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ABSTRACT

This paper presents the findings of the study on the usage and impact of Institutional Repository (IR) by academics at the University of Namibia (UNAM). The study used quantitative research approach and a survey questionnaire was used as a data collection method. The population comprised of academic staff from three faculties, Economics and Management Sciences, Humanities and Social Sciences and the Faculty of Science. The data collected was analysed through Microsoft Excel 2013. The study was driven by four (4) research questions in order to fill the gaps and answer the questions on the usage and impact of the IR at UNAM. The study was supported by the Unified Theory of Acceptance and Use of Technology (UTAUT). The findings of the study discovered low usage of UNAM's IR by academics which is a major issue affecting the recognition of UNAM internationally as a successful research institution and revealed that UNAM does not provide recognition and incentives or full appreciation to academics who deposit scholarly publication in the IR. The study recommended that the University library in conjunction with the Research and Publications Unit should provide workshops to sensitize academics on the IR in order to upscale the benefits of open access and its usage.

Keywords: Usage, Institutional repositories, academics, scholarly materials, Open access, UNAM

INTRODUCTION

The technological advances today make it possible to think in terms of important knowledge of the human race in digital form. Information and communication technology (ICT) plays a potential role in managing, transforming and disseminating information especially in academic institutions via institutional repositories (IR). An institutional repository is a set of services that a University or an organisation offers to the members of its community for the management and dissemination of digital materials created by the institution and community members (Lynch, 2003).In addition, institutional repositories play an important part in building the system of sharing scholarly communication by, expanding access to research outputs which is an essential role supported by libraries (Crow, 2002). Therefore, the relationship between academics and storing knowledge had been segmented by scholarly communication through institutional repositories. Furthermore, the growth in technology as a means of communication between communities led to the University of Namibia to adopt the platform of IR, which is Lynch and Lippincott (2005), report that

the largely used by international universities and libraries across Africa, USA and Europe.

Lynch and Lippincott (2005), report that the Current high development of institutional repositories in academic institutions is rated highly in USA and Europe. In addition, Lynch and Lippincott (2005) assert that in the USA, over 80 per cent of universities have put their own institutional repository systems in operation. Whereas 12 per cent of the remaining universities are planning to construct institutional repositories. Similarly in Africa, South African University libraries are currently the leaders among African universities in terms of the development of institutional repositories. The evidence is supported by Van Deventer and Piennar, (2008) who emphasized that currently Pretoria University tops in producing and depositing scholarly materials in the institutional repository.

The University of Namibia has been having low participation of faculties depositing their scholarly work since the implementation in 1999 (Trotter, et al., 2014) and this is contrary to the notion that academic institutions have an obligation to academics in faculties to publish scholarly materials in order to showcase the university's products, by publishing research papers and other scholarly materials which is an opportunity to populate the university's output to the world. Yeates (2003) argues that, the benefits of IRs include issues, such as: extending the range knowledge sharing, existing investment in information and content management systems, which can be leveraged by making more flexible ways of making scholarly communication available, in order to allow academic institutions to reap these benefits.

A study conducted by Nykanen, (2011) in USA universities on determining faculty staff using the repository revealed that senior researchers or academics demonstrated a general low level of knowledge and motivation to use the IR. The success of IR is determined by the ease of access and use of IR. Another study on institutional repository on the South African research community by Fullard (2007), which undertook a survey to access the current awareness, concerns and researches in South Africa found that within the prevailing framework, there was little prospect that academics would choose to deposit scholarly materials in the IR. With the current situation at the University of Namibia's (UNAM) institutional repository; the impact of IR is not clear from its inception in 2010 and hence this study aims at investigating the usage and impact of IR by academics at UNAM. The following are sub questions that were addressed during this research, namely:

- To what extent are faculty members aware of the existence and functions of the IR at the University of Namibia?
- Do faculty members understand the importance of an IR?
- What type of materials do faculty members deposit in the UNAM's IR?
- What challenges do faculty members face in accessing and using the UNAM's IR?

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The Unified Theory of Acceptance and Use of Technology Model (UTAUT) was the main model perceived ideal for the study which explains user intentions to use an information system and subsequent usage behaviour. UTAUT is widely employed in technology adoption by researchers conducting empirical studies of user intention to use an information

system and behaviour (Venkatesh et al., 2003). Therefore, UTAUT was used to better explain and determine the usage and impact of IR by academics at the University of Namibia. Based on the UTAUT theory, the study focused on the independent variables such as: (cost factors, benefit factors and individual traits) as well as dependent variables which is the usage of IR. UTAUT Theory has been successfully used to explain the adoption of open access in public universities in Tanzania (Dulle and Minish-Majania, 2001). Cost factors mentioned time and effort as important for institutional repository participation. Kim (2010) further assert that faculty members tend to resist clerical responsibilities and resent any additional cuts into their research and writing time. Benefit factors were adopted from previous studies which suggested that the academic reward system and professional recognition is denoted mostly by the quality and quantity of publications (Borgman, 2007). In addition, individual traits that relates to depositing scholarly materials in the IR include (i) rank in faculty, (ii) number of publications (iii) technical skills (iv) age (Covet, 2009). Furthermore, Dulle and Minish-Majanja (2001) found that attitude, awareness; effort expectancy and performance expectancy as the main predictors of researcher's behavioural intention for open access usage. Technology through IR has enhanced the demand for depositing scholarly materials, storing and accessing digital materials in universities so that information can be used at any time.

A number of studies were used in addressing the usage and impacts of Institutional Repository in this paper. The first study was on awareness of IR in Ewha Women's University by Dutta and Paul (2014 which shows that 40% faculty members were aware of the University's IR. The study on faculty deposits in IR at Rugters University Library by Jantz and Wilson (2008) states that despite the fact that scholarly content of an institutional repository largely consist of faculty work and contributions from individual faculties, the actual faculty participation in and awareness was very low. In a study conducted in Nigeria by Christian (2009), the findings reveals that while only 3% of 66 respondents at the University of Lagos were aware of IR, 22.7% knew very little about it and the majority 74% of the respondents were completely unaware of it.

A study conducted by Lwoga and Questier (2014) in Tanzania Health Sciences Universities

on the adoption and usage of faculties in IR, revealed a low usage and adoption in the IR. The study further revealed that firstly, only one Tanzania Health University had established an IR (Lwoga & Ouestier, 2014). Secondly, due to technical support to enable inadequate academics to adopt and use of IR, the IR at the Health University in Tanzania remain underutilized (Lwoga & Questier, 2014) Lastly, tenure and promotion had no effect on the academics use of Tanzania Health Universities IR (Lwoga & Questier, 2014). Furthermore, a similar investigation of usage of IR conducted in state Universities in Zimbabwe revealed a low usage on the deposit of scholarly materials in the IR. The study showed that most staff members especially those who do actual research do not understand why they should deposit their works in the institutional repository because of lack of funding and the political situation (Nyambi & Maynard, 2012). From the foregoing view from the researcher's perspective, most studies showed a full picture that usage of institutional repository in most universities is relatively low.

Institutional repositories are very crucial in academic institutions in increasing visibility and prestige of the University. IR can be used to support marketing activities to attract high quality staff and funding from potential funding organizations. The study at Loughborough University on researchers and academics perception on the importance of IR (Ashby et al., 2011), which focused on how researchers and academics respond to the importance of IR in order to best support Loughborough University research revealed that academic differences in perceptions of the IR where 40% of how academics and researchers perceived the IR as being unimportant or could not assess its level of importance.

The importance of IR barriers could be caused by lack of disciplinary culture of depositing scholarly materials or academics recognition. Chan (2011) however states that IR benefits are not properly marketed to researchers and academic staff and therefore they are not well appreciated by academics. A detailed study of the IR's importance in National Aerospace Laboratories' special library in India was conducted by Naragana, Biradar and Goodlar (2006) and revealed that 67.3% of participants indicated that the IR is not important and 32.77% stated that IR was indeed important. In addition, the findings revealed that 67.23% deposit their research papers in other databases and 32.77% of researchers who perceive the importance of IR suggested the IR department should consider providing incentives to researchers when they deposit scholarly materials in the IR.

Institutional repositories provide different scholarly materials depending on interests of the Universities or Research institutions which encompass materials such as peer reviewed journal articles, sometimes free permitting users to access freely, print, or link to the full texts of materials. According to Lynch (2005) in the western countries, the main focus of the holdings of current scholarly materials in the IRs is for accessing them anywhere in the world. Lynch further argues that within these types of materials, each country holds different scholarly materials; for example, in Norway 90% of the current records are books and theses, while in France it is estimated that 80% of the current records are for articles. It is also worth noting that the other category in Germany 25% is textual proceedings as is the 40% for the Netherlands, which are mainly research reports (Lynch, 2005). University of Pretoria IR focus mostly on theses and dissertations as well as digitized historical and archival materials donated to the University (Van Deventer & Piennar, 2008). Meanwhile the scholarly output at the University of Namibia (UNAM) IR comprises of research reports, conference papers, postgraduate thesis and dissertations, journal articles (Trotter et. al, 2014).

METHODOLOGY

The survey research was the main approach adopted in this study. The data for this study was collected at the University of Namibia main campus from academics in the Faculty of Economics and Management Sciences, Faculty of Humanities and Social Sciences and the Faculty of Science through a structured questionnaire. The questionnaire was enhanced by adopting some questions from previous studies by Venkatesh e al (2003), Rao (2001) and Nyambi (2012). The researcher noticed that the questionnaire used was very advantageous to the participants because it took a few minutes to complete in order to fit in to the busy schedules of academics. The questionnaire was categorized according to different sections and with closed questions on a Likert scale.

The population of the study were academics staff at UNAM from faculties of Economics and Managements Sciences (FEMS), Humanities and Social Science (FHSS) and Sciences (FS) which comprised of Associate Professors, Professors, Senior Lecturers, Lecturers, Assistant Lecturers/ Tutors and Researchers. The researcher adopted stratified simple random sampling approach to make generalizations of the research findings to the population. The researcher self-administered the questionnaire and the researcher visited the offices for participants at their convenient time. Fox and Bayat (2007) state that simple random sampling is the one that presents every member of the population to have an equal chance of being included in the sample. The total of 102 participants was chosen (34 per faculty) as the representative of UNAM community.

The study employed an empirical way of analysing data and Microsoft Excel 2013 programme was used to address the research questions for this study. In addition questionnaires were coded to assist with cross checking of data entry in the Microsoft Excel program and charts with percentages were employed to present data in categories.

ANALYSIS OF RESULTS

This study targeted 102 participants from Faculty of Economics (34) and Management Sciences (34), and Humanities and Social Sciences (34) who completed questionnaire. fully the The questionnaire was categorised into 5 sections which Demographic Information is (Section *A*). Awareness of IR at UNAM (Section B) and the usage of IR (Section C), Importance of the IR (Section D) and the Challenges faced by Faculty members in accessing and using the IR (Section E).

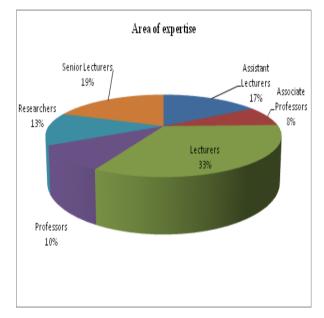
Section A presents the Area of rank of participants where Lecturers (33%) formed the highest percentage followed by Senior Lecturers (19%), Assistant Lecturers (17%), Researchers (13%), Professors (10%) and lowest being Associate Professors (8%). Numbers of participants were also covered in Section A

where all participants from different Faculties formed 33% as shown below. Section A also revealed results of years of services of the participants, 39% showed the highest of 0 to 5 years of service at UNAM, followed by 24% of 15or more years of service. It was then followed by 20% of 5 to 10 years of service and then 10 to 15 years of services forming 18%.

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Area of Expertise



The figure shows that the majority of staff members where lecturers (33%) and the lowest was associate professors (8%)

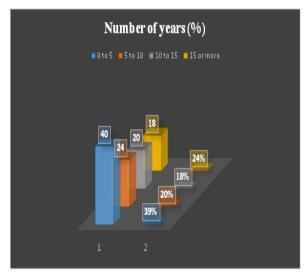
Number of Participants

Faculty of Economic	Faculty of Humanities & Social	Faculty of	Total
Management Sciences	Sciences	Sciences	Partcipants
34	34	34	102

The table shows that there were an equal number of participants across all three faculties, which was 34 per faculty

Number of Years of Service at UNAM

Relevance of the IR

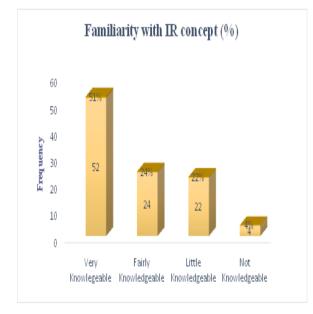


The figure shows that the majority of participants were those who have stayed at UNAM from 0-5 years (39%) and the lowest where those who have stayed for 10-15 years (18%)

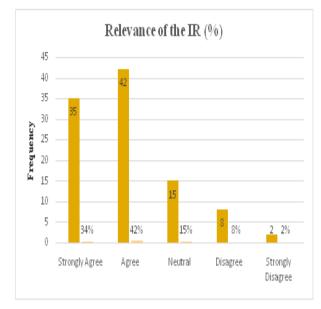
Section B: Awareness of IR at UNAM

Section B revealed the results of familiarity with the IR concept at UNAM where 51% formed the highest score of not knowledgeable about UNAM IR, followed by 24% of being very knowledgeable, 22% fairly knowledgeable and 4% with little knowledge about UNAM IR. Participants were also asked to give their views on the opportunities offered by the IR, 42% strongly agree, 34% disagreed, 15% were neutral, 8% agreed and 2% strongly disagreed with the opportunities offered by the IR

Familiarity with IR Concept



The majority of participants where very knowledgeable (51%) and the lowest were not knowledgeable 4%

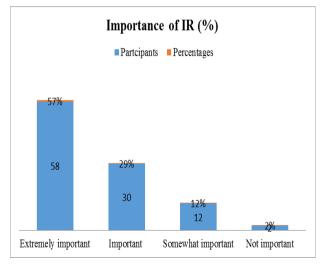


The majority 34% agree that the IR is relevant and 2% strongly disagree

Section C: Understanding the Importance and Motivation of Depositing in the UNAM

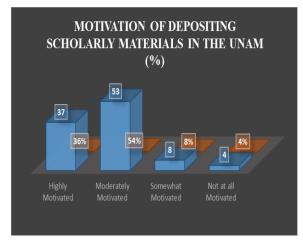
Section C shows the respondent's views on the importance of UNAM IR as well as their views of motivation to deposit scholarly materials in the UNAM IR. A number of 58 respondents (57%) strongly agreed that they understand the importance of depositing scholarly materials in the UNAM IR. It was followed by the 29% who agreed on the importance of depositing scholarly materials and then 12% indicated that depositing in the UNAM IR is somewhat important. Lastly, 2% indicated that depositing in the UNAM IR is not important at all.





The Majority Of Participants Acknowledged That The IR Is Extremely Important (57%) And The Lowest (2%) Mentioned That The IR Is Not Important

Motivation of depositing in IR

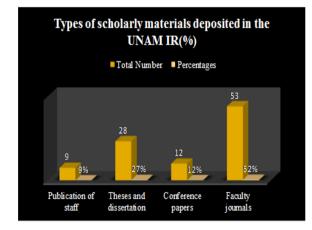


In this question, the participants were asked to rate how motivated are they to deposit materials in the IR and 54% (highest) mentioned that they were moderately motivated followed by 36% highly motivated, 8% somewhat motivated and the lowest 4% not at all motivated.

Section D: Usage of the UNAM IR

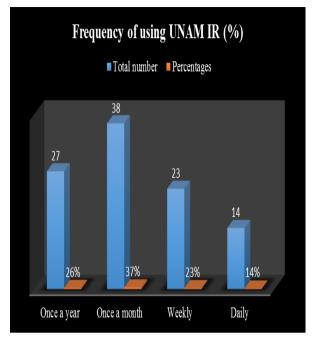
Section D asked the participants on the types of scholarly materials they have deposited in the UNAM IR so far. Theses and Dissertation scored the highest percentage of 52%, followed by Faculty journals 27%, 12% conference papers 9%Other staff publications. The participants were further asked to mention the frequency of using UNAM IR where 37% stated that UNAM IR is used once a month, 26% once a year, 23% weekly and 14% daily. The participants were further asked to give information of other IR usage apart from UNAM IR, where 69% scored a highest percentage of participants using international IRs, followed by 235% of using local IRs and then 9% of using neither international nor local IR.

Types of Materials Deposited in the IR



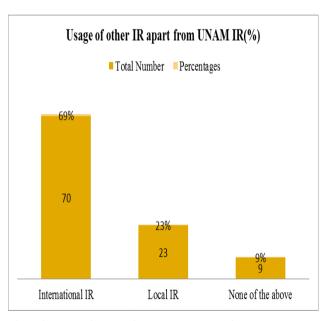
The highest scholarly materials deposited in the UNAM's IR are journal articles 52%, followed by Thesis and dissertations 27%; conference papers 12 and the lowest was other staff publications 9%.

Frequency of Using IR



The figure shows the frequency of using the UNAM's IR and the majority of users uses the repository once a month (37%) followed by once a year (26%), once a week (23%) and the lowest was daily (14%).

Usage of Other IR Apart from UNAM IR

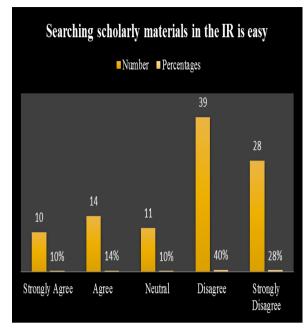


The figure shows the UNAM academics use international repositories (69%); local repositories 23% and none of the above (9%).

Section E: Challenges Faced By Academics When Using the IR

Section E (i) focused on the easiness of searching by academics when using the UNAM's IR - either depositing or searching for scholarly materials in the IR. The score of 40% disagreed, 28% strongly disagreed, 14% agreed, 10% strongly agreed and neutral 10%.

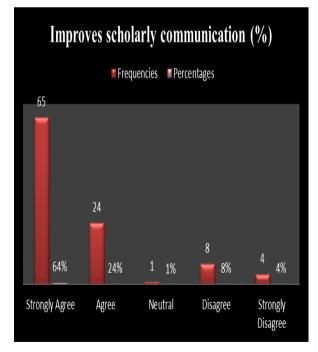
Searching Scholarly Materials in the IR is Easy



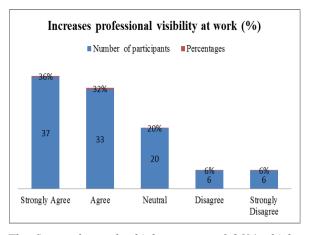
The majority of participants disagreed (40%) that searching the IR was easy and the lowest strongly disagree and neutral who shared a 10% each.

Section E (ii) focused on the views of incentives by participants. Participants were asked whether they agreed or disagreed on the incentives of UNAM IR when depositing scholarly materials in the IR.

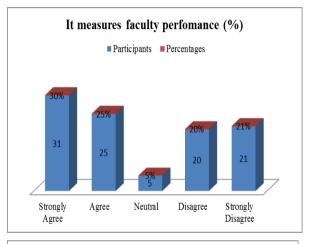
Incentives of Depositing Scholarly Materials in the UNAM IR?

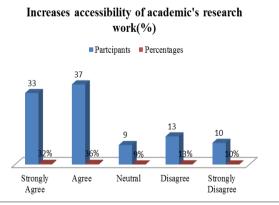


The figure shows the highest score of 64% which strongly agree that incentives in depositing scholarly materials improve scholarly communication. Furthermore, the lowest score 1% was neutral.



The figure shows the highest score of 36% which strongly agreed that incentives of depositing or using UNAM IR will increase professional visibility at work. However 6% agreed and disagreed that incentives of depositing in the UNAM IR will increase professional visibility at work.





DISCUSSION OF FINDINGS

The intended purpose of this study was to find out the usage and impacts of IR by academics at UNAM. IRs are widely implemented across academic institutions with the intent to preserve the collection of scholarly output of the university community (Oguz & Assefa, 2014). However, the results of this study revealed mixed feelings. The study commenced with the participants background and showed equal participants number in the survey which was 34 from each faculty. The studies also showed that the highest level of participants were lecturers. The findings supports the notion by Covey (2008) that there is a gap in depositing and participation by faculty staff in depositing scholarly outputs in the IRs based on their period of service in academic institutions. The researcher discovered that the large number of participants with few years of service at UNAM were aware of the purpose of the IR as compared to the ones who have served the institution for a long time.

Furthermore, the study discovered that there is a low familiarity and awareness of IR at UNAM with reference to scholarly materials. This is a contrary to the study on awareness of IR in Ewha Women's University (Dutta & Paul, 2014). The findings showed that only 51% were aware or familiar or very knowledgeable with UNAM's IR and this compares well with the study conducted in Nigeria Universities on the awareness of IR by Christian (2009) which revealed that 74% of the respondents were not aware of IR.

The researcher discovered that the challenges of using UNAM's IR could also be attributed to lack of incentives and technological challenges amongst academics. In order to increase access and usage of UNAM's IR, it is recommended there should be recognition of academics who deposit materials in the IR. Additionally, a user friendly IR platform for academics which can make life easier for them in retrieving, disseminating and depositing materials should be adopted. Training is needed for faculty academics to enable them to deposit scholarly materials in order to eliminate challenges faced in accessing and using IR.

In comparison, the study conducted on the importance of IR by Nyambi and Maynard (2012), showed that respondents do not understand why they should deposit their works in IR even though it is important. Therefore to increase the motivation of depositing scholarly materials in the UNAM IR, academics need more exposure and information regarding the importance of depositing scholarly materials in the repository. Furthermore, academics need to know that the more they are exposed to the mode of depositing scholarly materials and methods of depositing scholarly materials, the more their profiles will be elevated not only at UNAM but internationally.

The types of scholarly materials deposited in the UNAM's IR include materials such as, dissertations, conference papers, etc. and these

are similar to the materials deposited in the University of Pretoria IR which deposits mostly thesis and dissertations as well as historical and archival materials donated to the University (Van Deventer & Piennar, 2008). The study also revealed that 69% of respondents deposit their scholarly materials internationally. In order to increase more deposits in the UNAM's IR, it is recommended that the repository should encourage academics and perhaps build recognition, awards to the academics who deposit their materials frequently in the repository (Dulle & Minish-Majanja, 2011).

The study also investigated on the use and implications of the IR on academics in the ever changing technological world and revealed that the majority of academics use other international repositories whilst ignoring their local ones. UNAM need to upscale the services offered by the IR by making academic aware and providing a clear understanding of the benefits of IR in order to allow greater usage and wider adoption of this new technology by academics, students and outside users. UNAM library staff and heads of departments should advocate campaigns, through organizing workshops and seminars in creating the awareness and enhance the usage of UNAM's IR. Furthermore, UNAM the academics should be rewarded and recognized when they deposit materials in the IR. This practice of depositing scholarly materials amongst academics should be cultivated and enhance visibility of UNAM amongst the research community in Namibia and globally.

CONCLUSION

The institutional repository at UNAM remains very crucial in the institution despite occasional depositing and usage of scholarly materials. This study had been able to identify the barriers of utilizing and depositing scholarly materials in the IR, which are relevant for references and usage by local and international authors, students and researchers. An IR is dynamic in all aspects and it satisfies every element of digital scholarship since it is a concept that looks at managing digital data of all sorts both for now and future. The IR at UNAM will evolve along with the whole digital scholarship environment and even foster and catalyse developments (Gibbons, 2004) in different sector of the economy in Namibia (It is therefore indispensable that UNAM being part of the Vision 2030 in the country, the IR should be one of the top practices and activities to foster Namibia's

economy through showcasing its digital scholarly work globally.

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