

CHAPTER III

RESEARCH METHODOLOGY

Building upon the conceptual frame work presented in previous two chapters, initiations were made for undertaking the research. This chapter presents the Research Methodology adopted in this study including the details of the framework of research which is inclusive of both the research philosophy and the empirical research design. The research philosophy applies to entire study as a whole. It consists of researchers paradigm, assumptions as well as views on knowledge acquisition, research objectives etc.

In order to have a systematic approach, Part I of this chapter provides the research framework of the study covering the research objectives and the research questions.

Part II of this chapter provides the empirical research design. The research design is concerned with the overall purpose of a research study. It can be comprehensively stated that:

Every type of empirical research has an implicit, if not explicit research design. In the most elementary sense, the design is the logical sequence that connects the empirical data to study initial research questions and ultimately to its conclusions. Colloquially, a research design is an action plan for getting from here to there, where “here” may be defined as the initial set of questions to be answered

and “there” is some set of conclusions (answers) about these questions. Between “here” and “there” may be found a number of major steps including, analysis, correlation and inferences of relevant data.

The empirical research design is characterized by a match between the research objectives, key research questions, the method of empirical research, the methods of collecting and analyzing empirical data and finally establishing a reliability and validity of research. Therefore the entire study outlining the research methodology adopted, sampling procedures, tools of data collection, methods of data analysis and a note on how quality criteria has been adhered to in the present study (which is an exploratory cum descriptive study) are indicated in separate sub heading infra.

PART-I

3.1 Frame Work of Research

Placing a specific research project in a broader context requires a familiarity with: (1) literature outside of a specific research topic, (2) knowledge of current projects of other investigators, and (3) an historical perspective of the research problem and research methodology.

As mentioned in the title of this study, through this study, the researcher aims at understanding the role of behavioral factors in the administrative functionary especially in bureaucratic organization

which consists of officials who are of culturally diverted, forming part of organized working class and are engaged in multifarious jobs like personnel, finance, legal, public relation jobs etc. and also to estimate its implications on service delivery. Thus this frame work of research provides the research paradigm, research objective, key constructs and key questions.

3.2 Research Objectives

India has completed more than six decades after her independence and a decade of experience with a liberalized, privatized and globally integrated economy amidst a horizon of new management and leadership ethos and modalities. Consequently competition and continuous change to match the changing organizational rules and even to create new rules of the game has become imperative which no organization whether bureaucratic or other wise can ignore. However, under the existing policy regime, the output and outcome of many public policies are immeasurable. Meanwhile the new paradigm shift in administrative set ups as well as new governance regime has gained its momentum under bureaucratic set up and occupied a prominent position in the policy space as bureaucracy profoundly affects day to day life of individual, organization and society as well. Though the vision, mission, goal, objective and the key resource areas of any functional policy model is excellent, still unless the spirit and ideas behind any public policy model is explicitly marketed, the said model may become redundant. Therefore, through the present study, the researcher intends to study the role of behavioral factors in the

administrative functionary in bureaucratic organization so that with the out come of the study, an overall paradigm shift in the administrative functionary can be thought of which may effectuate efficient and effective service delivery to the citizens through the citizen centric welfare policy formulation as well as implementing bodies functioning under a public domain. Based on this fundamental assumptions and questions, the following objectives have been drawn up in connection with the present study:

1. Understanding the various behavioral concepts governing the administrative functionary under bureaucratic system.
2. Application of behavioral concept in all levels of bureaucratic organization for efficient and effective service delivery.
3. Understanding the relation between the individual and group behavior and their impact in the functioning of the bureaucratic organization.
4. Understanding the role of people orientation tendencies of the bureaucratic organization to develop citizen centricity.
5. Gap analysis between effectiveness of the functioning of the bureaucratic organization and an idealistic outcome of the functioning of the bureaucratic organization after application of behavioral metamorphism and making suggestion thereby changing management perspectives at large.

6. Assessing the improvement of efficiency of the bureaucratic organization by empowering the individual functionaries of the bureaucratic organization.

3.3 Hypothesis to be tested

The researcher is keen to test the following hypotheses under the study:

1. Behavioral pattern of officials hailing from urban areas are much more conducive while functioning in bureaucratic organization than that of officials hailing from Rural areas.
2. Male officials of bureaucratic organization are more adaptable to the system than the female ones.
3. Officials of Governmental bureaucratic organization are much loyal to society than the public sector undertaking.
4. Behavioral pattern of senior officials are much more adaptive to the organization than juniors.
5. Persons working in Administrative set up are much more indispensable than that of Accounts and other group of officials.
6. The highly educated officials are much suited to the organizations / Society than others.
7. Commitment of Administrators shapes the functioning of Bureaucratic organization including their efficiency (i.e efficiency of organization).

3.4 Research Questions

The research questions primarily centers around three major issues which are as under:

- a. **Whether behavioral factors of the officials working in the bureaucratic organizations have any role in yielding the out put, out come and impact upon the functioning of the bureaucratic organization in India and yield the targeted results for the targeted population:**

Human beings, like most other complex organisms, can only deal consciously with one of a very few things at a time though actions requiring thought have to be done more or less one at a time. There are no intrinsic oppositions between emotion and reason: emotion is a principal source of motivation, focusing an individual towards particular goals; and it can direct great powers of thought on the goals it evokes. One may sometimes think of emotion as inimical to thought (and thought as inimical to emotion) when an emotion is aroused in him that interferes with the task one has been engaged in, when it turns ones rationality to other goals. But to think hard about a subject, in particular to be able to resist interruption of ones thought requires attention to be fixed by powerful motivational focus. However, when emotion is strong, the focus of attention may be narrowed to a very specific, and perhaps transient goal and one may ignore

important matters that would otherwise taken into account before acting. In producing this narrowness of focus, emotion does sometimes stand in opposition to reason. But one must be very careful in evaluations, for it is this same intensity of thought that, under other circumstances, allows concentrating on solving highly complex problems and dealing with extremely difficult situations.

Perhaps the most useful way to think about emotion in relation to administration and to decision-making in organizations is to think of it as a force that helps direct actions toward particular goals by holding attention on them and the means of their realization. Emotion works with reason when it attaches to broad and permanent goals, assuring that action will not be narrowly conceived; it works against reason when it hastens decision unduly and narrows too far the range of possibilities and consequences that receive consideration in the decision making process. Therefore the researcher is interested to establish the relationship between the behavioral factors and the quality out put of the individuals working in the bureaucratic organization.

- b. Whether the officials of the bureaucratic organization are conscious and are aware of such behavioral factors:**

The phenomenon of matching of self interest with the organizational goal, organizational loyalty and coping with the day-to-day performance are very important function on the part of the officials working in administration. An administrator, while becoming a part of the decision making process, must evaluate that decision in terms of the whole range of human values, rationality in administration and its applicability to the persons remain under identical situation. If he needs to consider the decision only in the light of limited organizational aims, his task is more nearly within the range of human powers.

An inherent question could be why the individual accepts these organizational influences, why he accommodates his behavior to the demands the organization makes upon him etc. To understand how the behavior of the individual becomes a part of the system of behavior of the organization, one must know the facts and values that enter into this decision-fabricating process which involves fact-finding, design, analysis, reasoning, negotiation, all seasoned with large quantities of "intuition" and even guessing. The concept of role provides the standard sociological explanation of behavior. Once such behavior is adopted by a larger mass, it is transformed to Culture. There is precisely a

reason, however, for describing behavior in organizations in terms of decision premises instead of roles. In its original connotation of dramatic part, "role" implies too specific a pattern of behavior.

The decisions of a person at any point in the administrative hierarchy are subject to influence through only one channel of authority; and if his decisions are of a kind that requires expertise in more than one field of knowledge, then advisory and informational services must be relied upon to supply those premises which lie in a field not recognized by the mode of specialization in the organization.

Therefore the researcher is interested to strengthen the behavioral factors in line with the societal expectations so that quality out put would be yielded and the bureaucratic organization would be reflected as citizen centric institutions.

- c. Whether with the introduction of the empowerment phenomenon in place of prevailing delegation modalities the capabilities of the working mass of the bureaucratic set ups can be enhanced so that the intents of welfare policies are realized by the common citizens:**

Most Bureaucratic organizations have employees who believe that they are dependent on others and their

effort has little impact on performance. They also believe that they have no control in the organization of their work. These feelings of powerlessness sap their efficiency and generate a feeling that they cannot successfully perform their job and make meaningful contribution. This situation can be remedied by empowering employees. Empowerment is a process that provides greater autonomy to employees through the sharing of relevant information and the provision of control over factors affecting job performance. Empowerment helps to remove the feeling of powerlessness and at the same time enhance employee feelings of self confidence in job performance. Empowerment enables employees to have control over problems related to their jobs.

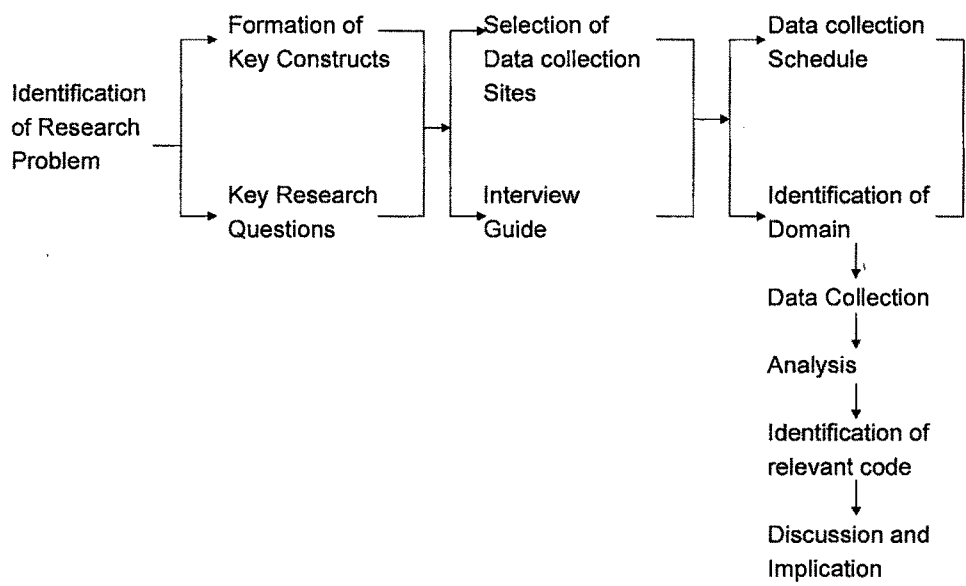
Psychological Empowerment is a psychological state that may have a greater influence on psychologically distant safety behaviors than psychologically close safety behaviors. Hence the researcher is interested to assess whether with the introduction of the empowerment phenomenon in place of prevailing delegation modalities the output and efficiency of the bureaucratic organizations could be enhanced.

Part. II

3.5 Empirical Research Design

Though it is a common saying that well begun is half done, it is an established fact that proper planning always lead to a perfect achievement. The probability of success of a research project is greatly enhanced when the “beginning” is correctly defined as a precise statement of goals and justification. Therefore a research design for this study was prepared which is as under:

Figure 3.01 RESEARCH PLAN



The above figure indicates an overview of the research plan of this study. The identification of a suitable research problem has helped to generate and define key constructs and research questions. A research plan consists of two general areas or the key constructs:

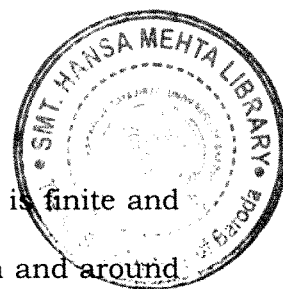
research concepts and context which includes Literature review makes the researcher familiar with the literature to identify a research problem, to explore ways to collect, analyze, and present data so that they are useful to others (e.g., for comparison among populations, carefully and clearly state the problem in form of concise questions, make a list of possible scenarios related to the research questions and then rank the most probable ones, visited all aspects of the research proposal write a detailed research proposal. Accordingly all steps have been covered.

In this study, the researcher has used an ex-post facto cross sectional research plan, where one can not manipulate or assign subjects, treatment and views, like it is done in pure experimental plan, because the independent variables have already identified.

Since the purview of the study is concerning with the Bureaucratic Organization, Government Department as well as Government financed Public sectors having staff strength 50 and above were targeted under the study as the study was confined to a reasonably large bureaucratic organization. Further, this study has been designed to draw inference at the macro level by comparing the behavior traits and their influence in the administrative functionary as the fundamental unit of analysis.

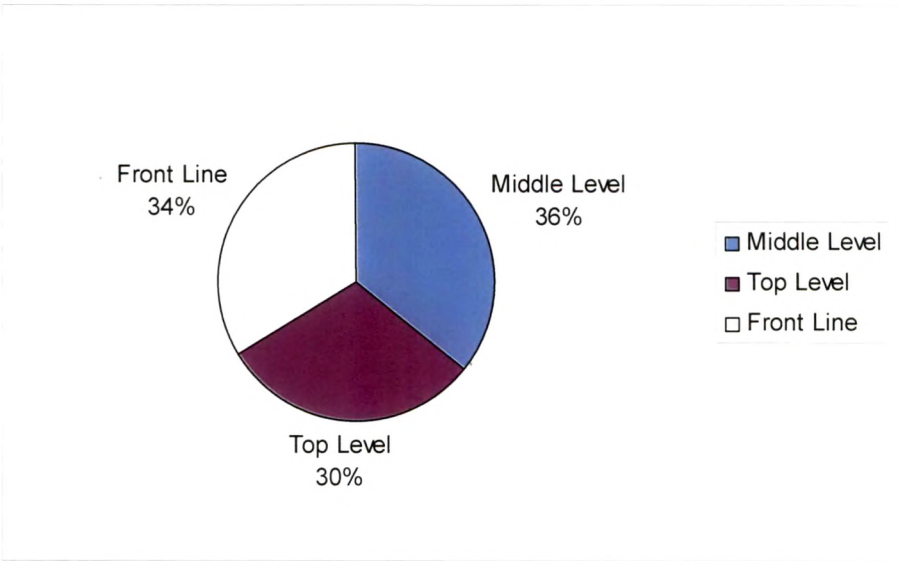
3.6 Universe

The universe under the present scope of the study is finite and the population of the major bureaucratic organizations in and around Baroda (Gujarat) and Mumbai is covered under the study which house a considerable number of bureaucratic organisations. Incidentally, it is mentioned that Baroda being the cultural capital of Gujarat and is also adjacent to Ahmedabad owns a good number of Central Government Organisations where people from all corners of Gujarat are available. The culture of Gujarat though is of varied nature, since people from all corners of Gujarat reflecting different cultural context are available in Baroda and therefore Baroda is considered to be an appropriate place to study the behavioral dimension of officials hailing from different cultural background. Similarly, Mumbai being the economic capital of the country and also a metro, owns many bureaucratic organizations where people across the country are engaged in various capacities. Therefore, studying the behavioral dimensions of the bureaucrats of Mumbai gives a overall picture of the behavioral dimension of the Indian situation. Moreover, Baroda and Mumbai being the neighbouring cities in the west coast of the country, the cross cultural variants because of geographical position could also be studied and as such these two places were selected for sampling purpose. The universe is homogeneous in nature. For the purpose, the difficulties experienced by the officials of various bureaucratic organizations pertaining to the behavioral issue were covered. In addition, the Organizational structure of the bureaucratic organization, decision-making machinery, procedures followed in



respective bureaucratic organizations to address the conflict of its officials and the conflicts arising out of improper delegation/lack of empowerment were looked into and accordingly questionnaire were drafted.

Figure 3.02 Levels of Respondents



The unit of analysis as depicted in Fig. 3.02 is the officials of the bureaucratic organization functioning at different levels, with different socio-economic back grounds, different place of origin with different educational back ground and years of experience etc. Based upon the theoretical perspective, various behavioral factors were identified. Out of these factors, eight behavioral factors were noted as vital as on today by the researcher. Thus these factors which are considered as behavioral constructs are considered as the dependent Variables and the seniority, gender, place of origin; Socio-Economic back ground, nature of job handled, place of posting etc. were considered as the

independent variables. To meet the multi level analysis and to address the relationship among the two sets of variables, multi levels of analysis of overall sample across hierarchy and Bureaucratic organization was provided in the research plan. The hierarchical classification of top level bureaucrats, middle level bureaucrats and the front line officials were earmarked to have a detailed study.

3.7 Sample

There after the research logistics like Identification of information needed to be collected and modality of their collection, selection of data collection sites and interview guides or tools were decided. Since the study is pertaining to the administrative functionary in bureaucratic organization, it was felt prudent to collect data from the officials of various bureaucratic organizations located in Vadodara (Gujarat) and Mumbai where Bureaucratic Organizations are located in pockets employing considerable mass of Officials of all categories viz. with different place of origin, different levels of experience, different educational back ground, different social back grounds etc. Through this aspect, the regional imbalances if any could also be studied.

The sample for the study consists of 352 Officials from nine different Central Government Departmental organizations and 6 Public Sector organisations.

Table 3.01 Percentage wise Sectoral Sample Distribution

Organization		No. of Respondents	Percentage
G O V E R N M E N T	Department of Atomic Energy	34	9.65
	Income Tax	26	7.38
	Central Excise	29	8.23
	Department of Post	41	11.64
	Water Resources	17	4.82
	Central Board of Direct Taxes	11	3.12
	Directorate General of Resettlement	21	5.96
	All India Radio	17	4.82
	CPWD	27	7.67
P S U	Gujarat State Fertilizers and Chemicals	44	12.5
	Nuclear Power Corporation	12	3.40
	Gas Authority of India Ltd.	17	4.82
	Indian Oil Corporation	23	6.53
	Fertilizer Corporation of India	14	3.97
	Food Corporation of India	19	5.39
Total		352	100

Department of Posts is one of the giant Central Government Department having a good number of officials working at different levels and is engaged in policy formulations, policy review, and policy implementation for ensuring effective service delivery. Therefore, while selecting samples more number of samples at different levels was taken. Similarly, depending upon the size of the organization

including their manpower, samples were decided. Needless to mention that since Central Board of Direct Taxes is a small Central Government Organization, less number of samples from the said organization was taken for the purpose of the study. Similarly, while considering the public sector undertaking, the public sector undertaking funded by Government(either Central or State) and consisting of bureaucrats governed by All India Service Rules were taken for the purpose of the study. Gujarat State Fertilizers and Chemicals being the leading public sector undertaking in the state of Gujarat having its both industrial and administrative activities at Baroda were covered under the study. Taking into account the manpower and officials' position at different level, a good number of samples were earmarked from this organization. Moreover, the samples from other public sector undertaking were decided basing upon their overall manpower so as to cover a wider range of personnel and officials from the respective organizations. Since, Fertilizers Corporation of India is a mini public sector undertaking, least number of samples were taken from the said organization for the purpose of the study. The sample respondents comprise of executives belonging to the age group of below 30 years and up to 60 years. These above mentioned officials, who hail from such diversified organisations, differ in their area of specializations. They have a total working experience ranging from less than 5 years to more than 10 years.

Table 3.02 Percentage wise Sample Distribution of different categories

Sr. No.	Age group	Percent of	
		Rural	Urban
1.	Upto 30 years	9.33	16.66
2.	30-40 years	24.57	26.93
3.	40- 50 years	34.74	38.04
4.	More than 50 years	31.36	18.37

While selecting sample, it is noticed that younger mass of Rural origin are available in less in less in number in bureaucratic organizations. However, the officials of rural origin and in the age group 40-50 years of age are available in large numbers in bureaucratic organizations. This could be due to the reason that in bureaucratic organization, officials are promoted basing upon years of experience unless they are direct recruitees and enter in to service^o laterally. Also the younger mass of age group upto 30 years of age opt for job rotation and change over from bureaucratic organizations to other sectors of employment. However, officials of rural origin and between age group 40-50 years of age gets settled in bureaucratic organizations and scope for their job rotation per se and change over could be remote for this age group. Similarly, the officials of rural origin and in the age group 30-40 years of age or more than 50 years of age though are less in comparison to the officials of age group 40-50 years of age in bureaucratic organizations, but are more than the officials of upto 30 years of age. This gives a picture that most of the

bureaucratic organizations own a greater mass of officials of 40-50 years of age in an average.

However, in case of the officials hailing from urban area and upto 30 years of age are more in comparison to the officials of rural origin. This can be inferred that the officials hailing from urban area get somehow settled in bureaucratic organization and their scope for job turnover and rotation are rare. However, the officials belong to urban area and of age group between 40-50 years of age are highest in bureaucratic organizations. Similarly, the officials from urban area and between the age group 30-40 years of age are also more than that of officials from rural area. Similarly, officials from urban area and age group more than 50 years of age are comparatively less than the officials from rural area. The lucrative voluntary retirement schemes, could be the reason whereby many senior officials of bureaucratic organization coming from urban area separate themselves from the bureaucratic organization and settle else where.

Comparative analysis of both urban and rural origin indicates that the officials belongs to urban area are keen for their settlement and continuance in bureaucratic organization and they are not very keen for their job rotation like that of the officials hailing from rural area. Further, the sample consists of the following categories:

Table 3.03 Distribution of samples from Government and Public Sector Undertaking according to recruitment process

Organization	Direct Recruitee	Promotee
Government	90	100
Public Sector Undertaking	82	80

Since the purpose of the study is to understand the behavioral dimension, care was taken while resorting to sampling method. However, it is noticed that Government Departments consist of more number of promotees than that of Public Sector Undertaking which implies that the officials try to get settled in Government Departments that of Public Sector Undertaking. Moreover, the scope for career upgradation is more in Government Departments than that of Public Sector Undertakings. As a result, the scope for job rotation and job turn over in senior categories in Government Departments are remotely observed than that of Public Sector Undertaking.

For the purpose of study, the different levels for sample collection are as under:

1. **Top level Bureaucrats:** This level consists of those officials in a bureaucratic organization those are of the higher echelons of hierarchy but are not the topmost officials in a bureaucratic organization having rich experience. This group includes the direct recruitees as well as promotees. The sampling from this group mainly consist of Police Commissioner, Superintendent of Police (Vigilance), Assistant Commissioner of Central Excise and Customs, Assistant Commissioner of Income Tax, Senior

officers equal to the ranks of Additional Commissioner, Joint Commissioner and Deputy Commissioner. Superintendent of Posts, Superintendent Engineer who are directly involved for policy formulation of their respective Department as well as the decision making in respect of their respective departments.

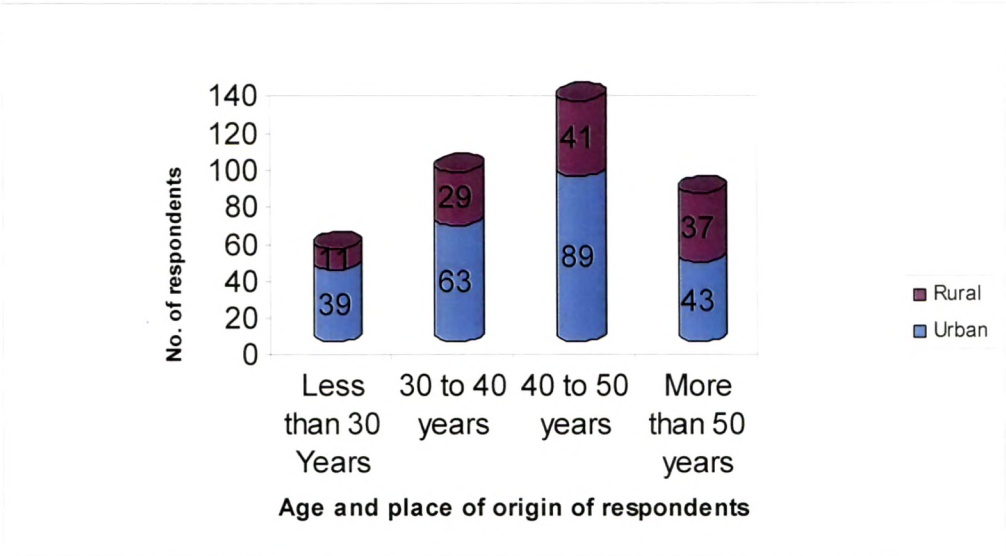
2. **Middle level Bureaucrats:** This group consists of those officials in a bureaucratic organization that acts as the bridge between the top and the front line officials and play important roles assisting both the top as well as the front line staff in day to day work. This group is also a mix of promotees as well as direct recruitees having relatively less experience than the top level bureaucrats. This group of sample mainly consists of the Deputies including the officials who work as subordinate to the Top Level Bureaucrats but are superior to the front line staff. Examples of such category are Deputy Police Commissioner, Deputy Superintendent of Police (Vigilance), Regional Commissioner of Central Excise and Customs, Regional Commissioner of Income Tax, Senior officers equal to the ranks of Deputy Commissioner and Executive Engineers, Shift Engineers, Accounts Officer, Personnel Officer etc.
3. **Front line Staff:** This level consists of those officials in a bureaucratic organization whose primary role is the interface between the organization and the general public. Again this group like the above two groups is also a mix of promotees as well as direct recruitees. Examples of this group are Plant Operators, Assistants in Accounts, and Administration in various Government Department of Public Sector Undertakings, Section Officers, Senior

Mechanic and Technicians etc. who play a major primary role in their day to day functioning.

With this, the data collection schedule and identification of domain was taken due care so that quality data of representative character could be obtained. Prior to actual data collection, carefully “walk through” as many of the techniques and procedures as feasible to detect problems with protocols and data storing mechanism were resorted to in order to prepare further for data analysis, identification of prime factors for root cause analysis and evaluation. How well a research project is planned and how well the steps in the plan are integrated can make the difference between success and failure.

Accordingly, the unit of analysis were the officials of the bureaucratic organizations functioning at different levels responsible for policy formulation and implementation with different socio-economic back grounds, different place of origin, different educational back ground and years of experience engaged in administrative functionary in various Government Departments those forming part of the bureaucratic organization holding the post as Front Line Officials, middle level officials as well as top level bureaucrats in the bureaucratic organization.

Figure 3.03 Respondents according to age and place of origin

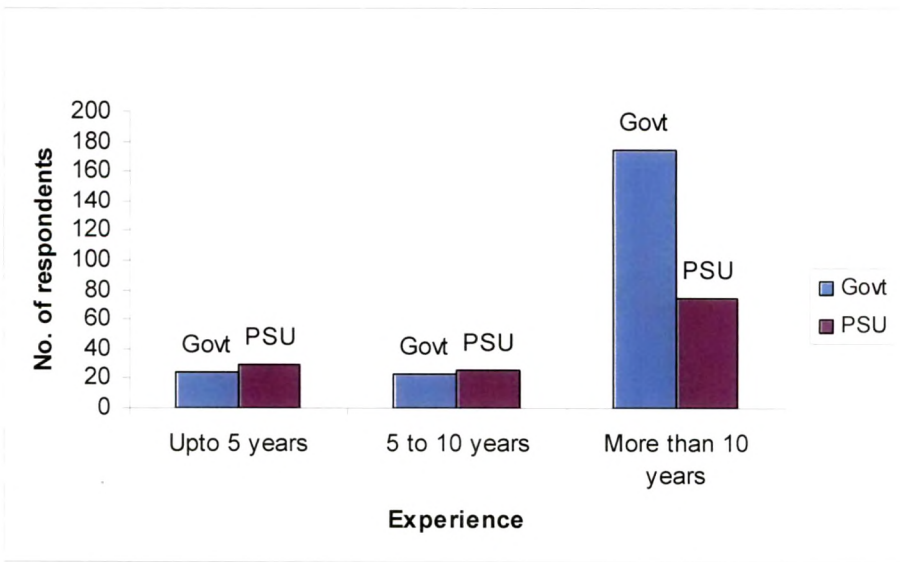


An overview of the sample as per figure 3.3 implies that the officials of age group upto 30 years of age hailing from urban area are available more in numbers in bureaucratic organizations than that of the officials hailing from rural area because of the fact that education facilities in urban area are better than that of the rural area. However, the number of officials of rural origin increases with the increase of their age group which implies the change of trend of the earlier generation of rural origin who were preferring to stick to the bureaucratic organization than the present generation because of shift of behavioral dimension of the present than that of the past. It is imperative to note that the officials of 40-50 years of age have more number of officials of rural origin than the other age groups.

Since the purpose of study is analysis of the behavioral dimensions of the officials of the bureaucratic organizations, in order

to have a systematic analysis, respondents with different place of origin and from different age groups were taken for the study since as has positive relationship with decision making process in bureaucratic organization. Moreover, person of higher age holds relatively higher position by virtue of seniority in bureaucratic organization. Besides, as per the prevailing practices adopted by the bureaucratic organization many positions are given to the individuals by virtue of seniority and scope for lateral entry is limited and is confined for few posts. However, since the overall urban population in bureaucratic organization is more, their representation in sample too became some what more too. It may therefore be inferred that respondents with more years of experience prefer to settle down in Governmental organizations due to positional power, retirement benefits, welfare facilities etc. including promotional avenue thereby the career growth. All the early years are consumed to establish the system so as to enjoy the fruits of the efforts made by them at a later date.

Figure 3.04 Experience wise distribution of Respondents across different Sector

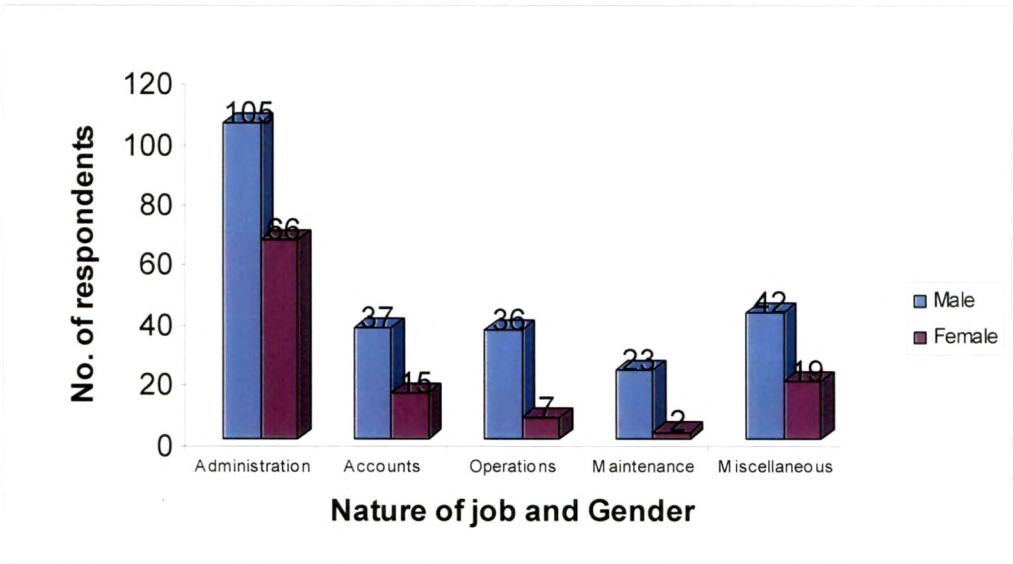


The perusal of figure 3.04 implies that both the Government Departments as well as the Public Sector Undertaking retain officials upto 10 years of experience. However, with the increase of experience, the number of officials of bureaucratic organizations decline in comparison to that Government Departments. This is due to the fact that in Government Departments the scope for career advancement by virtue of seniority is more and as a result the officials hardly try for job rotation and change. No doubt the officials from one Government Department are getting absorbed in another Government Department, but they don't leave the job. However, in case of Public sector Undertakings the officials of more than 10 years of experience try to change the job as the career progress in Public Sector Undertakings are not as lucrative as that of the Government departments.

While deciding the sample even though in a stratified manner, it is experienced that Government departments showed a good number of officials having more than ten years of experience which implies lack of turnover after certain continued period in government departments than the Public Sector Undertakings. However, in case of samples having less than 10 yrs of service, the numbers are more in public sector undertakings than Government departments which implies that the officials of government departments tend for a job rotation at the beginning of their career unlike the officials of the public sector undertakings. Experience plays an important role in holding position by the incumbents in bureaucratic organizations. The officials of bureaucratic Organization are mostly engaged in the

sovereign function of the state whereas the officials of public sector undertaking are engaged in meeting the needs of the individual keeping the mission statement of their respective organizations. Moreover, by virtue of experience in various other departments, the incumbents are given executive post and are becoming part of the decision making process in bureaucratic organization and as such a mix of the officials with different level of experience were included in the sample.

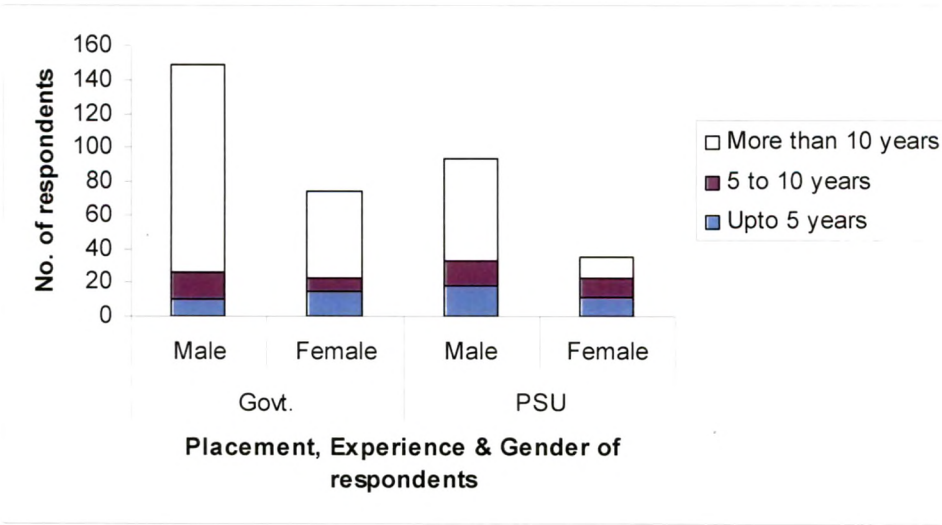
Figure 3.05 Nature of job and gender of the Respondents



It is imperative to note that more number of female officials prefer to do Administration, Accounts and miscellaneous job of the organizations than that of operation and maintenance sector in bureaucratic organizations. It is also noticed that the female officials prefer to be in Administration, Accounts and Maintenance Sector where they are required to be involved in decision making process

than the operation and maintenance sector. In India some of the jobs are considered as masculine where there is some amount of hardship and thus necessarily to be carried out by the male officials. Other jobs are classified as feminine which require to some extent sophistication and delicate approach. Same is the trend in bureaucratic organization too. This is imperatively possible, since the operation, maintenance and miscellaneous jobs carried out in the bureaucratic require varied mind set and different behavioral characteristics of the individuals attending the jobs such as field job, odd working hours, family bonding systems, family responsibilities, social culture of the area where the bureaucratic organizations are located. In some areas, because of social embargo, the female officials do not come forward for taking up the assignment in fields, in operational areas. Whereas such embargo are not reflected if the work is confined to administrative and accounts activities which are mainly confined to tables and rooms in a bureaucratic set up.

Figure 3.06 Placement, experience and gender of the Respondents

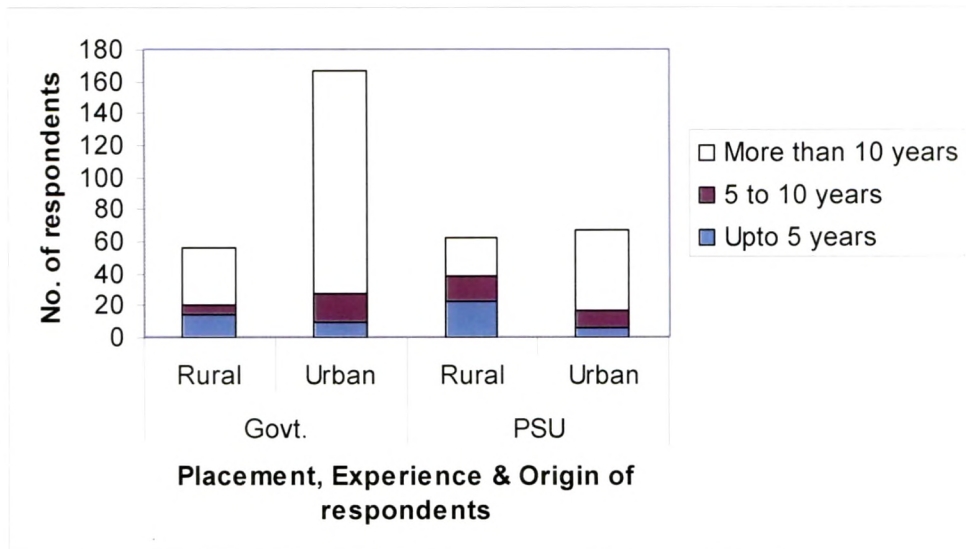


In a Government sector male officials upto 5 years of experience are available less in number than the females with 5 years of experience. However, when the experience advances beyond 5 to 10 years, the number of male officials in Government sector increases than that of the females. Similarly, when the experience increases beyond 10 years the number of male employees correspondingly increases ahead of the female officials. This could be possible as the male officials at the beginning of their career in the Government sector opt for job rotation and change over more than that of the female. However, with the increase of experience beyond 5 years, when the male officials try to settle down because of socio-economic reasons, the number of female officials reduced due to the social conditions like marriage, family bonding etc. This trend continues with the increase of experience even more than ten years.

In case of public sector undertaking the situation remains somewhat different than that of the Government sector. Here the number of male employees with experience upto 5 years or more in comparison to the female employees. The trend continues even beyond 5 years of experience or ten years of experience. However, when a comparison is made between the male officials of Government sector as well as the public sector undertaking, the number of male officials in public sector undertaking is more than that of the male officials in Government sector upto 5 years of experience. Whereas, in case of female, the number of female employees upto 5 years of experience are more in Government organization than that of public

sector undertakings. In case of male employees between 5 to 10 years of experience, the trend remains similar both in Government organization as well as public sector undertakings. However, with the increase of experience beyond 10 years, the number of officials in Government sector increases than that of the public sector undertakings. This implies that beyond 10 years of experience, the officials of Government sectors prefer to settle down in their respective organizations. Whereas, in case of public sector undertakings, the officials still do not become stable with reference to their settlement and urge for better position elsewhere. Similarly, when a comparison is made between the female officials of Government sector and public sector undertaking, the number of female officials upto 5 years of experience are more in Government sector than the public sector undertakings. However, with the increase of experience between 5 to 10 years the number of females in public sector undertakings becomes more than the Government sector and beyond 10 years the number of female officials in Government sector march ahead of the females in public sector undertakings. This implies the female officials at the beginning of their career when try to settle down in Government sectors, their counter parts in public sector undertakings opt for job rotation. Similarly, the female officials between 5 to 10 years of experience in Government sector try for a job change over because of the social condition etc. and this situation may not be prevalent in case of female officials public sector undertaking.

Figure 3.07 Placement, experience and origin of the Respondents



A comparative analysis of the placement, experience with reference to the place of origin implies that the number of officials hails from rural areas upto 5 years of experience or more in comparison to the officials from Urban areas in case of both Government sector as well as public sector undertaking. However, with experience between 5 to 10 years the number of officials hails from rural areas or less in Government sector than the officials hailing from urban areas having experience of 5 to 10 years. The numbers of officials having more than 10 years and hailing from urban areas are more in case of both Government sector and the public sector undertaking. This implies that the officials hailing from urban areas and acquiring more experience prefer to settle down in their respective jobs instead of opting for job rotations. However, in case of officials hailing from rural areas, the number reduces in Government sectors

once the experience is increased between 5 to 10 years unlike the conditions prevailing in public sector undertaking where the number does not vary much. This implies that the officials hailing from rural areas and are placed in Government sector when opt for job change, the officials of public sector undertakings do not urge for such a change like that of the officials of the Government sector. However, in case of the officials hailing from rural areas and acquire more than 10 years of experience in Government sector show a progressive increase in the number than that of their counterpart with identical experience and deployed in public sector undertaking thereby indicating that after 10 years of experience when the officials hailing from rural areas settle down in Government sector, the officials of public sector undertaking urge for job rotation even after 10 years of experience.

The study since pertains to the administrative functionary, a good number of samples from the Administration sector was taken for the purpose of study in a stratified manner. However, the function of the bureaucratic Organizations since is not confined only to the Administration, other wings of government organization as well as public sector undertakings viz: Accounts/ Finance, Operation, Maintenance as well as other miscellaneous departments like purchase, safety departments also regulates the administrative functionary of the Bureaucratic Organization, samples from the said sections were also taken to have an uniform study.

3.8 Sampling Procedure

Data collection were planned to collect data from the respondents of each of the three levels viz. Top Level bureaucrats, Middle Level bureaucrats and Frontline Staff. The issues forming the basis of the quest of study basing upon the literature review were drawn in form of a questionnaire. The questionnaire was subjected to the battery test by discussing with the subject experts, academics, senior colleagues who have put on enough service in Human Resource and Behavior related fields to establish the bearing between the quest and the issues raised in the questionnaire. The focus of the pilot study was pertaining to:

1. Length and the language of the questionnaire
2. Adapt the item so that the respondents understand the meaning of the item and respond freely.
3. Test the reliability and validity of the questionnaire.

The first issue - the length of the questionnaire was critical for this study so as to ensure that the respondents feel comfortable with the time they take to respond the questionnaire. The idea was to strike a balance between the objective of the study and the questions used as a means. It was felt important that to explore in the pilot study, both by observation and through personal discussion with the respondents, if the questions are too many, comfortable to respond, time taken for response, thus resulting in breaking of concentration and attention span of respondents. Though Likert type scale for

collection of responses were used, still the respondents were specifically asked if they had trouble in understanding the questions, at times they were requested to explain to the researcher as to how they are interpreting the meaning of specific items. Taking in to their suggestion, twelve items were adapted to make the questionnaire more meaningful and unambiguous.

Taking in to account the valued suggestions, few questions were modified and were altered. To ensure the reliability of response, the researcher personally administered the questionnaire in form of a pilot study, meeting ten respondents on one-to-one basis. This ensured that all respondents understood the battery of test properly and responded to each and every item of all questionnaires. This test was again repeated after twenty days with the same respondents and it was noticed that the responses were identical to that of the previous one. With this aspect, the validation and test of reliability of the questionnaire was also completed. This pre-empted the missing value in the data. After establishing their reliability, the questionnaire was finalized (see Appendix-1) for administration. The well structured questionnaire was administered to the officials as per sample. The first part of the questionnaire was meant for eliciting the personal profile of the executives and the next part was meant for finding out the level behavioral dimension answered on a Likert-type scale.

Though the determination of the sample is almost always a matter of judgment rather than estimation, the need to undertake

particular statistical analyses determines the threshold sample size for individual categories. 352 samples with representative character being from different categories, different strata as indicated above taking into account the age, experience, personal traits of the sample unit were targeted on a stratified basis.

The sampling frame of this study was after establishing the true officials of the Bureaucratic Organization including the public Sectors. Though the determination of the sample is almost always a matter of judgment rather than estimation, the need to undertake particular statistical analyses determines the threshold sample size for individual categories. 352 samples with representative character being from different strata taking into account the independent variable of background, Position held, Age, and experience of the sample unit were targeted on a random basis. Quota sampling is availability sampling, but with the constraint that proportionality by strata could be preserved. The sampling frame work was prepared for having quality and representative data.

3.9 Research Design

In the present study the factorial design method was used since the study aims at a number of factors affecting the problem relating to the behavior factor, which regulates the administrative functionary in a bureaucratic organization. It also relates to the interaction between various treatments like favoritism, interpretation of rules so as to suit the individual and situation and thus aims at studying the

heterogeneous cluster of factors. From this design, it is possible to determine the main effects of the variables and thus the interaction between each possible pair of variables would be studied in depth. In the same way, the main effect of the controlled variables and the independent variables can be understood well. The following is the graphical depiction of the proposed factorial design.

Table 3.04 Research Design

<div> <div>Levels</div> <div>→</div> <div>↓</div> </div>	Executives		Supervisory Staff		Operative Staff	
Variables	Direct Recruittees	Promotees	Direct Recruittees	Promotees	Direct Recruittees	Promo-tees
Attitude						
Commitment of administrator						
Emotion						
Empowerment						
Group Cohesiveness						
Interpersonal Relationship						
People Orientation						
Temperament of administrator						

The sample for the study consists of 352 officials from 15 different organizations out of which nine are Central Government Departments and six are public sector units. The sample respondents comprise of officials of various age groups having different fields of specialization and length of working experiences.

A well structured questionnaire was administered to these respondents. The first part of the questionnaire was meant for eliciting the personal profile of the respondents and the next part was meant for finding out the level behavioral dimension answered on a Likert-type scale.

For the sake of collecting primary data from the respondents as per the design, besides administration of questionnaire to the Officials of bureaucratic organizations, interviews/informal discussion were also conducted with the bureaucrats at different levels strictly on the issues raised in the questionnaire which is one of the most powerful ways of collecting information. In this case only structured modalities were followed as the interviewees were the officials of Government departments as well as Public Sector Undertakings. This personal one-to-one approach also gave opportunity to the researcher to interact with the individual respondent and understand their opinion about issues raised in the questionnaire. The detail break up of the sample size, hierarchy and sector wise is enumerated in Table 3.01 and 3.02.

More over while collecting the data, enough care was taken to collect the data from different categories of respondents in terms of place of posting, nature of duties handled, experience level, gender, educational backgrounds etc. so as to ascertain the accuracy of the data collected and to make it representative.

3.10 Limitation of the Study

Despite the contributions of this study, there has been certain limitation in pursuing this study. Given the focus of objectives of this study and research gaps identified, the study was conducted taking into account the views/opinions of the officials of bureaucratic organizations primarily in and around Vadodara (Gujarat) and Mumbai (Maharashtra). Keeping the overall objectives of the study, the entire pool of bureaucratic organizations in the area could not be covered for data collection and analysis purpose as with in the available time, this could only become possible. Moreover, this study is bounded by the research site as well as context too and thus by understanding the inter-cultural context and taking varied Indian bureaucratic system, a depth study could not be conducted. In this process the influence of the environment and the influencing group too could not be studied. For this study, because of limitations, only responses of selected samples that to limited numbers were obtained and processed ignoring the scope for a detailed study across the country by taking a varied range of respondents from different cultural back ground, age, different experience with demographic differences. However, conducting this study by planning in these places definitely give a further direction for future studies.

Though the samples both from rural and urban origin were taken, there could be chances of mismatching as the officials hailing from the remote rural area exhibit different behavioral dimension that the rural areas and similarly may differ from semi-rural area.

Moreover, in the same fashion the officials hailing from urban areas could exhibit different behavioral dimensions viz. the officials hailing from Mumbai may behave differently than the officials from Vadodara though both Vadodara and Mumbai are forming part of urban area. Hence, the remoteness locality of both the urban as well as rural areas by virtue of the geographical location and their nearness to metro cities and towns could also play an important role.

It is imperative to note that there are many behavioral constructs out of which only eight constructs were included in this study. Hence more behavioral constructs need to be identified by conducting depth studies.

In this study, besides administering the questionnaire to the officials of bureaucratic organizations, interviews with few senior officers of the Government departments and Public Sector Undertaking were undertaken. Here it is felt that, since the researcher met the respondents for the first time, most of the respondents could become apprehensive and might not have revealed the truth. Moreover, the senior officers who were the respondents, for paucity of time to them, the responses could become haste. The researcher was not permitted to audio tape the interviewer while interviewing. Similarly also while having conversation with the officials, such audio taping too was not permitted by the concerned. Hence self reporting was resorted relying upon memory and the brief manuscripts were made during discussions /interactions to transcribe the interviews.

Also, despite the efforts made to ensure that participants knew their responses were confidential, it is possible that employees distorted their behavioral performance ratings. One alternative would have been to have a coworker rate the official. However, this could not be done.

To further address the limitations of using single-source data, attitude and behavior data were aggregated to the department level and correlated with department level. In this study, the psychological states of empowerment and organizational identification were also related to behavioral outcomes.

Another potential limitation of this study was that participants were from different occupations within same zone. However, as noted, multilevel analyses suggested that regression slopes did not vary across departments for almost all predictor-behavior relations. Hence, although there were differences across occupations with respect to the mean performance of the behaviors themselves, this may not have impacted the correlations on which the modeling results were based.

3.11 Analysis Plan

The analysis was planned for the level wise distribution, experience wise distribution, gender wise distribution, sector wise distribution including the place of origin of the officials of the bureaucratic organization so that a comparative assessment could be arrived at. To meet the multi level analysis and to address the

relationship among the two sets of variables, multi levels of analysis of overall sample across hierarchy and Bureaucratic organization was provided in the analysis plan. In addition to resorting to statistical analysis, regression analysis was also subjected for arriving at a conclusion about the findings of the study besides the testing of hypotheses.

Keeping the above in view, the present study is undertaken and statistical analysis of the data was carried out with the application of few computer softwares like e-Views, Excel, SPSS version 9 etc. Prior to resorting the regression analysis, the data collected through the questionnaire which was verified and tested through pilot study were narrowed down in the form of the excel sheet and were made susceptible to "t" test and ANOVA for testing the mean difference among the responses made by the respondents from different sectors, area, gender, level of experience, social origin etc.

The t-test assesses whether the means of two groups are statistically different from each other. This analysis is appropriate whenever one needs to compare the means of two groups, and especially appropriate as the analysis for the post test only two-group randomized experimental plan.

The purpose of conducting t-test here was to evaluate the responses between male and female respondents forming part of the bureaucratic organization, comparing responses of the officials

originating from rural as well as urban areas and the responses made by the respondents belonging to different age groups. The behavioral trait of the respondents show different patterns basing upon their gender as the male officials of bureaucratic organization behave differently in a particular situation then that of the female officials. Hence, it was felt necessary that by conducting a t-test assessment and inference can be made how two groups of male and female could be different from each other. Similarly t-test was conducted between the responses of the officials coming from rural and urban areas so as to find out how the group response these two groups could be different from each other so as to make an evaluation. Further, t-test was conducted to evaluate the difference of behavioral traits of the respondents belonging to different age groups so as to find out how the individuals belonging to a particular age group behave differently then the others. Such test was also conducted between the direct recruitees as well as the promotees forming the parts of the bureaucratic organization as well as between the officials of the bureaucratic organization who are forming the part of Government organization as well as public sector undertaking to find out how the behavioral patterns of the individuals is different from that of the rest of the group as well as the difference in the behavioral patters between the groups of direct recruitees then that of the promotees as well as a comparative assessment of the group behavior of officials working in Government departments with that of the officials working in public sector undertaking. This is necessary since the decision making process which is vital essence in decision making process which

effectuates the functioning of bureaucratic organizations aiming at mass social welfare.

This leads to a very important conclusion: when the differences between scores for two groups are looked at, one has to judge the difference between their means relative to the spread or variability of their scores. The t -test does just this.

When comparing two samples, it is often necessary to test the validity though the samples are from the same distribution. The F test ratio is used for this purpose. F -test is only robust if the populations under study have normal F -test. Exact F -tests mainly arise when the models have been fit to the data using least squares.

3.12 Multiple-comparison ANOVA problems

The t -test specifies if the variation between two groups is "significant". But it is difficult just do t -tests for all the pairs at all the locations. Multiple t -tests are not the answer because as the number of groups grows, the number of needed pair comparisons grows quickly and for one pair cannot be considered significant. ANOVA puts all the data into one number (F) for testing the null hypothesis. The ANOVA can be used to assess whether any of the treatments is on average superior, or inferior, to the others versus the null hypothesis.

The present study is concerned with the behavioral dimensions of individuals of various groups like male and female, officials originating from rural area and urban area, the officials of bureaucratic organizations who join service either as direct recruitee or promoted from lower post during their course of employment, comparative analysis of the decision making style between the officials of Government departments as well as the public sector, comparative analysis of behavioral dimensions of top level bureaucrats, middle level bureaucrats and the front line staff engaged in administrative job, operation and maintenance activities etc. Hence, by conducting a t-test a comparison thus cannot be made and the best course of action is to conduct ANOVA.

By resorting to ANOVA the hypotheses could be proved as it is the study of the comparative analysis of aggregate behavioral pattern of individuals forming various groups depending upon gender, place of origin, educational qualifications, years of experience and place of employment.

Regression analysis includes any techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps us to understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. Most commonly, regression analysis estimates the

conditional expectation of the dependent variable given the independent variables — that is, the average value of the dependent variable when the independent variables are held fixed. Less commonly, the focus is on a quantile or other location parameter of the conditional distribution of the dependent variable given the independent variables. In all cases, the estimation target is a function of the independent variables called the regression function. In regression analysis, it is also of interest to characterize the variation of the dependent variable around the regression function, which can be described by a probability distribution. Regression analysis is widely used for prediction and forecasting. Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. In restricted circumstances, regression analysis can be used to infer causal relationships between the independent and dependent variables.

In the present study the decision making process of the officials in the bureaucratic organization depends upon the various behavioral dimensions of the officials who are coming from different geographical background having different gender, different educational background, different years of experience and different sectoral place of posting and thus for predicting their behavior and for co-relating their behavior with the decision making process, regression analysis is considered as the best tool.

Here R^2 is used in the context of statistical models whose main purpose is the prediction of future outcomes on the basis of other related information in a changed scenario. It is the proportion of variability in a data set that is accounted for by the statistical model and it provides a measure of how well future outcomes are likely to be predicted from the model. R^2 is simply the square of the sample correlation coefficient between the outcomes and their predicted values, or in the case of simple linear regression, between the outcome and the values being used for prediction.

In the present study the necessity for R^2 is stressed upon as though the study is conducted in a particular area of the country i.e. Baroda as well as Mumbai taking into account the responses given by few officials working in bureaucratic organization, the result can be further co-related by making necessary predictions of future outcomes if the study is conducted elsewhere and to the study the decision making process by altering various behavioral factors and to evaluate the data for assessment of their impact upon the behavioral outcome. Hence in the present study the regression analysis was resorted to.

3.13 Data Analysis Methodology

The following Data Analysis Methodology was adopted in order to have a purposive and un-biased statistical analysis of the data collected through the questionnaire as well as to conclude the study in an orderly manner. While analyzing the data, rational beliefs were

practiced about the accuracy and representative character of the data collected besides observing the following steps:

1. Weighted average of each independent factor (mean) was resorted to.
2. Frequency of respondents who gave highest rank to any independent factor was calculated.
3. Inter rate reliability checks were made to assure consistency in the ranking pattern.
4. Homogeneity of the data were evaluated taking into account the mean and the standard deviations.
5. Results of above four steps were analyzed for drawing conclusion pertaining to each hypothesis testing.

Even though all control parameters (independent variables) remain constant, the resultant outcomes (dependent variables) use to vary. A process of quantitatively estimating the trend of the outcomes, also known as regression or curve fitting, therefore becomes necessary which were also used in this study.

The curve fitting process fits equations of approximating curves to the raw field data. Nevertheless, for a given set of data, the fitting curves of a given type are generally “not” unique. Thus, a curve with a minimal deviation from all data points is desired. This best-fitting curve can be obtained by the method of least squares. The method of least squares assumes that the best-fit curve of a given type is the curve that has the minimal sum of the deviations squared (least square error) from a given set of data.

Keeping a note of the above and following the guide line mentioned above, the data collected through the administration of the

questionnaire, were tabulated in “excel sheet”. Incidentally it is mentioned that likert type scale which is a psychometric scale commonly used in questionnaire, and is the most widely used scale in survey research is also used by the researcher. When responding to the questionnaire item under likert scaling, respondents specify their level of agreement to a statement. The five response categories are often believed to represent an Interval level of measurement. But this can only be the case if the intervals between the scale points correspond to empirical observations in a metric sense. In fact, there may also appear phenomena which even question the ordinal scale level. The same was followed by the researcher. After completion of filling the data in the excel sheet, data was made ready for statistical regression.

SPSS (version 9) and e-View software are globally recognized for their comprehensive knowledge and abilities utilities in research purpose and network operations management – put to use for statistical as well as econometric analysis worldwide. Thus those softwares were used for statistical analysis purpose and hypothesis testing.