CHAPTER - II

REVIEW OF RELATED LITERATURE

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1. Overview :

In India after Independence, the developments in the field of education are comparatively faster. Two important land marks could be referred in this context viz: (a) starting of Extension Services Movement in 1961 and (b) the starting of National Council of Educational Research and Training. There were consequent developments at state levels in the form of State Council of Educational Research and Training, Extension Centres etc. There are research evidences to show that (Rao 1967, Buch (1972, 1973) there is an improved innovative trend in education. But not very many studies are found on factors facilitating "change". However there are comparatively more number of studies on the factors promoting innovative practices than on the change process itself. It is in this context that this study in the form of case-studies of innovative schools has been taken upto make an in-depth study of the process of

innovation adoption together with the factors affecting such a process in the school systems which are considered innovative. The scope of this study has a bearing on the related findings of the earlier studies to start with.

Havelock (1973) in his book "Planning for innovation", describes that the change process consists of four very important elements viz: (1) Resource System (2) Communication Channel (3) Innovation and (4) the Adopter System. To describe any innovative institution in terms of its innovativeness, it is considered enough if all the above four elements are rightly described.

The first of the four elements is the "Resource system". The resource system comprises the "Sources" of the innovative ideas and mark the beginning of an innovative process. The communication channel refers to the mode and media of communication of an innovative idea to the adopter system from the source. The third element 'innovation' refers to the new idea that is generated by the source and the last element being the 'Adopter system' which is the important and culminating point of the total system of innovation. It is only for the adopters that the entire system of innovation operates.

If all the above four elements are well described in relation to the factors and forces operating at each level about the innovative schools, probably the object of this study would have been achieved. This chapter is expected to throw much light on fulfilling the objective in the proper order and proper form. There was a visibly

progressive trend in studies on "Educational Innovation and Change" in India from 1960 onwards. It was Griffin and Pareek (1963) who lead this movement. A few universities like the M.S.University and Sardar Patel University in India started specialising on studies connected with innovation and change. These studies are reviewed in the following pages in view of their relevance to the present study.

2. Review of Doctoral Studies on Innovation in India :

Innovation and change process : Ross (1962) has reviewed about one hundred and fifty studies in the area of innovation and change. The summary of his findings reveals the following facts about the process of change. (1) There is always a time lag between the recognition of an educational need and the adoption of an innovation to meet the need. (2) The diffusion of educational innovations is also spread over decades and takes the form of a 'S' shaped curve. (3) There is not much difference in the rate of diffusion between the complex structure of innovations and the simpler ones. (4) It requires two conditions to be fulfilled to make a local school system to be innovative viz: (a) readiness to give more freedom for teachers and (b) to spend more for schools (5) The attitudes and expectations act as an inward pressure to schools to innovate or adopt to changing conditions.

Subba Rao (1967) in his inquiry into factors contributing to promotion or inhibition of educational innovation has identified that the major areas of educational innovation pertain to (a) classroom instruction (b) use of audio-visual aids (c) utilisation of learning

experience (d) examination reform (e) school administration and (f) others relating pupil welfare in general.

The sources of new ideas as found from his studies are (a) extension services department (b) headmasters (c) seminars (d) workshops (e) inspectorates (f) training colleger personnel (g) books, magazines and journals. Voluntary agencies and extension centres also are included in his list of sources of new ideas.

The inhibiting factors identified from his studies were (a) State Department of Education (b) Headmasters lack-lustre leadership qualities and inadequate professional experience to guide his teachers for innovation.

The few characteristics which were found present as part of the innovative schools and their systems : (a) a better physical plant (b) better library facilities for pupils and teachers (c) better utilisation of the library facilities by the staff and students (d) the progressive management of school (e) positive role performance by pupils (f) Headmasters good all round abilities and better leadership behaviour (g) Headmaster and teachers have greater outside - school visitation habits and experience (h) professional background of staff (i) their cosmopolite tendencies and (j) effective participation of staff in the inservice education.

Dhogle (1969) investigated the influence of some social, psychological and organisational factors on the readiness to accept changes in a group of secondary schools.

The Headmaster's role is indicated as most vital in the adoption of innovation. The type of headmaster and his characteristics which are found to positively influence are : The heads with (1) democratic approach (2) favourable attitude to teaching (3) higher salary (4) low role conflict (5) greater age and (6) long experience of teaching.

This kind of headmasters belonged mostly to large schools and of the multi-purpose type of schools, schools with cosmoplitan teachers.

The researcher's finding includes that there is no relationship found to exist between adoption of innovation by the Principal and the teachers of the same school.

Characteristics of innovations like relative advantage, compatibility, complexity, divisibility and communicability affect educational innovation to a significant level.

Personality of the headmaster and the organisational climate characteristics of the school are found to play major role in the acceptance and adoption of innovation, even more than the personality factors of the adopters (teachers) themselves. The above findings do add a very special dimension to the study of innovation and change in a school system.

Bennet (1968) has reported a positive relationship between 'esprit' of the teachers and the number of innovations adopted by the concerned school. But, the findings of a later study by Buch (1972) give a contradictory fact.

However Buch and Bennet are found to agree in their findings that the quality of 'thrust' in the principal does not contribute to the innovation adoption traits of the teachers. There are contradictory findings reported about the relationship between the 'consideration' trait of the headmaster and the adaptability of the school, by earlier researchers. Some of them found a positive relationship while others found a negative relationship.

About the relationship between the age of the teachers and the innovativeness of the school, some studies as that of Mort and Cornel (1951) and Laverne (1968) report positive nature while those of Rao (1967) Hilfinker (1970) and Buch (1972) report negatively.

Between the factors like experience of teachers and their acceptance of innovative practices, Bhogle (1966), Rao (1967) and Buch (1972) have concurred in their findings to report that there exists no relationship.

On the relationship between the age of the headmaster and his own quality of innovativeness, studies of Radhukar (1951), Rogers (1961), Seger and Holdaway (1966) and Bhogle (1969) report the existence of a positive type while the studies of Carlson (1965), Carnic (1966), Lawrence (1967), Hinman (1967), Anhel (1967) and Buch (1972) report the existence of negative type.

Bhogle (1969) found that the older headmasters adapted more innovations. Buch (1972) reported that the headmaster's age is not a criterion found to influence the adaptability of the school.

Pratiba (1969) studied innovation in relation to schools in Gujarat. She discovered that (1) some schools tried innovative practice more for prestige value than even for the quality and educational worth of the practice. (2) only in a few schools, innovations were institutionalised. Her significant or major findings include the following : The following factors were found to contribute favourably for the innovation adoption: (a) Dynamic leadership qualities of the head (b) progressive outlook of the managing committee of the school (c) Teachers' cohesiveness, teamspirit and identification with school (d) the watchful student community along with an alert and co-operate local community (e) extent of guidance from local extension services department. The detrimental or inhibiting factors for innovation in schools have also been identified by her in her study: (i) A traditional and conservative principal (ii) over-cautiousness of the principal without liberal attitude (iii) examination result oriented management (iv) teachers' lack of faith in innovation (v) interference of local politics into school (vi) controlled school climate leading to staff-disengagement (vii) older age of faculty members (viii) cost factor (ix) delay by the department of education to approve innovation due to non-conformity to departmental prescription (x) heavy work load of teachers.

Griffin and Pareek (1970) arrived at certain generalisations regarding steps for activising the process of change: (1) Recognising the need for change would be the way of those who want to change (2) persons willing to change should have exposures to innovations of others in favourable conditions (3) sustained use should be accepted

as the law (4) Self involvement of adopters in creating developing and planning a change (5) Building Self concept in favour of one's own abilities in relation to perceived innovation (6) Assurance from superiors for right incentives.

Rai (1972) studied about factors related to the process of innovation diffusion within a school system - those factors which are the teacher characteristics associated with the diffusion process and they are (1) the time of awareness of innovation (2) the time of its adoption (3) its internalisation (4) the process of self perceived change-orientation.

It was found from the study that there are 10 variables significantly related to the 'time of awareness'. Those variables are viz. (i) age (ii) vertical communication (iii) perceived frequency of horizontal communications in general and (4) about innovation (v) teachers' perception of students' attitude towards the innovation (vi) exposure to mass-media (vii) professional communication behaviour (viii) professional orientation (ix) Exposure to wider environment (x) Socio-economic status.

Some other variables that contributed to the prediction of 'the time of awareness' at .05 level of confidence were : (i) Age (ii) Socio-economic status (iii) Mass-media exposure (iv) Self-designated opinion leadership (v) perceived change-orientation of principal and (vi) teachers' perception of students attitude towards innovation.

Six variables related to the factor of 'time of adoption' are again the same as the above last six except the self-designated opinion

leadership in the place of which 'experience' of adopters is found out.

With regard to "internalisation" process of innovation the following six variables were found to be correlated at .06 level viz.: (i) Teachers perception of the benefit for the students from the innovation (ii) perceived change-orientation of the principal (iii) ascribed opinion-leadership (iv) perceived cohesiveness of the staff (v) Organisational climate (6) role satisfaction (vii) need for autonomy.

The next one out of the 10 factors that were identified and reported earlier, is 'the process of self-perceived change orientation' to which the following variables were found correlated at .05 level: (1) Experience (2) perceived psychological distance betwween self and principal (3) the perceived frequency of horizontal communications about the innovation (4) attitude towards teaching profession.

Rai's finding about the eight predictors of the diffusion process are as follows: (1) Teachers' perception of students' benefit from the innovation (2) perceived change orientation of the headmaster (3) ascribed opinion-leadership (4) exposure to wider environment (5) socio-economic status (6) teachers' perception of students' attitude towards the innovation (7) experience and (8) general exposure to mass media.

The main objective of a study of the innovation and change in schools could be to provide considerable guidance and show a method to determine or control the qualities and elements of the leaderships

in schools in such a way that improvement in the process of innovation is effected. It is for effecting this that a right knowledge and understanding of the process of innovation diffusion is required.

Buch (1973) made an inquiry into the conditions promoting adaptability in secondary schools. Selecting forty-nine variables for her study, she attempted to findout whether significant relationship exists between each variable and school adaptability. The researcher aimed at two major outcomes from her study, viz., whether any relationship exists between a number of attributes of the school principal and innovations of a school and if so, whether it is possible to identify some specific elements of the school adaptability and develop a mode of prediction for the same.

Buch's findings are summarised and presented below:

The variables that were found to bear significant relationship with the school adaptability are : (1) Principal's in-service training (2) his feelings about his job-security (3) his perceived self-rated admihistrative abilities (4) his perception of the staff ratings of his administrative abilities (5) his perceived level of relationship with the District Education Officer (6) her perceived support from the teachers' college personnel for his innovations (7) number of his membership contacts with organisations (8) frequency of his attending the professional meetings (9) his inter-school visitation (10) his perception of the expertise of the teachers' college personnel (11) his cosmopliteness (12) Community involvement in the school (13) Parent's involvement (14) interest of the management and (15) the distance of the school from the teachers' college.

Those variables which were found out to have significant relationship to contribute to the school adaptability to educational innovation and change are : The headmasters' (1) age (2) educational qualification (3) teaching experience (4) length of period of service (5) job satisfaction and (6) the educational level of the local community (7) size of the school (8) age of teachers and (9) experience of teachers.

Bhagia (1973) study of "perception of characteristics of innovations as related to their diffusion in schools of Gujerat" emerged with the findings given below:

Bhagia's findings lay much stress on the adoption and diffusion of an innovation in schools which are very much related to the headmaster's perception of the utility and the intrinsic and situational characteristics of the innovation. Therefore the success in the adoption and diffusion of an innovation is very much dependent on the perception and the favourable disposition of the headmaster in the matter. She has also found that the non-acceptance of a number of a good innovations due to inadequacy of proper perception is mainly due to the inability of the agencies that are concerned with the implementation of change to create the right psychological orientation among the potential adopters.

Bhagia's study took into consideration the following fourteen innovations : (1) Instructional Planning (2) Unit planning (3) objective type tests (4) educational and vocational guidance (5) cumulative record and (6) Science club (7) Work experience (8) co-operative store (9) Programmes for gifted children

(11) Weightage to periodical tests in annual promotion (12) hobby centre (13) parent teacher association and (14) regular and periodical staff seminars for discussion on academic problems.

Principal's ratings on a five point scale on each of these innovations in respect of 20 characteristics were obtained. These twenty characteristics were : (1) academic effectiveness (2) adaptability (3) associability (4) burdensomeness or load factor (5) competibility (6) simplicity (7) divisibility (8) efficiency (9) communicability (10) cost economy (11) independence (12) facilitation (13) flexibility or permissiveness (14) meaningfulness (15) pleasure (16) practicability (17) prestige (18) relative advantage (19) structuralisation and (20) Time economy.

Bhagia, based on her findings, made the following suggestions: (1) The principals should be oriented towards the need for innovation more in terms of total quality improvement of the school than only the academic effectiveness (2) All the desirable innovations should be properly patronised by all the different elements of the resource system and the management (3) positive encouragement to the adopters about the feasibility of an innovation that is proposed for adoption, should be given (4) proper guidance and the necessary support from administration are the two important prerogatives for successful diffusion of an innovation (5) proper planning should be ensured for any successful adoption of an innovation even before the process begins.

Ashma (1974) has also made a study in similar lines to identify factors related to innovation and change in secondary schools of south

Gujerath. The highly innovative schools, according to Ashma, are found to possess the following characteristics: (1) clarity in perception of its philosophy and goal (2) better physical amenities (buildings etc.) (3) higher innovative proneness of principals (4) Low number of non-innovative teachers (5) higher mean score of the upward category for the adopters (6) higher scores on the involvement of teachers (7) Lower score of downward shift for adopters (8) higher score on the total evaluation of the school.

It is found from Ashma's study that the factors causing change proneness are (a) dissatisfaction of the staff (b) headmaster's key role in innovation (c) identification of a few innovators and laggards (d) mental calibre of the innovator (e) proper planning (f) appreciation (g) freedom (h) encouragement (i) involvement and co-operation (j) love and dedication for profession.

Mukhopadyaya (1975) has studied the barriers to change in secondary schools of Gujerat and West Bengal, the two different progressive states of India. The study was done on a sample of 16 schools, 8 from each state. Out of the eight in each district, four of them were innovative and the other 4 non-innovative.

The following characteristics were studied to identify the innovative schools and differentiate the non-innovative ones from them: (1) Linkage with resource system (2) Management characteristics viz. supporting or interfering (3) the principal characteristics like change proneness, professional awareness, initiative, sense of security, information input and teacher encouragement and (4) Teacher characteristics like change-proneness, initiative, peer-ascribed

leadership morale and group process (5) organisational climate.

The findings show that: (1) In Gujerat innovative schools differ from the non-innovative schools in the following (a) Linkage with resource system (b) management characteristics (c) most of the principal's characteristics and (d) most of the teacher-characteristics. In West Bengal, the innovative schools differ from the non-innovative schools on all those characteristics applicable to schools of Gujerat and in addition to them, there are two more factors that distinguish these two types of schools in West Bengal. They are : (1) Change-proneness of the staff which does not apply to Gujerat and (2) Organisational climate of the schools. Which again doesn't apply to schools of Gujerat in the matter of differentiating the non-innovative ones from the innovative ones.

The other major findings include the following : (1) poor linkage with resource system is a barrier for innovation (2) Though low teacher-morale characterises non-innovative schools and high morale is significantly related to school-innovativeness (3) Organisational climate, if it is closed, hinders the change process in West Bengal (4) Principal's low initiative, low source credibility, poor-leadership qualities with a low initiative, low professional awareness level, and poor ability for communication were identified as barriers for change. (5) Feelings of complacency, localite tendencies are barriers for change. (6) In Gujerat teachers' lack of sense of professional security and a sense of high job-security and in West Bengal low change proneness of teachers were factors operating as

as barriers to change.

3. Review of Researches abroad on Innovation and Change :

A lot of researches have been undertaken in the foreign countries. Only those which are found relevant to this study are quoted in the following few pages. All those reviewed below would pertain to innovation and change. Different researches that were reviewed for inclusion in this chapter of the present study, have been classified according to the different areas to which they are related with an overall relationship to the 'Innovation and Change'.

The areas classified for presentation of various research studies in the following pages are given below: (a) Process of innovation (b) Change-agents (c) factors viz: financial, community, staff, administrative and organisational (d) Role of other agencies as factors affecting adoption of innovation and (e) Diffusion.

3.1 Researches on "Educational Innovations" :

Most of them were done by Michigan and Columbia Universities. Dr. Paul Mort, Francis Cornell and Donald Ross have contributed more to this field of research.

The researches of Dr.Paul Mort are the poineering efforts. According to him, though much of the studies are concerned with the diffusion process, nothing very significant is indicated on the process.

Donald Ross (1958) has mentioned about 150 studies in the area of innovation and change and many were carried out at Columbia University teachers college under Dr. P.Mort.

Dr. Mort's earlier studies were on the educational tradition of school finance. He had attempted to show the value of "Local control" over "School finance". Dr.Mort feels that 'Local Control' could lead to the 'school innovativeness'.

Only adaptability can serve as the test of modern education in a world in which the only thing of which one can be certain is "Change" says Carl H.Kumpf.

Mort and Cornell found from their pennysylvanian studies that it takes 100 years for the complete diffusion of an innovative practice after it's first recognition as a need to be satisfied, first 50 years to evolve a practice and the next 50 for acceptance. The metropolitan school study Council used a measuring instrument of a process type to satisfy this need. The Council with the help of this instrument established the correlation between adaptability criterion and a host of variables. This instrument is called the "Growing edge".

3.2 Review of researches on the process of innovation :

The adoption is one type of decision making. The adoption of an innovation requires a decision by an individual says Rogers.

Ryan and Gross (1943) were the first to identify 4 stages in adoption process viz: awareness, conviction, trial and acceptance. Wilkening (1953) supported the idea but called the conviction stage as information-obtaining stage.

Researchers differ in their views like Beal (1957) Copp (1958) about the stages in the process. Yet there is a basic agreement among them. Rogers (1962) gave the following stages for the process of

innovation adoption : (1) Awareness (2) Interest (3) Trial (4) Evaluation and (5) Adoption. It is since then these stages are widely accepted and used.

Pareek recommends a 'Need' stage to procede 'Awareness' stage while reviewing Roger's classification. Rogers in the light of this has discussed whether 'Need' comes first or the 'Awareness'. He stated as follows: "But how are needs created? A need is a state of dissatisfaction or frustration that occurs when one's 'desires' outweighs one's 'actualities'. When 'wants' outrun 'gets', an individual may develop a need when he learns that an improved method, an innovation exists. Therefore innovators can be lead to 'needs' and vise versa." Some change agents use this approach to change by creating needs among their clients through pointing out the desirable consequences of a new idea. Thus knowledge of innovation can create motivation for their adoption.

Barton (1961) made a study in the area of "teaching backward children". The finding was that the teachers accepted the new technique if it were found advantageous.

Richard Carlson expressed that innovations should be accepted by all to make it continuous. Pareek (1970) states "It should be added that the stages of adoption can be viewed as cyclic sequence in which the last step is death and disuse of what was innovation. It is assumed that in many cases what is a desirable innovation today becomes in time an outword practice wheich should be replaced by a new innovation. Thus is the process of change, a continuing one."

Donald Ross gives an idea of the 'time-lag' that starts from the time when the need arises and ends with the time when the need is satisfied. Mort (1953) has expressed "The time lag for the diffusion of innovation in education is found such as would make us worry about. But a matter of shock is this that diffusion of innovation in the field of agriculture and medical sociology are found more progressive in comparison with the innovation in the field of education.

Allen's (1956) study supports this time-lag theory in relation to education. He observed that 168 schools in America took 60 years to adopt innovation while the adoption of an innovation to train the drivers of motor cars took only 18 years. Many such studies explain the causes for such a timelag in adoption of educational innovations: (1) Want of change agents (2) Lack of scientific knowledge of innovations (3) Need for economic motivating factor.

The study of Ebey points out that any new introduction into school system is only the beginning of a long period of diffusion. Cocking's findings reveal that when the innovation has a slow start, the early diffusion is not a 'true' diffusion. As the spread seems to be negatively affected by lack of understanding of what change is. As a result, the particular innovation is looked upon with suspicion and this leads to time lag.

From all these above studies by Mort, Cornell, Cokcing, Berington, Lovos, Adler and Allen it is learnt that a few schools belong to 'innovator' category to adopt an innovation early enough while other schools wait and observe the extent of success before

taking themselves on to that and thus tend to belong to 'late majority' category. This is what happends in any social system.

Some innovations are also rejected. Johnson and Band (1959) studied the theory of 'Rejection' Allen (1956) also studied some discontinuances.

According to Kelley (1960) the grade taught and the years of teaching experience were found significant factors in either adoption or rejection of an innovation. There are adequate supports in favour of (1) rejection through ignorance (2) rejection through default (3) rejection by maintaining status quo (4) rejection through societal mores (5) rejection through inter-personal relationship (6) Rejection through logic (7) rejection through substitution (8) rejection through fulfilment and (9) rejection through experience.

Lackey's (1958) study indicates that all individuals involved in adoption do not remain in the same categories through out - More than 30% of them change from one category to the other. Roger's findings support this idea.

Greenberg (1964) Glasser (1958) show in their studies that earlier knowers of innovation have higher social status. This generalisation is accepted again by Rogers (1963).

Ryan and Gross (1950) and Beal and Rogers found that the 'rate of awareness' of knowledge for an innovation is more rapid than its 'rate of adoption'. 'Earlier adopters' have a shorter 'innovation-decision' period, observe Ryan (1948) and Petrini (1957).

"Good" schools try "better" practices is an observation by Biglow.

Cocking's study on speed of educational innovations in different regions did not show any significant difference.

Ralph Haber's (1961) study of adoption of language laboratory among high schools in U.S.A. tells that earlier adopters try innovation on a smaller scale than the later adopters. Wilkening (1952) found the importance of relative advantage of an innovation in one of his studies.

Ross (1952) in his study emphasised the seriousness of the need for an innovation as an indication of its 'Relative advantage'. The most closely related factor to innovation is the 'economic resource' as it is reported by Ross from his review of a number of studies made in 1958.

Lionberger reports from his study that the time taken at each stage for early adopters is more than that required for late adopters. Cocking supports this findings from his study.

3.3 Review of studies relating to the agents of change :

The term 'change agent' as explained by Lippitt (1958) means a person or an agency related to the development, introduction and adoption of an innovation, was used for the first time in 1947.

Rogers describes a change agent as "A professional person who attempts to influence adoption-decisions in a direction that he feels is desirable."

Ebey (1940) feels, the headmaster is very often the change agent as in most of the innovations studied earlier. Skogsberg (1950)

observes that a school superintendent can be a successful change agent. These superintendents are comparable to our headmasters in the schools.

One of the factors that lead a change-agent to success is the degree of effort to which he works in change activities with his client, observes Dentschmann (1962). The change-agent-client contact is the most important factor leading to change says Nichoff (1964).

Hoffer, Store (1952), Patrini (1966) all have studied the change-agents' role and observe that the change-agent-effort has a direct impact on the diffusion of innovation.

Wilkening (1957), Bible and Nolan (1961) observe that the change-agent is often expected to behave in a particular way by the change system and at the same time he is expected to behave in a different way by the client system. Thus the change-agent has to act between the change-system and the client system.

Innovations happen to fail sometimes because change agents are more innovation minded than they are client-oriented.

Mead (1960) studied the compatibility of the innovation and stated, "Experience has taught us that change can be best introduced not through the centralised planning but after a study of the local needs."

Erasmus (1961) and Rogers (1966) have said "The success of change-agent is positively related to the degree to which his programme is compatible with the client needs."

Bliss and Nichoff (1964) have found that the change-agents' success is very much related to the extent that he works through opinion-leaders. Sasaki (1953) and Castillo (1967) found that success of change-agent is related to his efforts in increasing his clients ability to evaluate innovation.

Mort's study in pennysylvania and Buley and Eastmond's studies of metropolitan schools suggest that the staff as a whole has a strong relationship to the adaptability of the school.

3.4 Review of Studies concerning factors affecting change :

(a) Financial Factors : Ayer (1920) in his study of the factors affecting innovation, found out that the money spent per pupil is the most influencing factor in schools' adaptability. Mort's study corraborates this finding along with those of Vineent (1945) and Wobllatt (1949).

Brickell (1953) and Teressa (1955) found that expenditure in various activities of the school to be a factor of resistance in innovation. Campbell (1956) and the pennysylvanian studies emphasise the same factor.

The Rhode-island study found that when the financial budget is balanced annually, the educational cycle for a boy or a girl is a dozen years and that of the teacher is 25 years. The West-virginia study also confirmed the Rhode-island study and also the pennysylvanian study.

(b) The factors related to social environment : Mort and Cornell (1938) from their study come to the conclusion that communities play an important role in the development of the school.

Roberts (1947), Begg (1947) Beach (1949) and Fisk (1950) investigated about the public-understanding of "power of education" and the educational institutions' understanding of "public-power". Including from Britton (1947) it is learnt that teachers' association, pupils association, women's association and such other groups affect school-adaptability.

Gallagher (1949) also found out that associations connected with schools either friendly or unfriendly terms can affect the school-adaptability either way.

(c) Factors related to characteristics of faculty members : The earliest study in this area being that of pennysylvania and metropolitan schools. Buley (1947) studied the areas like age, variety of experience, interest, property and reading habits of the staff in relation to school adaptability.

Eastmond (1951) found out the following factors to affect adaptability: (a) maturity of the staff and their broad interests (b) high professional training and diversified background (c) stability (d) security (e) outside school interests (f) independence (g) age and outbreeding.

Collin's findings say that emotional mal-adjustment of a teacher is more dangerous than physical mal-adjustment.

(d) Study of factors controlled by administrations : Abey (1940) found that principal's educational opinion is the most significant factor affecting adaptability. Mort and Cornell (1941) agree with Abey to express that a school superintendent with his remarkable educational qualities has everything to do with the adaptability.

Berthold (1951) points that the principal's powers of implementation and solution can help school-adaptability. Collin's views in the matter are that the school adaptability is a matter very much dependent on how the principals made use of human resources.

Environmental factors in relation to administration are found to affect school adaptability observes Diomand.

(e) Factors related to climate and morale of the institution : The development of any institution very much depends upon how its members evince devotion and ability to discharge responsibilities and work as an organisation.

Miles (1965) has found out that the educational organisation is an important factor in adaptability. The importance of self-renewal of organisation to meet the Challenge of change and innovation is found from the studies of Hilfinker (1969).

A comparative study by Gemtry and James Kemedy (1965) of the organisational atmosphere of the negro and white elementary schools in urban area reveal that the negro-schools had low morale compared to the white-schools.

Bickert (1968) studied organisational values and characteristics of schools systems. He found that teachers' working as a unit affects

the adaptability of the schools.

3.4 Studies related to the System and Process :

Karpat's (1960) study evolved the following generalisation: "The power elite in a social system especially encourages the innovation-introduction whose consequences not only raise the average levels of good but also lead to a less equal distribution of good."

Studies of Eibler (1965) and Kelley (1962) make out "Member-acceptance of Collective innovation-decision is positively related to member-cohesion with social-systems.

Russel (1964), Roa (1966), Wish (1967) and Ardut (1968) reveal from their study that the process of adoption of an innovation is not related to the age of the adopters at any stage and early-adopters are no different from late-adopters in age.

The importance of diffusion has been shown by Larson in the following words, "perhaps the most viable area in current communication research is the study of the diffusion of new ideas, products and practices. Diffusion studies are extensions of traditional research on mass-media campaigns."

"The knowledge of persuation-effects of diffusion are considered as intermediate steps in the process of decision-making which leads to behavioural change, communication channels of innovation-diffusion", states Van-den-Ban (1964) and he further observes that mass-media channels are often important to make others aware of the new idea whereas inter-personal channels are important in changing the attitudes towards innovation.

Ryan and Gross's (1943) study of time-lag factor indicate that it took 14 years to reach complete adoption of the hybridseed corn in Iowa.

Ross (1958) studied that, diffusion of innovation depends thus on relative advantage and on the seriousness of the need.

Smith (1946) and others stress the importance of (1) source (2) message (3) channels of communication and (4) communication points as two ends in the process of innovation diffusion.

Rogers (1973) and Shoemaker has evolved the S-M-C-R-E model to stress the importance of the elements in the diffusion of innovations. They are : Source, Message, channel, Receiver and Effects.

4. Review of the Process Models

Havelock.R.G. (1973) has summarised the findings on innovation to describe the process models in his book "Planning for innovation". He has perceived basically three process models to exist which could explain the various types of processes of innovation.

(a) R & D Model : Havelock.R.G.(1973) himself has described the R & D Model. This is the Research and Development Model drawn on the basis of innovation processes of the western countries like the U.S.A. and the middle Europe. This model explains the type of "Development" of the innovations which are usually born from a series of "Reaearches" drawing the existing problems in the related fields into consideration.

(b) Social-interaction Model : This model explains the diffusion of innovation through the interpersonal contacts of the adopters (teachers) of the various schools. The innovations diffused in this model have more prestige value than user-need.

(c) Problem-solving model : After studying a number of innovative processes, the more commonly prevalent type of innovation-diffusion process is explained in this model. The innovations are born from the systems, and adopters themselves through their own research in need of a solution to their own problem.

Morrish (1976) has described the paradigms of all the three models described above.

5. Researches on the "Leadership Behaviour" of the Headmasters

The attention of researchers has been drawn to the study of the factors or conditions which determine the effectiveness of leadership of the headmasters in the field of innovation. Functioning of the headmasters in this regard have been studied.

Johnson (1961) concludes from his studies that the role and status of the teacher-leader is a thing to be earned than assigned. He has said that the right balance between the 'effectiveness' and 'efficiency' marks a leader.

Maniel and Lucio (1969) ascribe the ability of enabling individuals to perceive his own goals and their own roles to the effective leader.

Mahajan (1970) has reported the following findings to point out that many leaders (headmasters of schools) have failed in their academic leadership and as a consequence in the administrative leadership traits also.

Darji (1975) in his doctoral research study on leadership behaviour of secondary school principals indicates the following : The heads evince inadequacy with regard to their 'initiating structure' due to want of required professional training. 'Consideration' qualities of the head differ according to the nature of self perceived roles in relation to the organisational set-up of the schools.

Desai (1976) concluded that the headmaster's leadership qualities are very much conditioned by the socio-cultural background and either previous or current political affiliations of the head and the teachers govern the leadership qualities like human-relationships and consideration.

Lewin and his co-researchers have found that in the culture which emphasises democratic leadership authoritarianism failed. They have also pointed out that laissez-faire leadership is more often an instance of failure.

Most of Indian studies have laid stress on the democractic approach of the leader with qualities of consideration, recognising the abilities and needs of the individual teachers and a policy of mututal respect for successful operation.

Shuster and Metzler (1958) stress on the need for the goal-setting and goal direction behaviour of a leader as all important in a school.

Thompson (1952) has recommended the ability to keep school morale, understanding of administrative function and proficiency to tap the individual resourcefulness of the staff, as the basic requisities of a good leader.

Brookover (1955) in a review of research on teachers' administrative function, concludes that the headmaster's self-perception of his own role is very much influenced by the experiences and provision available in the school system.

Kinborough's (1959) study on factors contributing to "effective leadership" in schools, revealed the following as favourably contributing factors: (a) interpersonal relationship (b) intelligent operation (c) emotional stability (d) adequancy in communication.

Liphan's (1960) study of individual and personal quality variables of a headmaster as related to effective leadership in schools show the following qualities as necessary : (a) purposefulness in selecting every activity (b) concern for achieving higher status (c) effective communicability (d) feelings of security.

Ineffective principal qualities : (a) More preoccupation with speculations (b) complacency (c) more dependent (d) highly emotional.

Miel (1956) from her study of 'status' and 'emergent' leadership questions, comes to the conelusion that the following activities are exhibited by real leaders: (a) providing expertise (2) contributing to

good group structure through maintaining human relations (3) improving communication (4) fostering leadership in others (5) co-ordinating other efforts.

Castettar (1971) comes to the decision about the effects of the leader-behaviour on his subordinates as follows: (1) Subordinates are quick to detect the feelings of the head about the organisational intent and (2) his commitment to goal-achievement.

Michigan studies identified two concepts which they called "Employee-orientation" and "production-orientation". An employee-oriented leader feels that every employee is important. The task of production-oriented one lays stress on production and technical aspects of a task, taking the view of the employees as tools to accomplish goals.

The personnel research board of Ohio State University from their studies through the LBDQ found that the 'Initiating Structure' and the 'consideration' are two distinctly different dimensions or qualities of the headmaster as a leader.

Rensis Likert found out that employee-centred supervisors are higher producers then job-oriented supervisors.

Leadership Contingency Model (LCM) : Fred E.Fielder developed an LCM with 3 major situational variables which seem to determine whether a given situation is favourable or unfavourable to a leader. viz: (a) Leader-member relationship (b) The degree of structure in the task that the group is assigned and (3) The power and authority in the position of the leader.

Fielder defines the favourableness of a situation as "the degree to which the situation enables the leader to exert his influence over his group."

6. Researches on Organisational Climate of Schools

Researches have indicated that the schools differ from one another in their 'feel' or 'personality' or 'the organisational climate'. Halpin (1963) describes 'personality is to an individual what organisational climate is to an organisation'. The organisational climate of an institution explains the pattern of social interaction taking place within the school family. The major units of interaction being the individuals constituting the community in the institution, the leader and his group.

Nilson (1960) attempted to identify the climates of organisation and ended with four types. Halpin and Croft (1963) identified six types of climates with openness at one end and the closedness the other end of the continuum with four categories in the middle. viz: open, autonomous, controlled, familiar, paternal and closed. They also assigned the characteristic behavours of principals and teachers in a school community to eight types components or sub-tests called by the originators as : Disengagement, Hindrance, Esprit, Intimacy, Aloofness, production-emphasis, thrust and consideration. This classification of climate types and dimensions resulted from a study of elementary schools of USA with the help of the tool called OCDQ, used in this study.

Studies of Argyris (1958), Halpin and Croft (1963), Willover and James (1963), Feldvebel (1964), Brown (1965), Forehand and

Glimmer (1969) have largely contributed to the definition and clarification of the concept of organisational climate and its relevance to the dimensions of the group behaviour in a school system, Ultimately the innovation in schools depend very much on this group behaviour.

Sharma (1968) found no significant difference in the climate between the government and privatesecondary schools of Rajasthan State.

Sharma, Buch and Rai (1971) found from their comparative study of organisational climates of secondary schools that there are significant differences on the sub-tests 'Hindrance' and 'consideration'. Schools with open climate in Rajasthan differed from the similar types of schools of Gujerat at 0.05 level on the sub-tests hindrance and considerations.

Gujerath schools were found to have higher mean score on 'Hindrance' than those of Rajasthan schools. The 'controlled' climate in schools of Rajasthan score better in 'production-emphasis'. The 'familiar' climates showed differences in their mean scores on sub-tests of hindrance, intimacy and production emphasis. The closed climate in schools of both states showed significant difference in their mean scores on the sub-tests of 'intimacy' and 'production-emphasis'.

Kumar's (1972) study indicated that different organisational climates in school have different effects on certain aspects of student behaviour. Personal adjustment of pupils are distinctly superior in the schools with open climate. This pupil factor shows

deterioration along with the difference in degrees of schools in their climates leaning towards closedness. The other factors related to pupils that are found to be influenced by the differences in school climate were : (1) value orientation (2) academic attitude (3) scholastic achievements.

Parik's study (1973) of schools of two districts in the State of Gujerat in respect of their organisational climate and teacher-morale, gives the following findings : (1) There are all six types of climates found in the schools of these two districts (2) The more frequent climates identified in about 70% of the schools are, paternal autonomous and controlled types (3) The teacher-morale scores differed in different types of school climates (4) There was significant difference between the morale scores of teachers of open and paternal climate type of schools, at .05 level, of closed type climate schools at 0.01 level, of autonomous and familiar climate type of schools at 0.05 level, of controlled and familiar climate type of schools and of controlled and paternal climate type of schools at 0.05 level.

Reddy's (1972) study on a bigger sized sample of schools using organisational climate Index (OCI) adapted from Stern and Stanhoff (1969) resulted in forming a few generalisations viz: (1) Small sized schools show a greater impulse for control than the bigger ones (2) The bigger schools are low in standards of achievement (3) Small schools are better organised (4) Those schools with the staff whose average age is high (old staff) show less adaptability compared to those having staff of younger age.

Sharma (1973) studied the organisational climate of secondary schools of Rajasthan, and found out negative correlations between (1) Faculty age and esprit (2) faculty stay at the present school and aloofness (3) teacher-satisfaction and disengagement (4) teacher-satisfaction and (psycho-physical) hindrance (5) leadership behaviour of the principal and disengagement (6) leadership of head and hindrance (7) effectiveness of principal and hindrance (8) Principal's effectiveness and disengagement (9) school-climate and faculty age (10) school climate and faculty-experience.

The other major findings include (1) There was no significant difference between the climates of (a) urban and rural schools (b) Government and private schools (c) Girls and Boys' schools (2) The school climate is independent of variables such as school size, staff-experience or stability and the experience of the headmaster.

Pillai (1973) studied the organisational climate, teacher-morale, and school quality of secondary schools. The four major hypotheses that were tested and found valid are : (1) There is significant relationship and a positive one between pupils performance and the open climate of the school (2) The innovativeness of a school is positively related to the openness of climate (3) pupils performance is positively related to the higher teacher-morale of the school (4) The innovativeness of a school is positively related to the high teacher-morale.

The other major findings are : (1) Pupil-performance is significantly better in open and autonomous climate schools than that of schools of other climates (2) Openness of climate facilitates the

school to adopt new practices in greater number in shorter time (3) The higher level of faculty-morale is related to higher or superior pupil-performance (4) Better and quicker is the school in introducing new practices if the staff-morale is high. (5) Both climate and morale of staff are positively and strongly related to both innovative ability and pupil performance of schools (6) Out of the eight dimensions of the climate, four viz: esprit, thrust, disengagement and hindrance, the first two positively and the next two negatively (significantly) influence pupil-performance. (7) Of the Ten dimensions of teacher morale all but one in order of significance, curricular issues, school facilities and services, community support of education, rapport among teachers, teacher salary, satisfaction with teaching, teacher-status and teacher load were found to contribute to the level of performance of pupils in schools (8) The innovative ability of the school is significantly influenced by the three climate dimensions viz: esprit, thrust and disengagement, the first two positively and the last negatively. (9) The four morale dimensions viz: school facilities and services, curricular issues, teacher salary and community pressure seem to influence the innovative ability of the school (10) There is high correlation between the climate and morale indicating that they are highly dependent on each other.

In India, between the year 1974 and 1976 more researches were undertaken in the area of organisational climate. Most of them were pursued at the centre for advanced study in education attached to the University of Baroda. In the year 1975 alone there were four doctoral researches relating to the climate of schools. They were

done by Darji, Ivy Franklin, Pandya and Neela Shelat. In 1976 three more studies by Pengnu and Choksi and Tikmani were added to the list.

All the studies undertaken by those mentioned above were done on schools and colleges of education at secondary and primary s levels.

The studies on climate of schools have contributed to the development of a viable organisational climates in educational institutions. The threats posed by existence of such dimensions in the staff characteristics as disengagement, aloofness, hindrance and two much of production-emphasis are found to have been realised by the concerned people who are at the top of administrative affairs of institutions.

Some of the recent studies done in foreign countries by Faber, Roosa and Watkins (1969) and Esporite (1971) have contributed some significant findings such as : (1) negative correlation between the age of the school principal with certain components of organisational climate of schools (2) The components that showed such a negative correlation are consideration, production emphasis and hindrance (3) One of the studies, that of Espordite, did not find the principal's age as an effective factor in shaping the organisational climate (4) No significant relationship has been found between the experience of the principal and climate in a few studies while a few other studies have found significant relationship between them.

7. Research Studies on Teacher Morale

The morale of the teachers as individuals and as a group is a significant factor that has much to do with the successful and effective functioning of any institution in general and more so with an educational institution. This is because every scheme, both educational as well as administrative has to be implemented only by the members of the faculties. There are many evidences shown by researchers about the importance of the Teacher Morale.

Chase (1951) studied teacher morale on 1800 teachers in more than 200 schools in 43 states. He found that the teachers rated the job-satisfaction and freedom to plan one's own work very high by more than three fourths. The next higher rating was awarded to professional status. Importance was given by them to the need for the sense of satisfaction of working with teachers who had high professional attitudes and standards.

Bidwell (1956) found in his study that teachers' satisfaction depend much on their "Expectations". He found that teachers who perceive administrative behaviour as being consistent with their expectations tend to be satisfied with their job situation. This implies that mere democratic style of administration wouldn't do to satisfy the expectations of teachers.

Harp (1956) identified the following few as the most common determinants of poor morale : (1) Inadequate salaries (2) large sized classes (3) poor administration (4) Inadequate provision for everyday relaxation (5) unsatisfactory plant and buildings (6) poor equipment and insufficient aids for teaching (7) absence of democractic

procedures (8) lack of co-operation and recognition from the public (9) artificial social and recreational life and (10) inadequate tenure provisions.

Redefer's (1954) generalisations drawn from his researches on teacher morale involving more than 5000 teachers and 24 schools systems are given below: (a) Staff morale and quality of education are closely related (b) an individual teacher's morale and his superior's rating of him are closely related (c) salary schedule though considered important did not very much affect the morale (d) 'Problem-schools' do not necessarily cause low morale (e) Teacher-morale is not closely associated to marital status, age, sex, or socio-economic status of the school community.

Lickert (1941) found operational efficiency significantly related to staff morale. Synder (1945) assigned weightage to the personal relationship between administrators and teachers as a factor affecting morale. Chandler (1959) found the system or principle adopted for drawing salary schedule as a factor affecting the morale.

Hodges (1956), O' Conner (1958), Cohen (1959), Backman and Rosi (1960) found that (1) the quality of administration is a powerful determinant of staff morale (2) pupil-teacher relationship is very much related to morale.

Bernstein (1959) concluded that (a) there is strong relationship between teacher-morale and their perception of their principal and Board of education and (b) convergence of role expectation and role perception of the principal and board of education is associated with high teacher morale and divergence with low morale.

Coffman (1951) has found that the teacher morale has significant leanings on (a) the teachers' satisfaction derived from their role in the development of curriculum (b) the extent to which the climate permits teachers to enjoy their work and have good relationship with superiors and colleagues (c) the extent of the principal's role to contribute to a good climate of the schools.

Suchr's (1962) interesting study reveals that higher the teachers' intelligence the 'greater' is the probability for his 'low' morale. He further found that teachers with low morale were often those who were the youngest children in their families, missed more days of schooling, felt that their personal appearance was above their age, perceived themselves as more stubborn, had above average self-confidence, had higher levels of aspirations and were extroverted. Teachers with high morale felt that they were realising their fullest potential in teaching, had fulfilled their parent's expectations, had taught longer, worried less, were from upper middle class families, had parents who were both happy in their roles, felt that their childhood family was very close, and were introverted. An N.E.A. Survey (1968) revealed the relationship of morale with (a) liking for professiona (b) liking the age-group of pupils to whom teaching was done.

Many researches in Indian situations have been undertaken on 'Morale' of the teachers.

Shukla (1973) used the Purdues' teacher Opinionnaire to study the teacher morale. He found 6 schools with high, 9 average and

4 low morale out of the 19 studied. More girls' schools showed better teacher morale than boy's schools. Significant positive relationship existed between teachers age and their morale scores and increased age corresponded with increased morale. Teachers' age had positive relationship with teacher-rapport with principal and similarly teacher salary teacher load, curriculum issues, teacher status and community pressure. No relationship with age and satisfaction with teaching, rapport among teachers, community support of education and school facilities and services. Negative correlation was found between teacher's teaching experience and rapport with the principal, satisfaction with teaching, rapport among teachers, teacher status and school facilities respectively. Female teachers differed from the male teachers in morale. Significant difference at 0.01 level between men and women teachers in (a) rapport with head (b) satisfaction with teaching (c) inter-teacher rapport (d) teacher salary (e) community support of education (f) school facilities and services (g) community pressure.

Pillai (1974) found that performance of pupils in high faculty-morale schools is superior to that of schools with average morale, which in turn better than low-morale schools.

Shelat's study reveals significant relationship among variables such as openness of climate and higher scores on leadership behaviour and high pupils motivation towards school.

Darji (1975), Pandya (1975), Franklin (1975) and Pengnu's (1976) studies support the findings of Shelat in the matter of existence of

significant positive relationship between morale and effective leadership.

Many of the findings of Choksi (1976) and Tikmani (1976) are in line with the findings of earlier studies mentioned above.

8. Research studies on Change Proneness of Teachers

The acceptance of innovation is a mental process. The general disposition or reaction of an individual towards innovation depends upon his personal commitment to change. The word 'proneness' also means the 'inclination towards'. The tool employed in the present investigation has its conceptual origin from the concepts of Barnett (1953) Miller (1967) and Rogers (1963).

The 'proneness' is analysed into three main components viz: mental flexibility, open mindedness and curiosity for the following reasons that a change-prone teacher is open-minded, curious to know more and has a readiness of mind to accept innovation on the basis of facts and information. All these three components are Miller's ideas.

Not much of researches have used a specific tool for measurement of change-proneness. However the various dimensions related to change-proneness and its sub-components viz: open-mindedness, mental flexibility and curiosity have been assessed in different studies. The findings of such studies have been reported in the earlier parts of this chapter. A few of the findings that have emerged from measurement of change-proneness, exclusively are reported below:

1. In authoritarian type of managements, the management orders changes and therefore teachers change-proneness has no place in an authoritarian set-up except to carry out what is ordered.

2. Innovative schools are not distinctly characterised by high scores for the change-proneness of the staff (probably due to the structure of the school system or due to the nature of innovation implementation).

3. Teachers' change-proneness is found to be a fairly less reliable predictor for innovativeness.

4. Organisation facility influences directly the change proneness coming into operation.

5. However, Low change-proneness is identified as a barrier to change in a democratic set up.

The above findings are based on the study of 'Barriers to change' by Mukhopadyaya, (1975).

9. Research studies on Barriers to Change in Innovating Organisations

The studies on innovating organisations are very few. The Universities have been recognised as the main resource centres for expert knowledge. But proper utilisation of the University expertise is yet to be realised Havelock (1963). This is mainly due to "weaknesses" of university administration and dominance of decentralised norms of faculty self governance - Havelock (1976).

(a) Communication : Singh and Jha (1971) observe that "it may be concluded that lack of communication of the adopter system with external agencies hinders change." Mukhopadyaya (1975) found that the status gap between the communicator and the communicatee also impedes change process.

(b) Small Groups : Havelock (1973) points out that "while the barriers to flow of information within a group may be extremely

permeable, there is a danger that increasing "intra-group cohesiveness" will adversely affect "inter-group permeability".

Chesler and Fox (1967) have concluded from a review of a series of studies "teachers are unlikely to begin or support innovation leading to classroom change if they feel that they have little to say on school policy."

Eicholz and Rogers (1964) have also found that the inter-personal relationship as one of the factors for rejection of an innovation.

Another set of studies highlight that vested interest of small groups showed that members of a system with high social status showed less involvement in planning - Lystad (1960).

Mukhopadyaya (1975) found from his own as well as his analysis of other studies that there are a number of barriers to change. He gives a list of such barriers after classifying them into 2 major categories viz: (a) Individual and (b) organisational. Those barriers exist in different forms as indicated below:

(a) Individual : Barriers to change might be caused by individuals and other factors : viz. (1) personality traits and (2) general factors. They are : (i) Barriers caused by individual's personality traits : (a) conservative attitude (b) insecurity (c) Low self esteem (d) closed mindedness (e) inability to sense a need (f) distortion of innovation (g) unwillingness to work (h) Lack of enthusiasm (i) less exposure to mass-media and change-agents. (ii) General factors obstructing change : (a) role conflict (b) lack of training (c) lack of competence (d) lack of guidance (e) work load (f) socio-economic status.

(b) Organisational : Barriers in a system have been classified into (1) External and (2) Internal factors.

(1) External or extra organisational barriers : (a) demand for change in social relations (b) threat on the dynamic equilibrium of the society.

(2) Internal or intra-institutional barriers : (a) Heirarchy (b) division of labour (c) Tradition (d) closed climate (e) physical distance from sub-systems (f) lack of finance (g) directive and autocratic leadership structure and (h) lack of autonomy.

10. Case Studies

There are very negligible number of researches on innovation in the form of case studies.

Havelock (1973) from his analysis finds only a few (7%) instances where case study has been adopted as a research methodology. He commented "we were disappointed to see so few case studies of the thousands of dissemination and utilisation events that take place each year. It is unsettling to find so few documented in such a way that others may learn from them. This deficiency in the literature is one of the factors that thwart our efforts to code, analyse and compare utilisation process across studies and fields."

Among the very popular case-studies, the model of the OECD publications of "Innovation in Education" from the Centre for Educational Research and Innovation (CERI) in 4 volumes about innovation of different levels have been taken as references for this investigation. The CERI volumes are the fairly latest publications (1969-71) in different volumes of which the one on secondary stage

had reported the case studies of acknowledged innovative schools in different countries. Taking the conceptual background in the approach found in that volume, a suitable approach to Indian conditions with the available tool on innovation and a few of them newly prepared was planned and executed and the result is the present study in its format.

No other form of study except the case study, could bring about everything connected to the innovation in schools as effectively and hence this methodology has been the choice of this investigation.

11. Conclusion

This chapter is a report of earlier research studies related to innovation and change. As there are innumerable dimensions related to the phenomenon of innovation and change, all the connected researches both empirical and theoretical have been reported in this chapter touching only upon the relevant findings. These findings have been very useful to form the basis for the entire thinking at a conceptual level for this investigation. Many of the findings quoted here in this chapter have been requoted wherever necessary depending on the need and their contextual relevance.

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