News Management of Pakistan Electronic Media: A Study of Human and Technological Aspects Influencing News of TV Channel

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Abstract

This study investigates how technology and human elements interact to control news on Pakistani television networks. The study explores the ways in which media technologies, editorial expertise, and decision-making procedures interact to affect news production, distribution, and quality. The study used a qualitative approach and interviewed 15 news journalists from Pakistan's top media outlets. The results emphasize how important human knowledge is to preserving journalistic context and integrity, especially in politically delicate or crisis-driven news situations. At the same time, technical developments like real-time data systems and automated editing tools are acknowledged for improving news production speed and efficiency. But the study also reveals difficulties in combining these two fields. Reporters noted inadequate training, antiquated IT infrastructure. The findings from this explorative research venture carry significant implications for policy

makers and management stakeholders of news channel in how to incorporate maximal Media Technologies in proficient manner to facilitate authentic and quick functioning of their setups. In addition, this would identify the gaps in the existing utility of ICT highlight the suggestive ways in which existing Media Technologies' can be enhanced and improved for the maxima news processing functions of news reporters.

1.   Introduction

The role of media technologies in journalism cannot be undermined because such robust technologies posit huge array of opportunities for information communication, storage and retrieval. Media Technologies not only lead to institutional reorganization rather they also become lifeblood of any thriving media house. Professional operation and journalism remain competitive and relevant; since journalism operations need to adopt information communication technologies in their business strategies (Bradley, 2001).

According to Okoro (1998), "CMC is just as successful and economical as when town criers spoke at community meetings in historic village squares". The work environment comprises of three main functions that is 1) organization performance, 2) employee practices and 3) Resource (Human and other) management. The last two factors decide the first factor that is organization performance. Introduction of Media Technologies during last two decades and its diffusion in management practices makes its 4th most important factor amongst management. The present study explores the efficacy of Media Technologies on above mention three factors on Pakistani News channels and journalists' performance (Martin, 2015).

According to Rodriguez and Wilson (2000), ICT is a collection of activities that improve and streamline the electronic processing, transfer, and distribution of information. ICT, according to ESCAP (2000), is a method by which individuals communicate via computers and computer networks in order to receive, share, and disseminate information. According to Tiamiyu (2011), information and communication technologies are now widely

regarded as strategic endeavours and resource management that promote the growth and development of individual, organisational, and national productivity.

Using Media Technologies in management practices for different organizations ranges from SME (Small and Medium Enterprises) to large scale is very common. Media Technologies usage and its effects on work performance on employees are studied in different parts of the world (Randhall, 1993).

The current study investigates the efficacy of Media Technologies on the performance of Pakistan electronic News channel managers and journalists for News, information and resource management (Craig, 2005).

There is a very little literature available on E-Governance and Media Technologies involvement in media management practices and almost non-existent for Media Technologies adaptation in Pakistan Media organization. The present study will contribute towards understanding of Media Technologies usage for managing News, Information and resource management in Pakistan News Channels. Furthermore, the study also investigate that how much Media managers and Journalist are using Media Technologies' and what effects it is causing to their performance and it also can serve as guideline for Media managers, policy and decision makers about proper use of Media Technologies for potential improvements in management.

Media technologies include computer software (NewsZone, Markaq, Octupas and others), SNS (Social Networking sites, Facebook and Twitter and YouTube mainly), Smartphone applications (WhatsApp group). Efficacy. The efficacy will term as how useful some particular Media Technologies remain for journalistic practices and what impact it created at performance.

2.   Problem Statement

This study tends to investigate the challenges facing news channels in media organizations, with a view to finding out the effect of the use of ICT in information gathering and dissemination. The current research deals with investigating the journalists' practices to adopt and manage Media

Technologies for the purpose of News, Information and Resources management for their journalistic practices and the impact Media Technologies are causing in professional success of journalists in highly competitive environment of Pakistan News channels.

3.　　Scope of the Study

The findings from the current research are likely to have short and long term benefits for media houses in general and for news reporters and journalists in particular. On one hand this research is likely to yield beneficial aspects of Media Technologies, as well as would identify the limitations and constraints it carries. ICT based technology tend to offer ease of access or they are economies wise a burden on the media owners and media houses is one of the greatest concern to be explored. Are news reporters and journalists trained and equipped enough to maximally utilize these enriched technologies is another facet that would get implicated through findings of the current research. The findings would also implicate the suggestions in the light of identified constraints to technology experts in how to devise effective strategies for news journalists so that they attain their professional excellence in new reporting, management and processing.

4.　　Rationale of the Study

Media Technologies can faster major transformation in functioning of news journalists as they would get better equipped in order to save resources and would offer efficiency in their professional task. The utilization of sophisticated devices is the hall mark feature of all advance fields of Media but its tire need in reporting is inevitable, Technologies like IP, VOIP, video confessing and social networking sites let news professional perform better by equipping their skills and by offering economy of use. The wok has squeeze in indirection due to these information and communication technologies. So far its use is haphazardly detected and systematic Research inquiry into its limitation, benefits, strengths or gaps have never been assessed systematically. The exposition of evolved role of news journalist, the benefits that journalist are reaping from Media Technologies, in journalism is direly needed research phenomena Assessing the skills deficits for maximally utilizing the benefits and limitation of Media Technologies would be gauged

in this research and endeavour. Dealing with authenticity of web sources when Media Technologies are involved in News management and news processing is worth inquiry as well.

4.1   Rationale for Selecting Media Technologies

Media Technologies have their greater significance in Media industry especially in Electronic Media where these are part and parcel from news gather to its processing and dissemination to the consumers or audiences. So the pros and cons and implications of this emerging technology needs to be discussed by some empirical research.

There was no significant active use of all varied types of Media Technologies like Instagram. my space and others by practicing news journalists (as examined in the pilot study). WhatsApp being the only prominent ICT modality in use by current news journalists would be accordingly focused in the current research. This is the main reason that only above mentioned Media Technologies was selected to be focused in the current research study.

5.   Objectives of study

- To investigate how human elements, such as the knowledge, expertise, and decision-making processes of news journalists influence how news is managed on Pakistani television networks.
- To analyse the influence of technology improvements on news gathering, editing, and dissemination in Pakistan's electronic media business.
- To determine the challenges that TV channels encounter when successfully combining human and technological resources and to find areas where they might improve.
- To provide methods for improving the human-technological synergy in news management in order to raise the calibre and productivity of TV news output.

6.   Research Questions

RQ1: How do the skills and decision-making processes of news personnel influence the management and shaping of news content on Pakistani TV channels?

RQ2: How do technology advancements and human expertise work together to affect how news is managed, produced, and distributed on Pakistani television channels?

7.   Literature Review

The idea of media technologies usage for managing News, information and Resources is not very new. Media Technologies' effect on performance of employees of organization has been area of interest from researchers from different part of world with different disciplines. A study with title "Role of organizational culture and motivation in effective utilization of IT for team working in construction" was conducted in Leeds Metropolitan University using diverse methods like case studies, ethnographic interviews, semi-structured interviews, postal questionnaires, the analysis of archive documents, and practitioner and researchers' workshop. The findings of study suggest that there are certain Cultural types and Motivational factors influences the effect IT has employees (Charles Egbu, 2015).

An exploratory study was conducted with title "'Like or Follow; The Role of Social Media in the Daily Routine of Radio Journalists in Accra" to investigate the SNS (Social networking sites) usage by the Radio journalist using in-depth interview method with sample of top three Radio stations in Accra. The findings of the study suggest that Radio Journalists have access to different social tools at their workplace but the primary use of SNS is to seek timely information. Information seeking role is dominant for journalists to use SNS (Social networking sites) at their work place. This research recommends further investigation to check the efficacy of Radio stations that are yet to deploy SNS (Social networking sites) as source for their news and information collection and dissemination (NTI, 2015).

The impact of technology on news reporting was foreseen by Heath and Luff (2000), and it has resulted in a new form of public enfranchisement.

Prior to the development of JCT, there was a considerable delay between the time an event took place and the public's awareness of it as news. The gap in time between an event's actual date and its public release has been lessened thanks to media technologies.

The ability to provide quick feedback—the public can react to news articles instantly if they so choose—is the most important way that media technologies have affected news. According to Samaddar (2011), media technologies are essential to improving timely news delivery in the broadcast industry. He believed that media technologies are a tool that makes it easier to create, store, manage, and distribute information electronically. It has accomplished this by removing the constraints of time and distance. Regardless of whether the journalist is present at the event or is watching from home or the studio, events can be covered in real time.

Information and communication technologies are now widely regarded as strategic endeavours and resource management that promote the growth and development of individual, organisational, and national productivity. (Aiodun & Tiamiyu, 2012). As technology has permeated our culture, new practices and methods of operation have surfaced. Few people could have foreseen, for instance, how technology would affect news reporting, which has resulted in a new kind of citizen enfranchisement. A society's structures are inevitably impacted by such shifts, and new or altered institutions are created (Heath & Luff, 2000).

The technological determinism argument, which holds that technology is a force for social change, serves as the foundation for many recent research on the relationship between media technologies and journalism practice. This method blames technology advancements for shifts in journalism practices (Chari, 2013).

According to Griffin and Neal (2000), media technologies enable technological determinism by filtering our work schedule in addition to expanding our reach and boosting our productivity.

In his study, Quah (2001) claimed that when personal computers and Internet access became more widely available, reporters and editors started to take advantage of these tools, which improved their ability to meet deadlines,

gave news stories more context and depth, and allowed them to save time and money while doing their jobs. Technology is therefore either praised for opening up new avenues for the journalism profession or criticised for a number of detrimental effects on the calibre of media output (Wasserman, 2001; Fulton, 2008; Yau & Al-Hawamdeh, 2001).

Nevertheless, the majority of these studies focused more on western media (Arant & Meyer, 1998) and paid little attention to the use of media technologies by African journalists, and Nigerian journalists in particular and developing countries. According to Ufuophu-Biri (2007), media technologies have improved the state of mass media in many areas of their operations worldwide since news no longer takes long to travel within a nation, much less across nations and continents. This is evidence of the positive effects of media technologies' use in the mass media. In 2005, the Internet and cell phone were status symbols; today, almost every journalist in the newsroom uses these tools to obtain news (Chari, 2013).

According to Rogers (1995), adopting new technology requires going through five steps, which are as follows:

- Being exposed to the innovation
- The development of perspectives regarding the innovation
- Choosing whether to accept or reject the innovation
- Implementation, which is the decision-trying process
- Reaffirmation — validation A significant portion of Nigerian journalists have probably gone through some or all of these phases. It is conceivable that some industry members' or organisations' experiences with computer use could have an impact on other social system members.

According to Garrison (2001), who examined the adoption of computers and other new technologies in US newsrooms over a five-year period from 1994 to 1998, journalists have gone through some, if not all, of the five stages in Rogers' process of adopting new technologies.

The broader umbrella of Media Technologies' usage for management practices has its roots in the SNS (Social Networking sites) which can be

further divided into different social applications of smart phone like Facebook, WhatsApp and others, with and without Android as operating systems.

A study with the title "Efficacy of communication amongst staff members at plastic and reconstructive surgery section using smartphone and mobile WhatsApp" was conducted using visual content analysis and observation method on sample of health professionals and patients in a specific clinic. The findings of the study suggest that Smart phone application WhatsApp was the source of quick communication amongst the employees and diversity of sharing images, videos and sound notes, offered by WhatsApp application made it very effective and satisfying in caring the patients. The research point outs the potential concern of not deleting any message from WhatsApp group in case of any critical issue.

The study endorses the idea that Media Technologies make management practices easy and effective. While considering Media Technologies' support towards Processes of Management, a study with the title "Evaluating the Role of Information and Communication Technology (ICT) Support towards Processes of Management in Institutions of Higher Learning" was conducted using case study method in Public Sector University in Kenya. The findings of the study show that MEDIA TECHNOLOGIES usage not only improved the management practices of the university staff members but also MEDIA TECHNOLOGIES tools support their work as well. The Media Technologies usage simplified the work for the employees and had positive impact on the quality of the decision made for their management practices (Wabwoba, 2012).

Dorwal et al, 2015 studied the "Information" element of WhatsApp Messenger in official communication in a Medical Laboratory with the title "Role of WhatsApp Messenger in the Laboratory Management System: A Boon to Communication". Total 35 employees used WhatsApp group message service in laboratory for the period of three months and their responses were recorded on 1 to 10 scale. The findings of the study show that there were significant advancement in communication among the employees of the laboratory. The information in form of Audios, videos and images not

only served the communication purpose but also served as a very better medium to seek instruction from senior members to execute instruction and orders accordingly. The study suggested that WhatsApp messenger has potential to revolutionize the official communication in Health and other sectors as well. There are lot of studies and literature available that cover Media Technologies (Information and Communication technologies), SNS (Social Networking sites) and smartphones application as tool of official management. The studies describe the positive and negative effects and further guidelines for afore mentioned areas. But unfortunately, there is no significant literature available that deals with Media Technologies (Information and Communication technologies), SNS (Social Networking sites) and Smartphone applications as tool of managing media organizations. The current study will help to cover this gap and help to check the efficacy of Media Technologies in media organizations in the light of literature available.

8. Theoretical Framework

The current study focuses on analysing "Efficacy of Media Technologies in News Management of Pakistan TV Channels". The core purpose of the study is to find the newly emerging usage of Media Technologies in News Management. Media Technologies find it's popularly in News Process in no time. Every TV channel is using these technologies for News Management Purposes. The current study finds its theoretical roots in one of the concepts of Diffusion of Innovation. Social Responsibility and Agenda Setting will be helpful for qualitative part of the study.

8.1 Diffusion of Innovation Theory

The current study relates with the basic assumptions of diffusion of Innovation theory which describe the change or innovation and the response in the result of that innovation. The theory describes that an Innovation is penetrated into social system through some channel and the response of that innovation is that some take it immediately while some wait for sometimes and some proportion of the society adopt it in the last (Roggers, 2003).

According to Rogers in a social system there are three ways of taking decision which are as:

| Optional | Collective | Authority |

Figure 8.1 Ways of Decision-Making

8.1.1 Relevance

The qualitative part helped in developing some new assumption about diffusion of Innovation when implemented by some authority. As in the current study decision about implementing innovation is taken by authority, considering the need and requirement and implemented on journalists working on TV News channels of Pakistan. so the study helped in finding the consequences of innovation when implemented by authority.

9. Research Methodology

The main approach of the study is qualitative method strategy wherein thematic analysis is used for qualitative data research is laid out through qualitative strategies like using in-depth interview method.

9.1 Population of the Study

The population of the study is TV News Channels Journalists. Qualitative part is targeting the decision makers in News processing and dissemination e.g. Bureau chiefs, Executive producers, Controller and Director News of TV channels.

9.2 Sample

Using in-depth interviews and a qualitative research methodology, this study investigates the technological and human factors affecting news management on Pakistani TV networks. Key informants, such as journalists, editors, producers, and technical staff, are chosen using a purposive sample technique from Pakistan's main TV news channels. To learn more about their perspectives, experiences, and difficulties with news management procedures, a semi-structured interview approach is used. To have a thorough

grasp of how human knowledge and media technologies interact in the creation and distribution of news, interviews are done with participants who have a range of professional backgrounds and degrees of experience.

The sample for the study is taken as 25 media managers working in Pakistani News channels. Media managers specifically are designated as the persons who play key roles in decision making for deploying Media Technologies in the organization, those people may be IT Heads/ managers as well as the persons who play vital role in News Processing and Dissemination. Owners or some other decision makers, will be interviewed to check and explore their take on deploying Media Technologies.

9.3 Sampling Strategy

Purposive sampling technique was employed to collect data from the participants.

9.4 Data Analysis

Thematic analysis was used to analyse the data collected from interviews.

9.5 Ethical consideration

All ethical guidelines were compiled with in order to fulfil the standards as devised by the research guidelines of APA Ethical standards and guidelines for conducting social science research; thereby including the informed consent, confidentiality maintenance and right to withdraw from research on feeling uncomfortable etc.

10. Results

The following themes were extracted from the data collected through in-depth interviews catering the first research objective of this study 'To investigate how human elements, such as the knowledge, expertise, and decision-making processes of news producers, editors, and journalists, influence how news is managed on Pakistani television networks.

10.1   The Role of Human Knowledge in News Administration

Journalists stressed the value of editorial judgment and first-hand knowledge in guaranteeing the reliability and calibre of news. Many respondents emphasized the importance of using human judgment when reading and placing news reports in perspective, particularly when dealing with delicate or urgent issues. But they also mentioned issues like excessive management and outside investor involvement, which occasionally jeopardizes their editorial independence.

10.2   Improvements in Technology and Effectiveness

Participants agreed that the speed and efficiency of news production are greatly increased by media technology including digital newsrooms, real-time data systems, and automated editing tools. These tools were especially useful since they made it possible to cover breaking news more quickly. But several reporters voiced worries about an over-reliance on technology, which occasionally resulted in fact-checking errors and diluted reporting.

10.3   Difficulties in Integrating Humans and Technology

The challenge of accomplishing a smooth integration between technical systems and human competence kept coming up. Journalists observed that the efficient use of media technologies was hampered by antiquated equipment, inadequate training, and resource limitations. Numerous others also stated that although technology may help them with their work, it couldn't take the place of the context and depth that human-driven journalism offers.

10.4   Concerns about Ethics in News Management

Ethical concerns raised by respondents often included sensationalism, biased algorithms, and the preference for viewership ratings over truthful reporting. Both technology and human limitations were thought to make these issues worse, which resulted in a decline in the calibre of news reporting.

10.5   Economic Pressures and Resource Allocation

Journalists discussed the economic challenges faced by their organizations, including budget constraints and the high cost of technological upgrades. Some respondents highlighted the tension between maintaining quality

reporting and meeting financial targets, often resulting in the underutilization of available technologies or overburdening of newsroom staff.

The following themes were identified from the information gathered for the second objective 'To analyse the influence of technology improvements on news gathering, editing, and dissemination in Pakistan's electronic media business':

10.6 Increased Rapidity and Effectiveness in News Collection

Journalists pointed out that technological innovations like GPS-enabled reporting, mobile devices, and real-time data feeds have significantly increased the speed at which news is gathered. The instantaneous availability to information by reporters from distant locations has revolutionized the coverage of breaking news. Some have pointed out that this pace occasionally puts immediacy ahead of accuracy, which can result in sporadic mistakes or insufficient information.

10.7 Content Creation and Editing Automation

The editing process has been made more efficient by editing tools, such as AI-powered text and video processing programs. Journalists said that by using these technologies, they may save a lot of time and money and concentrate more on producing high-quality material. However, they also voiced worries about automated methods' inability to incorporate creativity.

10.8 Better Distribution via Online Channels

Through apps, social media, and live streaming, technology has increased news channels' reach. According to the respondents, these platforms offer greater visibility and allow for real-time audience involvement. But there are drawbacks to the move to digital distribution as well, like the need to modify content for shorter attention spans and counteract false information that circulates online.

10.9 Difficulty in Training and Adaptation

A number of reporters emphasized the necessity of training in order to adjust to changing technology. Experienced journalists can find it difficult to keep up with the quick developments in technology, whereas younger journalists

are frequently more tech-savvy. The efficient use of sophisticated tools and systems is impacted by this disparity.

10.10 Financial Limitations on the Uptake of Technology

Many journalists noted that their organizations' capacity to adopt or upgrade technologies is constrained by economic demands, notwithstanding the advantages of technical advancements. Financial limitations frequently force the employment of antiquated systems, which reduces productivity and disadvantages smaller media outlets in the marketplace.

From the data collected for the third goal, the following themes were found:

10.11 Need for Comprehensive Training Programs

In order to close the gap between human skill and technical improvements, journalists stressed the significance of continuous training. Many recommended customized workshops and practical sessions to introduce new technologies and processes to both novice and experienced professionals. Staff members could use technology more efficiently while upholding journalistic standards thanks to this.

10.12 Modernizing and Standardizing the Infrastructure for Technology

A number of participants brought up the idea that media firms' use of antiquated or inconsistent technology reduces productivity. In order to guarantee consistency in tools and systems and facilitate team collaboration and adaptation, they recommended standardized technological updates.

10.13 Promoting Innovation and Feedback

The creation of procedures for routine newsroom staff feedback on technology use was recommended by journalists. Additionally, they suggested providing incentives for creative suggestions to enhance procedures, including enhancing the use of AI tools for audience engagement or content verification.

The results show that human knowledge is still crucial to news management, especially when it comes to contextual reporting and editorial

decision-making. Journalists have repeatedly underlined how they depend on their own discretion and expertise to guarantee the veracity and correctness of news reports. This is consistent with earlier research indicating that human engagement is essential to upholding journalistic ethics in situations involving emergencies or political sensitivities. However, obstacles that frequently compromise this knowledge were noted, including external pressures from stakeholders and management. A strong editorial framework that upholds journalists' independence and encourages moral behaviour in decision-making is necessary to address these problems. The speed and effectiveness of news collection, editing, and distribution have been greatly increased by developments in media technology.

11.   Conclusion

This research has delved into the utilization of digital media technologies in the news gathering process by news channels in Pakistan. Through interviews, various themes have emerged, shedding light on the transformative impact of digital media on journalism practices and the efficiency it brings to the news collection process.

The findings reveal a widespread adoption of digital media technologies among news channels in Pakistan, encompassing social media platforms, content management systems, and AI-driven algorithms. These technologies have revolutionized the traditional news gathering process, offering unprecedented access to diverse sources of information and facilitating real-time reporting on breaking news events.

Moreover, the integration of multimedia content has enriched news coverage, enhancing audience engagement and comprehension. However, alongside the benefits, challenges such as verifying the accuracy of information, ensuring data privacy and security, and navigating ethical considerations have surfaced.

Looking ahead, the future of digital media technologies in news collection holds promising prospects, with advancements in AI, machine learning, and virtual reality poised to further revolutionize journalism practices. However, it is imperative for news organizations to remain vigilant

in upholding editorial standards, combating misinformation, and safeguarding journalistic integrity in the digital age.

In conclusion, the research underscores the pivotal role of digital media technologies in reshaping the landscape of news gathering in Pakistan. By embracing innovation while upholding journalistic principles, news channels can harness the full potential of digital media to deliver timely, accurate, and impactful news coverage to audiences across the nation and beyond.

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