INFORMATION NEEDS AND INFORMATION SEEKING BEHAVIOUR OF MEDIA PROFESSIONALS IN KENYA: A CASE OF NATION MEDIA GROUP

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ABSTRACT

This study, investigated how journalists at Nation Media Group went about identifying their information needs and how they proceeded to seek it. The specific objectives of the research were: to find out the information needs of the journalists at Nation Media Group; their sources of information; the level of information searching and retrieval skills of the journalists; establish the challenges journalists encounter in pursuit of information and suggestions to mitigate the challenges. The study was based on Niedzwiedzka's model of information behaviour. The research used qualitative research method. It used purposive sampling to get the sample size. Data was collected through face to face semi-structured interviews and document review. It was analyzed using descriptive content analysis supported by use of tables and charts. The study found that stories done by most journalists, especially the younger ones, lacked in-depth content and did not provide a full proof fallback position in times of litigation. The study also found that quite a sizeable number of journalists at the Nation Media Group was not adequately skilled in electronic information searching and retrieval. Journalists encounter many challenges in the course of their duties. Whilst they stand as the middle ground among protagonists, each warring faction views them as supportive of the other side of the divide. The study concluded that a number of the journalists needed to relook at their modus operandi in terms of how they assess their information needs and how they go about gathering information to back up their stories and satisfy those needs. The study recommended that journalists should undergo periodical refresher courses on information searching and retrieval as well as on house style, editorial policy, defamation, slander and the right of privacy for information sources. Journalists and librarians should create a rapport for ease of information dissemination. Newly employed journalists should go through an in-depth induction in the use of the in-house library to maximize use of its resources.

Keywords: *Information Needs, Information Source, Journalist Skills, Journalist Challenges*

INTRODUCTION

The advent of technologies introduced into both newsrooms worldwide in the past decade has changed the needs and habits of print and television journalists. The proliferation of information on the Internet, the diffusion of communication technologies such as cell phones and personal digital assistants (PDA) have increased journalists capabilities at both seeking and gathering information for their work(Chinn, 2014).

Worldwide the media professionals are the special seekers of information. They are seen to be information consumers as well as information communicators. Throughout the past century they have gathered information from primary sources and obtained information via word of mouth, usually through face to face or telephone interview. There is an immense need to investigate their information needs and behavior pattern by which they fulfill their needs. Fulfillment of needs depend on the right and appropriate choice of information channels (Chinn, 2014). However various channels are available to media professionals and the libraries can be the most effective, easily available and powerful information channel as role of libraries are remarkable. But information and communication technologies have changed tremendously; information can be easily accessed from the Internet, digital archives and a range of online databases. These changes allow media professionals access to information they may not previously have enjoyed before (Anzari & Zuberi, 2010). Interaction with information systems occurs when individuals feel a need for information. They address their need by engaging in information seeking behavior (Belkin, 2010). Taylor described that a user's actual information needs different from the query they pose(Taylor, 1968). Consequently, an information system must take the query and serve results that satisfy the user's actual need. Therefore, information seeking behavior (ISB) studies focus on users' information needs, seeking, behaviors, and experiences to have better understanding of user's actual information need and its subsequent information seeking behavior. Case (Case, 2012) defines "information seeking" as "a conscious effort to acquire information in response to a need or gap in your knowledge." In the case of journalists, their information needs and seeking behavior along with the context of their information needs must be understood. More generally, a system is defined as an assembly of inter-related components which are organized either naturally or by design in such a way as to achieve a specific common objective or purpose. System concept applied to information is called information system. In an Information system the various components like people, procedures and information resources are organized in such a way those they interact to perform a series of functionally related tasks, such as storing and retrieving information to satisfy the information needs of variety of users.

Auster (1982) defines ISB as "The field, 'composed of studies that are concerned with who need what kind of Information and for what reason: how information is found, evaluated and used, and how these needs can be identified and satisfied." ISB is thus concerned with establishing relationship with people, information and system of an order so as to obtain the best results.

The factors that influence media professional information needs or sources in Kenya are rarely explored (Babu, Glendenning, Okyere & Govindarajan, 2012).An information needs assessment should act as an initial guide to developing programs, so that contextually appropriate content is generated (Chapman & Slaymaker 2002; Roman & Colle 2003). Stiglitz (2000) posits that only limited progress has been made in understanding how societies and communities absorb and adapt to using new information. He also states that further advances will be made in understanding how different organizational designs will influence the nature of

information generation, transmission, absorption, and use.

Access to and use of current information is critical, not only for the financial success of media professionals, but to support sustainable information seeking systems. Yet, media professionals are rarely consulted about their needs and preferences before the design of information needs systems. Therefore by understanding how media professionals access and use a information, their information needs, and the factors that influence their information search behavior, programs disseminating information could better target the consumers (Babu et al., 2012).

The value of an information needs assessment, by engaging directly with users of information, should not be overlooked (Babu et al.,2012). National ministries of Information have attempted to integrate ICTs into information delivery (Gakuru et al., 2009, Aker, 2010). The main focus of ICT in Media is meeting the media professional information needs for information (Shaik et al., 2004). Throughout Africa, ICTs have become increasingly integrated into information disseminated to media professionals for decades, traditional forms of ICTs have become more prevalent in advisory service provision whereby radio and television programmes feature media information (Gakuru et al., 2009).

The Nation Media Group was established in earnest in 1960 on the backdrop of Kenya's quest for independence. It became the market leader in 1970. It started with publishing the *Taifa,* followed by *The Nation* (once a week) in March 1960 and the *Daily Nation* in October, 1960. In subsequent years, it has added *The East African, the Business Daily,* the *Daily Metro* (now defunct), and NTV, Easy FM, QFM and various digital platforms. On the regional front, it has so far established KFM radio, NTV Uganda and *The Monitor* newspaper all of Uganda and *The Citizen, Mwananchi* and *Mwanaspoti* newspapers in Tanzania. The latest addition (January 2012), is KFM radio in Rwanda and upcoming bureau in Juba, South Sudan and Bujumbura, Burundi. This phenomenal growth has necessitated the employment of many journalists both on permanent and contract terms. Currently, the Group has engaged over 2000 of such journalists spanning the region. It is against this backdrop that the essence of establishing the information needs and seeking behaviour of journalists at the media group is anchored. Timely and accurate information is of utmost importance to the journalists here because of making the Group's stable reliable by beating publication deadlines and arriving to the market on time as well as having authentic information and for their own career development. It is necessary for the librarians in this organization to anticipate the needs of the journalists and prepare to meet them beforehand. Similarly, there is need for the journalists to be assisted to develop a workable rhythm of seeking the information in a systematic manner. The help should target the kind of information sources they consult and the searching and retrieval skills required to attain optimum relevant hits from whatever sources they may be consulting. Credible information is also important to the journalists because it will shield them from litigation by avoiding legal suits as well as offering reliable defence in such suits. Over and above that, with honed skills in information needs assessment and seeking behaviour, they will reliably inform, educate and entertain their clientele without fear or favour.

Statement of the Problem

Worldwide the media professionals, whether print or electronic, can never fulfil their responsibilities without information and their information needs which are enormous, quite insatiable and much diversified owing to the fact that they do not only inform the masses, but also play an important role in interpretation of news and events to develop understanding, opinion formation and persuasion (Anwar & Asghar, 2009).The information seeking behaviour in developing countries is becoming increasingly knowledge intensive. Researchers at

the global, regional, and national levels continue to generate new information. As information systems become more complex, media professionals' access to reliable, timely and relevant information sources becomes more critical to their competitiveness. Information must be relevant and meaningful to media professionals, in addition to being packaged and delivered in a way preferred by them (Diekmann, Loibl & Batte, 2009). Media professionals constantly manage and adapt their businesses in order to remain competitive in a changing world. This is done by among other ways, fine tuning existing practices and technologies or by adopting innovations, such as novel products, technologies or practices. Where there are a number of alternatives, it is necessary for the media professionals to choose which innovation, or suite of innovations on information needs, will provide the most benefit and best meet the needs of the journalism business (Hill, 2009). Kaine (2004) established that this process is highly involving or important to the media professionals as it usually has significant implications for the journalism business. Therefore, when making an important decision the journalist will devote time and effort to collecting information, considering the alternatives and selecting the best option, in order to minimize the risk of "getting it wrong". This process is known as complex decision making (Assael, 1998). These changes allow journalists access to information they may not previously have enjoyed, and allow it within the space of a few moments. Have those changes altered reporting needs, methods and seeking behavior? Do media professionals' information needs match their information gathering behaviors? Is there a gap that is evidenced by emerging needs and technologies? Should news library/research departments adjust their services to meet new or changing needs? Most of the research done on the information seeking or gathering behavior of media professionals in the past 10 years can be found not in the United States and Europe, where technology has been rapidly adopted(Anwar &

Asghar, 2009; Attifield & Dovell, 2003; Anzari & Zuberi, 2010; Wang et al., 2008; Khan, 2012; Ngozi , Uche & Ejiro Brautović et al., 2013; Bruns and Highfield, 2012; Newman, 2009, 2015; Djerf-Pierre et al., 2016; Opgenhaffen & Scheerlinck, 2014) but developing countries such as Kenya remains a challenge. Thus it is important to investigate those needs and behaviors among media professionals in Kenya. The study focused on finding patterns of habit, use, and perceptions of needs and identifying issues within their respective contexts.

Research Objectives

The aim of this study was to investigate the information needs and information seeking behaviour among media professionals in Kenya with specific reference to the The Nation Media Group. The specific objectives were:

- To find out the information needs of journalists on information seeking behaviour among media professionals in Kenya
- To establish the sources journalists consult on information seeking behaviour among media professionals in Kenya;
- To find out the level of information searching and retrieval skills of journalist on information seeking behaviour among media professionals in Kenya
- To establish the challenges journalists encounter in pursuit of information and information seeking behaviour among media professionals in Kenya
- To offer suggestions or solutions to the challenges experienced by journalists on information seeking behaviour among media professionals in Kenya;

LITERATURE REVIEW

Concept of Information Seeking Behaviour

Journalism has evolved from medieval times when scribes used to scratch and record information on rocks, papyrus, scrolls and skins. Those pre-historic scribes are the modern-day journalists.

Journalists are word-smiths who thrive in collecting, collating and disseminating, mostly but not restricted to, contemporary information. They are information gatherers. Theirs is not merely a profession but a calling to enlighten the public on a variety of issues as well as assist in various spheres of national development by informing, educating and entertaining (Berryman, 2008). Their main sources of information are primary e.g. press releases, conference/workshop/seminar papers and interviews with news sources either face-to-face, video conferencing or telephone. However, all of the above must be corroborated by background information to the subject at hand which beefs up the 'dry' news to give it context and authenticity.

The other branch of journalism, namely feature writing, may have a slight departure from this course. They exhibit a lot more leeway in their treatment of stories, running from the contemporary to the tales of yore. They rely more on researched work than news bits gathered from the field. They, too, have their own information needs and information seeking behaviour, much in the league of entertainment journalists writing about arts, culture and music (Nicholas, 2000).. All the above-mentioned categories of journalists at the Nation Media Group are exposed to new technological tools to boost their story gathering process like laptops, still and video cameras, outside broadcast equipment, tape recorders, on-line searches and an internal library database wired to their workstations over and above the books available in the physical library. These are meant to assist in beating deadlines by gathering and collating information within a short period while maintaining a high level of accuracy to earn reliability as well as avoid litigation (Poteet, 2000).

Information need, seeking and use are areas of fundamental concern to journalism professionals. During the past decades, a considerable body of literature has been produced dealing with information needs and seeking behaviour of both individuals and groups in a variety of contexts. It is understood that information needs arise when an individual finds himself in a problem situation, when he or she no longer can manage with the knowledge that he or she possesses (Talja 2006). It is the information need that triggers information seeking which is caused by "uncertainty due to a lack of understanding, gap in meaning, or a limited construct" (Kuhlthau 2003). A study by Poteet (2000) found that information seekers use a variety of formal and informal sources with varying emphasis from one discipline to another. Journalists seem to be different from other professional and discipline-oriented groups. First, they are not a homogenous group and their approach to information is different from others. Second, while using the services of information professionals, journalists do not communicate their need in clear and precise terms. According to Nicholas and Martin (1997), journalists do this because of the confidentiality of their interest, their own uncertainty as to what they want and a certain professional arrogance as to why information professionals should want to know more about their work. Full understanding of this approach is critical in order to design information systems and services that will enable journalists to meet their information needs. Journalists, important as they are as information consumers as well as producers at the same time, were not investigated to understand their information needs and seeking behaviour up to the mid-1980s (Herron, 1986). Over two dozen studies have been conducted during the past 18 years to understand journalists' information seeking behaviour and its various aspects. Nicholas and Martin (1997), studying British journalists using semi-structured interviews, concluded that the journalists needed information for five broad functions: fact checking; current awareness; researching; to obtain a context; and stimulus. In addition to function, the chief characteristics of journalists' information needs were identified as: "the sheer size of their information appetites; their requirement for authoritative and current

information and the speed with which they need information" (1997, 51).

Theoretical Framework

Wilson's General Model of Information Seeking Behaviour

Wilson's revised model of 1996 was presented in Figure 1 below. It shows the cycle of information activities, from the rise of information need to the phase when information is being used. It includes various intervening variables, which have a significant influence on information behaviour and the mechanisms which activate it. Wilson points out that there are various determinants of information behaviour, which he calls intervening variables. They include the environment within which the user is in, his/her psychological state, the demographic set-up (age brackets) etc. The author concludes that it is the value of an intervening variable that determines whether it supports or hinders information behaviour (Guba, and Lincoln, 1994).

Wilson says that not every need leads to information seeking. He says that only those situations where there is pressure on the person to fulfil a certain need will push him or her to seek information. He calls this stress/coping theory. In this scenario, the person will be forced to look for information to avoid stress that may be associated with lack of knowledge about the matter at hand or failure to meet a given objective. He terms this drive that compels one to seek for information as an activating mechanism. Other theories he considers activating mechanisms are the risk/reward theory which is associated with the benefits of seeking information vis-à-vis the pitfalls of not doing so, the self-efficacy theory that makes the information seeker gratified internally and gets a feeling of contentment (Wilson, et al, 2002). The foregoing phases of intervening variables and activating mechanisms, in Wilson's order of things, give rise to acquisition of information through seeking and researching and eventually onto the phase of information processing and use. The most glaring discrepancy in Wilson's model is that it is limited to a situation where a user seeks information personally. Niedzwiedzka's found this wanting since managers and other senior staff e.g. editors and sub-editors, rely on a host of intermediaries not catered for in Wilson's model (Gall, Borg, & Gall, 1996).
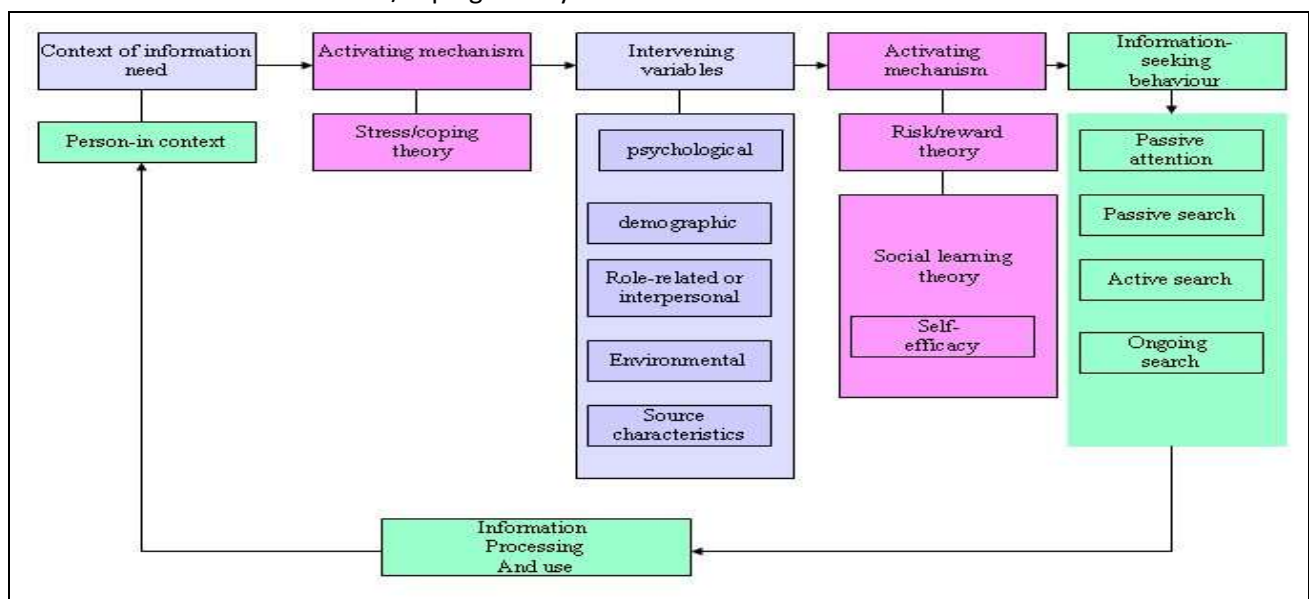
Figure 1: Wilson's general model of 1996

Niedzwiedzka's Model of Information Behaviour

Barbara Niedzwiedzka was an Assistant Professor in the Department of Information Studies, Institute of Public Health, Jagiellonian University Medical College and Cracow, Poland at the time she came up with this Model of Information Behaviour. The model presents a critical description of Wilson's 1996 global model of information behaviour and proposes major modification on the basis of research into information behavior of managers, conducted in Poland. The theoretical analysis and research results suggest that Wilson's model has certain imperfections, both in its conceptual content and in graphical presentation. The model, for example, cannot be used to describe managers' information behavior, since managers basically are not the end users of external (from organization) or computerized information services and they acquire information mainly through various intermediaries (Carlson, 2009). Therefore, the model cannot be considered as a general model, applicable to every category of information users. The new model (Niedzwiedzka's) encompasses the main concepts of Wilson's model, such as: person-in-context, three categories of intervening variables (individual, social and environmental), activating mechanisms, cyclic character of information behaviours and the adoption of a multi-disciplinary approach to explain them. However, the new model introduces several changes. They include: identification of 'context' with the intervening variables; immersion of the chain of information behaviour in the 'context' to indicate that the context variables influence behaviour at all stages of the process (identification of needs, looking for information, processing and using it); Emphasis is put on the fact that the activating mechanisms can also occur at all stages of the information acquisition process; introduction of two basic strategies of looking for information: personally and/or using various intermediaries (Carlson, 2009).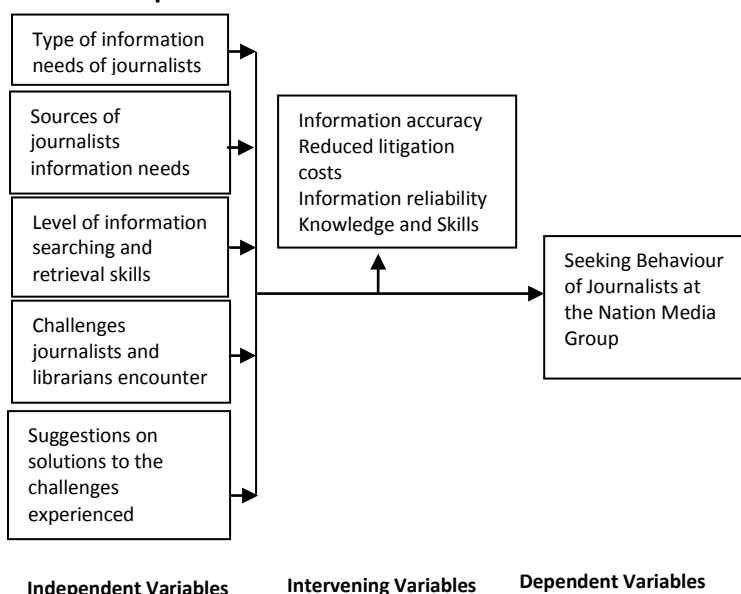 In Niedzwiedzka's model, the totality of information behaviour is submerged in a context which consists of Wilson's intervening variables (personal, role-related and environmental). Such presentation of the relationship stresses the fact that these factors are always present and they influence the process at all stages. The new model also indicates that the activating mechanisms can occur at each link of the chain of behaviour leading to acquiring and using information (Angen, 2000). A phase of the need occurrence is separated from a phase of making a decision to seek information, which follows Wilson's comments and suggests that at this stage the activating mechanisms can play a significant role. The model shows two basic strategies of information seeking: a user seeks information personally or a user uses the help or services of other people. The figure indicates that a user can choose one, the other or both of the strategies. An independent user applies his/her own knowledge, available sources and interacts with search systems and information services (databases, catalogues, archives, search-engines etc.) (Anwar, Al-Ansari, and Abdullah, 2004).In the chain of journalism work, the ''foot soldiers'' on the beat, the reviewers, the feature writers, the sports journalists, the business writers, the managing editors, the associate editors, the sub-editors and the editorial department managers are all journalists with diverse information seeking behaviours that surpass the capacity of Wilson's model and their information needs and seeking behaviours are accommodated well in Niedzwiedzka's model (Babbie & Mouton, 2008). Wilson's model targets a particular group of users at a given time as opposed to a hybrid model that allows information seeking both in person and by proxy. Niedzwiedzka's model illustrates stages of information behaviour and relationships that can be observed in a process in such a way that it can be applied to a broader range of users. This General Model of Information Behaviour by Niedzwiedzka, therefore, suits the situation at Nation Media Group because the process from news gathering to publication of the same

involves a chain of various cadres of journalists as outlined above and each cadre has its own information needs and seeking behaviours in order to fulfil its mandate of checks and balances so as to come up with an overall balanced, objective and reliable product (Blumer, 1969). The model acknowledges that top managers, (editors in the case of Nation Media Group), are generally not the independent users of information services. The results of a conducted survey, focus groups and interviews demonstrated that, in accordance with earlier studies, work overload, lack of time, diversity of tasks and fragmentation of the working day, are the characteristic features of the editors' jobs (Katzer and Fletcher, 1992). These features mean that the editors, especially top-level editors, do not have time to seek information personally, methodically and on a continuous basis. They basically do not search information databases, do not use information centres, libraries and the internet to look for professional information. So Niedzwiedzka's model best serves their interest in terms of delegating this role of information seeking.

Conceptual Framework

Source, Author (2016)

Figure 1: Conceptual Framework

Information Seeking and Uncertainty

Perhaps the earliest formal association of information and uncertainty was set out by Shannon and Weaver (1949), for whom information itself refers to the reduction in uncertainty about the state of an event after a message has been sent relative to the uncertainty about the state of the event before the message was sent. Since then, uncertainty has become a concept that is studied in a variety of fields, most notably in classical probability theory, but also in theories of decision making and in artificial intelligence research. Complex search situations are generally associated with uncertainty. However, it is the perception of complexity, rather than the actual objective complexity of a task, that causes feelings of uncertainty (Kuhlthau, 1999). Perceived complexity is often the cause of the secondary peak of uncertainty, doubt and confusion in information seeking. Unfortunately, many web-based search devices compound the perception of complexity by overwhelming the user with "everything," when a few well-chosen guiding elements might be more appropriate for orientation. Advances in information technology and the advent of ubiquitous web-based search and navigation systems have only compounded the user's dilemma rather than eased it (Blumer, 1969). Wilson et al. (2002) explored the relationship between uncertainty and information seeking. Based on longitudinal data collected in the U.S. and U.K., the researchers show that uncertainty can be operationalised and reliably measured in a quantitative investigation. They found that the principle of uncertainty as outlined by Kuhlthau indeed serves as a useful variable in understanding and predicting information-seeking behaviour. The research points towards uncertainty as a universal aspect of information seeking. Furthermore, although uncertainty is often associated with risk and danger, Anderson (2006) reminds us that uncertainty can also have positive effects. She found uncertainty to be necessary and even desirable in many situations:

it can motivate new lines of inquiry, contribute to creative thinking and spur innovation. Anderson shows us that uncertainty is indeed a very complex aspect of human nature and it is the interplay between desired and undesired forms of uncertainty that should draw interest in information research.

Journalists and Their Sources

Franklin and Carlson (2010) explain at length the relationship between the journalists and their sources of information. He says journalists turn to outside sources to provide evidence for their accounts. The journalists are supposed to be influenced by objectivity as they go about gathering information. It forms a basis in their information seeking endeavours. As a philosophy of news and a strategy guiding its production, objectivity precludes reporters from injecting their personal opinion in the stories they churn out (Tuchman 1978). Instead, journalists construct stories through attribution, linking information directly to sources, often through quotations. For objective journalism, sources do more than provide information; they serve as an essential form of evidence. This reliance on sources frees the journalist from the extra labour of adjudicating claims from aggrieved parties (Tuchman 1978). This carefully crafted acquisition of information process creates a foundation for assessment of information sources and forms an integral part of information seeking behaviour of journalists.

Information Needs and Seeking Behaviour of Media Practitioners

Media is an information-hungry industry. It stands on the pillars of information. Practitioners working in media organizations need current, authoritative and factual information to construct the news (Sonnenwald, 1997). For fulfilment of these needs, media practitioners consult many sources and channels of information, such as libraries, information centres, record centres and the internet. Internet and online services provide

huge amount of information but an in-house media library is unique in that it is close-by and easily accessible with on-point information. A media library can provide accumulated and precise information through current awareness service (CAS), selective dissemination of information (SDI) and reference services (Stockburger, 2008). The role of media librarians is, therefore, crucial. They work as information gate keepers. They visit the newsroom on a daily basis and help to assess the media practitioners' needs (Thomson, 2007). They are also looped in on the news breakouts via intranets and other social media alerts and this prepares them to provide CAS and SDI well in advance and in anticipation of information needs. Based on the information needs of media practitioners, they select credible and authentic sources, print or digital. Media librarians have information seeking skills in digital environment. They are experts in intelligent searching and use of databases. They also facilitate in information use. In a word, media librarians play an active role in the construction of news. Media libraries provide comprehensive services to the editorial department. There is an overwhelming necessity to identify the needs of media practitioners because they are information users as well as information producers and information communicators (Trochim, 2006).

Information Seeking Behaviour (ISB) is a favourite subject of research by library and information scientists. It is an important part of user studies which looks at the casual relationship between the user of information and the information system. The concept of `Information System` is of recent origin (Tuchman, 1980). More generally, a system is defined as an assembly of inter-related components which are organized either naturally or by design in such a way as to achieve a specific common objective or purpose. System concept applied to information is called information system. An information system encompasses the various components like people, procedures and information resources organized in such a way that they interact to perform a series of

functionally related tasks such as storing and retrieving information to satisfy the information needs of a variety of users. Auster (1982) defines Information Seeking Behaviour as "The field, composed of studies that are concerned with who needs what kind of information and for what reason; how information is found, evaluated and used and how these needs can be identified and satisfied." ISB is thus concerned with establishing a relationship with people, information and system of an order so as to obtain the best results. That information system is the best, which provides maximum satisfaction to the users with minimum cost within a very short time. The process of ISB includes defining information needs, use of sources of information, satisfaction and dissatisfaction derived in the process of seeking information etc. Newspaper journalists need various types of information for various purposes. The information seeking behaviour and information needs vary from one category of journalists to another. Information need, seeking and use always gets the attention of library science researchers. Many of the studies conducted on the subject are focused on groups other than media practitioners. Edem (1993) studied how Nigerian journalists in four major towns in Nigeria used library and archival resources and revealed that those journalists' major needs for information are related to political activities (27.1%), government affairs (21.4%), social activities (16.4%), economic activities (14.2%), etc. Most of the information they sought was for fulfilling their official duties (95%), such as writing articles, preparing for news talks or news reporting while only 5% was pertaining to unofficial duties. The majority of the journalists (76%) relied on informal sources such as persons whereas 24% used formal sources such as libraries or archival centres. All the surveyed media houses had a library except news magazine houses. Among 10 news magazines surveyed, only 6 had a library. Joseph (1993) studied the use of libraries by Indian journalists in the State of Kerala. She looked into how Indian journalists

used the library and what they used the obtained information for. Her findings show that the use of library is significant. 27% of the journalists used the library twice or more times a week while 21% used more than once a day. Mostly, they used the library for getting background material and for specific information. They used the information obtained mostly for writing feature or news items. Occasionally, they used it for column or editorial items. News magazines and reference books were most preferred by journalists in the study. However, they also used current and back issues of newspapers. Senior editorial staff are ranked first in using back issues of newspapers. They needed information within a timeframe of 5 to 15 minutes. 63% sought information themselves. They wished to have information on their desk due to time pressure and busy schedules. However, such service was not available to them (Tuchman, 1980). Uncertainty, in general, is a broad concept that has been investigated in many fields, such as decision-making (Harris, 2008), ethics (Tannert et al, 2007), risk and business (Hubbard, 2009), and even physics (e.g., Heisenberg's Uncertainty Principle), among numerous other areas. Indeed, the notion of uncertainty underlies most aspects of our lives: it has been show to drive everything from trading on stock markets to deciding which piece of fruit to buy at the market. Formal associations between information, in particular, and uncertainty date back to Shannon and Weaver (1949), fathers of modern information and communication theory. For one, they proposed and popularized the concept of "information entropy," or the measure of uncertainty in a transmitted message. Overall, they believed that the presentation of information reduced uncertainty: the more information a person received, the lower their uncertainty. Other researchers picked up on uncertainty in information science. For instance, Nicholas Belkin (1980) focused on the notion that seekers, sometimes even experts in a given information system, are not able to properly formulate queries

to access the information they need. Anomalous states of knowledge," or ASK for short. Here, uncertainty underlies the basic information seeking. Kuhlthau's (1993) work on uncertainty and information seeking is perhaps the most extensive. She proposes uncertainty as a fundamental principle in her Information Search Process (ISP), a six-stage model of seeking information. She describes the role of uncertainty as follows: Uncertainty is a cognitive state that commonly causes affective symptoms of anxiety and lack of confidence. Uncertainty and anxiety can be expected in the early stages of the ISP. The affective symptoms of uncertainty, confusion, and frustration are associated with vague, unclear thoughts about a topic or problem. As knowledge states shift to more clearly focused thoughts, a parallel shift occurs in feelings of increased confidence. Uncertainty due to a lack of understanding, a gap in meaning, or a limited construct initiates the process of information seeking (Kuhlthau, 1993, p. 111). Two interesting aspects emerge from this perspective. First, Kuhlthau found that uncertainty is often the primary driver for the affective states people while seeking information. Any endeavor to understand uncertainty in information seeking must therefore also account for the seeker's affective states. Kuhlthau's model does just this, along with considerations of cognitive states and physical actions taken. Second, Kuhlthau shows that contrary to previous models of uncertainty in communication, the introduction of new information can increase uncertainty. This is not always the case, but it holds true in complex information seeking situations.

In a very comprehensive study, Wilson et al. (2002) also explored the relationship between uncertainty and information seeking. Based on longitudinal data collected in the U.S. and U.K., the researchers show that uncertainty can be operationalised and reliably measured in a quantitative investigation. They found that the principle of uncertainty as outlined by Kuhlthau indeed serves as a useful variable in understanding and predicting information-seeking behaviour. The research points towards uncertainty as a universal aspect of information seeking. Furthermore, although uncertainty is often associated with risk and danger, Anderson (2006) reminds us that uncertainty can also have positive effects. She found uncertainty to be necessary and even desirable in many situations: it can motivate new lines of inquiry, contribute to creative thinking, and spur innovation. Anderson shows us that uncertainty is indeed a very complex aspect of human nature, and it is the interplay between desired and undesired forms of uncertainty that should draw interest in information research.

Measuring Online Information Seeking Context

Kelly (2006) opines that context is one of the most important concepts in information seeking and retrieval. Kelly purposed to develop a method for collecting data about information seeking context in natural online environments and identify which aspects of context should be considered when studying online information seeking. She focuses this article on evaluating the study method and exploring the relationships among context and judgments of relevance. The aim is to make recommendations for measuring information seeking context and behaviour in natural settings and to determine how it can be used to provide contextual and personalised information retrieval to individuals.

Information Searching and Retrieval / Theoretical Construct

The fields of information searching and retrieval both focus on the interaction between people and content in information systems. These two fields share common ground largely because both are concerned with the three perspectives of people, information and technology in locating information stored in computer systems. Information searching refers to people's interaction with information retrieval systems, ranging from adopting search strategy to judging

the relevance of information retrieved (Jansen and Rieh 2010).The term search denotes the specific behaviours of people engaged in locating information (Marchionini 1995). In contrast, information retrieval is finding material of an unstructured nature that satisfies an information need from within large collections stored in computer databases (Manning, Raghavan & Schutze, 2008). This definition does not differ much from van Rijsbergen's (1979) much earlier statement that information retrieval is automatic (vs. manual), deals with information or documents (vs. data), and informs the user concerning the existence or nonexistence of information that is related to a query, versus changing the knowledge of the user. The term retrieval means the extraction of information from a content collection.

Fields are large areas of inquiry or research which may have a number of specialties (Wilson, 1983). As a field of study, information retrieval is well established, with its own conferences and journals focused exclusively on information retrieval research (ACM SIGIR Conferences, Transactions on Information Systems, Information Retrieval). Unlike the information retrieval field, the field of information searching has not gained a status as a distinct field. Its conferences (ASIS&T) and journals (Journal of the American Society for Information Science and Technology, Journal of Documentation) tend to encompass other information science fields. However, from the viewpoint of "production of new knowledge" (Wilson, 1983), the number of researchers engaged with information searching research is quite large, and the research community has been well established. Therefore, one may argue that information searching is a de facto research field. Jansen and Rieh (2010) identify, compare and contrast seventeen theoretical constructs for the fields of information searching and retrieval to emphasize the uniqueness of and synergy between the two fields. Theoretical constructs are the foundational elements that underpin a field's core theories, models, assumptions,

methodologies and evaluation procedures. These constructs are concepts from which researchers build theories, develop models, and evaluate results and measure impact. According to Rosenberg (1974), they serve as the structure for organizing knowledge and perceptions. Understanding these constructs will help in understanding the information needs and seeking behaviour of journalists at the Nation Media Group and how to go about helping them achieve their information targets day in day out by organizing the knowledge and information structures relevant to their research endeavours.

Information Seeking Behaviour of Journalists

Anwar, al-Ansari and Abdullah (2004) of Kuwait University carried out a research entitled "Information Seeking Behaviour of Kuwaiti Journalists". The purpose of this research was to identify the information seeking patterns of working journalists in Kuwait. It was realized that journalists place more emphasis on fact-checking, general and background information as compared to getting ideas for future articles. They use a wide variety of sources, both informal and formal, to obtain the needed information as do their colleagues in other countries. However, in addition to giving preference to 'human' sources, as was found by Campbell (1997), they placed more emphasis on the Internet and 'press releases'. They seem to be more satisfied with information that they receive from sources that they prefer than those that they do not. It is interesting to note that these respondents were least satisfied with the in-house 'electronic library of stories/reports produced by their colleagues' simply because this is something new to the Kuwaiti news establishments and is still evolving. Some of the respondents may not even have the appropriate skills to use this electronic library. A majority of these respondents indicated a willingness to go through training on how to use this electronic library. A similar situation pertains at the Nation Media Group where some journalists shun the use of the in-house electronic

library because of its "complex" nature as opposed to googling for information. This calls for the need to train journalists periodically on the importance and use of the in-house electronic library (Attfield, and Dowell, 2002). Often unknowingly, confidential information, such as trade secrets, may be disclosed by an employee or other party with knowledge on popular social media websites such as Twitter, Facebook, or LinkedIn. Confidential information may also be disclosed via blogs, chat rooms, and anonymous blog comments. Widespread disclosure of trade secrets, in particular, can result in the loss of intellectual property rights in the confidential materials. In addition, some websites purport to claim ownership of user posted information, such as comments to a story. The best protection is to update policies and procedures so that employees are aware of their ongoing obligations not to disclose confidential or proprietary information (Babbie, & Mouton, 2008). Unauthorized use of third party trademarks on a social media site may lead to legal liability for trademark infringement, dilution or unfair competition. While, in certain circumstances, it may be a permissible "fair use" to refer to a company and its product or service in a product review, blog, or status posting, it is not permissible to use the trademarks of others to create a false impression of endorsement, affiliation or sponsorship. Also, websites such as Facebook now have sophisticated infringement reporting policies whereby a trademark owner can prevent another party from adopting its mark as a username or the like (Brown, 2008).

Information Seeking and Use by Newspaper Journalists

Information seeking is a basic activity indulged in by all people and manifested through a particular behaviour. It is also an aspect of scholarly work of most interest to academic librarians who strive to develop collections, services and organizational structures that facilitate information seeking (Wiberley and Jones 1989). Mann (1993) notes that most researchers, even with computers, find

only a fraction of the sources available to them. He explains that researchers tend to work within one or another mental framework that limits their basic perception of the universe of knowledge available to them. Students, according to him, use a subject–disciplinary method that leads them to a specific list of sources on a particular subject. He points out that while this method allows students and researchers to find more specific sources, it is limiting in that they may not realize that work of interest to their own subject appears within the literature of many other disciplines. This impinges on how much they get out of the library system. Studies conducted among undergraduate students have shown that most of them are inadequate in using libraries. Zondi (1992) for instance, conducted a study among first year undergraduate students at the University of Zululand, South Africa. She established that the majority of students showed a very low level of competence in the use of a library and displayed poor information seeking patterns. Kamanda (1999) did a similar study at the East African School of Library and Information Science, Makerere University, Uganda. He observed that more than half of the students experience problems in locating library information materials. He noted that the majority of them either located materials through browsing the shelves or sought assistance from library staff, but they did not make full use of the card catalogue. Ssendikadiwa (1996) also observed about Makerere University that although the catalogue was the most essential library tool in accessing library collections, it was the most avoided and least consulted by undergraduates. Considering the rapid changes in information provision in the 21st Century with computerized access, digitized information formats and the plethora of resources on the internet, the access and retrieval capabilities of users who are traditionally accustomed to manual information library systems, is questionable. Atkinson (1997) enumerates these as the circumstances under which it was worthwhile to re–examine issues of

user behaviour in academic settings. Artfield and Dowell (2002) give a rundown of the development of the various resources of journalistic information. According to them, the late 1980s saw the beginnings of a revolution in information seeking in news media companies with the introduction of online news cuttings archives. Copyright-protected works, such as text, videos, music, photographs, and source code, are often copied from another location and used on a social media website without the authorization of the content owner (Campbell, 1997). Use of copyright-protected works without authorization creates the potential for infringement liability. Also, site owners may be protected under a "safe harbour" provision in copyright law, whereby if they take down infringing content after receiving notice, they are protected from liability. This safe harbour does not automatically apply to trademarks, but similar procedures should be implemented by site owners for the unauthorized use of marks. The best practice is to seek permission before using material that appears to be a copyright-protected work. In some cases, the content owner may charge a license fee, but that fee will certainly be less costly than an infringement lawsuit. Some content, though, is available for public use without express permission, such as open source code. However, even that material often requires attribution to the original author, so pay close attention to the terms and conditions of use (Carlson, 2009).

Some of the features that make social media attractive, such as real-time interaction and the ability to post on the fly are the same ones that could result in unintended legal liability. Statements published to a limited group of "connections" or "friends" that arguably defame a third party may result in legal action against the poster. Given the infancy of social media, it is unclear whether courts will view this type of posting as sufficient for libel purposes, but best practices are to avoid statements that could be construed as defamatory. Also, posts made anonymously may be traceable via IP address or

similar technique. So anonymity alone will not necessarily prevent liability (Chinn, 2001). In the US newspaper industry, 1985 was described as something of a "watershed" for the installation of electronic cuttings databases (Herron, 1986) followed by considerable growth (Ward et al., 1988). At this time, systems tended to be confined to library departments with searching normally performed by librarians. During the early 1990s uptake increased considerably and searching by journalists became more commonplace (Nicholas and Martin, 1993). By this time it was recognized that electronic cuttings archives had become "necessities" in many medium-sized and large newspaper libraries (Hansen and Ward, 1991). By the late 1990s, access to online news cuttings archives had reached the journalist's workstation in many news companies. In contrast, use of the internet by journalists has been slower than that of the cuttings archive. In a joint interview, questionnaire and observational study, Nicholas et al. (2000) assessed the impact that the internet was having on information seeking within the British media. Data were gathered from journalists and media librarians from a large number of news media organizations and the results showed that internet use consisted predominantly of searching the World Wide Web, but at that time internet use in general was limited. The study showed that the primary reasons for this were the perceived potential for information overload and concerns over information authority. For the journalist end-user, the development of greater proximity between online information retrieval tools and text editing tools undoubtedly brought with it the potential for greater integration between the tasks of information seeking and news writing.

The Information Seeking Behaviour and Needs of Journalists in Context

Information seeking behaviour refers to the way people search for and utilize information (Fairer–Wessels, 1990). Most times students' information seeking behaviour involves active or purposeful

information seeking as a result of the need to complete course assignments, prepare for class discussions, seminars, workshops, conferences or write final year research papers. Fister (1992) noted that undergraduate students are smart people, but find the university library to be a threatening place and find the process of research intimidating. Unfortunately they do not learn the basic information skills. They end up using trial and error methods of research that limits their capabilities to satisfy their needs. Wilson's 1996 model notes that in the process of seeking information, problems are encountered. Taylor (1968) noted that after interacting with the information sources (like in a library), what a user actually needs may not tally with what is practically available, due to constraints either within the stock or due to the users own inability. Mellon (1986) noted that undergraduates encounter barriers like library anxiety. User's perceptions of the library and its programs also act as an intervening variable to information utilisation in the library. Lisa Chinn (2001) studied the information needs and seeking behaviour of three journalists specializing in the reportage of sports, education and crime. She found out that their behaviour had been largely affected by the emerging technologies such as wireless phones, personal digital assistants (PDAs) and the internet news services. She concludes that information seeking behaviour and needs of journalists all depends on the perception of the journalists and the environment within which they work. Sonnenwald's (1997) proposition that information horizons are made up of the context, situations and social networks that surround a person such as information policy, marketing of information and information literacy seems to reinforce this view.

Empirical Review

Gurdev Singh's (1997) study on "the role of newspaper clippings in the news making" revealed that a high percentage of respondents use clipping files frequently (70%), followed by sometimes (27%) and never by only 1.58%. A largest percentage of respondents (50.71%) use the clipping files for the purpose of acquiring background information, followed by those using it for acquiring specific information (38.48%) and keeping up to date (7.55%) .In order to make the write –up more complete and understandable to the readers ,the clipping files play a very significant role in providing background information to journalists in their day-to-day work. The study of Mahapatra and Panda (2001) on "state of information seeking and searching behavior of working journalists in Orissa: a study" indicates that journalists gave first priority to current periodicals (57.96%), seminar/conference proceedings (53.53) and newspapers/clippings (40.01%), which are required in their daily need. They gave second priority to thesis/dissertations (45.57%), personal correspondence (42.47%) and media reports (422.03%).They gave third priority to CAS,SDI, book trade etc. With regards to constraints, they analyzed that one of the major constraints of respondents is 'paucity of time', 42.25% do not find time to read or look for information. The other major constraints which they find extreme difficult include lack of library automation, materials in different. Ansari and Zuberi(2010) sought to investigate the use of various information channels, the awareness of the existence of information sources, ways used for disseminating information and use of libraries among media professionals in Karachi. Findings indicate that library is the most used channel among newspaper professionals and television professionals. Reference service and newspaper clipping service are the most favorable information services in the library. Media professionals get to know of the information sources through common knowledge and review articles. Internet is the channel, which is being used increasingly by media practitioners; however use of Internet among newspaper practitioners is high as compared to radio and television practitioners. Quite surprisingly, the use of libraries among radio practitioners was found to

be particularly low. All groups of the practitioners mentioned reading of book reviews published in newspapers to know the existence of an information source. This study would be helpful for librarians and information specialists, who are working in media house libraries for library planning and designing of library services in their parent organization. Another study focused on newspaper journalists in Lahore (Anwar & Asghar 2009). This study is the first attempt to find patterns of information behaviour, use, and perceptions of needs of both print and electronic media professionals in Pakistan. Results of this study would be helpful for librarians and information specialists, who are working in media house libraries for the planning and designing of library services. Millen and Dray (2000) studied the use of a particular listserv by American journalists who were early adopters of digital technologies. Data collection techniques, including participant observation, were utilized. Their quantitative analysis of the archive of this listserv revealed that there is a small, active community of journalists interested in utilizing new technologies, such as databases to aid them in reporting. Their study indicates that there are reporters who have a positive, active relationship with technology and that they found it to be useful in their work. Rosamma Joseph conducted a survey of Indian journalists in the Indian state of Kerala who were in environments that had very little access to technology (1993). This particular study focused on journalists' use of libraries -- both news libraries and other libraries. The results of the study suggest that journalists in Kerala used the library mainly for background information on stories, while editors use the library to assist them in editing said stories. 86% of those surveyed use the library more than once a week, with most respondents spending an hour or less there. Time constraints due to deadlines are discussed at length, but the issue is not directly addressed in the survey. Instead questions focus on who looks for information needed for a story, the type of print material journalists use and the purpose of

its use, how often journalists use print material for a story, how much time they spend in a library and how long they "have to wait" for information. Henk Vreekamp (1995) also looked at the attitudes of journalists in non-metropolitan settings. His studies concentrated on journalists in Curacao, an island in the Caribbean, and Zeeland, a remote island located in the Netherlands. Vreekamp found that journalists in these smaller settings had information seeking attitudes that reflected the parochial attitudes of the communities in which they lived. Consequently, their information behaviors relied heavily on established ties to the community, if the journalists were perceived to be "insiders," while those who were considered "outsiders" were forced to be more creative in their attempts to secure information and to research their stories more thoroughly. Education did not play a role in information seeking behaviors, but age, gender and lifestyle did. Anwar, Al-Ansari and Abdullah (2004) investigated the information seeking behaviour of Kuwaiti journalists. Results reveal that the sampled journalists regarded information as most important for fact checking and verification. They need information principally for writing a news item and feature article. They mostly used the Internet and press releases amongst formal sources of information and their satisfaction level with these sources is high. A sizable number of journalists use the Internet and their organizations provide this facility. The major reason cited for use of library/ information centre is to search a database and read materials there. Regarding the problems faced in information searching, lack of time available to finish assignments and lack of training are the major problems that journalists have to overcome. Anwar and Asghar's (2009) research into the information seeking behaviour of Pakistani journalists found that the journalists use a variety of information sources, both formal and informal. Journalists sampled mostly require information for writing a news item and article, and they give high importance to their personal collection of

information sources, daily news dairy and conversation. They are much satisfied with the Internet resources. They use in-house electronic library for getting the idea for a storyline and for background information. The majority of the journalists regarded their searching skills as good. Their major problem in searching is lack of training and difficulties in accessing international information sources. Attfield and Dowell (2003) investigated the information seeking behaviour and information use by journalists at a national British newspaper agency. The data for this study was collected through unstructured interviews with twenty-five journalists at "The Times" in London. Information seeking of the study participants started with their work assignment. The journalists seek for information for the following reasons with the aim to provide their readers with an informed interpretation of events: personal understanding, establishing a perspective of story, finding facts and truth, and assessing the originality of a news angle. The researchers summarized their research findings in the form of a model which depicts a journalist's research and writing process, which consists of three stages: initiation, preparation and production.

METHODOLOGY

The descriptive research design was used in the study. The descriptive research design is suitable for describing the information needs and seeking behaviour of journalists at the Nation Media Group. A study by Bickman and Rog (2008) indicated that descriptive studies are usually the best methods for collecting information that demonstrated relationships and describe the world as it exists. The study population comprised of 300 journalists and 8 librarians at Nation Media Group (NMG) in Nairobi, Kisumu, Nakuru and Mombasa. The target population for this study was selected as 308 staff members from the NMG centres. The face-to-face interview was the key method of collecting data in this research. The

researcher used note-taking method to record data during the study. Again Denscombe (1998) recommends that researchers sometimes need to rely on field notes written during or soon after the interview. Data was collected and analysed using quantitative and qualitative method. Data collected through the interviews was edited and coded for analysis. Data was therefore analysed quantitatively and qualitatively.

RESULTS AND DISCUSSION

What do you do as a journalist?
The study found that Newspaper journalists research and write stories for national, regional and local press. As well as news and politics, they report on sports, arts and culture, science and business. They also cover national and local events, entertainment and human interest stories. Traditionally, the reporters write stories allocated to them by the news desk. These stories could be of investigative nature, court reporting, press conferences, events coverage and many other aspects. They pass these to the news editor who in turn hands them over to sub-editors. Other roles include correspondents, who are specialists in one field or location, and feature writers, who cover topics in greater depth, often using a more personal style. On smaller newspapers many journalists have to multitask; they may work on layout, photography and sub-editing as well as stories. Newspaper journalism is becoming increasingly multi-platform, making IT, web and broadcast skills highly valued. The new byword at the Nation Media Group newsrooms is media convergence. This simply means that every journalist is expected to write and cover for all Nation Media Group platforms; the newspapers, radio stations, television stations and digital media alerts, among others.

Whether journalists need information to assist them carry out their work
The study sought to know if the journalists needed information to carry out their work. It was

found that almost all journalists need more information to make their findings and work easier and successful. The success of the journalists was therefore dependent on the accuracy, speed and reliability of the information that they relay to their audience. However, 3% of the respondents indicated that they did not need ready-made information but they needed to look for their own primary information to deliver their stories. 97% of the respondents indicated that they needed a lot of information both from second person, primary and secondary sources to make their stories a success.

How do you get story ideas?

The study found that more than half of journalists now use social media as a source of story ideas, and nearly half use blogs to find angles and ideas. Among journalists in Kenya, 62 percent said they draw news from trusted sources on Twitter or Facebook, while 64 percent rely on well-known blogs as a source of story ideas. However, journalists said they were much less inclined to use information from an unfamiliar social media user or blog. The study also found that journalists at the Nation Media Group get their stories through press conferences, assignment by the news desk, from the courts, by invitation to business and social meetings, conferences and workshops as well as impromptu occurrences. Investigative pieces as well as science and technology matters also form an integral part of the storyline.

Describe how you gather, retrieve and evaluate information for a story

The study found out that there are a number of steps to gathering and putting together the information you need. Not surprisingly, the first step journalists at Nation Media Group used in gathering information was determining what information to gather. There were a number of areas they explored: *Details about the issue.* These might include its immediate and root causes; its general effects on individuals and communities; its consequences; its development through different stages; its history; and the history of attempts to address it. *How the issue had been dealt with elsewhere;* They considered best practices or approaches for which there was an evidence base; other approaches that have been at least partially effective; and what hadn't worked, which might give you at least as much important information as what has. *People who could help*; This category encompasses experts in the field and people or organizations that have run or been involved in successful attempts to address the issue.Most of these can be group activities, part of the participatory process. The actual information gathering can be parceled out to specific individuals or sub-groups. The single largest storehouse of information available is the Internet. Many scholarly articles are published online and accessible – often free, sometimes for a fee – to anyone who is interested. The Nation Media Group digital library is their greatest data mine.The study found that the journalists evaluate the gathered information based on their editorial policy, its newsworthiness and implications to the society and their employer.

Whether it is possible to carry out an assignment successfully without information support

The study further sought to establish if it was possible to carry out any successful journalistic assignment without information. The analysis found that there was not a single journalist who would successfully carry out his/her duties without information. Information was found to be the back born of journalism. Therefore all respondents indicated that it was not possible to carry out an assignment successfully without information support.

What, in your view, is information?

The study found that different information is sought by journalists depending on the objectives one wants to achieve. Published sources can be divided into scholarly, mass-market and statistical, each of which can provide different information

and a different perspective on the issue and attempts to address it. Depending on what a journalist decides they are looking for, they might use all or any combination of these information.

When do you know that you have enough information?

The study found that information can never be measured as enough because there could be always some more to add. The information could only be said as enough if it's authentic without doubt and exhaustively accurate. Without adequate information, misjudgements could be made, poor comparisons could be drawn and incorrect conclusions could be arrived upon. These were only some of the detriments to having insufficient information.

What do you consider your most important information need?

The study found that analyzing and assessing the information needs of clients was key to the provision of effective service and appropriate collections in both face-to-face and virtual library services. The importance of information needed analysis was widely recognized by information professionals, but currently there was little substantive, detailed work in the professional literature devoted to this important topic. The study found that the most important information need for the journalists at Nation Media Group was to get the story right the first time and scoop the opposition (rival media houses) by being first, fast and accurate with the news. So the biggest need was to get the story factually correct and back it up with adequate corroborating historical facts on the subject.

Whether the journalists used electronic information

Concerning use of electronic information, the study found that 82% of the journalists used electronic information while 18% did not use electronic information alone. The study therefore found that the majority of the respondents used

electronic information as opposed to print sources of information. The analysis found that NMG library was mostly electronically equipped to enhance easier and accurate information sourcing from diverse electronic sources hence the reason why majority of the journalists used electronic media as their source of information. Whereas their workstations could provide access to electronic sources on the internet, specialized electronic sources that were subscribed to could only be logged on from their library.

Whether journalists trust the authenticity of electronic sources

The study sought to know if journalists trusted the authenticity of electronic media. The study found that 53% of the journalists trusted their electronic sources while 47% did not trust their electronic sources. A study by Attfield and Dowell (2003) found that with the ambiguity of digital representations and the proliferation of sources of information on the internet, these issues are further complicated. It is not unusual to find sources purporting to represent the same thing at many different sites. But journalists do not have standardized methods of assessing and establishing authenticity of digital sources. It is crucial for the ongoing development of knowledge in many fields that it be possible to determine the relative authenticity of a number of different representations, through an analysis of the methods that have been chosen to transform the original into a digital format or through an assessment of the methods used to capture original digital data.

What do you do to avoid quoting what could be unauthentic sources?

The study indicated that all journalists ensured that they had authentic information before quoting it. This was done by re-evaluation of the information, looking at the flipside of the information and observing the information through the third side of the story. This helped not to be biased and increases the ability to

enhance accuracy and accountably of the information offered. The study further found that most journalists ensure that they have gotten information from various sources and determine their correlation to ensure authenticity. This is also true in relation to news sources whose credibility could be in doubt.

What do you value more in terms of information - speed or comprehensiveness? Why?

It was found that media organisations were judged by the accuracy, comprehensiveness and reliability of its journalism, which must be well-sourced, supported by strong evidence, examined and tested, clear and unambiguous. Verified facts must form the basis of all news, not rumour, speculation and innuendo. Comprehensiveness is essential if journalism is to inform the public debate. Comprehensiveness comes ahead of speed. If you are not sure, hold fire. Being first and wrong is not a model to aim for. Being right, comprehensiveness and always reliable and measured is. The study found this to be the bedrock upon which Nation Media Group journalists based their work. All the journalists averred that whereas speed of getting information may be a virtue due to the deadline and perishable nature of the business, getting it right the first time and being comprehensive is non-negotiable.

How important is comprehensive information?

The major fact about comprehensiveness was that there was total need for transparency in declaring what is known and what is not known. Those who trust the journalist would be prepared to wait for his version. In fact they might use such coverage to check whether a hastily prepared item by a competitor has any truth in it. Caution is particularly needed if the topic is controversial. In such cases, too much haste can cause lasting damage to news brand. Most major news providers require first-hand sources, double-checking of facts, validation of material submitted, confirmation via two reliable sources

and corroboration of any claims or allegations made. The journalists at Nation Media Group confirmed, through this study, that they strive by all means, to set the pace of journalistic excellence in pursuance of the media house's image of being the pacesetter in reliability.

Which sources of information do you consult whenever you need information?

The study found that sources of information needed to consult whenever Nation Media Group journalists required information include official records, past publications, past broadcasts, officials in government and business, organizations or corporations, press conferences, witnesses of crime, accidents or other events and people involved with or affected by a news event or issue. There are a multitude of factors that tend to condition the acceptance of sources as bona fide by these journalists.

Reporters are expected to develop and cultivate sources, especially if they regularly cover a specific topic, known as a "beat". Beat reporters must, however, be cautious of becoming too close to their sources. Reporters often, but not always, give greater leeway to sources with little experience. This is because information from inexperienced sources is truly raw, honest and reliable, untainted by shrewd, calculating experienced sources. Journalists are also encouraged to be sceptical without being cynical. As a rule of thumb, but especially when reporting on controversy, reporters are expected to use multiple sources. Apart from the primary sources aforementioned, the study also found out that such information is subjected to a verification process, which includes researching background information on the subject in question to ascertain authenticity.

What are the best sources of information, going by your view and experience?

There were multiple formats and types of sources that journalists discover as they begin their

research. Knowing the strengths and weaknesses inherent in each of these can help journalists make informed decisions in their selections. It is also important to understand when different types of sources will be published about a specific event. The progression of media coverage about a newsworthy event is called the Information Cycle. Knowing when a type of source appears in the Information Cycle can help journalists select the best source for their assignment. With specific reference to the findings of this study, Nation Media Group journalists, in their various areas of specialisation, have perfected the art of nosing the news angle to take regardless of the original purpose of any event or happening.

How often do you use the Nation Media Group library?

The study found that 82% of journalists at Nation Media Group used the media house's library to retrieve the current and archival information. The library was mostly used by the journalists to dig out background information to beef up news stories that were just coming up. This gave credence to stories of the day by giving them an authentic context. The library also offered them a verification of facts and figures obtained from the field. 12% of the Nation Media Group journalists did not frequently use the library while 6% rarely use the library. It was established from the study that orientation in library use was not properly conducted for new employees and so they found it cumbersome to use. Instead of learning from the librarians or the frequent users, they had opted to use other sources, notably Google sites, for their research. This had adverse effect on the veracity of their information richness in terms of the Nation Media Group's institutional memory.

Whether Nation Media Group library is useful

Concerning whether the NMG library was useful, the study found that 82% of the journalists used the library while 12% used it infrequently and 6% rarely use the library. This indicated that journalists at Nation Media Group were

information seekers and used the NMG library for the right purpose of guiding their information towards objectivity. The library was found to be the first source of authentic information research since it gave direct correlation of background information to the developing stories. Other sources were considered secondary.

Whether journalists seek assistance from library staff

The library at Nation Media Group was available on all workstations and journalists did not have to walk to the library unless they must. However, because the journalists were not exclusively adept at maneuvering the library database, it was important that they either walked to the library, make telephone inquiries or email queries to the library staff for specific assistance. The library was key for information sourcing. The study found that 76% of the journalists usually sought assistance for information from the library staff while 24% did not seek assistance for information from the librarians. Seeking assistance in the library was very critical as it helped to get right information where necessary and with speed to beat deadlines.

What would you like the librarians to do for you?

The study established that a librarian was very important in the management of the information resources and assisting of the journalists and other users with the direction on how and where to get the right information. When scholars, journalists and other users come to a library, they have confidence enough, in regard to the cordiality of their reception, to make known their wishes without timidity or reservation. The study found that the cordial reception by the librarians and their patience in listening to and analysing their client's inquiries or queries was what the journalists found encouraging. 95% said they find the librarians homely and inviting while 5% thought the library staff could do with a bit of more public relations adherence.

Whether the respondent is computer or IT literate

Concerning the question as to whether journalists were computer literate, it was found that all journalists at Nation Media Group were computer literate. This was not only because of their own background in computer literacy but also because Nation Media Group work processes were fully computerized and only those with such skills could work in that environment. Thus computer literacy was a prerequisite for getting employed at Nation Media Group, especially in the editorial department.

Whether the respondent is skilled in electronic information searching and retrieval

The study sought to know if the respondents were adept at electronic searching and retrieval of information. The research found that 65% were good at electronic searching and retrieval of information while 35% did not have the requisite skill, more out of apathy than lack of an enabling environment.

Whether the journalist has ever done training in searching and retrieval of information

Concerning whether the journalists had ever done training in searching and retrieval of information, the study found that 94% of the respondents had attended training in searching and retrieval of information while 6% had no such training. The study found that the 6% who were not properly conversant with searching and retrieval of information from the Nation Media Group library database were employees who joined the media house after the initial training was done at the installation of the library system in 2007. Only a fraction of them were not able to manipulate the system due to apathy

What challenges do you face, both physical and legal, as you go about seeking information?

The ascendance of militant extremists and criminal gangs who abduct and even kill reporters, combined with rising government repression in the course of counterterrorism had created the biggest threat to journalism in recent times. Journalists were being caught in a terror-dynamic environment, in which they were threatened by non-state actors who targeted them. The governments restricted civil liberties including press freedom in the name of fighting terror. The role of journalists as democracy's watchdogs is proving increasingly hazardous. Not only had thousands of them lost their jobs due to the crisis, but they were also at risk of being arrested, kidnapped or even killed in the line of duty. To ensure the freedom of the press and access to information, the Kenya National Assembly was by then working on new initiatives. The challenges also came from warring factions in business, investment groups, political parties and other groupings holding diverse and divergent opinions that always invariably saw the journalists as taking sides with their protagonists. They also encountered roadblocks in the name of government secret documents that cannot be divulged even though they may be of public interest.

How do you compare the old system of newspaper clippings to the current automated environment?

The study found out that journalists at the Nation Media Group who had experienced both the clipping files and the modern electronic library database had responded overwhelmingly for the digital library. 100% prefer the digital library to what they described as the medieval, archaic library of clippings of yesteryear. The digital library was introduced at Nation Media Group in 2007.

What do you do to avoid misquoting your sources, especially politicians?

The only way of ensuring authenticity and accuracy to avoid misquoting is to avoid or presume the information given and go further to dig into facts. Check the internet (Google, LinkedIn, Facebook, a source's organization's

website) and other resources (your clips, database etc if you work at a newspaper) about a person, but don't presume that they are always correct. If you're covering an event rather than an interview, get a program or agenda beforehand. Try to locate the main people and ask them if their names are spelled correctly in the program. If someone you don't know speaks or does something during the event, try to get to him as quickly as possible and get his name. If that is not possible, ask someone who would know. Then try to run the person down by phone to verify. Your notebook should have each name spelled right, verified by the character. If possible you should have at least one printed or digital source with the name also on it. Apart from the foregoing, the study also found out that journalists at Nation Media Group were required to carry with them audio-visual recording gadgets. However, the study established that whereas the journalists routinely made use of notebooks, not many observed the requirement of using digital recordings as stipulated. This had at times impacted negatively on the media house's defence in cases of complaints and/or litigations.

How do you defend yourself in case you are accused of misquoting them?

The quick pace of social media and the Web have escalated the importance of getting it right (a story) the first time and avoiding errors as a journalist. Avoiding incorrect sources can be done by reading multiple sources before rendering judgment, reading an entire story before linking to it and making sure that the source is current and has not been corrected itself. Journalists always need to ensure that they are getting the full and accurate version of every story. With news sources and public relations people having their own agenda, a journalist runs the risk of being used or manipulated unknowingly into writing an inaccurate story even if they reported all the facts they received correctly. Use of audio-visual gadgets is strongly

advised. Journalists at Nation Media Group face litigation frequently and audio-visual recordings come in handy. Their background research in verifying facts and figures has always been a great fallback position in instances of litigation.

How do you differentiate truth from lies to avoid propagating untruth in your copy?

The study found that the truth can be placed in the open; exposed naked to the entire world. The truth does not need any laws to protect it and it does not need secrecy to protect it. The truth does not need evidence destroyed nor does it need videotapes to be confiscated. Only lies need secrecy. Only lies need protection from laws. Only lies benefit from fear, secrecy, blackmail, gossip and confiscation of evidence. Today, given that the traditional media is being controlled by either big media corporations or government, it can no longer serve as a reliable source. Furthermore, unless journalists have somebody they can trust in the centre of ongoing affairs, they cannot trust social media, as it is so easy to flood twitter with propaganda using spam bots and it is so easy for coordinated effort to propagate lies as the truth. Journalists at the Nation Media Group sifted through copy by counter-checking stories with other sources they trusted and doing background research in their library to verify facts and figures.

Whether the journalists are politically slanted in their reporting

It was to be understood from the onset that mainstream media the world over had traditionally took sides with opposing political parties. They normally pushed forward the agenda of their politically preferred leanings. However, unlike their Kenyan counterparts, they often took to the platform of party policies and ideologies. This analysis sought to understand if the journalists at Nation Media Group had any slanted reporting or skewed in favour of any political representation during their reporting. The research found that 15% were skewed while 85%

were not skewed in any way on political bias. The study found out that the political patronage and biasness was ethnically aligned. Nevertheless, such blatant biasness was not explicitly discernible in copy. The study found that the media house did not have any explicit policy of supporting any political party and the individual leanings of some journalists were relegated to newsroom arguments without being reflected in the newspaper's output.

Whether the employer has an editorial policy

Concerning the editorial department in Nation Media Group, 100% of the respondents indicated that their employer had an editorial policy. Nevertheless different respondents had differing opinions concerning political leanings of the media house. The study found that different journalists used different methods to win the confidentiality of their sources in order to get stories. The study found that some journalists signed agreements of confidentiality while others made gentleman's agreements to seal their confidentiality. It was however found that breach of confidentiality could be broken especially under duress from powerful forces such as government. The study found that due to the transitional, amorphous and volatile nature of news, especially due to the emergency of multiple media platforms, including social media, journalists at the Nation Media Group have constantly found their editorial policy falling back in relevance at a fast rate. There was constant questioning and consensus on the intranet on how to treat certain aspects of information.

How do you win the trust of your sources in order to get stories from them?

The study found that trust was the most important factor in successful journalism. A person trusts another when they feel that they can be vulnerable and everything will be alright. The study found that journalists at the Nation Media Group won trust of their news sources first by specialising and projecting themselves as professionals in that particular aspect of reporting e.g. business reporting. Their news sources therefore grew to trust their ability of understanding the supposed gravity of the matters they handle. They eventually looked at those particular journalists as their confidants with whom they shared issues of interest without the risk of being revealed even under duress.

Are there chances that breach of confidentiality could be broken especially under duress from, say, the Government or the courts?

A breach of confidentiality occurs when data or information provided in confidence to you by a client is disclosed to a third party without your client's consent. While most confidentiality breaches were unintentional, clients could still suffer financial losses as a result. Such loss could also be one of credibility, litigation, trust etc. In order to recoup their money, they took legal action against your firm. Professional indemnity insurance was designed to cover against such instances. The study found that the ability to report the news often depended on the ability to protect the confidentiality of news sources. When a journalist faces a defamation suit based on information provided by a confidential source, however, the promise of anonymity to that person prevented the reporter from relying on certain defences. The study found out that confidentiality was a tenet that was strictly observed at Nation Media Group. The company had empowered journalists to strictly shield their sources even at the expense of the company paying the price via court awards or government persecution.

CONCLUSION AND RECOMMENDATIONS

The study found that journalists investigated and reported on events, issues and trends for the mass audiences of print, broadcast and online media such as newspapers, magazines and books, radio and television stations and networks, blogs

and social and mobile media platforms. They wrote hard news stories, which were short, timely and focused reports on what had just happened and feature stories, which were soft, not as timely, yet with a topical news pitch.

The analysis found that many journalists reported on only one or two special subjects. Nicholas and Martin (2010) indicated that journalists expressed their information needs to others on these subjects in vague or generalized descriptions for three different reasons: confidentiality (they did not want to expose their information need to others so as not to lose its possible uniqueness), uncertainty (they were often unclear as to their exact information need), and professional arrogance (they saw no reason to expose information needs for help from others, and feel they could satisfy them on their own).

The study found that journalists had five purposes for information: fact-checking, current awareness, research, context and stimulus. The data collected from this study showed there was evidence to support all of these information needs. All three of the strategies engaged in fact-checking and current awareness were used to gain information throughout the day using a variety of methods.

The study found that the nature or type of information needed expressed by journalists could be classified into five distinct categories: conceptual/theoretical, historical, descriptive, statistical and methodological to offer suggestions to the challenges experienced by journalists in information needs and seeking behaviour.

The study also found that journalists relied more on the internet as a source of their information. It was found that a good number also consulted the Nation Media Group library. However, the 18% that did not use the library risk getting the facts wrong thereby exposing the media house to libel.

The journalists retrieved information from a complex range of sources. Besides the library, they also relied heavily on human sources for first-hand information. In doing this, they had to adhere to tacit rules to help them locate, select and retrieve information for news story. This finding was line with a similar study carried out in 1997(Campbell, 1997).

The research found that a third of the sampled journalists were not adept to electronic searching and retrieval of information. It was found out that this was more out of apathy since the media house had provided an enabling environment for electronic searching to thrive. It was found that beating deadlines for stories had made some journalists to cut corners.

Knowledge of research tools was critical for exploratory search success. This may involve the creation of new interfaces that move the search process beyond predictable fact retrieval (Marchionini 2006)

The study found that the journalists indeed encountered a lot of challenges in their quest to dig out information. Some of these challenges included going beyond the obvious and behind the scenes to bring out authentic and reliable reports that could stand the test of time and litigation. They had to circumvent the secrecy of information in organisations and government and get the physical evidence of their writings. They also undertook their assignments against the backdrop of cultural diversity that had opposite sensitivities to certain issues. The balancing act in such cases was critical to be able to appeal to all while remaining objective and factual. All this had to be achieved with deadlines and legal bottlenecks in check. All this and more was given credence in News Manual Volume 3 on Ethics and the Law: Pressures on journalists Chapter 58.

Conclusion

Based on the findings of this study it was concluded that any journalist, whether covering hard or soft news, needed to gather information in preparation for writing. All writers had to conduct research and gather information before they can start writing. The study concluded that information seeking skills of senior journalists should be able to guide the junior journalists on the best method of information seeking. The study concluded that awareness about the

existence of information sources should yielded significant findings. It was concluded that all media professionals should read periodicals regularly to keep abreast of current information and news. They should collected information in the library by asking librarians or learn to carry out searching and retrieval from the internal library database at NMG. They should also consult and discuss with colleagues about the existence of information source catalogues. Generally they should get used to using the library which is available on their workstations. The information seeking behaviour of media professionals, who prepare research based programmes in particular, was very distinct and pronounced as compared to other professionals. For the library and information science professionals, results of this study could assist in improving interactions with media professionals and better-understanding of their information needs and shaping of their information seeking behaviours. Librarians should become pro-active in their efforts to assist journalists with their information needs. They should be available to provide basic technical assistance or information, if needed.

Recommendations

It was found that almost half of journalists at Nation Media Group (47%) have doubts about the authenticity of electronic information sources yet some of them use the sources exclusively to cut down on time wastage so as to beat deadlines. The research recommended that the editorial management in conjunction with the Legal department should frequently sensitise the journalists on the pitfalls of relying exclusively on electronic sources of information, especially the younger journalists. At the hiring stage, the journalists' ability to carry out research should be an integral part of the positive attributes desired of the prospective employee. Therefore the study recommended that on employment, journalists should first be engaged practically on precise information needs identification and seeking exercises as a prerequisite to job entry and

deployment. This would help shape their information seeking behaviours, enhancing their accuracy, authenticity and timely delivery of the information. Practical engagement was the only method that journalists could use to transform their class theories on information needs and seeking behaviour to practical implementation of the same in their jobs

Since Nation Media Group had invested heavily in creating a modern library, it was only fair that all the journalists exploit the facility for the good of the company. Googling for information should be of supplementary value rather than making it the core source. The library was a core reservoir of internal information source built over time and reliable to withstand the test of time. Just like it was done in universities for new students, the study recommended that library orientation should be given a lot of weight for all new employees of the company, especially journalists. As it was then, new employees just came on board and learned the skills of using the library as they went along. The Human Resource Director or his representative should deliberately categorize library orientation as a prerequisite to new employees' assimilation into the Nation family. The Editorial Administration Manager should work closely with the HR to make this a reality.

The study found that whereas the majority of respondents sought assistance from library staff, 24% grapple with finding information in the library without seeking assistance from librarians. In the same vein, the research found that at least 5% of the journalists think that librarians are not cordial in their public relations. A sampling of librarians' reaction to this perception yielded the fact that the said journalists are just difficult clients who went against the grain on library rules and regulations. Some had apathy towards librarians. The study recommended that the Chief Librarian should sensitise library staff to treat the journalists as clients who needed utmost care and attention. That the difficult ones should be reined in with an olive branch rather than a snub. Any

extreme cases should be handled by the Chief Librarian and the Editorial Administration Manager. The research also recommended that the Chief Librarian should engage journalists through the available internal communication mechanism, the intranet, and encouraged them to seek assistance from librarians in all situations where they met difficulties in their research endeavours. It was also recommended that librarians should create a rapport with the journalists for ease of information dissemination. Librarians were more like public relations personnel and the more they interacted with their client base, the more the clientele would feel at ease to approach them for help. Such a rapport would create an enabling environment to fully exploit the rich resource in the library.

The research found that 35% of the journalists had challenges in electronic searching and retrieval of information. It was found that this was more out of apathy rather than lack of an enabling environment. The study recommended that journalists should be given refresher courses on information seeking and retrieval. This would enhance their professionalism; assist in proper identification of their information needs and

shaping of their information seeking skills. Librarians should also undergo these refresher courses to help them catch up with the fast-changing technological advancement in information management so as to continue giving relevant guidance to the journalists.

This onerous task of ensuring that the journalists and the librarians enhanced their searching and retrieval skills and also created rapport among themselves fell under the docket of the Human Resources Director or his/her representative and the Editorial Administration Manager.

Suggestions for Further Research

It was recommended that more research should be done to investigate the growth of technology and its effect in information needs and seeking behaviour of journalists. This was because the proliferation of diverse information sources was having an impact, both positive and negative, on information use and seeking habits of journalists. The study suggested that more investigations should be carried out to establish the perception of journalists at NMG towards the library. This was due to current negative perception about libraries.

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