

Measuring autonomy, competence and relatedness of users needs' satisfaction on use of reference sources and services by undergraduates**Information Impact:**

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There is a dearth of literature on users' need satisfaction from the psychological (mental and emotional) aspects of the variable as it affects usage of reference sources and services hence this study to measure autonomy, competence and relatedness of users needs' satisfaction on use of reference sources and services by undergraduates students. In view of this four null hypotheses were generated for the study. Survey research design was adopted for a population of 29,013 undergraduate students across the three selected universities under study. Simple random sampling technique was used and Yamane formula for determining sampling size was used to arrive at 400 undergraduates. Questionnaire was used to elicit data with 100% response rate analysed using correlation and multiple regression. The findings show that autonomy, competence and relatedness influence the use of reference sources and services. Also, the linear combination of the three independent variables influences the use of reference sources and services. It was thus recommended that libraries should create a friendly culture while reference service personnel develop their organisational citizen behaviour. It was also recommended that libraries should organised information literacy programmes to help increase the competency level of users.

Keywords: Autonomy, Competence, Needs' satisfaction, Reference sources and services, Relatedness and Undergraduate students.

Introduction:

While information and communication technologies (ICTs) has given today's undergraduates unrestricted access to a myriad of information, there is the problem of information glut or overload which causes the information seeker to be overwhelmed

with difficulties in retrieving and analysing information. This has made the library a more preferred information system because of the personalized information it makes available to its users with the aid of reference sources and services.

Reference services are those personalised services rendered by an expert to library users who are in need of information of some sought in an attempt to fill a gap in his/her state of knowledge. While reference sources are materials consulted by the librarian to provide reference services or consulted by the information or library user to fill a specific gap in his/her state of knowledge. These sources could be in print or non print formant to include bibliographies, abstracts, index, almanac, gazette, encyclopedia, dictionaries, directories, referral list, maps, handbooks, guides among others. One common characteristic of these sources is that they are meant to be consulted to retrieve information for specific purpose rather than been read from cover to cover. In the traditional settings, library users consult the staff at the reference desk for help in finding information. Using a structured reference interview, the librarian works with the library user to clarify their needs and determine what information sources will fill them (Miles, 2013), and with those sources meet the information needs of the user. Bopp (1995) assert that the best reference services combines mediated searching, formal and informal instruction in

information skills (using hard copy sources, non-print media and automated systems); assistance in the use of reference sources, lessons in analysis and evaluation of the value of the information retrieved and lessons on accurate methods of retrieval. The essence of all these is to meet the information need of library users, ensuring that the clientele walks into the library and leaves with a smile on his/her face.

The satisfaction of library users' needs with regards to reference sources and services is the feeling of pleasure or displeasure the user derives from his or her use of reference sources or services to meet felt need(s). This is in line with Kotler (2003) who opine that satisfaction is a feeling of pleasure or displeasure resulting from the comparison of services or products performance/usefulness in relation to his or her expectations concerning his/her needs. Library users satisfaction comes as a result of library use which is necessitated by an information need. This implies that there will be no use of reference sources and services (RSS) without an information need and there will be no satisfaction without such use, for every satisfaction comes with a need. This bring to mind, the concept of Psychological need satisfaction which is regarded as the

essential nutrient for individuals' optimal functioning and well-being (Deci & Ryan, 2000), with three aspects or subscales of autonomy, competence, and relatedness. These three aspects view user satisfaction from a psychological perspective as they influences the well being of the library users. Deci and Ryan (2000) give a fundamental insight on these three aspects stating that autonomy represents the individuals' inherent desire to feel volitional and to experience a sense of choice and psychological freedom when carrying out an activity. While competence is defined as an individual's inherent desire to feel effective in interacting with the environment, relatedness is the satisfaction derived when people experience a sense of communion and develop close and intimate relationship with others. Johnston and Finney (2010) assert that "if the three aspects of needs' satisfaction can be reliably assessed, then the measure could be used to identify people whose basic needs are not being adequately satisfied. That is, the measure could have practical use in uncovering people who need intervention or support to overcome their deficits in needs satisfaction", invariably enhancing the use of reference sources and services. In view of this, the study measures

the effect of autonomy, competence and relatedness on the use of reference sources and services (RSS) by undergraduate students.

An awareness on the level of users satisfaction is an important area worthy of attention as it will determine the loyalty and continued use of library services by clientele. Some studies (Alves & Raposo, 2007; Letcher, & Neves, 2010; Onuoha, Omokoje, & Bamidele, 2013) have investigated the influence of user satisfaction on use of reference sources and services and reported a positive correlation between both variables. However, most of these studies surveyed users' need satisfaction, without taking into cognizance the psychological (mental and emotional) aspects of the variable as it affect usage. Users' need satisfaction with regard to psychological well-being is very important (Johnston and Finney, 2010) yet lacking in most satisfaction study with regards to reference sources and services, which results to confusion and difficulties on how to score the measure from a psychological perspective. This backdrop hinders proper recommendation as to which aspect of satisfaction subscale (using psychological well-being parameters) requires more

improvement in order to further enhance the use of reference sources and service. Hence, this article seeks to measure autonomy, competence and relatedness of users' satisfaction on use of reference sources and services by undergraduate students in selected universities in Osun State, Nigeria in a bid to improve the reference services provision in the library. In order to achieve this objective the following null hypotheses were generated to be tested at 0.05 level of significance.

Literature review

Library as information based and service oriented institution is set up to cater for the information needs of her users who constitute part of her parent institution. The users are the main reason for the existence of any library (Motiang, Wallis & Karodia, 2014) and as such the library strive to ensure their satisfaction by providing adequate information sources and services. One major and essential resources and services provided by libraries for this purpose are reference sources and services respectively, (Onifade & Sowole, 2011). Meanwhile, Madu (2008) opine that reference services are most interesting and stimulating of all library services.

H₀₁: There is no significant relationship between autonomy and use of RSS

H₀₂: There is no significant relationship between competency and use of RSS

H₀₃: There is no significant relationship between relatedness and use RSS

H₀₄: The linear combination of autonomy, competency and relatedness does not significantly predict the use of RSS.

Reference services as defined by Ifidon and Ifidon (2008) are those direct personal assistance rendered by a librarian to clientele who are in pursuit of information for whatever purpose to meet an information need. The process also involves practical help, community education, outreach services and referrals. On the other hand, Aina (2002) opine that reference sources are documents containing miscellaneous information on any topic, for consultation to supply information to meet the needs of library users. Emerole and Ogugua (2007) in their study found out that there is a low patronage of library services by users. Ikenwe and Adegbilero (2014) in their study of utilization and patronage of public library services noted that library users are not

satisfied with library services because they do not get the relevant materials needed. Sohil and Upadhyay (2012) studied the use of library resources by the students of University of Kalyani and the authors found that guidance in the use of library resources and services was necessary to help students to meet their information needs. The use of library resources and services will either lead to satisfaction or dissatisfaction of users. Mohammed (2006) sees "user satisfaction" as the extent to which a library user information needs are fulfilled with the available service and information resources of a given library. Iwhiwhu and Okorodudu (2012) sees users satisfaction of public library information resources and services as how users adjudge the services of the public libraries and whether users of public library get the desired information resources, facilities and services expected to be provided by the libraries.

Oyewumi, Oladapo and Adegun (2014) on users' perception and library patronage among postgraduate students found out that the level of satisfaction derived from resources and services are fairly satisfactory. However, majority of their respondents indicated reference services as one of the services provided by the library. Saikia and

Gohain (2013) investigated the use and user's satisfaction of library resources and services and found out that the majority of their respondents (students of Tezpur University) are satisfied with reference sources and services

Ur Rehman, Shafidue and Mahmood (2011), in their survey of user perception and satisfaction with reference services in university libraries of Punjab found out that majority of the respondents use the reference section on a daily basis and that the reference sources are adequate in meeting their information needs. Of the 24 statements made with regards reference services, 14 fell in the category of satisfaction level. Loorits and Dubjeva (1997) also reported the satisfaction of the users with reference services at Tartu University Library.

Users needs' satisfaction with reference sources and services could be affected by a number of factors including psychological factors which is the focal point of this study.

The self

Determination theory was the core for this study as it considers need as universal, innate and psychological elements of competence, autonomy and relatedness. Autonomy "Is the universal urge to be

causal agents of one's own life and act in harmony with one's integrated self", competence "Seek to control the outcome and experience mastery" while relatedness "is the universal want to interact, be connected to, and experience caring for others, Riley (2015) noted that autonomy as motivation towards the satisfaction of a need involves doing something with a full sense of choice and freedom and it is associated with greater persistence, more positive effect and greater psychological well being. He added that a sense of competence comes from successful experiences and overall positive feelings about an activity, while relatedness is based on interpersonal affiliations.

and by extension behavioral intention to use and actual use, this present study measures autonomy, competence and relatedness of users' need satisfaction on use of reference sources and services.

Theoretical framework:

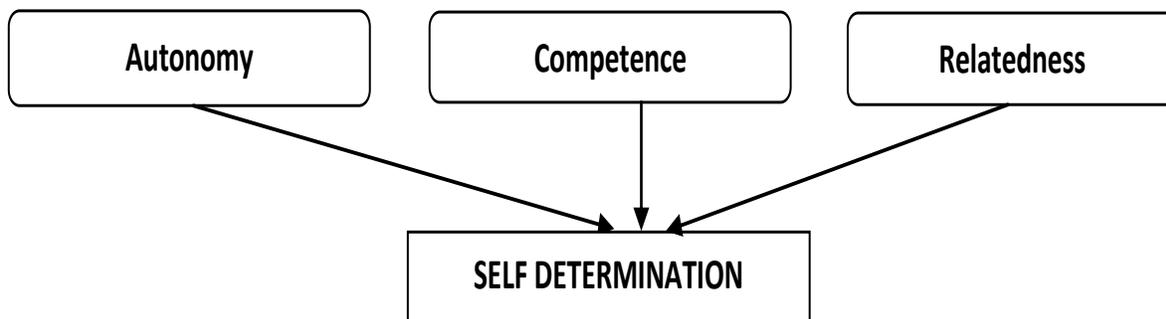
The theoretical framework upon which this study was anchored is the self-determination

theory (STD). The theory was proposed by Edward Deci and Richard Ryan in 1985. This theory proposes that there are three psychological needs (autonomy, competence and relatedness) which when satisfied will improve the self-motivation, personality integration as well as the well-being of an individual and when unaccomplished will diminished motivation and well being.

There is found to be a positive relation between composite score of need satisfaction (aggregated across autonomy, competence and relatedness) and well being as well as satisfaction, (Broeck, et al., 2010). Studies in which the three needs were examined separately showed that each of the three needs correlated positively with optimal functioning (e.g., Lynch, Plant, & Ryan, 2005), which corroborates Self Determination Theory's (SDT) assertion that the satisfaction of each of the three basic psychological needs contributes to individuals' flourishing (Deci & Ryan, 2000). Given the assumption that need satisfaction influences behaviour (Baard, Deci & Ryan, 2004)

theory (STD). The theory was proposed by Edward Deci and Richard Ryan in 1985. This theory proposes that there are three psychological needs (autonomy, competence and relatedness) which when satisfied will improve the self-motivation, personality integration as well as the well-being of an individual and when unaccomplished will diminished motivation and well being.

Figure 1: Model of self determination theory (STD)



The Self determination theory is significant within the domain of education and by extension librarianship. This is because the idea librarianship as a profession is creating information based systems where information needs can be met and gaps in knowledge filled. When an undergraduate student is faced with information needs, there are cravings for the satisfaction of such needs which will motivate him to search for information to meet these needs by the use of reference sources and services provided by libraries. These needs that motivate the individual could be innate and psychological hence the relevance of this theory to the study at hand. Deci and Ryan in Roley (2015), state that motivation is what propels an individual to think, act and develop, become persistent, which subsequently

ensures performance and success. Thus, intrinsic motivation will affect use of reference sources and services which enhances the academic success of the undergraduate students.

Methodology

The survey research design was employed for the study with a population consisting of undergraduate students in selected universities in Osun state, Nigeria to include Obafemi Awolowo University, Ile-Ife (22,482); Osun State University, Osogbo (4,231) and Redeemer's University, Ede (2,300). This gave a total population of 29,013 undergraduates across the three universities selected. Simple random sampling technique was adopted for the study in order to achieve a good spread across the students in the three selected

universities. To arrive at the sample size given the target population of 29,013 undergraduate students in the selected universities, the formula of Yamane (1967) as used by Puszczak, Fronczyk, and Urbański (2013) in determining sampling size was adopted. A 95% confidence level and precision = ±5% are assumed for the equation; where $e = .05$. The equation is presented thus:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = sample size

N = population size

e = acceptable sampling error

Thus:

$$n = \frac{29,013}{1 + 29,013 (.05)^2} = 399.9 \cong 400$$

undergraduate students

Given the sample size of 400, allocation proportional to size was used to have an even distribution across the universities.

Table 1: Pearson Product Moment Correlation between autonomy and use of reference sources and services

Variables	X	S.D	1	2	p	Remark
Autonomy	9.36	2.18	1.000			

This gave Obafemi Awolowo University, Ife (308), Osun State University, Osogbo (60) and Redeemer's University, Ede (32).

The instrument for data collection was a self constructed questionnaire with three sections. Section A was on the demographic information of the respondents. Section B was the user satisfaction scale which contains nineteen items adapted from Johnston and Finney (2010) in "measuring basic needs satisfaction: evaluating previous research and conducting new psychometric evaluations of the basic needs satisfaction in general scale", while section C was the Use scale. To determine the reliability of the instrument, a pretest was carried out which gave a reliability coefficient of 0.7 cronbach alpha for both user satisfaction and Use scale. The data collected was analysed using correlation and multiple regression.

Findings and discussion

H₀₁: There is no significant relationship between autonomy and use of reference sources and services.

Use of reference sources and services	39.85	3.52	.163**	1.000	0.000	Significant
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** Correlation Significant at 0.01 level

The above table revealed that there is a positive significant relationship ($r=.163^{**}$; $P<0.01$) between autonomy and use of reference sources and services by the undergraduates. Since P was less than 0.01, there is a significant relationship therefore hypothesis 1 is rejected. Thus the more the

autonomy need's satisfaction of the undergraduate is met, the more they are likely to use RSS.

H₀₂: There is no significant relationship between competency and use of reference sources and services

Table 2: Pearson Product Moment Correlation between competency and use of reference sources and services

Variables	X	S.D	1	2	p	Remark
Competency	23.16	4.27	1.000			
Use of reference sources and services	39.85	3.52	.379*	1.000	0.032	Significant

** Correlation Significant at 0.05 level

The above table revealed that there is a positive significant relationship ($r=.379^*$; $P<0.05$) between competency and use of reference sources and services by the undergraduates. Since P was less than 0.05, there is a significant relationship. Hypothesis 2 is, therefore, rejected. Thus the

more the competency need's satisfaction of the undergraduate is met, the more they are likely to use RSS.

H₀₃: There is no significant relationship between relatedness and use of reference sources and services.

Table 3: Pearson Product Moment Correlation between relatedness and use of reference sources and services

Variables	X	S.D	1	2	p	Remark
Relatedness	13.81	2.69	1.000			
Use of reference sources and services	39.85	3.52	.157**	1.000	0.000	Significant

** Correlation Significant at 0.01 level

The above table revealed that there is a positive significant relationship ($r=.157^{**}$; $P<0.01$) between relatedness and use of reference sources and services by the undergraduates. Since P was less than 0.01, there is a significant relationship therefore hypothesis 3 is rejected. Thus the more the

relatedness need's satisfaction of the undergraduate is met, the more they are likely to use RSS.

H₀₄: The linear combination of autonomy, competency and relatedness does not significantly predict the use of reference sources and services.

Table 4: Regression coefficients showing the linear combination of autonomy, competency and relatedness does not significantly predict the use of reference sources and services

Variable	Unstandardize Coefficients B)		Standardized Coefficients	T	Sig.	Rank	Remark
	(B)	Std. Error					
Constant (use of reference sources and services)	43.686	3.341		13.076	.000		
Autonomy	.933	.151	.363	6.178	.000	2nd	Sig.
Competency	.495	.181	.182	2.727	.007	3rd	Sig.
Relatedness	.562	.075	.496	7.477	.000	1st	Sig.

The above Table reveals the linear combination of autonomy, competency and relatedness significantly predict the use of RSS therefore hypothesis 4 is rejected. The value of the use of reference sources and services was actually the determinant of the reinforcement of the independent variables. Hence, Relatedness ($\beta =0.496$, $t= 7.477$, $p< 0.05$) is the most potent contributor to the prediction, follow by Autonomy ($\beta =0.363$, $t= 6.178$, $p< 0.05$), and Competency ($\beta =0.182$, $t= 2.727$, $p< 0.05$) which has the least contribution to the use of reference sources and services.

The findings of the study show that there is a positive significant level of relationship between autonomy and use of reference sources and services. The implication is that the level of autonomy enjoyed by users will affect their use of reference sources and services. Users want to have a feeling of freedom when requesting for reference sources and services. Also, the freedom to express their ideas and opinions to the reference personnel will affect use of reference sources and services. Thus high level of freedom will positively affect the psychological well being of the user which will lead to persistency in the use of reference sources and services, Riley (2015).

The findings of the study also show that there is a positive significant level of relationship between competence and use of reference sources and services. The psychological feeling of pleasure from one's ability and others perception of such ability to use reference services and sources will affect actual use. The implication of this is that one's ability to satisfy his need to competence will affect the use of reference sources and services. Thus, the higher the competence level, the higher the use of reference sources and service and vice versa.

The study shows that there is also a positive significant relationship between relatedness and use of reference sources and services. The positive feeling an individual derived from his/her social interaction with others will positively influence their use of

Conclusion and recommendation

The self-determination theory (SDT) requires that satisfaction of the basic needs for autonomy, competence and relatedness is considered as a crucial condition for individuals' thriving (Deci & Ryan, 2000) even in their quest of meeting an information need. The influence of needs' satisfaction (from a psychological perspective) on use of reference sources and services has not been given attention to in previous literature and this work fills this gap in knowledge. The needs' satisfaction of autonomy, competence and relatedness influenced the use of reference sources and services, while they also jointly affect such use, the degree various. In line with the findings of this study, the following recommendations are made:

reference sources and services. The implication of this is that all the personnel an information user comes across in his/her quest for information including the reference librarian, library security officers, fellow library users among others will determine if the library will use reference sources and services.

Moreover, the study shows that the linear combination of autonomy, competence and relatedness will affect the use of reference sources and services. This implies that these three aspects of need's satisfaction jointly contribute to the use of reference sources and services. However, the degree of contribution varies. The result shows that relatedness contributes most to use of reference sources and services, followed by autonomy and competence.

1. Libraries should create a culture that is user friendly. Library staff especially reference librarian should be friendly, nice and accommodative to users of RSS in order to give them the feeling of relatedness.
2. Reference services librarian should endeavour to understand and adjust to users' personalities, level of emotional intelligence, level of information literacy competence and learning styles so as to satisfactorily relate with and give them a positive psychological impact of relatedness

which will motivate them to use reference sources and services.

3. Reference librarians should encourage users to be free in expressing their opinions and ideas with regards situations of concern to them. Also, they must develop effective communication skills to listen and respond adequately to these opinions and ideas.
4. Libraries should organize information literacy programmes that will help to build the competence level of users of reference sources and services.
5. Reference service personnel should improve their organisational citizen behaviour (altruism, courtesy, conscientiousness and sportsmanship) and employ such in dealing with users.

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