CHAPTER II
REVIEW OF LITERATURE

2.1. Introduction

In the new millennium, FM radio has grown commendably across the world as a welcome addition to the mainstream of communications media. The number of FM radio stations is constantly increasing in India and other parts of the world since the audience need variety of broadcasting services. The people also rely on a combination of radio, television, movies, and music, besides devices like Internet-powered smart phones and portable music players for entertainment. The FM radio is also compared to television when it comes to programming. In reality, the FM spectrum has a finite lifespan. Scholars have examined the development, management, contents and effects of FM radio and stated that it is important to re-consider the spectrum policy before broadcasting goes kaput. The major international and national studies conducted by the past researchers on various aspects of FM radio are furnished in this chapter.

2.2. International Studies on FM Radio

Cohen (1996:37) examined the need for mobilizing communities for participation and empowerment in the modern society and observed that micro-media like FM radio, community radio, low power television centre, rural press, extension communication and other media were beneficial from participatory communication and development point of view. The scholar suggested that FM radio should be utilized for educational and development broadcasting rather than generating income from entertainment and advertisement programmes.

Leentvaar and Flint (1996:103) examined the capture effect in FM receivers in modern society and pointed out that FM radio captured the young generation of audience including women in the urban areas across the globe. The study revealed that FM radio played a limited role from public instruction, welfare and development points of view in modern society. The scholars suggested that FM radio owners and broadcasters should function with social concern and responsibility to reach out to the unreached and disadvantaged sections of society.

Franck (1998:56) examined the fight for micro radio centers in modern society and reported that privatization of FM radio brought about a new era of commercialization of broadcasting services. The scholar observed that FM radio had the capacity to educate and mobilize the masses at the grassroots level for various developmental endeavours. The
scholar suggested that the structure and contents of FM radio stations should be reformed to provide people-friendly micro level broadcasting services.

Skinner (1998:170) examined the low power FM radio and reported that the attempts to privatize its FM channels ran into rough weather when private players bid heavily and most could not meet their commitments to pay the government the amounts they owed. The scholar suggested that effective regulations were essential to put FM radio stations in the right track and safeguard public interest in modern times.

Rudin (1999:159) examined the Eureka 147 from the point of view of digital diversity and noted that government had not placed any reasonable restrictions on the FM radio stations. The scholar further reported that FM radio stations were governed on the basis of economics of broadcasting rather than social developmental obligations. The scholar suggested that FM radio owners and broadcasters should function on the basis of humanitarian considerations in modern society.

Albiniak (2000:08) examined the style of functioning of modern FM radio stations and pointed out that FM radio stations posed serious challenges to public broadcasting institutions in modern times. The study revealed that FM radio industry had further growth opportunities in the new millennium. The scholar suggested that FM radio industry should collaborate and implement a measurement system that supports the growth of the industry on the basis of sound ethical and professional considerations.

Fardon and Furness (2000:51) examined the African broadcasting culture and noted that modern radio industry was in transition due to several policy changes and technological developments. The study revealed that African broadcasting institutions functioned with a sense of social responsibility. The scholars cautioned that FM radio stations would lose credibility and prominence if they do not follow the sound principles of broadcasting management.

Hendy (2000:67) examined the political economy of radio in the digital age and reported that FM radio faced tough competition from the web radio which mainly catered to the niche audiences that were not satisfied with film songs played by most modern FM radio stations. The scholar further noted that FM radio stations were controlled by the market forces who were guided by the business considerations. The scholar suggested that FM radio stations should change their profile and performance to live up to the expectations of the audience.

Hendy (2000:68) examined the radio in the global age and observed that the revenue growth in FM radio was driven by launch of new stations in the big cities, retention of key sales trends, and client relationships and extensive focus on events and activations to give
more practical solutions. The study also revealed that FM radio had better growth opportunities in the new millennium with the increase of media literacy and economic status of people across the globe. The scholar suggested that FM radio stations should be guided by the service motives rather than profit motives to survive the testing times in the age of web communication.

Daloz et.al. (2000:39) examined the relationship between radio pluralism and political change in Zambia and pointed out that radio industry had been transformed in the modern society in terms of ownership and services. The scholars noted that radio programmes provided highly diversified contents to the audience. The scholars suggested that FM radio should concentrate on achieving the goals of social transformation, political change and economic development in a developing country like Zambia.

Kennard (2000:90) examined the broadcasting in the age of digital revolution and noted that radio was a powerful instrument of education in modern society. The study revealed that radio broadcasting had undergone remarkable changes on account of technological innovations and applications. The scholar further observed that FM radio was indeed a welcome addition to contemporary broadcasting and suggested that FM radio broadcasting should not be designed to compensate for ‘market failure’.

Bose and Short (2001:25) examined the theoretical and experimental basis of noise and distortion in the reception of FM signals and noted that media convergence had a decisive impact on FM radio broadcasting. The study revealed that the expansion of FM radio into several new cities would necessitate the implementation of robust IT systems such as sales pipeline and traffic systems, programming, attendance, billing, collections, and royalty management accounting for streamline operations across locations.

Dvorkin (2001:46) examined the status of low power FM radio and reported that FM radio stations had operations across several cities which have already embarked on this journey. The study revealed that there was an option to earn revenues by enabling e-commerce transactions by the low power FM radio stations in modern times. The scholar suggested that various data analytics, e-commerce, and security tools should be appropriately utilized by the FM radio stations to achieve integrated development in the age of competitive broadcasting.

Hewitt (2001:70) examined the development divide in the digital age and observed that communications media owned by the market forces further widened the gap between the information haves and information have nots in the new millennium. The study revealed that micro-media of communication like community radio, FM radio, low power television centre,
folk media and inter-personal channels played a key role in the development of marginalized sections of society.

Stavitsky and Vanhala (2001:173) examined the role of FM radio in modern society and stated that the low power broadcasting media played a high powered politics because they were control by the market forces. The study revealed that mass media had become class media which were used as business management and political propaganda tools of the multi-national corporations which controlled the political economy across the globe in the age of globalization. The scholars suggested that low power FM radio stations should play a vital role in the inclusive development of weaker sections of society.

Potter (2002:141) examined the home pages from 365 randomly selected FM stations websites and observed that three types of information such as details about station events, disk jockey biographies and contact information for the station were disseminated to the audience primarily. The study revealed that it was significantly different from the type of content listeners who desired the delivery of FM broadcasting services based on timely audience survey. The scholar suggested that FM radio services should be delivered on the basis of changing broadcasting environment and needs of the audience.

Gallup (2002:57) examined the role of FM radio stations in metro cities and observed that FM radio stations had become one of the most popular entertainment mediums offering millions of listeners a great mix of shows. The study revealed that millions of listeners had grown over a period of time and ensured the remarkable development of FM radio industry in modern times. The scholar suggested that meaningful FM radio policy, reasonable restrictions and need based broadcasting services would enrich the FM radio in future.

Jjuuko (2002:83) examined the commercialization of FM radio in Uganda and reported that FM radio industry had registered a robust growth of around 25 percent in the study area and generated considerable advertising revenue. The study also reported that FM radio stations were managed on the basis of business considerations. The scholar suggested that the stakeholders of FM radio should think out of the box to attract listeners.

Syed (2002:180) examined the management of FM radio stations in Pakistan and observed that FM radio stations had managed to attract a wide cross section of audiences across the country. The study revealed that modern FM radio stations had thought of a number of innovative ways to hold listeners to their respective channels in the age of competitive broadcasting. The scholar suggested that FM radio stations should increase the development coverage and enlist the active participation of people in the process of development.
Wahgra (2002:196) examined the FM 100 channel in Pakistan and noted that the particular FM radio station had made experiments to reach out to the listeners and provided multi-faceted services. The study revealed that FM 100 channel would achieve exponential growth in due course of time. The scholar suggested that FM 100 should become truly a common man's medium in the age of competitive broadcasting management.

Dia (2003:43) examined the relationship between radio broadcasting and new information and communication technologies and pointed out that application of new technologies had created a new era of web broadcasting. The scholar noted that web radio posed a major challenge to the FM radio in modern times. The scholar suggested that FM radio stations should be managed on the basis of social responsibility and development considerations.

Robert (2004:141) examined the job satisfaction at university licensed FM public radio station in Ohio and observed that public radio represented a significant part of modern universities. The scholar evaluated the levels of satisfaction and dissatisfaction among students, teachers and non-teaching staff for eighteen job-related factors as originally identified by Frederick Herzberg. The study revealed general adherence to the theory and identifies areas of importance to staff and students. The scholar suggested that academically useful programmes should be broadcast by the FM radio stations to enrich the competence of teachers and learners in modern society.

Abbas (2004:01) examined the FM 103 radio station and stated that the entry of Foreign Direct Investment had brought about greater flexibility and diversity in the contents of FM radio. The study revealed that FM radio offered better opportunity for strategic investors to look at the industry. The scholar suggested that FM radio should provide locally relevant programmes to enhance the active participation of people in the nation building activities.

Hamilton (2004:65) examined the challenging conditions of low-power FM radio and reported that FM radio achieved considerable progress through flexibility in programming content presentation, creative explosion and listeners friendly services in modern society. The scholar suggested that FM radio stations should provide adequate current affairs oriented programmes to the listeners on the basis of audience research findings and recommendations.

Gardner (2005:58) examined the relationship between AM and FM radio and pointed out that the pattern of listening AM and FM radio programmes was different in modern society. The study revealed that young listeners were attracted by FM radio programmes which provided a new genre of song and music programmes. The scholar suggested that AM
and FM stations should co-exist by providing audience-friendly services in the competitive business environment.

Feek (2005:54) examined the moving media in the context of media and development in the new millennium and observed that FM radio had become highly mobile media of communication from participatory communication and development point of view. The scholar also reported that FM radio brought about increasing social mobility among the people and served as a mobile university in modern times. The scholar suggested that FM radio should become an effective medium of development communication.

Hedges (2005:66) examined the FM radio in modern times and noted that the FM radio broadcast business had been buoyant over recent years. The study revealed that planning, scheduling, and executing the broadcast of live events were important elements of outside broadcast. The scholar also noted that FM radio stations fulfilled the demand of global listenership and provided need customized contents to their own target audiences with coverage of specific events.

Hallet (2005:64) examined the expansion of FM sphere across the globe and pointed out that digital radio had replaced the analog for interoperability, feature enhancement, and easy access. This enables not only broadcast of multiple services from the same transmitter but also broadcast of value-added services on radio. It also saves valuable frequency spectrum and power. The study revealed that digital radio had become a Smart Radio which provided advanced and useful services to the mankind.

Youssef et.al. (2005:205) examined the computing location from ambient FM radio signals and noted that the DRM equally supported all terrestrial radio broadcasting bands, including AM bands (LW, MW, SW) and VHF bands (with the FM band II). The scholars also reported that AM radio stations made serious efforts to improve the quality of MW transmissions. The scholars suggested that traditional AM radio stations should replace their MW transmitters by DRM digital transmitters in the competitive broadcasting environment.

Dalene (2006:38) examined the case of Siyaya FM station and reported that Siyaya FM was a powerful tool when it comes to communication and empowerment for active listeners. The study revealed that the FM radio station took part in building social cohesion among the different groups of community members. The scholar suggested that by strengthening community radio stations the national authorities have a potential to meet the goals of their development strategies, while at the same time fulfilling the constitutional promise of freedom of speech for all by creating access to the airwaves for everybody.
Berry (2006:22) examined the impact of iPod on FM radio and observed that digital transmitters on SW gave FM quality sound. The study revealed that all types of digital receivers like radio sets, PCs, laptops, cars, and mobile phones were required to fulfill the needs of distributors and retailers in modern society. The scholar suggested that the manufacturers of radio receivers, automobiles, chipsets, and cell phones should become involved in the roll-out process and plan the production of receivers as soon as possible.

Hyde-Clarke (2006:72) examined the representation of culture in FM radio broadcasting services in modern society and noted that FM radio contents were greatly influenced by the western culture which promoted consumer capitalism in modern society. The scholars suggested that FM radio stations should broadcast culture-friendly, environment-friendly and people-friendly programmes in order to manage their reputation in modern society.

Kivikuru (2006:92) examined the role of FM radio in the service of democracy in South Africa and Namibia and reported that FM radio primarily served as a tool of business propaganda rather than an effective instrument of political economy. The scholar argued that FM radio was not the voice of the people in modern society. The scholar suggested that FM radio should function as the primary source of public instruction in modern society.

O’Neill (2006:127) examined the CBC broadcast sovereignty in a digital environment and reported that FM radio broadcasting had become an important component of media convergence which benefitted the people. The scholar suggested that FM radio broadcasting should be managed on the basis of corporate social responsibility in modern society.

Ofcom (2006:129) examined the co-existence of FM and AM services and the alignment of analogue and digital regulation in modern society. The study revealed that most of the FM stations simulcast the same material broadcast on AM, and the same companies as AM stations owned FM stations. The scholar also noted that the early FM stations were devoted mostly to classical music and required special FM sets. Today most radio sets have AM and FM bands and over simulating, according to the study.

Rudin (2006:160) examined the development of DAB digital radio in the UK and pointed out that a new battle for control of a new technology in an old medium had begun across the globe. The study revealed that digitization of FM radio had become an essential feature of modern broadcasting management. The scholar also noted that the scope of FM radio production and the quality of transmission are bound to improve in leaps and bounds on account of digitization.
Durban (2006:45) examined the role of community radio in the governance, control and community participation with special reference to XK FM radio in modern society. The study revealed that the anomalous creation of XK FM as a community radio station under the auspices of SABC had created an ambiguity of theories of the public sphere and ethnicity. The scholar suggested that FM radio should correct the distortions inherent in the majority-controlled media by acting as the alternative media to challenge the establishment, and give the people an independent voice which is often perceived as alternative and free speech.

Popleteev et.al. (2006:140) examined the indoor localization using audio features of FM radio signals and reported that typical localization systems used various features of the signal to estimate the distance, including received signal strength indicator (RSSI), timing information or angle of arrival (AoA). The scholars suggested that there are a number of signal features of FM radio which could be used for localization, namely stereo channel separation (SCS) and signal to noise ratio (SNR).

International Telecommunication Union (2007:76) examined the FM modulator interference to broadcast services and noted that FM modulation practically resulted in little or no static and high fidelity of original sound in reception. The study reported that FM radio stations, from 88 to 108 megahertz, in the VH1 Band (30-300 MHZ) produced reception superior to that of AM or amplitude modulation stations, particularly of music in the high frequency range.

O’Neill (2007:128) examined the digital audio broadcasting in Canada and noted that there was a definite policy shift which brought about commendable transition to digital radio. The study revealed that digitization of FM radio had enhanced the influence of FM radio broadcasting in modern society. The scholar also noted that FM operators sought relief by way of migration to a revenue share regime in modern times.

Peter et.al. (2007:138) examined the FM revolution in Nigeria and noted that FM radio broadcasting had the capacity to improve the competence of people in all walks of life. The study revealed that FM radio encouraged continuous information exchange that helps reduce social risks and helps people keep a check on power. The scholars further reported that with a rich history in education, health, and development, radio is thus best suited to reaching millions of people in developing nations in modern times.

Buckley (2008:31) analyzed the management of FM Radio services which had mushroomed in modern society and noted that FM radio services were expanded in major cities due to the impetus given by the FM policy. The scholar reported that community radio
had potential in urban rural areas in the new era. The scholar called upon the policy makers to regulate the services of FM radio stations and facilitate development oriented broadcasting services.

Jovia (2008:86) examined the Mama FM Radio from the point of view of empowerment of rural women in Uganda and reported that Mama FM Radio was set up by female professional journalists to reach out to the rural women in the Ugandan society. The study revealed that FM radio was able to enlist the active participation of women in the process of development in the study area. The scholar suggested that active people’s participation is highly essential in the management of FM radio to facilitate the accessibility, management and sustainability of the vehicle (community medium) that conveys developmental information to the people.

Mali (2008:108) examined the FM radio technology in Koutiala and noted that FM radio stations produced most programs in the unofficial national language, Bamanankan, and primarily depended on the system of face-to-face communication for the recirculation of messages broadcast using radio technology. The scholar suggested that FM stations allocate program time to different listener groups according to their place in the national ethnolinguistic and religious hierarchy to do justice to participatory communication in modern times.

Naz (2008:123) examined the FM radio revolution in Pakistan and noted that FM radio channels covered most of the current affairs and honoured the freedom of information and expression of the people. The study revealed that in future many more FM radio channels would be started in different towns and cities and channels would be provided with maximum communication facilities, guidance and entertainment to common public. The study observed that the channels would upgrade the taste of low literate and illiterate people of Pakistan.

Lax et.al. (2008:102) examined the development of digital radio in four European countries and pointed out that the manufacturers of radio receivers, automobiles, chipsets, and cell phones were actively involved in the FM radio in modern times. The study revealed that FM radio continued to offer diversity in programming under the explosion of 21st century technological advancement. Private FM stations, built in radio receivers in the mobile phones, mobility, and battery operation have added new dimension to FM radio broadcasting according to the study.

Rodri Quez et.al. (2008:156) examined the relationship between concert and listening behavior with reference to FM radio broadcasting and noted that there was a strong correlation between how songs were played in concert and how they were listened to by last
FM members. The study revealed that the music choices of its online community of listeners reflected very well the live concert tradition of the Grateful Dead phenomenon, even after their dissolution. The scholars suggested that the deviations could be understood by changes in the band, by live performance album releases, and by the very nature of the songs themselves.

Kisrene (2009:91) examined the multiculturalism and the de-politicization of blackness in Canada with special reference to FLOW 93.5 FM and reported that multiculturalism shifted the focus away from racial inequality to cultural difference. The study revealed that the black self-determination was unauthorized since the black focus radio station dissolved in order to fit the practical and ideological framework of multiculturalism so that blackness could be easily commoditized. The scholar suggested that FM radio broadcasting should practically address the needs of black communities in Canada to ensure justice and racial equity.

Ibrahim et.al. (2009:73) examined the method and system for flexible FM tuning and noted that FM broadcasting had emerged as a prominent medium of commercial broadcasting in modern society. The study revealed that networking of channels was permissible within a private FM broadcaster's own network across the country. The scholars reported that no two entities shall be permitted to network any of their channels in any category of cities according to the prevailing FM radio regulations.

International Telecommunication Union (2009:78) examined the propagation data and prediction methods for the planning of indoor radio communication systems and radio local area networks in the frequency range 900 MHz to 100 GHz. The study revealed that given the challenges encountered with respect to content regulation, all players had to think out of the box to attract listeners. The institution also pointed out that as per current legal stipulations, private FM broadcasters can own only one frequency per city.

Ramakhula (2009:152) examined the role of the private radio stations in promoting participatory democracy in Lesotho and reported the current situation of the role of radio in the country, including levels of rural development programming and community participation. According to the study, the researcher has tried to establish if liberalization of the airwaves in particular has a significant impact on the democratization process in the country. The study, therefore, concludes that the emergence of the private radio stations in Lesotho has increased community participation in political and current affairs. The scholar suggested that the private FM radio stations should provide need based services to the rural people whose access to television and print are inaccessible.
International Electro technical Commission (2009:75) examined the specification of the radio data system (RDS) for VHF/FM sound broadcasting in the frequency range from 87.5 to 108.0 MHz. The study revealed that FM radio broadcasting demonstrated exponential growth across the world. The study further reported that FM radio industry had become a profit oriented and commercialized venture in modern times. The report also emphasized that the future looks hopeful with two other critical factors pertaining to the industry finding a closure.

Shih-Hau Fang et.al. (2009:166) examined the functioning of FM radio stations in modern society on the basis of a probabilistic approach with radio measurements analysis. The study revealed that the FM radio stations looked at multiple frequencies, which will act as a revenue multiplier without huge incremental CAPex/OPex. The scholars suggested that FM radio stations should survive on the basis of flexibility in programming content presentation and diversity of contents to benefit the listeners, the advertisers, and the industry itself.

Arbitron (2010:12) examined the satellite radio shows and reported that SIRIUS XM listeners preferred satellite radio over other audio options available to them. The study revealed that FM radio attracted the attention of city based people by delivering the urban-centered, lifestyle oriented and entertainment oriented broadcasting services. The scholar suggested that FM radio stations should be managed on the basis of sound professional consideration in modern society.

Popleteev et.al. (2010:140) examined the indoor positioning system based on FM radio and noted that the system was built on commercially available short-range FM transmitters. The scholars also reported that despite the low cost and off-the-shelf components, the FM positioning system reached a high performance, comparable to other positioning technologies such as Wi-Fi. The scholars suggested that these applications could be enabled by a low-cost, sub room location solution.

Sterling and Huyer(2010:174) examined the power shifts and participatory spaces and stated that community radio, enhanced with modest interactivity functionality, offered women an effective opportunity to be heard in similar communities served by community radio. The study revealed that FM radio had the potential to ensure the personal empowerment and social capital related to information and communications technology (ICT). The scholars suggested that FM radio stations should adopt technology and development strategies by encouraging technologists and social scientists to focus efforts and attention on the multiple locations, opportunities and manifestations of women’s empowerment as a core implementation and assessment goal.
Fang and Lin (2010:50) examined the cooperative multi-radio localization in heterogeneous wireless networks and pointed out that FM radio stations had become prominent sources of information, entertainment and advertisement in modern society. The scholars stated that FM radio stations had not achieved success in facilitating development oriented broadcasting since they were primarily governed by the economics of broadcasting.

Radio Spectrum Policy Group (2010:146) examined the future of radio broadcasting in Europe in terms of identified needs, opportunities and possible ways forward. The study reported that the remarkable transformation of FM radio broadcasting had ushered a new era in broadcasting industry. The study further revealed that digitization of FM radio broadcasting had provided finest viewing experience due to its superior transmission technology. Digitization further allows subscribers to get value for their money by paying for the content that they want to listen, according to the study.

Taipale et.al. (2010:181) examined the frequency modulation radio receiver including a noise estimation unit and noted that digitization allowed the broadcasters to customize their offerings according to content, listenership, and distribution of the services in modern times. The study revealed that modern FM radio industry was at a transformation stage on all fronts - content, listenership trends, transmission platforms, and overall listening experience. The scholars suggested that FM radio stations should deliver the goods in accordance with the principle of public accountability.

Unathi (2010:191) examined the performative nature of talk on commercial music radio in South Africa and reported that commercial FM radio stations attracted millions of listeners across the globe and laid emphasis on initiating South African literature on the nature of talk on commercial music radio. The study revealed that the FM commercial radio used certain qualitative methods that sought to understand, describe and explain the social phenomena of on-air talk on music radio. The scholar suggested that the performance of FM radio stations should be improved on the basis of scientific investigations.

Matic et.al. (2010:114) examined the FM radio for indoor localisation with spontaneous recalibration and noted that modern FM radio stations primarily catered to the needs of local residents in large cities and townships. The study revealed that FM radio stations had become prominent sources of entertainment and advertisement services in modern times. The scholars suggested that FM radio stations should provide adequate food for thought and action to the people from national development point of view.

Wunsch (2011:202) examined the incremental technology of FM radio stations in modern times and stated that FM radio stations provided innovative services based on
technological advancements and applications. The study revealed that FM radio advertisements were highly effective means of promoting consumer capitalism in modern society. The scholar suggested that FM radio stations should think beyond the economics of broadcasting and fulfill their social obligations.

British Broadcasting Company (2011:29) examined the role of FM radio stations in England and observed that the manufacturers of radio receivers, automobiles, chipsets, and cell phones were actively involved in the FM radio management in modern times. The study revealed that FM radio communication continued to offer diversity in programming under the explosion of 21st century technological advancement.

Abellonosa et.al. (2011:02) examined the effectiveness of Tri-Media Advertising Campaign for enrollment of Liceo de Cagayan University and noted that the radio advertisement was very effective medium in terms of persuasive effect due to the language they speak in radio than television or print media. The study revealed that FM radio was an effective medium in promoting the programs and services offered by LdeCU as the listeners easily understood the messages from the radio for its language that was within the level of listeners understanding.

Naqvi et.al. (2011:121) examined the role of FM radio in social change in Quetta city and noted that FM radio effectively catered to the needs of multi cultural and multi linguistic mass land. The findings of the research showed that FM radio was mainly listened by the young generation of Quetta due to their main focus on entertainment and interactive programmes with feedback. The scholars suggested that FM radio services should be delivered to change the mindset of the people and enlist their active participation in the process of social transformation in modern society.

Lorenz and Kroeske (2011:106) examined the radio frequencies and transmitter maps worldwide and reported that FM radio stations delivered information, entertainment and advertisement services which had diversity of coverage from local to global. The study revealed that FM radio broadcasting had been spectrum hungry but reached its spectrum, coverage, and improvement limits. The scholars suggested that FM radio broadcasting should be enriched by the digital, compressed, enhanced features of digital radio.

Anton (2012:11) examined the Pamoja FM which is well known as the voice of Kibera and reported that FM radio in Nairobi was segmented when it comes to news and information delivered to the different audience groups in the society. The study revealed that Pamoja FM had a great influence in the community as it is considered the most important source for news
and information for the youth in the backward locality. The scholar suggested that Pamoja FM should function as the voice of the voiceless in modern society on the basis of absolute social commitment.

Bruin and Kumar (2012:30) examined the Tautoko FM radio broadcasting and noted that audience research could assist indigenous radio stations in gaining a better understanding of how the needs of their listeners can best be met. The scholars suggested that using audience research as part of operations can play a role in facilitating the achievement of the goals of FM radio station in modern society.

Francis (2012:55) examined the Edwin Howard Armstrong’s public relations campaign for FM and observed that Edwin Howard Armstrong remains in the history of broadcasting as the inventor of frequency modulation (FM). The scholar also analyzed the extensive public relations campaign on behalf of both FM and Armstrong from 1940 until after his death. This thesis is a case study of this campaign for the purpose of understanding the narrative presented to the American public.

Kwakwa (2012:98) examined the individual preference for FM radio stations in The Eastern Region of Ghana and noted that the people enjoyed the benefit of access to Fm radio broadcasting in modern times. The study revealed that factors like overall image of the station, clear reception, station heritage, news coverage, kind of programme, presenters and the status of the individual influenced the choice of FM radio station. The scholar suggested that FM radio services should be improved in terms of diversity, quality and creativity.

Balaba et.al. (2012:16) examined the FM radio listeners in Cagayan De Oro City on the basis of functional approaches of broadcast media and noted that FM radio stations had functioned on the basis of sound approaches. The study revealed that the FM radio programmers should not compromise and sacrifice the quality of their programs and must follow the Broadcast Code of the Philippines in terms of content and language. The scholars also recommended that FM radio stations should design their programs to complement the activities of the audience and they should air gender friendly programs.

Malik (2013:109) examined the relationship between the media and militancy with reference to the use of FM radio by Taliban in Swat and reported that Talibanis used the airways under the leadership of Maulana Fazlullah to reach out to the masses on the pirate FM radio. The study revealed that the timings and contents used by the Maulana for broadcasts were carefully chosen to reach the maximum number of people in Afghanistan. The scholar also observed that FM radio was not used systematically to mobilize political forces and
action in a democratic way and Taliban movement could not achieve success due to fascist and undemocratic leadership of Fazlullah.

Nashville (2013:122) examined the impact of Internet radio on AM and FM radio and observed that young listeners aged 13-35 years switched over their loyalty to Internet radio which provided services based on digital files and on-demand services in modern society. The study revealed that AM/FM radio was indeed a format for the middle-aged and web radio was found more useful by the youngsters. The scholar suggested that AM and FM radio stations should race against the time and capture the audience by providing multi-faceted broadcasting services based on systematic assessment of the needs of the audience.

Prakash (2013:143) examined the participation of indigenous people in media with special reference to FM radio in Kavrepalanchowk, Nepal and reported that FM radio had emerged as the most popular modern means of mass media. The study revealed that FM radio had the capacity to reach out to the indigenous people and enlist their active participation in the developmental activities. The scholar also pointed out that community FM radios had the common purpose of inclusive participation to bring the ‘voice of the voiceless’ on air. The scholar suggested that indigenous people should be actively included in the media and development mainstreams.

Boscha and Mullins(2014:24) examined the radio, race and identity in South Africa and reported that Metro FM deliberately promoted a black South African identity. The study revealed that the FM station achieved success in fostering black pride, creating a congenial atmosphere for cultural promotion and facilitating active participation of blacks in the educational endeavours. The scholars also presented a historical snapshot of one of many possible black counter publics or sphericules on the South African media landscape to contribute to an understanding of radio in the region. The scholars suggested that culture-friendly, environment-friendly and development-friendly programmes should be broadcast by the FM radio station to achieve success and gain popularity in modern society.

Brand (2014:28) examined the rebirth of low power FM broadcasting in America and reported that FM stations followed audience survey method to understand the needs of the people before delivery the broadcasting services. The study revealed that FM radio stations covered general education, community activities, sports programmes and public service announcements primarily in the study areas. The scholar suggested that a combination of information, education, entertainment, development and advertisement programmes should be designed for the purpose of FM broadcasting in modern times.
Lucas (2014:107) examined the cultural policy, public sphere and struggle to define low power FM station and observed that corporate capitalism and liberalism were the basis for the management of FM radio stations. The study revealed that FM radio stations broadcast both commercial and non-commercial programmes which fell short of the original vision. The scholar suggested that FM radio stations should adequately represent the philosophy of corporate social responsibility to gain public confidence, professional credibility and financial success in the present times.

Marko Ala-Fossi et.al.(2014:111) examined the future of FM radio in the context of digitalization and stated that the Digital Multimedia Broadcasting was a multimedia update of the DAB system combined with both new audio and video encoding standards in South Korea. The study revealed that the new system was known for better performance than any other multimedia broadcasting system in modern times. The scholars suggested that application of new technologies and advanced broadcasting techniques would boost the status of FM broadcasting in the new competitive broadcasting environment.

2.3. Indian Studies on FM Radio

Eapen (1995:47) examined the relevance of community FM radio in India and pointed out that grassroots development practically demanded grassroots media including community FM radio. The scholar also reported that decentralization, democratization and localization of media services would facilitate the inclusive development of people in modern India. The scholar emphasized the need for the development of community FM radio networks across the country to enlist the active participation of people in the process of development.

Noronha (1999:125) examined the democratization of air waves in India and stated that the Supreme Court order and new government policy on media facilitated democratization of air waves in modern times. The study revealed that FM radio and web radio had emerged as community-friendly means of education and development in modern society. The scholar suggested that public-private partnership would boost the status of FM radio broadcasting in India.

Ram (2000:150) examined the emergence of great Indian media bazaar and noted that the new media including FM radio broadcasting could play a substantive role in the formation of public opinion in Indian society and in shaping public policy on major social, political and economic issues. The scholar noted that vital public issues such as mass hunger, deprivation and exploitative tendencies were not adequately covered by the news media in India. The
scholar suggested that watchdogism of media would improve the government or reform the system in modern India.

Brahma and hazarika (2001:27) examined the FM radio in North-East India and reported that FM radio had attracted the youngsters, working professionals and housewives in the middle income segment in the study area. The study revealed that FM radio mainly served the people of urban areas and provided infotainment primarily. The scholars suggested that FM radio should become a prominent means of education and development in modern India.

IGNOU (2001:74) examined the role of Gyan Vani as the educational FM radio network of India and reported that Gyan Vani had become a prominent educational program in the country. The study revealed that the students of colleges and universities were the target group and that Gyan Vani had complimented the educational services in modern times. The study suggested that Gyan Vani should be broadcast before and after the regular class to involve more number of students in the process of learning.

Kothari (2001:95) examined the power, knowledge and social control in participatory development in India and observed that the people of India did not enjoy the benefits of participatory communication and development even after several decades of national independence. The scholar suggested that media in India including FM radio broadcasting should sensitize the various stakeholders of development to play a vital role in facilitating distributive justice and development in all walks of life.

Singhal and Rogers (2001:168) examined the communication revolution in India from bullock carts to cyber marts and noted that India emerged as a prominent new media power in the world. The study revealed that application of new information and communication technologies in different fields of human life brought about considerable change, modernization and development. The scholars suggested that new media including FM radio broadcasting should play a vital role in the process of development of the people.

Sharma (2002:165) examined the educational FM radio network of India with special reference to Gyan Vani and pointed out that Gyan Vani had emerged as a prominent educational broadcasting program in India. The study revealed that Gyan Vani program was based on extensive research and consultation approaches in the country. The scholar suggested that Gyan Vani should be enriched through appropriate changes and modifications in terms of contents, time, duration and quality to enhance the status of FM radio educational broadcasting in India.
Ghaswalla (2003:59) examined the role of FM radio in modern society with special reference to Radio Mirchi and Radio City stated that both the channels competed vigorously to gain the top spot across different segments in major metropolitan cities. The study revealed that these two FM radio stations attracted the attention of students, housewives and other young listeners. The scholar suggested that current affairs, general knowledge, personality development and career oriented programmes should be broadcast to serve the audience in a better way.

Chandar and Sharma (2003:34) examined the process of learning through radio broadcasting and reported that Indira Gandhi National Open University had been allotted 40 FM radio stations which broadcast educational programmes for the benefit of students and general public in India. The study revealed that Gyan Vani network primarily catered to learners seeking to gain knowledge in the areas of basic, primary, higher, and extension education. The scholars also stated that the audience’s perceived the need for a radio channel dedicated exclusively to educational programming in a developing country like India. The scholars suggested that educational broadcasting services should be standardized on the basis of systematic assessment of the needs of the audience, changing educational environment and active involvement of talented and experienced resource persons from all walks of life.

Jain (2004:81) examined the impact of FM radio channels on audience in Indore, Madhya Pradesh, India and reported that maximum people preferred to listen to Vividh Bharati and Radio Mirchi F.M. Radio channels. The study revealed that the young generation of audience preferred to listen to Radio Mirchi where as the older generation liked Vividh Bharati because of its language sophistication. The scholar suggested that the originality of the culture and language should not be endangered by the FM radio broadcasting in a pluralistic society like India.

Kar (2004:87) examined the utility of FM radio from teaching point of view in West Bengal and reported that FM radio programmes created new awareness among the teachers and students in modern times. The scholar suggested that educational contents of FM radio should be increased and enriched in consultation with educationists to improve the personality of teachers and students.

Agrawal and Shalini (2006:05) examined the changing perspectives of Indian Public Service Broadcasting and reported that All India Radio and Doordarshan functioned in accordance with the principles of social responsibility and collective welfare as means of education and development. The study revealed that FM radio broadcasting posed serious challenge to Indian public broadcasting. The scholar suggested that Indian public broadcasting
institutions should change their attitude and approaches to survive the testing times in the new broadcasting environment.

Das (2006:40) examined the impact of FM channels in rural Assam and noted that the rural people were not receiving messages that were nearer to their social situation but they were bombarded with messages mainly meant for a far more urban audience. The study revealed that FM radio broadcasting had the potential means of disseminating socially relevant messages that could be useful for the targeted audience in modern society. The scholar suggested that FM radio broadcasting should be enriched through need based and quality oriented programmes.

Rajagopal (2009:147) examined the role of radio advertisements as behavioral driver among urban consumers and stated that advantage shopping at retail stores in response to radio advertisements was highly influenced by the physical, cognitive and economic variables. The study revealed that FM radio broadcasting had become a prominent source of commercial advertising in India and fetched dividends to the owners. The scholar suggested that FM radio broadcasting should strike a balance between profit and service motives to gain social acceptance and professional credibility in modern society.

Vivek (2010:195) examined the role of FM radio broadcasting in India and reported that High 90.4 FM and noted that the channel had become a popular source of entertainment and advertisement in modern society. The study revealed that this channels also faced certain constraints such as limited inventory and slow recovery of advertisement effective rates. The scholar suggested that FM radio broadcasting industry should collaborate and implement a measurement system that supports the growth of the industry.

Talukdar (2011:182) examined the impact of FM channels in rural Assam and reported that FM radio broadcasting enhanced the knowledge of listeners on their livelihood, government schemes, health awareness and the like. The study revealed that FM radio faced tough challeng from television and Internet in modern times. The scholar suggested that FM radio should enhance the quality of infotainment, edutainment and advertisement programmes to sustain the active involvement of the audience in the competitive media environment.

Agrawal (2011:04) examined the impact of radio broadcasting on youth in India and reported that FM radio continued to thrive on the staple food on the crêches of Indian film songs and music without generating much of its original soundtrack of music and sounds. The study revealed that young listeners like other listeners were attracted to this genre of song and music broadcast by FM radio channels in the urban areas. The scholar suggested that FM
radio broadcasting should be enriched in terms of diversity, creativity and quality to survive the testing times in India.

Ananthi (2012:10) examined the emerging marketing paradigms with reference to FM Radio market in Chennai, India and pointed out that FM radio played a prominent role in promoting a strong market base in modern society. The study revealed that FM radio broadcasting created the desire for new products and services in the minds of the audience and promoted a new culture of consumerism. The scholar suggested that FM radio should also contribute substantially for the development of people through constructive educational and development issues and concerns.

Venkatalakshmi and Chandraleka (2013:192) examined the social initiative activities of FM radio stations in modern society and reported that FM radio broadcasting created social awareness among the audience besides promoting commercial advertising. The study revealed that FM radio services also emphasized subjects like education, health, environment, and agriculture. The scholars suggested that FM radio broadcasting should be managed on the basis of social responsibility in India.

Singh (2013:167) examined the participatory communication with reference to campus FM radio in Chandigarh and stated that Vivek 90.4 FM radio provided academically useful broadcasting services to the young generation of learners in the study area. The study revealed that the students enjoyed their association with FM radio broadcasting which provided area-specific and subject-specific programmes to them. The scholar suggested that FM radio should provide syllabus oriented and career oriented broadcasting services to the students.

Prabakar (2013:142) examined the role of campus community radio Anna FM in inculcating everyday science awareness among marginalized women in Tamil Nadu and noted that the Science for Women project was produced in magazine format, comprising expert interviews, vox pops, skits, songs and jingles on several themes namely health, nutrition, home gadgetry, effective fuel utilization, environment and food processing. The scholar reported that the FM broadcast services enabled the women to gain self-confidence and participate actively in the developmental activities. The scholar suggested that such broadcasting experiments should be carried out regularly inconsultation with the beneficiaries and specialists.

Guru and Mariswamy (2014:62) examined the communication policy in the age of globalization in India and stated that the broadcasters had used certain hybrid models which
govern the economics of radio. The study revealed that in the urban areas FM stations were more popular through infotainment, edutainment and advertisement programmes which appealed to the young generation of audience. The scholars suggested that FM radio stations should be managed on the basis of strict government regulations, reasonable restrictions and corporate social responsibility in modern India.

2.4. Summary

Prominent studies carried out by the past researchers on the impact of FM radio on listeners in India and abroad are presented in this chapter. The past studies had identified several positive and negative influences of FM radio on listeners in the contemporary society. The studies conducted by the past researchers also revealed that FM radio had emerged as a prominent source of communication and advertising in modern society over a period of time. Major studies concerning the impact of FM radio on listeners include – Eapen (1995), Cohen (1996), IGNOU (2001), Sharma (2002), Wahgra (2002), Abbas (2004), Jain (2004), Kar (2004), Robert (2004), Hallet (2005), Youssef et.al. (2005), Durban (2006), O’Neill (2006), Peter et.al. (2007), Lax et.al. (2008), Naz (2008), Rajagopal (2009), Matic et.al. (2010), Sterling and Huyer (2010), Taipale et.al. (2010), Unathi (2010), Agrawal (2011), Wunsch (2011), Ananthi (2012), Balaba et.al. (2012), Francis (2012), Malik (2013), Prabakar (2013), Venkatalakshmi and Chandraleka (2013), Brand (2014) and Guru and Mariswamy (2014). The review of literature clearly indicates that adequate scientific investigations were not carried out in India on the impact of FM radio on listeners. Surprisingly, not even a single scientific investigation has been carried out in Karnataka state on this important subject of our times.