1 (0.6%)	15 (9.0%)	66 (39.8%)	82 (48.4%)
Build strong partnership between faculty and librarians	1(0.6%)	1 (0.6%)	10 (6.0%)	71 (42.8%)	83 (50.0%)
Build strong connections between faculty and librarians	0 (0.0%)	0 (0.0%)	18 (10.8%)	74 (44.6%)	74 (44.6%)
It will improve communication between librarians and faculty	2(1.2%)	1 (0.6%)	12 (7.2%)	69 (41.6%)	82 (49.4%)
Librarians are able to make personal connections with users	0 (0.0%)	1 (0.8%)	12 (7.2%)	69 (41.6%)	84 (50.0%)

According to the results, more than three quarter (>75%) of the librarians feel that effective embedded librarianship play a vital role in facilitating collaboration between librarians and users. Besides, the practice indicated to strengthen coordination of library services and between different departments. It is also important to note that effective adoption of embedded librarianship allows libraries to reach more users, increases interaction between library staff and users, increases social networking, and allows users to reach librarians at the point of need.These findings are supported by qualitative results. For example, in her own words one of the key informants (P4) stated that:

> Despite close collaboration with various faculties, colleges, schools and departments in different research, teaching, learning and consultancy activities, our collaboration and relationship is informal. This sometimes hinders viable collaboration. To effectively adopt embedded librarianship, formal Memorandum of Understanding (MoU) should be in place [Male, Aged 52].

Moreover, effective adoption of embedded librarianship has been found to be important in building strong partnership, connections, and communication between librarians and faculty. Accordingly, the practice seems to provide librarians with opportunity to make personal connections with users that they might not otherwise have been able to.

Librarians and users' capacities

Regarding librarians and users' capabilities, the results show that responding librarians have different feelings on how embedded librarianship is important ininstilling librarians and users' capacities as Table 4 presents:

Table 4: Librarians and users' capacities

Statements (n = 166)	SD	D	N	A	SA
Enhances librarians' professional development and prestige	1(0.6%)	3(1.8%)	20(12.0%)	72(43.4%)	70(42.2%)
Offers librarians with new research and teaching approaches	1(0.6%)	3(1.8%)	26(15.7%)	63(38.0%)	73(44.0%)
Users benefit from librarians' added skill sets	1(0.6%)	1 (0.6%)	12 (7.2%)	69 (41.6%)	83 (50.0%)
Leverage the librarians' expertise in real time	1(0.6%)	4 (2.4%)	15 (9.0%)	69 (41.6%)	77 (46.4%)
Improves students' IL skills and behaviours	0(0.0%)	3 (1.8%)	21 (12.7%)	65 (39.2%)	77 (46.4%)
Improve the students learning experience and engagement	2(1.2%)	4 (2.4%)	14 (8.4%)	72 (43.4%)	74 (44.6%)
Allows librarians to develop diverse skills	3(1.8%)	1 (0.6%)	13 (7.8%)	63 (38.0%)	86 (51.8%)
Makes librarians more proactive	1(0.6%)	2(1.2%)	19(11.4%)	71(42.8%)	73(44.0%)

On librarians and users' capacities, the results show that embedded librarianship practice provides opportunity to enhance librarians' professional development and prestige, offer librarians with diverse knowledge in research and teaching as agreed by majority of librarians. Along that, effective implementation of embedded librarianship allows users to benefit from librarians' added skill sets such as research techniques, competence with software, and presentation skills, leverages the librarians' expertise in real time, improves users information

literacy skills and behaviours. Other librarians perceived that the practice improves students learning experience and increase student engagement, allows librarians to develop research skills related to locating and evaluating scholarly information, and makes librarians more proactive. In all, effective adoption of embedded librarianship appears to offer librarians and users with diverse information skills and capabilities.

Discussion

In exploring the perceptions of librarians towards the adoption of embedded librarianship in selected academic libraries in Tanzania, the findings expose positive perceptions. In generic, the findings inform that responding librarians positively agreed that embedded librarianship is an innovative approach for library service delivery in the country. Unlike the traditional approach in which librarians are waiting for users to request services (see Shumaker, 2012), the embedded librarianship as a new approach increase engagement of the users in library service delivery. This implies that users are not only passive recipient of information and library services but are also part and parcel in the process of library service provision. In other words, the patrons are more flexible and active in decision making on types of library services and resources. In support, studies (e.g. Shumaker, 2012; Dewey, 2004) found that embedded librarianship is an innovative approach that account for a major part of the library's transition from passive to active, reactive to proactive, staid to lively, and singular to social. More importantly, librarians get opportunities to anticipate the information needs of their patrons. Undeniably, the embedded librarianship provides a viable mechanism to marketing library resources and services to potential library users in academic libraries.

Noting from the findings of the present study, collaboration, capacities and library services and resources access and use are enhanced. Regarding collaboration, the findings reveal that the possibility of building strong collaboration and coordination between library staff and users, library, colleges, schools, institutes and departments is high. These findings clearly tally with those from previous studies (see Madu & Dawha, 2020; Blake et al., 2016; Auckland, 2012). The findings further suggest that the gap between library and their patrons is lessened. The needs of library users are easily addressed as librarians become closer to users. It is also worth noting that collaboration is an important element to strengthen communication between librarians and users. These findings tally with those from existing literature (e.g. seeMadu & Dawha, 2019; Wu & Mi, 2013; Carlson & Kneale, 2011; Drewes & Hoffman, 2010).As also perceived by librarians, embedded librarianship can be a means to improve utilization of library services and resources. In specific, it appears to promote and increase usage of library services and resources, and enhance librarians' ability in customizing services based on user needs. Experience shows that dependent on traditional approach in library service delivery is associated with low usage of library resources and services as prior literature (e.g. Mwantimwa et al., 2020; Alphonce & Mwantimwa, 2019) document. This is not the case with effective adoption of embedded librarianship. As also reported in voluminous extant studies (e.g. Madu & Dawha, 2019; Wu &Mi, 2013; Shumaker, 2012; Carlson & Kneale, 2011; Drewes & Hoffman, 2010) embedded librarianship promote and increase the usage of library services and resources. Explanations for these are twofold. Firstly, user engagement in library activities increases awareness of the available services and resources which in turn enhance usage. Secondly, librarian engagement in faculty activities increase awareness on services and resources needs and wants.

Along that, the findings suggest that responding librarians perceive differently on how embedded librarianship contribute to build librarians and users' capabilities. Notable capabilities are seen in information seeking skills, research, teaching, presentation and competencies with the use of different library management systems. Furthermore, the findings affirm that embedded librarianship offers librarians with chances to apply their expertise in real time and making them more proactive. Enhancing students' learning experience is also perceived by the librarians participated in the study as one of the indicators of effective adoption of embedded librarianship. On the whole, the findings reveal that both librarians and users are beneficiaries of embedded librarianship practice. The findings of the present study are not far from those by other scholars (e.g. Blake et al., 2016) in the literature reviewed. Apart from that, scholarly communication and effective dissemination of research outputs found to be enhanced as also reported by Mushi (2020) and Auckland (2012). Despite the substantial contributions embedded librarianship has, the effective adoption is not immune to undermining factors. Inadequate competencies, staffing, infrastructures, librarians and institutional readiness, librarians' technophobia and lack of MoU between librarians and faculty appear to be the main factors that undermine effective adoption of embedded librarianship.

Conclusions and recommendations

As noted from the findings, embedded librarianship approach is a new approach in Tanzania that tries to replace the traditional one. Consequently, library and information professional work landscape is altered by the emerging of embedded librarianship model. For academic libraries to remain relevant, effective adoption of embedded librarianship is necessary. Effective collaboration and coordination, librarians and users capability building, and increased consumption of library services and resources are important predictors of embedded librarianship practice. In order to have effective embedded librarianship the study recommends the following. Strengthening librarians and user partnership is an important mechanism to enhance library service delivery. Also, enhancing LIS professional competencies have to be considered through reviewing the existing LIS curriculum. Competencies such as customer care, research, teaching, communication and presentation are important. Besides, signing MoU between libraries and information and library stakeholders is also quite important. This implies that working closely with students and faculty members from different department, faculties and schools is more likely to adopt embedded librarianship approach. Furthermore, promotion of embedded librarianship practices to the librarians and users due to the fact that the current practice of the model is not promising. Finally, library policies should integrate the embedded librarianship model.

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