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## INFLUENCE OF RADIO PROGRAMS ON DEVELOPMENT OF SMALL \& MEDIUM ENTERPRISES IN CENTRAL PUNJAB PAKISTAN

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#### Abstract

This study investigates the role of Pakistan Broadcasting Corporation (PBC), commonly known as Radio Pakistan, in influencing socioeconomic development in Central Punjab (2008-2013). It reviews literature on socioeconomic development through radio in many countries by Stephen Barnard (2000), William Faulder (1984), ShaziaMaari (2009) and Mary Myers (2011) and others and the archives of Finance Division of Government of Pakistan (GOP) on socioeconomic development in the country (2008-2019). The first of its kind, the study assumes that Radio


Pakistan has substantially contributed in socioeconomic development in Central Punjab, catering to infrastructure and internationally funded big projects such as China Pakistan Economic Corridor) needs of Pakistani public.

Radio Pakistan relies on, what WHO calls, the drill of development support communication, a multisectoral process for sharing information about agendas and deliberate actions for development. This medium links beneficiary to the community of planners, implementers and donors of the said action ("Development," 2001). They share information and answer the queries of listeners in radio programs.

The article comprises of quantitative studies based on data collected from 1000/1M random listeners/callers from Lahore, Faisalabad and Sargodha zones, covering $300 \mathrm{~km}^{2}, 120$ $\mathrm{km}^{2}$, and $50 \mathrm{~km}^{2}$ geographical areas respectively (Punjab:205,344 $\mathrm{km}^{2}$; Pakistan: 796,095 km²). This articleassesses the role of radio in socioeconomic development in Central Punjab through two survey questionnaires by asking 40 demographic and specific information questions (SED 140) from the programmers and listeners each respectively. The author developed questionnaire for closed ended, telephonic interviews of 1000 random listeners/ callers ( 636 males and 364 females). She collected authentic data with the help of two assistants for the qualitative study, and 55 assistants ( 30 males and 25 females), for the quantitative without any intervention/prejudice by the Corporation/radio in good faith and analyzed.

The validity and reliability are ascertained that the quantitative study that relies on correlation, factor analysis and variance tests between certain demographic (age, gender, education) and non-demographic variables (satisfaction with program policies, quality, guest's knowledge of the topic, the topic, and style or format of each of the types of radio programs). It finds correlation between different demographic and socioeconomic indicators.Listeners' satisfaction is positively correlated with their interest in most programs on socioeconomic development. The data indicated respondents are highly influenced by programs on small and enterprises (3.96). Audience depends on radio program to gather information and spread the word of mouth concerning health awareness, business, trade and agriculture.

Overall, this research quantitatively examines the role of Radio Pakistan in socioeconomic development in Central Punjab through the surveys of the programmers and listeners about the radio/government program policies, quality, topics, guests' knowledge of topics (Annexure-I \& II) Lahore, Faisalabad and Sargodha stations, and recommends that programs can be made more beneficial through investment in programming and advancement technology in the targeted areas.

## INTRODUCTION

Pakistan, an agriculture-based economy, is heavily relying on Pakistan Broadcasting Corporation (PBC) or Radio Pakistan for socioeconomic development in the country since the Independence. It has not only entertained people through cultural programs, songs and dramas, it has also educated peasants through two hours daily transmission on agriculture and seasonal crops. The radio has been the only medium for communicating information about multifarious governmental support programs to the masses on socioeconomic matters, and for educating, grooming, and entertaining them throughout the country like a family member. Its best example was seen during the times of the Covid-19 pandemic and the motorway rape case when government immediately announced solutions for the problems through healthcare programs and information about the new women protection bill and technology/applications/Apps for reaching the police through the radio in 2020. Radio Pakistan claims nearly 18 million listeners
throughout the country and approximately one million in Central Punjab seek information from its comperes and guests during the broadcast of programs from various stations.


Figure 1.1: Radio Stations in Central Punjab

This study assumes the listeners relied on radio to seek answers to their queries on social and economic small \&medium"enterprises" (SME). Radio Pakistan collects information and invites experts in various live programs to answer questions of listeners/callers on social and economic development issues in the country/region. It fulfils listener cum governmental needs for socioeconomic development in Central Punjab and answers queries of callers on various above said topics through programs aired from Lahore, Faisalabad and Sargodha stations that cover $300 \mathrm{~km}^{2}, 120 \mathrm{~km}^{2}$, and $50 \mathrm{~km}^{2}$ areas respectively. These stations cater to the needs of the listeners in mainly agricultural and industrial regions and the cottage industry in large urban areas of Punjab under the guidance from the provincial policy making departments: Punjab Assembly, Punjab Secretariat, and head offices of many concerned organizations or foreign developmental agencies since establishment in 1947, 1982 and 2005. The socioeconomic development in Central Punjab is dependent on governmental policies, style or format, budget and content of programs (independent variables).

## Statement of the Problem

According to Pakistan Economic Survey (2008-2009), "major financial inflows dried up" in Pakistan "during the July-November 2008" ("Finance," 2009, p. i). "Growth in Gross Domestic Product (GDP) for 2009/10, on an inflation-adjusted basis, has been recorded at a provisional" $4.1 \%$ ("Finance," 2010, p. i). While the world economy was expected to contract by $1.3 \%$ in 2009 and $3.8 \%$ in developing countries ( 2009 , p. i), Pakistan's "account balance" showed an impact due to snappy "increase in oil prices and "import of 1.2 million metric tons of fertilizer" in 2011 ("Finance," 2012, p. i). Irrespective of global decrease, Pakistan succeeded in maintaining the impressive growth in its rate of exports in 2011 and 2012. Remittances also showed a buoyant $16 \%$ increase at near thirteen billion dollars ("Finance," 2012, p. i). The economy showed some signs of improvement in 2013 ("Finance," 2013, p. i). Giving an overview of the economy, the Finance Division of Government of Pakistan (GOP) reported an overall growth in many sectors including "the commodity producing" and agriculture sectors in the fiscal year 2011-2012 as opposed to the year before-GDP $3.7 \%$ as opposed to $3.0 \%$; agriculture " $3.1 \%$ against. 2.4\%; the 'Large-Scale Manufacturing (LSM)" $1.1 \%$ against $1.0 \%$; "the Services sector" $4.0 \%$ (Finance, 2013, p. i).

This research will help in improving programming and coverage on all present and prospective social and economic issues (re. indicators) on radio. The study focuses on the coverage and influence of significant social and economic indicators/sectors on radio. Pakistan is a developing country with poor economy. According to Finance Division, agriculture sectors, remainby far the largest contributors in economy by contributing $18.9 \%$ and $21 \%$ to GDP and absorbing $42.3 \%$ and $45 \%$ of Pakistan's total labor force (2020).

Radio is the powerful electronic medium which provides information, education and entertainment to the public and it is working specially for the community development. A large number of community radio stations are working all over the world to serve and groom their publics. Similarly, Pakistani Motorway police uses channel FM 95, Islamabad Traffic Police (ITP) FM 92.4 and Traffic Police Lahore FM 88.6 channels for the awareness of traffic rules and problems in different parts of the city or to serve the community. Radio Pakistan, with the largest network in the Pakistan, has maximum coverage to provide all kind of information for the betterment and development of people.

Most of the people are living in rural area of Punjab and are poor, uneducated and totally dependent on the radio broadcasting for entertainment and information for a better future and sustainable growth opportunities for a better living. The study examines the role of radio Pakistan in socioeconomic development in 2008-2013 through programmers and listeners' review of strengths and weaknesses of broadcast policies, contents and budgets of programs aired from Lahore, Faisalabad and Sargodha stations in 2008-2013 and suggestions for the improvement of radio programs in future.

### 1.2 History of Radio Pakistan

Pakistan Broadcasting Corporation is a government owned body, controlled by the Ministry of Information and Broadcasting (MIB). Though government renamed it PBC in 1972 through the Act of Parliament, its popular name is Radio Pakistan and common man hardly understand the latter name. The organization identifies itself as Radio Pakistan and uses the phrases such as "Yeh Radio Pakistan hai" [This is Radio Pakistan] or "hum Radio Pakistan say aap say mukhatibhain" [We are addressing you from Radio Pakistan] in daily transmission to inform the
listeners of its identity. Newsreaders and comperes announce the name, and the public gets off the transport, requesting the driver to drop them off at Radio Pakistan stop. Radio Pakistan is serving its audience as the mother media organization, catering to their informational, educational and entertainment needs of public since the Independence of Pakistan.

All the programs of Radio Pakistan are well planned and conceived by the seasoned programmers prior to the broadcast date. These scheduled programs are approved by the Radio Pakistan's headquarter, situated in Islamabad. The broadcast timings of the programs are scheduled according to the availability of the target audience. The student's program timings are usually scheduled in the evening, while programs for the house wives are usually scheduled in the morning. Radio is the part of the people's lives. The radio has a rich influence on its audiences. For this reason, the Radio Pakistan invites the experts as participants very carefully in order to ensure the excellence of the programs transmitted. It has very small annual budget of 300 million rupees as opposed to the 4.4 billion yearly budget of Pakistan Broadcasting Corporation. The program budget for Central Punjab is approximately 250 million per year.

### 1.3 The Role of Radio Pakistan

The study area is Central Punjab, which is a part of the province of Punjab. It covers programs produced and transmitted by Lahore, Faisalabad and Sargodha stations, which cover demographically the largest cities and audience in Punjab. Major socioeconomic activities are going on in the Central Punjab, which makes a good case for studying the development from programs on religion, in healthcare, education to culture and politics, infrastructure, business and trade. In these cities, common people are educated and the education rate of the farmers is also increasing day by day. Here, people take interest in the social and economic development sectors. Radio Pakistan considers it is its duty to broadcast programs according to their needs, hence, it produces ten types of programs on socioeconomic development under the government's policies.


Figure 1.3: Coverage area under Central Punjab Pakistan

## Small and Medium Enterprises programs

Radio Pakistan cares about all its listeners from every walk of life especially people from small and medium scale businesses in the market e.g. the cottage industry, and it broadcasts information about the support programs (loans and grants) announced for them by different banks and organizations. The objective is to develop a wide range of programs that positively contribute in reaching the developmental goals by changing people's lives and environment (Buren, 2000, pp. 60-63).

## Objectives

To examine the role of Radio Pakistan in socioeconomic development in Central Punjab during 2008-2013.

## Research Questions

The research questions were framed as below:
How did Radio Pakistan influence the socioeconomic development in Central Punjab through radio programs during 2008-2013?

The researcher planned a quantitative study based on a survey of listeners to study the above said question. She believed the Radio Pakistan influenced the socioeconomic development in Central Punjab by streamlining its policies with the policies of the government, and by producing programs of good quality that met the audience's needs.

## Quantitative research

The researcher conducted a survey of diehard listeners to study the radio's role in socioeconomic development in Central Punjab; if listeners feel the quality and policies of programs of Radio Pakistan are up to mark. The survey allowed the listeners/callers to review segments of the ten types of programs (policies, content, presentation style and format, guests, listener participation (through live questions/answers (Q\&A), opportunity to give suggestions), and the radio's immediate response through changes in content and guest appearances in upcoming programs) influenced the socioeconomic development in Central Punjab (chapter-6).

## Hypothesis

The above said quantitative and qualitative studies helped in determining the following hypothesis:
"There is a positive association" between the programs of Radio Pakistan and socioeconomic development in the Central Punjab.

## LITERATURE REVIEW

This part of the study reviews the available literature on the impact of radio on different socioeconomic aspects of life from across the world, including a little from Pakistan. It begins with the definition of broadcasting and the concept of development, rural broadcast and radio, women and empowerment and much more.

### 2.1 Radio Broadcasting

Mass media's role in development is undeniable in any society. It plays a significant force to entertain, educate and inform any society. Radio can be signified as the strategic establishment for disseminating knowledge, learning as well as amusement to all kinds of listeners (Folarin, 2000, pp. 10-13). The concept of the developmental communication through media gained great prominence with the emergence of the new postcolonial countries in the 1960s. The advanced nations and multilateral developmental agencies kike the United Nations and World Bank are believed in the exponents of the theory of modernization. In their view, the best path to bring development in the less developed places was through "the replication" of the tested models of the economic development that had proven their success in the west (Khan, et al., 2013, pp. 120). Mass media especially radio was considered a necessary tool for spreading the models of the west for bringing change in the attitudes of the populations in the less developed nations (Nazari \&Hasbullah, 2010, pp. 13-20).

Stephen Barnard mentioned that leadership played an entirely different role in the media for masses in the newly advanced nations (2000). The western countries as well as the developmental agencies views the media as channels for the developmental communication, and for politicizing local classes. They view the power of the mass media for the advancement of their political agendas (Barnard, 2000, pp. 5-8). The elite class controls the mass media through
legal as well as non-legal means. In the past, they restricted freedom of space for the individuals as well as the community. The elite or the ruling class used media for their own convenience, self-promotion and gain. They used the media to exalt their individual image and demonize images of those that they conceived as their rivals. The rapid growth in the radio industry in the underdeveloped countries geared democratization of the global political as well as the governance systems 1990s onwards (Khan, et al., 2013, pp. 1-20).

Over the years, the developmental communication models have evolved tremendously as the different schools of thought supported (Abbas, Muhammad, \& Ashfaq, 2010, pp. 22-25). The modernization paradigm holds that diffusion of information is the best of ways to increase the level of the development in not-so-developed countries. The media persuades the public "to embrace the core values" and modern "practices in order to spur economic development" (Besley, Burgess, \& Prat, 2002, pp. 45-60). The modern school of thought believed in the power of mass media in influencing behavior of the people which results in the change through the desired actions. A number of factors such as culture and interpersonal relationships help in measuring the changes or development, as they constantly leave impact on the attitude and behavior of the people (Myers, 2011, pp. 17-19).

Asia Bashir strongly supports the idea that producers are flooded with emails and letters from listeners and viewers of media that promote all kinds of products, moods and attitudes as well as a sense of what is and what is not important (2010, pp. 11-40). Arthur Asa Berger says a rapid growth of the broadcasting businesses was observed in Pakistan at the start of the millennium (1998). The drift is particularly an outcome of globalization, mostly liberalization, denationalization socioeconomic expansion, and the market in financial arrangement (Berger, 1998, pp. 14-20). Government manages the researcheritarian (authoritarian government; dictatorship) bodies to control the process of the digital radio which may be charged with imposing a decent code of broadcasting. The radio programs are funded through advertising and marketing and other sources in Pakistan. Majority of the programs focus on human development and the welfare of the public and some programs focus on the pleasure and entertainment of the public (Bashir, 2010, pp. 11-40).

Radio has helped in the development of thinking as now the women have entered into broadcasting and they are willingly sharing their views and opinions from which communities are benefitting them. Radio plays an important role for women because it promotes their cultural, political, social and economic vision and empowers women. A number of studies have proved that the radio is a very strong tool in changing the lives of women. Cultural and social restraints as well as the lack of education affect women and their families in many ways. Women bear an uneven burden of the world's poverty; though south Asian women have been playing a leading role in economic, social, political and cultural fronts (Abbas, Muhammad, \& Ashfaq, 2010, pp. $22-25$ ). Their contribution in promotion of the health, nutrition and education of the family is additionally quite visible in western world. Our own Islamic history guides us on women helping out and earning as well as working with their other halves in the betterment of their lives, almost in all the social and economic sectors (Soola, 2002, pp. 9-11).

Most specialists agree that effective information and communication through electronic media with commonly spoken language can bring revolutionary change in women's status (Wallack, 1981, pp. 209-260). For this the women must occupy the top decision-making positions in media which are at par with men. It helps in voices being heard with seriousness and respect (Maari, 2009). In Pakistan, excessive exposure to media means a negative impact while it may mean a positive impact in other societies. It is a recognized fact that women belong to the
disadvantaged group of our society. They have lesser access to education, social mobility and economic activities (Khan, et al., 2013, pp. 1-20). It is, therefore, important to enhance awareness level among women to improve their education and economic productivity. Bashir says it is essential as educating a man means you educated an individual person while educating a woman means you educated the whole family (Bashir, 2010, pp. 11-40). One purpose of women's program on Radio Pakistan is to provide them necessary information in a friendly and sympathetic tone to build their confidence (Figueroa, Kincaid, Rani, \& Lewis, 2002, pp. 46-51).

Radio Pakistan offered "vocational training programs" that included SelaiGhar (The stitching house; 2000), AaoParhain (Come read; 2003) and several others. They proved important for socioeconomic development in rural terrains (Naz, 2008). These programs focused on educating rural women as per government policy especially those residing in conventional areas of KPK and Sindh. Women greatly benefited from the specific tailored radio programs. It accompanied growth in their cottage industries parallel to handsome increase in their income. Radio educated them without charging a penny. It is bringing economic change in listeners' lives. The Radio Pakistan introduced programs for distance learning that improved the quality of their lives. They learn new things without going to schools, considering access to education is a problem for many in Pakistan. Although schools are important for education, many parents do send their daughters to distant schools. Radio Pakistan acts as a facilitator for women in such cases and allows them to get some education without challenging their parents or strict members or heads of family (Bogart \& Andrew, 2000, pp. 359-363).

Considering the opposition to female education in "KPK and Baluchistan," the PBC imparts education to people in these areas to introduce change in their lives and progress their economic conditions. These communities even oppose the presence of television sets in their homes or public places, equating it with a tumor, and very strictly reject it as a mean of entertainment in view of their social norms, or religion, thus, lag behind socially and economically (Naz, 2008, pp. 11-12). Radio partly eases the situation in such circumstances.

## Radio and Public Opinion Formation

The Radio Pakistan's programs generally have positive impact on the psychology of the public. The positive contribution is towards generating the rights, consciousness amongst the general public especially the rural areas (Hussain, 1997, pp. 16-19).

Radio has influenced a sense of accountability in the public and put their performance under strict scrutiny. Radio is a very vital tool which has played an important role in every society ever since it was invented. This tool has helped in meeting the moral objectives as well as during the cultural exchanges that took place between diverse states in distinctive periods. In the Second World War, Nazis exploited it as a broadcast tool whereas the United States and the Soviet Union also heavily used it. The first used radio as a medium of broadcast in Afghanistan against the Soviet Union when fighting capitalism with communism (Bogart \& Andrew, 2000, pp. 359-363). In Pakistan it is of great significance because of its vicinity and the cheap approach to the largest population of the country. It is important to mention here that radio has a robust influence on the rural areas of Pakistan and strives to develop this part of the society and enhances the good values among the listeners (Myers, 2008, pp. 1-10).

## Radio and Youth

FM is now the craze of youth in Pakistan. FM 96.4, FM 100, FM 103, FM 106.2 and a number of channels of these frequencies are seemed to have given open license by the government because their majority programs are not good for young minds. The above-mentioned channels especially FM 106.2 airs songs the whole day. FM stations give $70 \%$ of their whole time to music, $10 \%$ time to talk shows, and $10 \%$ to advertising and remaining $5 \%$ to the news. From these facts, it is now not difficult to understand that how much responsible role radio is playing to educate the youth. The programs that are mostly broadcasted from these radio stations do not match with Pakistani culture and traditions. Their content is mostly other than the needs of the youngsters but whose target is feelings of people (Naqvi \& Baloch, 2011, pp. 7-9). The most discussed topic in these programs is searching of love, or broken hearts, in the educational institutions instead of guidance about their careers, moral values etc., which is their basic requirements (Nakabugu, 2001, pp. 19-22). Youth listens to them and influenced greatly by these programs because the element of reality is involved in them. But the Radio Pakistan's target is to educate our youth. The youth mostly listen to FM radio stations. FM 101 is owned by Pakistan Broadcasting Corporation and the content of this channel are designed to motivate youngsters towards the ethics of the society and guide them about the avenues in education to improve their understanding in this field (Naqvi \& Baloch, 2011, pp. 7-9).

The media's effect on affairs of public interest is measurable (Bosch, 2010). Besley, Burgess and Prat reinforced these ideas stating radio helps in creating an informed society, and it clarifies complexities around public affairs at the national and local levels, and helps to form public opinion in regards to various civic problems (Besley, Burgess, \& Prat, 2002, pp. 45-60). Radio can develop a better understanding of prevalent issues and their solutions (Besley, Burgess, \& Prat, 2002, pp. 45-60). It has played significant role in socioeconomic development and forming public opinion across the world.

## Radio and Economic Growth

Though Pakistan's economy is largely dependent on agriculture, its farmer lacks knowledge of the latest techniques in the farming profession. The absence of the up-to-date system of information is the key cause. The Pakistani farmers rely on Radio Pakistan for such information. Thus, it has broadcast several programs in their own language over the years to educate the peasants about new technologies and techniques in farming which are necessary for the economic wellbeing. For example, the programs: Kisan de Gal (The Farmer's Voice), Jithayterayhalwagday(Where you plough the fields), and Khet khetharyali(Green fields) are still aired in Punjabi language. These programs were started in late 1980 and continue till date. The content of these programs fulfills their very specific needs and educate them about the latest trends in farming in Pashto, Sindhi and Baluchi languages of the provinces e.g.,Wassanbasi (Play games) is broadcast in Sindhi and Pkahirraghly (May you live in peace) in Baluchi and Karkila(helping you)in Pashto languages in relevant areas (Abbas, Muhammad, \& Ashfaq, 2010, pp. 22-25).

## Radio and Development

Ebenezer OludayoSoola says that development programs aim at bringing a better change,
reordering process of socioeconomic development in such a manner that may eradicate gross level poverty, improve poor health and living standards for general public (2003, pp. 9-28). Radio is not only used to entertain people but it assists in the development of the general public. It is used all around the globe for instructional commitments. There is absolutely no doubt at all that the broadcast of radio in Pakistan is run efficiently (Curran, \&Gurevitch, 1993, pp. 71-76). In Senegal, the establishment of the radio for rural education integrated with the program for development in 1968. The same model was relaunched in Burkina Faso in 1969 which increased knowledge of agriculture, health, livestock, news and culture (Berger, 1998). This diversity of their phases, methods as well as objectives and their styles of the rural radios was good. The communication strategy was the main issue the broadcasters had fixed schedules but still they were not able to measure the impact of their message on the listeners. The scheduling constraints as well pose issues as the managers and broadcasters refuse to give important time slots to education (Berger, 1998, pp. 14-20). In the end there were four phases of radio, the first one was sensitization of the rural public to the radio and then it followed to encouraging the people in the second phase by informing them about the new techniques. Then there was the third phase in which radio allowed the farmers to speak for themselves thus causing a positive impact on the agricultural policies. Then comes "the fourth phase" in which there is the test of democratization, "given the propensity of the radio medium to enable the demanding goal of democracy" (Barnard, 2000, pp. 5-8). This phase is wisely used to converse upon the indigenous radio and to perform as an anesthetic that can open up new perspectives for the farmers' self-improvement (Barnard, 2000, pp. 5-8). Radio Pakistan emphasizes on farmer's benefit at all times.

## RESEARCH DESIGN

The study examines the role of radio in socioeconomic development in Central Punjab in 20082013. It comprises of quantitative studies based on data collected from $1000 / 1 \mathrm{M}$ random listeners/callers from Lahore, Faisalabad and Sargodha zones, covering $300 \mathrm{~km}^{2}, 120 \mathrm{~km}^{2}$, and $50 \mathrm{~km}^{2}$ geographical areas respectively (Punjab:205,344km²; Pakistan: $796,095 \mathrm{~km}^{2}$ ). The study uses survey questionnaires by asking in-depth interviews of $35 / 35$ radio programmers and producers ( 22 males and 13 females), one for closed ended, telephonic interviews of 1000/1M random listeners/callers ( 636 males and 364 females).

## Quantitative Study

The researcher used the survey method for the collection of data from the radio listeners/respondents. She developed a survey questionnaire comprising 40 demographic and socioeconomic development questions on five-point Likert scale and prepared a cover letter requesting cooperation, information and instructions for the listeners for filling the form (emphasizing on respondent's anonymity). She used random sampling technique to interview 1000 active listeners/callers of the three stations from Radio Pakistan's database of more than one million (PBC, 2019) during live programs. 35 programmers, and 20 duty officers, announcers and comperes ( 55 altogether surveying assistants; see Annexure-F) at the three radio stations helped her in collecting data via telephonic interviews of 1000 active listeners who called during the live programs. The data was collected and analyzed using the Statistical Package for Social Sciences in 2017, and findings discussed and concluded at the start of 2018. The researcher conducted descriptive, correlation and factor analysis tests to evaluate responses concerning five social and five economic indicators. This research design helped to evaluate and
demonstrate the relationship between dependent and independent variables in effective and efficient manner.

## Research Strategy

The researcher collected the data through a survey questionnaire, containing 40, five-point Likert Scale questions about social and economic indicators. It covered all the aspects of the study and each indicator to determine the influence of radio programs on the listeners and socioeconomic development in Central Punjab. The respondents were dedicated listeners of Radio Pakistan and included special or disabled persons that belong to every walk of life, sect, gender, rural, urban. They remain in contact with the producers of their favorite programs and participate in the programs and discuss issues. These diehard listeners even guide the producers about the happenings in their areas. The researcher remained in contact with the programmers at the three radio stations to learn more about the interests of the audiences. Radio has the pride that its programs fulfill the requirements of the listeners through different programs. As entertainment, education and information are the priorities of the programs, these listeners are well aware of the developmental projects and policies of the government in different areas. Radio Pakistan continuously broadcasts the programs regarding socioeconomic development in the country, which enabled the listeners to answer the quantitative research questionnaire without any problem.

## Research procedure

The researcher finalized data collection techniques and methods for the quantitative study in the following section.

## Data collection method

The researcher trained the radio staff at Lahore, Faisalabad and Sargodha to gather data for the study using the questionnaire. They assisted her in collecting data from 1000 respondents/ listeners/callers during the live calls. The researcher, being a director of PBC, engaged the program personnel at Lahore, Faisalabad and Sargodha who selected the respondents from the audience of these three Radio stations. The listeners of these Radio stations remain in contact with the program staff through telephone or mail. The programmers at the selected radio stations collected data from regular listeners during the live sessions. The program hosts, announcers and duty officers of different programs helped in collecting data through the closed ended survey questionnaire.

## Population

The total population of the three cities was approximately 10.8 million (Lahore 7.7 million, Faisalabad 2.5 million, Sargodha 0.557 million) in 2008, approximately 13.0 million (Lahore 9.5 million, Faisalabad 2.9 million, Sargodha 0.614 million) in 2013. It is 16.1 million (Lahore 12.6 million, Faisalabad 3.4 million, Sargodha 0.700 million) in 2020. There are approximately one million listeners of the programs aired by the radio stations in Central Punjab while there are overall ten million listeners in Punjab and 18 million in Pakistan.

## Sampling

The researcher included 1000 random callers/listeners at Lahore, Faisalabad out of one million in Central Punjab, 10 million in Punjab, and 18 million in Pakistan.

## Sample distribution

The radio audience in Central Punjab lives not just in Lahore, Faisalabad and Sargodha cities but also in 14 other cities, many villages and suburbs where they hear this broadcast.

## Sampling technique

The quantitative data is collected through closed ended interviews of the callers/listeners at Lahore, Faisalabad and Sargodha stations through random sampling.

## Sample size

The researcher included 1000 random callers in the study, 790 from Lahore, 140 from Faisalabad, and 70 from Sargodha that match their respective population sizes.

## Unit of analysis

The unit of analysis comprises a random respondent/caller/listener who agreed to give a telephonic interview during his call to the announcer, duty officer, programmer etc. during a specific transmission of a religious or cultural or other program (while the questionnaire was duly filled by the person attending the call/duty officer/announcer).

## Instrumentation

The instrument comprises thematic analysis of the findings of the survey in the light of past researches from across the world. The researcher carried out content/thematic analysis of data collected through the closed ended survey questionnaire from the listeners/callers. She analyzed their responses on the quality, topic, guest's knowledge of the topic and policy of the ten types of programs, and if they followed relevant government policies and cultural norms.

## Discussion and analysis

The researchers used conversation/content analysis method to analyze and discuss data collected through the qualitative study and Statistical Package for Social Sciences (SPSS) version 23 to analyze data collected through the survey in the quantitative study, discussed findings and supported with the literature and concluded. She used Descriptive, Variance Rotation, Component Rotation, Correlation and Factor Analysis tests for analysis of data. The tests allow her to measure correlation between dependent and independent variables and see the variance among different components.

The factor analysis in particular reduces the original large datasets, forming clusters of variables known as factors. It allows to reduce the number of the measurable as well as the observable variables to the specific that share a common variance and indicates dimension reduction. These factors cannot be observed directly but are important part of the study. The factor analysis allowed the researcher to combine the common variables by grouping them, involving multiple items or variables from the questionnaires to a reduced or smaller set of groups that helped out in the data interpretations. This made it easier for the researcher to place and interpret the factored variables through the meaningful groupings, data transformation, and hypothesis testing and scaling. The deductive reasoning or dimension reduction helped the researcher describe, explain and predict the phenomena, using the probable, large sample of 1000
callers. She used the particular methodologies and techniques to quantify the relationships between different independent (predictor) and dependent (criterion) variables in the population. The quantitative method allowed the graphical representation of the data that demonstrates findings and results of the study in a suitable manner. The researcher carefully selected the right statistical tools (Lind et al., 2008).

## QUANTITATIVE STUDY: LISTENERS' RESPONSE

This chapter examines the impact small \& medium enterprisesdevelopment programs of Radio Pakistan on socioeconomic development in Central Punjab (2008-2013). It reviews literature on socioeconomic development through radio by Stephen Barnard (2000), William Faulder (1984), ShaziaMaari (2009) and Mary Myers (2011) and the Pakistan Economic Survey reports (20082013 and after) published by Finance Division of Government of Pakistan (GOP). The study examines the impact ten types of radio programs on audience through callers' feedback in Central Punjab. It relies on two-step communication model, agenda building and political economy theories, and those on "the practice of development support communication [that link] planners, beneficiaries and implementers of development action" ("Development," 2001) for discussion.

The section comprises a quantitative study based on data collected from 1000/1M random listeners/callers at radio stations in Lahore, Faisalabad and Sargodha zones, covering $300 \mathrm{~km}^{2}$, $120 \mathrm{~km}^{2}$, and $50 \mathrm{~km}^{2}$ geographical areas through a survey questionnaire by asking 40 questions (SED 1-40) on socioeconomic development. The author developed a closed ended questionnaire for conducting telephonic interviews of 1000 random callers/ listeners ( 636 males and 364 females) on first come first serve basis over a period of three months. She collected authentic data with the help of 30 male and 25 female assistants ( 55 altogether) without any intervention/prejudice by PBC in good faith and analyzed. The quantitative study focused on analyzing listeners' feedback on the role of radio in socioeconomic in Central Punjab broadcast during 18 hours daily transmission. The data is collected through the closed ended interviews. The study assumes Radio Pakistan has contributed in socioeconomic development in Central Punjab from 2008 to 2013. It assesses the impact of radio programs on audience in Central Punjab through a closed ended survey on the indicators of social and economic development.

## Hypothesis

The author developed just one overarching or principal hypothesis for the study:
There is a positive association between the programs of Radio Pakistan and socioeconomic development in the Central Punjab.
The above said principal hypothesis assumes a positive association between the effect of programs on listeners or socioeconomic development in Central Punjab. It measures it through 40 questions or sub hypothesis of the survey questionnaire (Annexure-II) that seek the responses of listeners (of different age, gender, etc.) about four independent variables (policy, quality, topic, and guest's knowledge of the topic under discussion) of each of 10 types of programs. The questionnaire covers there's a positive association between each type of program and the relevant socioeconomic development e.g. "there is a positive association between religious programs of Radio Pakistan and relevant social development in the Central Punjab," and vice versa. It also covers the positive association between the four independent variables (policy, or topic, or guest's knowledge of the topic, or quality) of each program and their influence on listeners or socioeconomic development. The 40 questions assume: "there is a positive
association between the policy, or topic, or guest's knowledge of the topic, or quality of a program and socioeconomic development in Central Punjab," or "a program, or its policy, or topic, or quality, or guest's knowledge of the topic socially or economically develops the audience," or influences him.

The author included the 40 closed ended five-point Likert scale questions (that look like 40 variables in the data view of the SPSS file of this study) in the survey questionnaire. She plugged in the 40 closed ended five-point Likert scale questions with the principal hypothesis at the start of this section above to control the effect of similar/repetitive questions in the 10 categories and test the effect of all the variables on the socioeconomic development at once. She used the questionnaire to collect data that covers all of the above said dimensions of the study, tested the correlation between age or gender or education and program choices, interest/satisfaction of the audience with the quality of the ten types of programs on socioeconomic development through histograms, loadings of 40 questions (that appear as variables in the variable view of the SPSS) into factors through factor analysis. She discussed and analyzed the findings and concluded the thesis.

## Method

The researcher conducted a survey of diehard listeners, asking five-point Likert scale questions to find if listeners are content with the Radio Pakistan's programs (policies, topics, guests, quality (content/presentation style and format, listener participation through live question/answer (Q\&A) session with guests, suggestions, redressal of issues by Radio Pakistan). The researcher believed the audience satisfaction will indicate the influence of the programs on the socioeconomic development in Central Punjab. She developed a survey questionnaire comprising 40 demographic and socioeconomic development questions on five-point Likert scale as described in the above said quantitative section and prepared a cover letter requesting cooperation, information and instructions for the listeners for filling the form (emphasizing on respondent's anonymity). She used random sampling technique to interview 1000 active listeners/callers of the three stations from Radio Pakistan's database of more than one million (PBC, 2019) during live programs.

The researcher trained three Station Managers who in turned 35 radio producers/ programmers, and 20 duty officers, announcers and comperes ( 55 altogether) to collect data via telephonic interviews of 1000 active listeners who called during the live programs at the three radio stations in Lahore, Faisalabad and Sargodha. The programs were on air from the Studio Block while caller interviews were conducted from the adjacent Duty Rooms during the live transmission (1000 callers | 55 interviewers | 350 interviewing hours during the transmission of live radio programs over a period of three months). The research assistants invited the callers to give interviews after noting their queries/questions for the experts who were responding to their queries in the live programs. Duty officer and program producer communicated the queries to comperes and experts inside the studio on paper slips to answer them in live programs. Subsequently, duty officer, program producer and announcer conducted interviews of the callers 40 closed ended questions 20 minutes. Producers, duty officers and announcers filled forms through telephonic interviews of 636 male and 364 female callers, and sent/returned filled forms to the station managers/researcher. The data was collected and analyzed using the Statistical Package for Social Sciences, findings discussed, supported with literature, and concluded.

The sections below discuss the findings of the quantitative data collected from 1000 regular listeners of ten types of radio programs, and derived through SPSS (statistical package
for social sciences). It discusses descriptive statistics e.g. gender and education, followed by analysis and interpretation of the test results: correlation histogram, factor analysis, total variance explained, component matrix, and rotated component matrix concerning the different indicators.

## Descriptive Statistics

Table: Descriptive Statistics of Social and Economic Indicators

|  | N | Min | Max | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SME Indicator | 1000 | .00 | 5.00 | 3.9655 | .63499 |
| Valid N (list wise) | 1000 |  |  |  |  |

The table shows that there is no significant difference in average responses of males and females for the programs on the economic indicator. Radio Pakistan's programs meet the requirements of the listeners. The survey shows that the listeners hear these programs and equally like them irrespective of their gender. It is indicated from the results that both males and females are satisfied with the content of the programs of Radio Pakistan.
Table: Descriptive Statistics of Gender against the Socioeconomic Indicators

| GENDER | N | Min | Max | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SME Indicator | 364 | 2.50 | 5.00 | 3.9753 | .59965 |
| Valid N (listwise) | 364 |  |  |  |  |
| SME Indicator | 636 | .00 | 5.00 | 3.9599 | .65476 |
| Valid N (listwise) | 636 | 5. | 6. | 7. | 8. |

The table shows that there is no significant difference in average responses of males and females for the indicator. Both males and females are satisfied with the quality of the programs of Radio Pakistan.

Table: Descriptive Statistics of Education and Socioeconomic Development

|  | EDUCATION | N | Min | Max | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Illiterate | SME Indicator | 39 | 2.50 | 5.00 | 3.8141 | .63794 |
|  | Valid N (listwise) | 39 | 9. | 10. | 11. | 12. |
| Primary | SME Indicator | 59 | 2.50 | 5.00 | 4.0339 | .62190 |
|  | Valid N (listwise) | 59 | 13. | 14. | 15. | 16. |
| Middle | SME Indicator | 102 | 2.75 | 5.00 | 3.9044 | .61845 |
|  | Valid N (listwise) | 102 | 17. | 18. | 19. | 20. |
| Matric | SME Indicator | 212 | .00 | 5.00 | 3.9434 | .70399 |
|  | Valid N (listwise) | 212 | 21. | 22. | 23. | 24. |
| FA | SME Indicator | 248 | 2.50 | 5.00 | 3.9738 | .58604 |
|  | Valid N (listwise) | 248 | 25. | 26. | 27. | 28. |
| BA | SME Indicator | 209 | 2.50 | 5.00 | 3.9246 | .64534 |


|  | EDUCATION | N | Min | Max | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valid N (listwise) | 209 | 29. | 30. | 31. | 32. |
| Masters | SME Indicator | 112 | 2.50 | 5.00 | 4.1250 | .57637 |
|  | Valid N (listwise) | 112 | 33. | 34. | 35. | 36. |
| M.Phil. | SME Indicator | 15 | 2.50 | 5.00 | 4.0167 | .66458 |
|  | Valid N (listwise) | 15 | 37. | 38. | 39. | 40. |
| PhD | SME Indicator | 4 | 3.00 | 5.00 | 4.1250 | .85391 |
|  | Valid N (listwise) | 4 | 41. | 42. | 43. | 44. |

Table shows socioeconomic status of the respondents with different levels of education. Mean response of PhD educated respondents is greater than 4.0 for all factors except the healthcare indicator. Whereas the respondents with education up to MPhil level are comparatively less satisfied with the socioeconomic indicators as compared to their PhD counterparts. Likewise, master degree holders are comparatively less satisfied with socioeconomic status than MPhil level graduates. The respondents who were illiterate gave relatively fewer mean responses as opposed to those with any level of higher education, for the indicator named small and medium enterprises.

## Histogram

In the section below, we will discuss graphical distribution of responses with respect to indicators. For this purpose, we use histograms of each indicator.


Figure: SME

In Figure the graph shows that the listeners are satisfied with the policies, quality, topics, and guests' knowledge of the topics of the broadcasted SME programs. Usually, small and medium enterprises are a part of the daily disc jockey programs as a segment or in hosting. These programs provide useful information to the listeners who want to know how they can get loans from the banks for selling up small and medium enterprises and other relevant information.

The author used Statistical Package for Social Sciences for factor analysis, and Principal Component Analysis with Varimax rotation, as the factor analysis listed/loaded the 40 questions (variables) under ten factors/components. The researcher used the scree plot to finalize the number of components of the scale.

## Table: Communalities

|  | Initial | Extraction |
| :---: | :---: | :---: |
| SED1 | 1.000 | .478 |
| SED2 | 1.000 | .525 |
| SED3 | 1.000 | .647 |
| SED4 | 1.000 | .540 |
| SED5 | 1.000 | .536 |
| SED6 | 1.000 | .511 |
| SED7 | 1.000 | .567 |
| SED8 | 1.000 | .524 |
| SED9 | 1.000 | .540 |
| SED10 | 1.000 | .476 |
| SED11 | 1.000 | .529 |
| SED12 | 1.000 | .483 |
| SED13 | 1.000 | .475 |
| SED14 | 1.000 | .535 |
| SED15 | 1.000 | .562 |
| SED16 | 1.000 | .538 |
| SED17 | 1.000 | .624 |
| SED18 | 1.000 | .683 |
| SED19 | 1.000 | .533 |
| SED20 | 1.000 | .449 |
| SED21 | 1.000 | .397 |
| SED22 | 1.000 | .538 |
| SED23 | 1.000 | .600 |
| SED24 | 1.000 | .539 |
| SED25 | 1.000 | .490 |
| SED26 | 1.000 | .593 |
| SED27 | 1.000 | .506 |
| SED28 | 1.000 | .530 |
| SED29 | 1.000 | .486 |
| SED30 | 1.000 | .411 |
| SED31 | 1.000 | .558 |
| SED32 | 1.000 | .534 |
| SED33 | 1.000 |  |
|  |  |  |

INFLUENCE OF RADIO PROGRAMS ON DEVELOPMENT OF SMALL \& MEDIUM ENTERPRISES IN CENTRAL PUNJAB PAKISTAN

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|  | Initial | Extraction |
| :---: | :---: | :---: |
| SED34 | 1.000 | .580 |
| SED35 | 1.000 | .618 |
| SED36 | 1.000 | .550 |
| SED37 | 1.000 | .645 |
| SED38 | 1.000 | .584 |
| SED39 | 1.000 | .377 |
| SED40 | 1.000 | .320 |

Extraction Method: Principal Component Analysis.

Communalities Table shows that the proportion of variance of each item can be explained by the factors or the sum of squared factor loadings for the variables. In this table, all the items are represented by communality values greater than .300 in common factor space. The test did not give any particularly low values, thus, well representing the variables by the factors.
Table: Total Variance Explained

| Component | Initial Eigenvalues |  |  | Extraction Sums of Squared Loadings |  |  | Rotation Sums of Squared Loadings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | \% of <br> Variance | $\begin{gathered} \text { Cumulative } \\ \% \\ \hline \end{gathered}$ |  | \% of Variance | $\begin{gathered} \text { Cumulative } \\ \% \\ \hline \end{gathered}$ | Total | \% of Variance | $\begin{gathered} \text { Cumulative } \\ \% \\ \hline \end{gathered}$ |
| 1 | 4.280 | 10.701 | 10.701 | 4.280 | 10.701 | 10.701 | 2.907 | 7.267 | 7.267 |
| 2 | 2.994 | 7.484 | 18.184 | 2.994 | 7.484 | 18.184 | 2.773 | 6.933 | 14.201 |
| 3 | 2.747 | 6.868 | 25.052 | 2.747 | 6.868 | 25.052 | 2.287 | 5.718 | 19.918 |
| 4 | 1.996 | 4.991 | 30.043 | 1.996 | 4.991 | 30.043 | 2.139 | 5.346 | 25.265 |
| 5 | 1.825 | 4.561 | 34.604 | 1.825 | 4.561 | 34.604 | 2.018 | 5.044 | 30.309 |
| 6 | 1.629 | 4.074 | 38.678 | 1.629 | 4.074 | 38.678 | 1.945 | 4.862 | 35.171 |
| 7 | 1.539 | 3.846 | 42.524 | 1.539 | 3.846 | 42.524 | 1.821 | 4.553 | 39.724 |
| 8 | 1.408 | 3.520 | 46.044 | 1.408 | 3.520 | 46.044 | 1.748 | 4.369 | 44.093 |
| 9 | 1.369 | 3.424 | 49.468 | 1.369 | 3.424 | 49.468 | 1.725 | 4.313 | 48.406 |
| 10 | 1.295 | 3.239 | 52.707 | 1.295 | 3.239 | 52.707 | 1.720 | 4.301 | 52.707 |

Extraction Method: Principal Component Analysis.
Table shows the number of factors to be extracted. Ten factors are extracted. Factor-10 commutative percentage is 52.707. This means that the ten factors together account for $52.707 \%$ of the total variance. Factor analysis test is also conducted to classify the data on the forty variables of the radio programs on socioeconomic development into ten factors. This statistical method is used to describe the variability among the observed, correlated variables in terms of potentially lower number of unobserved variables that are named as the factors. The Factor Analysis allows to simplify the data, reducing the number of the variables in the regression model. A simple structure emerges in which forty subsets show high communality as loaded on 10 factors without very low overlapping. Six items are retained in F1: Religion, four in F2: healthcare, four in F3: education, four in F4: culture, four in F5: politics, four in F6: business and trade, four in F7: agriculture, four in F8: China Pakistan Economic Corridor, two in F9: Small and Medium Enterprises, and two in F10: Infrastructure.

The F1 included/loaded all the item related to religious affiliation, showing a consistency with the qualitative study that indicates the Radio Pakistan broadcasted its programs according to a specific policy. The programs had a parameter, a boundary, and a specific framework. They contained material and information aiming at educating the listeners about the different aspects of religion. It included the content planned under the policy of government/Radio Pakistan for producing/broadcasting religious programs and their quality is considered up to the mark. Factor 2 included healthcare content like the policy of Radio Pakistan for production and broadcast of healthcare programs and the quality of healthcare programs being produced/broadcasted by Radio Pakistan is the up to the mark. Factor 3 included the content related to education in which the policy of Radio Pakistan for producing/broadcasting programs on education was considered according to the educational policy of Government of Pakistan; the topics of educational programs was considered up to the mark. Factor 4 included the content related to culture, showing the audience was satisfied with the policy of Radio Pakistan for producing/broadcasting cultural programs. It reflected the audience satisfaction with the quality (content) of cultural programs produced/broadcast by Radio Pakistan. Factor 5 included the list of variables related to politics or for producing/broadcasting political program, showing the quality of various? political programs of Radio Pakistan was up to the mark. Factor 6 included values against the list of variables related to business and trade programs of Radio Pakistan that were followed the institutional policy. Factor 7 included the list related to agriculture e.g. the policy of Radio Pakistan for producing/broadcasting agricultural program is according to the agricultural policy of Pakistan. Factor 8 included the content related to China Pakistan Economic Corridor, like the policy of Radio Pakistan for producing/broadcasting CPEC programs was based on the policy of the government. Factor 9 included the list of variables/content related to small and medium enterprises programs, which was according to the policy. Factor 10 included the content related to infrastructure. The range of communalities in factor analysis was from 0.32 to 0.68 , and the ten components were decided on the basis of the loadings.


## Figure: Component Number

The above scree plot in Figure shows the graph the eigenvalue against the factor number. After factor-10 onwards, one can see that the line is almost flat, meaning each successive factor is accounting for smaller and smaller amounts of the total variance.

Table: Factor Loadings and Communalities based on a Principal Component Analysis with Varimax Rotation for 40 items from Socioeconomic Development Scale (SED) (N = 1000)

| Variable | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 | F9 | F10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| s |  |  |  |  |  |  |  |  | S |  |
|  |  |  |  |  |  | Busines |  |  | \& |  |
|  | Religiou | Healthcar | Educatio | Cultur | Politic | $s$ and | Agricultur | CPE | M | Infrastructur |
|  | s | e | n | e | S | Trade |  | C | E | e |
| SED7 | . 69 |  |  |  |  |  |  |  |  |  |
| SED8 | . 66 |  |  |  |  |  |  |  |  |  |
| SED6 | . 64 |  |  |  |  |  |  |  |  |  |
| SED9 | . 64 |  |  |  |  |  |  |  |  |  |
| SED5 | . 47 |  |  |  |  |  |  |  |  |  |
| SED10 | . 46 |  |  |  |  |  |  |  |  |  |
| SED26 |  | . 67 |  |  |  |  |  |  |  |  |
| SED27 |  | . 66 |  |  |  |  |  |  |  |  |
| SED28 |  | . 65 |  |  |  |  |  |  |  |  |
| SED25 |  | . 58 |  |  |  |  |  |  |  |  |
| SED29 |  | . 56 |  |  |  |  |  |  |  |  |
| SED18 |  |  | . 80 |  |  |  |  |  |  |  |
| SED17 |  |  | . 71 |  |  |  |  |  |  |  |
| SED19 |  |  | . 66 |  |  |  |  |  |  |  |
| SED20 |  |  | . 41 |  |  |  |  |  |  |  |
| SED37 |  |  |  | . 77 |  |  |  |  |  |  |
| SED38 |  |  |  | . 74 |  |  |  |  |  |  |
| SED39 |  |  |  | . 50 |  |  |  |  |  |  |
| SED36 |  |  |  | . 39 |  |  |  |  |  |  |
| SED23 |  |  |  |  | . 70 |  |  |  |  |  |
| SED22 |  |  |  |  | . 62 |  |  |  |  |  |
| SED24 |  |  |  |  | . 49 |  |  |  |  |  |
| SED21 |  |  |  |  | . 44 |  |  |  |  |  |
| SED12 |  |  |  |  |  | . 60 |  |  |  |  |
| SED15 |  |  |  |  |  | . 58 |  |  |  |  |
| SED16 |  |  |  |  |  | . 56 |  |  |  |  |
| SED11 |  |  |  |  |  | . 49 |  |  |  |  |
| SED2 |  |  |  |  |  |  | . 68 |  |  |  |
| SED1 |  |  |  |  |  |  | . 63 |  |  |  |
| SED3 |  |  |  |  |  |  | . 61 |  |  |  |
| SED4 |  |  |  |  |  |  | . 52 |  |  |  |
| SED31 |  |  |  |  |  |  |  | . 65 |  |  |

SED32 .....  57
SED35 ..... 46
SED30 ..... 42
SED14 ..... 65
SED13 .....  58
SED4037
SED34 ..... 72
SED33 .....  63

Note: Factor analysis loadings < .30 is suppressed
Table contains the rotated factor loadings (factor pattern matrix), which not only represent how the variables are weighted for each factor but also the correlation between the variables and the factor. Those variables are retained and their loading value is greater than 0.30. Items loading range: 0.692-0.468 on factor $1 ; 0.673-0.569$ on factor $2 ; 0.808-0.417$ on factor $3 ; 0.770-0.392$ on factor $4,0.700-0.447$ on factor $5,0.600-0.493$ on factor $6 ; 0.687-0.520$ on factor 7; 0.653-0.426 on factor 8; 0.652-0.580; and 0.722-0.630 on factor 10. Here, all the variables have loadings greater than 0.30 . However, one item SED40 was loaded negatively on factor 9 , therefore it was omitted from the final analysis.

## Chapter Summary

The study shows Radio Pakistan substantially contributed in socioeconomic development in Central Punjab in 2008-2013 and after. The researcher used the SPSS because it is a powerful tool for manipulating or interpreting data. It helped her in assessing the data through the different tests for analyzing and discussing the findings and deriving better results. The various tests run through the SPSS simplified the very large data collected from 1000 listeners through 40 questions ( 40,000 responses altogether). The correlation test helped in examining the relationship between any two variables. Total Variance helped in measuring the changing behavior of the listeners over a range of the types of radio programs. The Rotated Component Matrix was used with the variables in the rows and columns that helped to determine what the component represented. Factor Analysis loaded and reduced data/variables in to a few factors. Varimax Rotation was used with factor analysis to clarify the relationship among the factors. Component Matrix, Rotated Component Matrix, and Varimax Rotation helped in Factor Analysis that analyzed the common variables but Matrix Analysis was used to analyze the total variance of a sum of random variables. The study finds the listener is happy with the quality of radio programs that cater to five social and five economic needs of the people residing in 13 cities (Lahore, Faisalabad, Sargodha, Nankana, Sheikhopura, Gujranwala, Sialkot, Narowal, Gujrat, Mandi bahauddin, Hafizabad, Shorkot, Toba Tek Singh, Okara, Pakpatan), many towns, villages, and suburbs of Central Punjab. The listeners feel the programs follow the relevant policies, and their quality is up to mark, topics good, and guests and audience feedback supportive. Age, gender and education had an effect on audience support for various types of radio programs on socioeconomic development in Central Punjab. The study supported the hypothesis that the Radio Pakistan substantially contributed in (the ten types of) socioeconomic development in Central Punjab in 2008-2013 and the same continues thereafter.

## Chapter 7

## CONCLUSION

This article reviews literature on socioeconomic development through radio in many countries by Stephen Barnard (2000), William Faulder (1984), ShaziaMaari (2009), Mary Myers (2011) and others. In addition, it reviews reports titled the Pakistan Economic Survey published annually by the Finance Division of Government of Pakistan (GOP) on socioeconomic development in the country in 2008-2013 (till 2020). The study hypothesizes that both listeners and programmers believe that "there is a positive association between the radio broadcasts of Lahore, Faisalabad and Sargodha stations and socioeconomic development in Central Punjab." The PBC or Radio Pakistan has substantially contributed in socioeconomic development throughsmall and medium enterprisesin Central Punjab broadcast from its three stations in Lahore, Faisalabad and Sargodha. It produces and broadcasts programs as per guidelines set by the provincial policy making departments: Punjab Assembly, Punjab Secretariat, head offices of any concerned organization, or in collaboration with foreign developmental agencies, or banks.

Government of Punjab heavily relies on broadcasts of Radio Pakistan for socioeconomic development in Central Punjab. Socioeconomic development in Central Punjab is dependent on governmental agenda, plans, projects and policies that Radio Pakistan uses as the guidelines for planning, producing and transmitting programs. In result, socioeconomic development in Central Punjab depends on Radio Pakistan's policy, topic, content (style or format), guest(s)' knowledge of the topic, and budget of a program. The study assumes that socioeconomic development through program production/broadcast is dependent on independent government/radio policies, topics, budget, content (format, style), expert knowledge of a topic and advice to listeners/callers against their queries during the live sessions) in various targeted radio programs. Radio Pakistan does, what WHO calls, "The practice of development support communication, [which] is a multi-sectoral process of information sharing about development agendas and planned actions. It links planners, beneficiaries and implementers of development action, including the donor community" ("Development," 2001). The study uses this literature to examine socioeconomic development in Central Punjab through live radio programs and by radio listeners, covering program policies, style (developmental announcements, interviews, expert opinion, calls/queries by listeners communicated by duty officers and program producers), and the role of the leadership through policy formation and guidance for specific content creation.

The survey questionnaire comprised 40 demographic and socioeconomic development questions using the five-point Likert scale. The researcher collected data from 1000 active listeners of the three stations of Radio Pakistan out of one million (PBC, 2017), using the random sampling technique and analyzed using the Statistical Package for Social Science. She compiled the descriptive statistics of all the indicators with respect to gender. Out of 1000 respondents, 636 were male and 364 were females. The descriptive statistics concerning the economic indicators were around 3.9 with small standard derivations, showing that most of the respondents perceived the programs followed government policies for socioeconomic development in Central Punjab and their quality and content was good. The author conducted correlation histogram, factor analysis, variance, component matrix, and rotated component matrix correlation tests between certain demographic (age, gender, education) and non-demographic variables (perception of policies or content of the ten types of radio programs (topics, policies, style and format) to determine and interpret results. She by no means found substantial variance in average
responses of males and females and concluded both genders perceived Radio Pakistan was producing programs of good quality as per policy of the government.

There are no particularly low values for variables, which are well represented by the factors. The role of Radio Pakistan has been analyzed in the social and economic spheres under the main indicators of small \& medium enterprises. Radio is a diplomatic instrument for governments. Its localization and regionalization in the shape of local community radio at the three stations revokes power of the government, and hands over public administration to local communities which have long been kept out of the scene for too long. Radio lets people take possession of their affairs through the numerous social, political and economic organizations airing the content from the local or rural radio stations. The study concluded that radio listeners perceive a positive correlation between policy and quality of radio programs and most of the indicators of socioeconomic.

## Quantitative Analysis

The descriptive statistics of all the 10 indicators are around 3.9 mean with small standard derivations which show that most of the respondents are content with the quality and policies of different socioeconomic programs of Radio Pakistan. In most case, they gave "Agree" or "Strongly Agree" kind of responses to the close ended questions. The respondents agreed that the quality of programs on higher education and small \& medium enterprises was very good. These Indicators gave a mean value of 3.9677 and 3.9655 and standard deviation 0.62 and 0.63 respectively. The descriptive statistics of all the indicators have been complied with respect to gender. Out of 1000 respondents, 636 were male and 364 were females and the statistics showed that males and females equally agreed to the questions asked about the quality, content or policies of programs of Radio Pakistan. It was concluded that there is no significant difference in average responses of males and females, and both the genders are satisfied with the content and policies of the Radio Pakistan programs. The descriptive statistics of all indicators with respect to education show that highly educated respondents were more satisfied than less educated respondents.

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